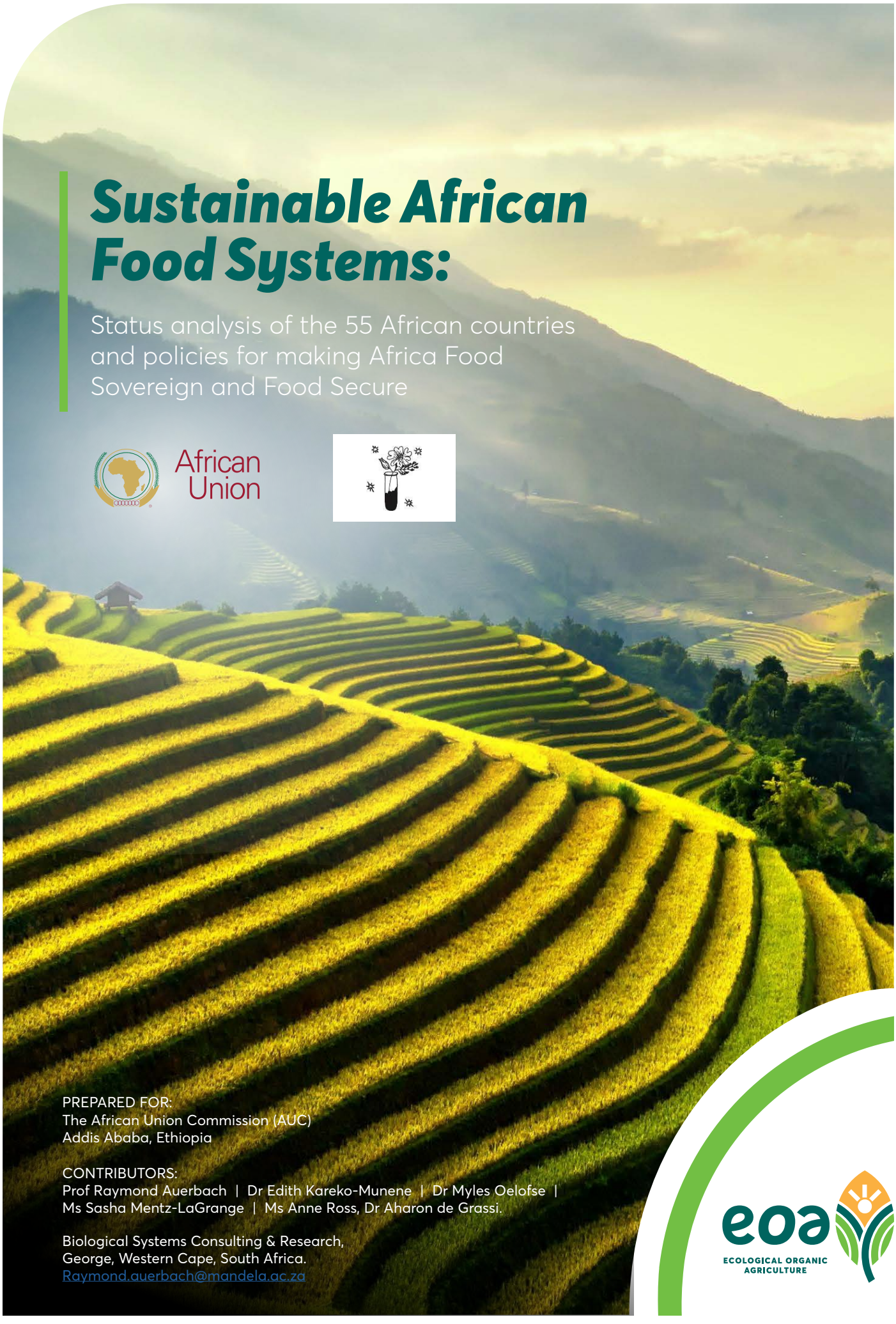
Sustainable African Food Systems:

Status analysis of the 55 African countries and policies for making Africa Food Sovereign and Food Secure



African Union

PREPARED FOR:
The African Union Commission (AUC)
Addis Ababa, Ethiopia

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ECOLOGICAL ORGANIC AGRICULTURE

Draft Version 6, March 2021

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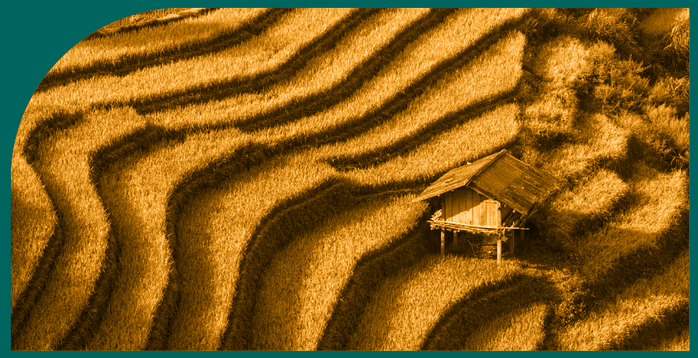



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Declaration on EOA by African Heads of State

DECISION ON ORGANIC FARMING
Doc. EX.CL/631 (XVIII)

The Executive Council;

1. **takes note** of the Report Conference of Ministers of Agriculture held in Lilongwe, Malawi on 28th and 29th October 2010 on Organic Farming and endorses the resolution contained therein;
2. **expresses concern** over the current practice of exploitation of the organic farmers in Africa;
3. **requests** the Commission and its New Partnership for Africa's Development (NEPAD) Planning and Coordinating Agency (NPCA) to:
   - initiate and provide guidance for an African Union (AU) - led coalition of international partners on the establishment of an African organic farming platform based on available best practices and
   - provide guidance in support of the development of sustainable organic farming systems and improve seed quality;
4. **calls upon** development partners to provide the necessary technical and financial support for the implementation of this decision;
5. **requests** the Commission to report regularly on the implementation of this Decision.

African Union

List of Abbreviations

AGRA	Alliance for a Green Revolution in Africa
AGRA-MVP	AGRA's Millennium Villages Project
ARC	Agricultural Research Council (South Africa)
AU	African Union
AUC	African Union Commission
BSC&R	Biological Systems Consulting and Research
BvAT	Biovision Africa Trust
CAADP	Comprehensive African Agriculture Development Programme
EAC	East African Community
ECOWAS	Economic Community of West African States
EOA	Ecological Organic Agriculture
EOA-I	Ecological Organic Agriculture Initiative (of the AUC)
EPOPA	Export Promotion for Organic Products from Africa
EU	European Union
FARA	Forum for Agricultural Research in Africa
FISP	Farm Input Support/ Subsidy Programmes
FSR/E	Farming Systems Research and Extension
GIZ	German International Co-operation
IFAD	International Fund for Agricultural Development
IFOAM	International Federation of Organic Agriculture Movements
NOAM	National Organic Agriculture Movement
NOARA	Network of Organic Agricultural Research in Africa
OA	Organic Agriculture
QM	Quality Management
SADC	Southern African Development Community
SCTP	Social Cash Transfer Programmes
SDG	Sustainable Development Goals
SOM/SOC	Soil Organic Matter/ Soil Organic Carbon
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
USAID	United States Agency for International Development
WUE	Water Use Efficiency
WWF	World Wide Fund for Nature

Acknowledgment

The African Union (AU) commissioned the original study of 47 African countries for mainstreaming Ecological Organic Agriculture (EOA) in 2019, while BioVision Africa Trust (BvAT) was working on EOA in East Africa during the period 2017-2020. This study integrates the East African findings with the 2019 assessment. Generous assistance from the AU, BvAT (and the Continental Steering Committee (CSC) of the Ecological Organic Agriculture Initiative), the Swedish Society for Nature Conservation (SSNC), and Swiss Agency for Development and Cooperation (SDC), as well as on-going support from the German Government (BMZ and GIZ) are gratefully acknowledged.

Executive Summary

Agriculture, sustainable food systems and food security in a post-Covid Africa under climate change needs improved water use efficiency, carbon sequestration, nutrition and food sovereignty, and this requires Ecological Organic Agriculture (EOA) as an important part of the response strategy. This study, originally commissioned by the African Union (AU) and extended with policy studies from BioVision Africa Trust (BvAT) which have now been integrated into the 2019 AU study, analyses African agriculture, assesses strong and weak points for each country, summarises the situation in each of the five regions of Africa (North, West, Central, East and Southern Africa), develops a typology for EOA and proposes a monitoring and evaluation (M&E) framework.

Of the 55 countries in North, West, Central, East and Southern Africa, four (Morocco, Tunisia, Uganda and Madagascar) have an EOA policy, organic production standards, strong government support for EOA and a well-developed National Organic Agriculture Movement (NOAM). Eleven countries have some government support with a policy underway and strong NOAMs. Another ten countries have strong civil society organisations, significant EOA production including some export, but little government support. A further twelve countries have some civil society capacity, no organic guidelines, little or no export and not much government support. Finally, there are eighteen countries with very little institutional capacity, no government support and no exports.

Currently, as shown in Chapter Two, much of Africa's development budget is absorbed with Farm Input Support Programmes (FISP); these mainly hand out cheap fertilisers, hybrid seeds and agro-chemical inputs. Such strategies of development support mechanisms have been shown to be ineffective and a waste of resources. With proper developmental planning, some elements of a FISP approach could contribute to sustainable development. Mauritius is the only African country to have made serious attempts at such an approach, using FISP to support compost making, so that long term soil fertility is improved, and the productive capacity of the soil is enhanced while at the same time empowering farmers to produce their own low-cost fertiliser. Although food safety nets are sometimes needed to deal with emergency situations, these should be managed to stimulate sustainable local food production, rather than competing with it by giving out free imported food.

Long term research in Britain, Denmark, Switzerland and the United States shows that after a few years of organic management, soil productive capacity is increased in a robust way which improves soil water- and nutrient-holding capacity. Elsewhere, African EOA research (East African research with FiBL and the Mandela Trials in South Africa) shows that composting, careful cultivation and crop rotation can improve soil biological activity, counter soil acidity, raise soil organic matter and make some nutrients more readily available to crops. Where available soil phosphate is low, rock phosphate can be used as a soil fertility capital injection. With crop rotation and regular modest dressings of good compost, this will bring about economic levels of production and vastly improve climate change resilience and soil microbial biodiversity.

Assisting farmers with training, institution building, compost production and, where needed, the supply of rock phosphate based on independent soil analysis, contributes to building the capacity of African farmers to produce and sell nutritious food for Africa. The areas where support can be useful at each stage of development are explored in this report, after the typology has been explained, as outlined in Paragraph 1 above, and Tables 1, 2 and 3. The typology proposed can provide a useful measuring tool for civil society organisations to lobby for the changes needed in their organic sectors, so that every two years each country of Africa can assess its own progress against its organic development plan (the EOA Initiative, EOA-I). Madagascar has already argued successfully to be re-classified from Type 2 to Type 1, having introduced an EOA policy and support for farmers.

Madagascar, Morocco, Tunisia and Uganda are leading the way in EOA, and EOA is contributing significantly to food security, employment, food sovereignty, climate change resilience and export earnings in those four countries.

From West Africa, Benin, Mali, Nigeria and Senegal are participating in the EOA-I (black diagonal lines, Figure 1). In East Africa, Uganda, Ethiopia, Tanzania, Kenya and Rwanda have made significant progress and are part of the EOA Initiative.

EOA in Africa will help to make healthy those countries which plan intelligently, invest wisely, develop human capital and institutions, protect natural resources and help the EOA trade to regulate itself effectively. The establishment of robust Organic Food Systems will require consumer education, collaboration between national departments of Health, Education, Environment and Agriculture, effective government support for healthy food choices in public procurement, and an entrepreneurial private sector.

The 55 countries of Africa are shown in ***Figure 1***, showing four advanced EOA countries, eleven active EOA countries, ten nascent EOA countries, twelve infant EOA countries and eighteen countries awaiting inspiration regarding Ecological Organic Agriculture. From West Africa, Benin, Mali, Nigeria and Senegal have joined EOA-i (black diagonal lines). In Eastern Africa, Tanzania,

Uganda, Ethiopia, Kenya and Rwanda have made significant progress and have also joined the EOA Initiative, while Burundi, South Sudan and Somalia have not as yet. ***Tables 1 and 2*** summarise the M&E framework proposed in this assessment (see Chapter 6.2), and ***Figure 1*** shows the typology as applied to the current state of EOA in Africa, as taken from the 55 country summaries presented in Chapter Three. This is a dynamic depiction, which will need to be updated every two years.

Figure 1:
Summary of EOA status of the 55 countries of North, West, Central, East and Southern Africa

Table 1:
Summary of EOA status of the 55 countries of North, West, Central, East and Southern Africa

Typology for Ecological Organic Agriculture	Type	Organic Policy	Product standard	Govt support	Farmers organised	Export & domestic markets	Countries	No./ Type n=55
Advanced EOA country	1	Yes	Yes	Strong	NOAM	Yes, both	Madagascar, Morocco, Tunisia, Uganda	4
Active EOA Country	2	Coming	Yes	Promise	NOAM	Yes, both	Burkina Faso, Egypt, Ghana, Kenya, Mali, Mauritius, São Tomé & Principe, Senegal, Seychelles, Sudan, Togo	11
Infant EOA Country	3	No	Yes or No	Little	Yes	Yes Export; Domestic developing	Algeria, Benin, Cameroon, Ethiopia, Liberia, Namibia, Nigeria, Rwanda, South Africa, Tanzania, Zambia, Zimbabwe	12
Nascent EOA Awareness	4	No	No	None	Weak	Some export; Little domestic	Cape Verde, DR Congo, Gambia, Guinea Rep, Ivory Coast, Malawi, Mauritania, Mozambique, Niger, Sierra Leone	10
Awaiting Inspiration	5	No	No	None	None	None	Angola, Botswana, Central Afr Rep, Chad, Comoros, Congo Republic, Djibouti, Equator, Guinea, Eritrea, Eswatini, Gabon, Guinea-Bissau, Lesotho, Libya, Somalia, South Sudan, West Sahara	18

Table 2:
Criteria and Desired Outcomes for EOA Sector Development in Africa:

Typology for Ecological Organic Agriculture	Type
Development of national EOA policy and regulations	Development process and support for EOA sector and development of national EOA policy and legislation
National EOA Standards & Certification	A national or regional standard for organic production is developed, with private sector and Government, well adapted to conditions in the country and focused on the domestic market.
Government support to the EOA sector	National governments develop and implement enabling policies and programmes in support of EOA. National institutions are equipped with skills and competencies required to promote EOA in Africa. Scientific research outcomes, indigenous knowledge, technologies and innovations in EOA are increased. Consumer education and awareness should be actively promoted.
Civil sector strength	A unified and organized EOA sector enabling ability to work towards joint objectives. Development of organic farming in countries has typically been initiated by either NGOs or private companies, sometimes both. In many developing countries, organic agriculture has been promoted by NGOs. Countries with well-developed organic sectors have had a participatory policy development with close interaction between the government and the EOA sector (including NGOs, associations and organised agriculture). This improves the sector's own ability to work towards joint objectives, and it also makes it easier for the government to consult with the private sector.
EOA sectoral performance (Domestic & Export Markets)	The EOA sector in the country has developed in a positive direction towards the goals formulated in the national action plans and national policy; EOA farmer organisations are flourishing and well-governed; markets are developing.
Private Sector is taking responsibility for market development	The market is developing actively, and processing to add value for both the domestic and export markets.

'S' IS FOR
SUSTAINABLE GROWTH

1 Introduction

1.1 BACKGROUND TO THE STUDY

The assessment was conducted to formulate recommendations as to how Ecological Organic Agriculture (EOA) can be supported throughout Africa in line with a decision of the Heads of State and Government of the African Union (AU); this decision, made in 2010, resulted in the establishment of the EOA Initiative (EOA-i); the decision can be found on p.vi.

This assessment integrates an earlier report for the AUC assessing North, Central, West and Southern Africa in 2019, and a report compiled for Biovision Africa Trust (BvAT) on progress in East Africa, also in 2019. A first version of the report was circulated to EOA stakeholders, and extensive feedback was received during the validation workshop held in Addis Ababa, Ethiopia. The 2019 report built on the comments received, and this version now integrates BvAT findings on East Africa into the AU Report.

Although this was not part of the specific scope of research originally required in the Terms of Reference, during the report validation workshop held in Addis Ababa in October 2019, participants emphasized the need to present evidence of how EOA can deliver on yields and soil quality, to counter the conventional narrative that "organic farming cannot feed the world". In order to address this request, this revised version of the report presents a summary of evidence from the long-term comparative Mandela Trials at Nelson Mandela University in South Africa, as well as the long-term organic trials in Kenya carried out by the Swiss organic Research Institute (FiBL) and the International Centre for Insect Physiology and Ecology (ICIPE) in Kenya.

The Mandela Trials show that even at modest input levels, organic farming systems can deliver yields comparable to (and during dry periods, in excess of) conventional farming systems; this was in spite of the levels of nutrient supplied being approximately 25% of the applied NPK for organic compared to conventional treatments. However, they demonstrate that in low-phosphate acid sandy soils in the Western Cape with significant exchangeable aluminium, rock phosphate is required in order to reduce the yield gap between organic and conventional farming systems. Biological pest and disease controls were as effective as conventional poisons, and soil microbiology was more diverse with higher numbers of beneficial organisms in the organic treatments. Soil water content in the topsoil and down to 50 cm was significantly higher for organic than conventional treatments under rainfed conditions (Chapters 18 to 22 in Auerbach, 2020).

Coming to the FiBL-ICIPE trials in Kenya, the work on soil quality of van Arb et al. (2019) shows that high input organic and conventional systems under irrigation had higher levels of available nutrients, but, similar to the Mandela Trials, the conventional systems failed to raise soil carbon levels, and tended to result in soil acidification. Adamtey et al. (2016) showed that the high-level-input organic treatments improved soil, and after the first year (when they were lower than the high-input-conventional treatments), even at the same selling price, the crop gross returns were comparable to the latter. After the fourth year, the organic-high treatments were up to four times more profitable than the conventional high treatments, due in part to an organic premium price obtained. Both organic-low and conventional-low treatments had insufficient input levels to maintain soil quality.

Regarding soil quality in the Kenyan research, Anyango et al. (2020) show that where organic compost and rock phosphate are used at higher levels, termite numbers increase and their impact is positive (more galleries in the soil, better water infiltration, and according to several other authors, higher yields). In earlier work (Anyango et al. 2019), explored crop damage from termites, mostly finding that on one site, lodging of Baby Corn grown under organic high-input systems was a problem at the late reproductive crop stage.

These research initiatives from Kenya and South Africa show the importance of problem-solving and fundamental research in supporting EOA in Africa. The sector requires research, training, government support for certification and quality management, market development, capacity building and supportive policy. Given the worldwide concern about impacts of climate change on agriculture, biodiversity and food security, the current situation requires bold and decisive leadership. A grass-roots popular movement towards EOA is happening throughout Africa, especially among young people, and this is becoming increasingly clear, especially as African economies struggle to adapt to post-Covid realities.

1.2 OUTLINE OF THE PROCESS

The terms of reference (2019) specified that the consultant carry out the following assignments:

1. Assess the inclusion/mainstreaming of EOA into national and regional agricultural and trade policies focusing on West, North, Central and Southern Africa.
2. Assess the various institutional environments (including certification) for the promotion of EOA.
3. Analyse the limitations (gaps, incoherencies, constraints, and weaknesses) in the existing legislation and policy.
4. Propose policy intervention entry points for strengthening policy and institutional environment for supporting EOA integration into national programmes and plans.
5. Develop indicators/ indices for monitoring and reporting on the status of EOA in Africa.
6. Facilitate the validation of the report of the study through a stakeholder meeting.

The process followed was to contact key informants on EOA in the initial 47 countries where possible, while also searching the literature for information on agriculture and trade, with emphasis on Farm Input Subsidy Programmes (FISP), on trade support initiatives and on the organisation of agricultural extension. In 2020, we summarised the situation in Burundi, South Sudan and Somalia, and also developed Policy Briefs for Kenya, Uganda, Ethiopia, Tanzania and Rwanda for Biovision Africa Trust (BvAT) on behalf of the EOA Continental Steering Committee. We incorporated the work of Dr Edith Kareko-Munene the consultant for BvAT on organic policy formulation in these five countries into this study, and developed a Policy brief for East Africa for BvAT as a separate document, as well as Policy Briefs for the other four African regions under a GIZ contract, which also covered integrating all of that information (on all 55 countries of Africa) into this report for publication by the African Union. The watching brief was "How can Africa scale up sustainable policies, based on evidence and inclusive policy-formulation processes?"

The global organic sector has grown steadily over the past thirty years, and now sees over three million farmers producing more than US$ 112 billion for domestic and export markets in almost every country in the world (Willer et al. 2021). Countries such as Sweden and Austria now have more than 20% of their farmland certified organic, and the European Union has launched a plan to ensure that more than 20% of the EU is organic by 2025. How can Africa scale up agroecological production to mitigate climate change and adapt to changing conditions (increasing temperatures, erratic weather and decreasing rainfall), and to exploit this growing market segment? In spite of large numbers of certified organic farmers in Africa (Uganda, Ethiopia and Tanzania have nearly 600,000 certified organic farmers between them), the areas still remain very small. Tunisia, Ethiopia, Sierra Leone, Kenya and Tanzania have about 700,000 ha between them (mainly coffee, olives and nuts), but areas in other countries are very low (Willer et al. 2021).

Scaling up requires an understanding of the "levers of change" (Woltering et al. 2019); if change towards EOA is to take the SDGs into account, it is essential to combine the findings of scientists with the experience of farmers and political objectives of government. Policy should include incentives which reward agro-ecology and other practices which reduce poison and pollution, use water and nutrients efficiently and improve the nutritional content of food. Polluting agriculture should be made visible through True Cost Accounting, looking at the whole lifecycle of products including carbon and water footprints. Scaling up to the scale required by SDGs requires a major shift in policy to support compost making, crop rotation, biological controls of pests and diseases and a shift to agroecological production and processing.

The 2011 decision of AU aimed at supporting EOA and the SDGs implies that leverage for changing agricultural practices will be based on a recognition that EOA is an important part of the new reality that needs to emerge post-Covid, given climate change, pandemics of obesity, diabetes, hypertension and other non-communicable diseases, as well as the cultural imperative for Africa to celebrate and develop African cuisine, culture and heritage.

Policy must be based on recognition of the integrated management of natural resources; an agroecological approach requires an understanding of the multi-functional nature of agriculture. In recommending an agroecological approach as an important part of future agricultural policy, the IAASTD Report (the outcome of a five-year process involving several hundred scientists for many countries, and published in 2008) proposed that to be sustainable, agriculture must be seen to be multi-functional, and policy should be developed to support multi-functional agricultural systems, as can be seen in ***Figure 2.***

The EOA-I has also seen five Eastern Africa and four West African countries taking EOA further with government support (see ***Figure 1***). A report from UNDP (2012) summarised the situation:

> "This policy brief … reflects on the challenges of the sector in light of climate change and the crises of food and energy prices, especially so against the backdrop … to (i) reduce the numbers of people living in poverty and extreme hunger, and (ii) to reduce the rate at which the earth is losing its biodiversity and their habitats. These factors are most pertinent at this time when the atmosphere is currently suffering from an ever-rising concentration of carbon dioxide and other Green House Gases, and freshwater systems are progressively shrinking. The balance between the global demands for poverty reduction and food security, and those of environmental sustainability translate into a complex national development agenda … for … appropriate reforms in the agricultural sector".

Figure 2:
The inescapable interconnectedness of agriculture's different roles and functions, IAASTD (2008).

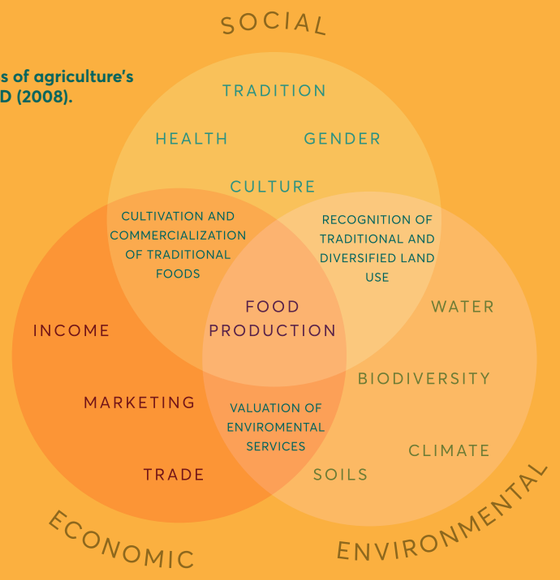
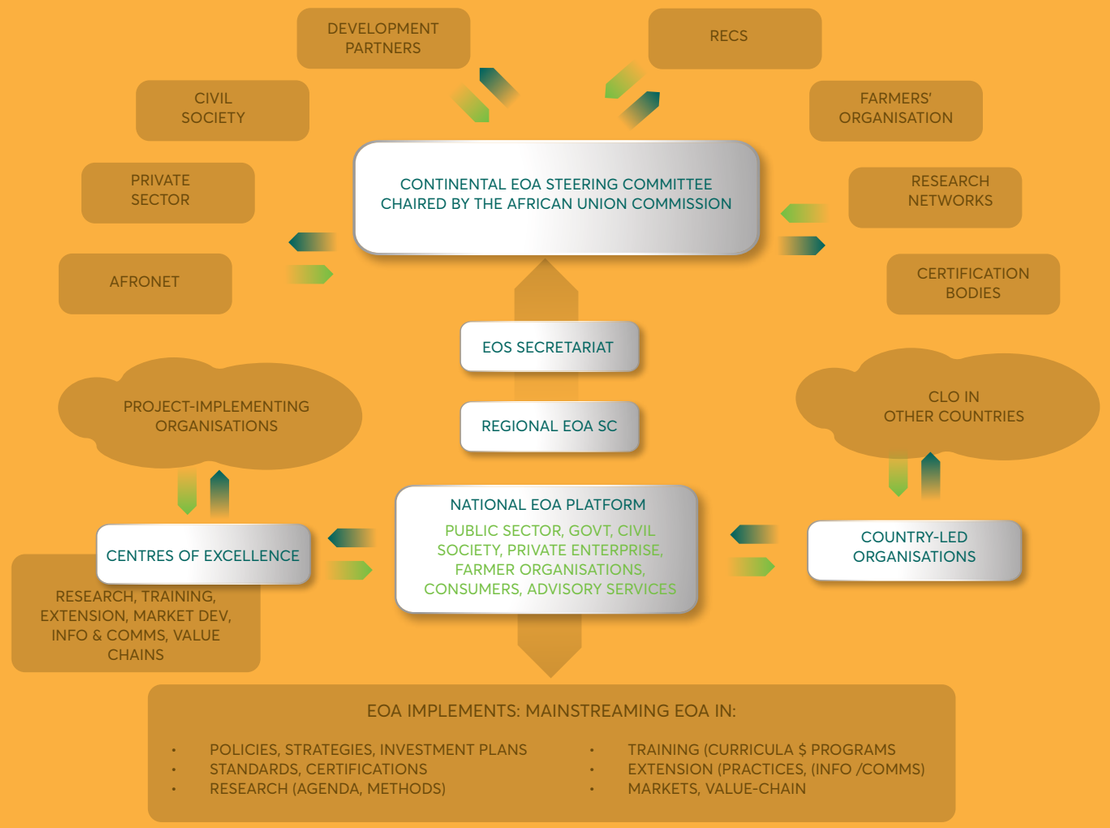


Figure 3:
A proposed structure for EOA-i in Africa (Amudavi, 2019; see Appendix 1)



This report summarises the situation in 55 countries of North, West, Central, East and Southern Africa (Chapter Three), and draws on this country information to group countries according to their status regarding their progress (or lack of progress) towards ecologically sustainable agriculture, and the development of food systems which make the nation food secure. Section Three is the report on policy formulation in East Africa. Sections Four and Five look at typical country situations (and how they relate to policy) and work programmes for addressing food insecurity and making agricultural systems more climate resilient.

Section Six reproduces the 2010 AU Decision on organic agriculture support, while Section Seven provides a summary of conclusions and recommendations.

A typology is developed at the end of Section One, classifying each of the countries into one of five categories, and using a similar approach to the EOA Initiative's colour coding to do so, so that these countries can be represented on a map of Africa, giving a visual overview of the state of EOA in the continent (Figure 1). The process of organic sector development is discussed, and indicators are defined showing what we hope to see as each type of country progresses towards a robust, resilient and sustainable EOA sector.

Recommendations are then developed for each type of country, with key activities which should be prioritised. The work builds on the EOA-i strategy (2015-2025), as outlined in the May 2015 document, and indicators of progress follow the logical framework analysis.

In ***Figure 3***, BvAT summarises the rather complex world of EOA and the structures already emerging in order to support EOA in Africa. The figure shows how the Continental EOA Steering Committee (CSC) interacts with regional and national EOA platforms and country Lead Organisations (often, these will be the National Organic Agricultural Movements, or NOAMs, in each country; sometimes they are Farmers' Associations). Each of the five regions of Africa has some sort of regional EOA structure, though some of these are at present very weakly developed. They come together under AfrONet, the African Organic Network, currently based in Dar es Salaam. At the continental (CSC) level, it is also hoped that some equivalence in certification approaches can be developed. Already, the East African Region has successfully developed the East African Organic Product Standard and trademark (Kilimohai). Although other regional standards may develop, it is important that each standard really has legitimacy, which will only develop as the market gains confidence in the ability of each country or region to maintain the integrity of the organic certification process. The lack of evidence-based policy remains at the heart of the failure of most African governments to commit to EOA. The main findings of the BvAT study on the policy formulation process were:

- Finding 1: The Eastern African countries are at very different stages in their organic policy formulation processes. All five countries lacked final national organic agriculture policies, until Uganda approved an Organic Policy in July 2019, which seeks to strengthen research, production, processing and marketing for organic agricultural products.
- Finding 2: The absence of permanent technical and administrative capacity for policy development is [a] constraint to policy formulation and consequent implementation.
- Finding 3: Governments, private sectors, and civil societies need considerable inclusivity, goodwill and transparency to engage in policy formulation and advocacy.
- Finding 4: Country assessments show that political commitment to evidence-based policy formulation remains very limited or absent in Eastern Africa. Reliable data and independent capacity are very limited.

The main findings of the two BvAT policy and legislation commissioned studies in Eastern Africa were:

- Finding 1: The Eastern African countries are at very different stages in their organic policy formulation processes. All lacked final national organic agriculture policies, until Uganda approved an Organic Policy in July 2019, which seeks to strengthen research, production, processing and marketing for organic agricultural products.
- Finding 2: The absence of permanent technical and administrative capacity for policy development is [a] constraint to policy formulation and consequent implementation.
- Finding 3: Governments, private sectors, and civil societies do not embrace considerable inclusivity, goodwill, and transparency to meaningfully engage in policy formulation and key advocacy efforts.
- Finding 4: Country assessments show that political commitment to evidence-based policy formulation remains very limited or absent in Eastern Africa. Reliable data and independent capacity are very limited.

That policy formulation should be evidence-based is agreed to by most political observers; that policy is often inappropriate is equally clear! As in the US, where lobby groups in Washington have become an institution, so in Africa, those with vested interests try to influence policy formulation in their interest, in order to sell a product, gain political or economic advantage, or exert influence in a particular direction. If agricultural policy is to support food sovereignty, improved food security with nutritious, locally grown food and sustainable land use in times of climate change, steps will have to be taken to limit the lobbying process, and to help African Food Policy to become more evidence-based.The six conclusions and key recommendations from BvAT were:

1. An EOA policy needs to be coherent with other economy-wide policies in order to create an overall enabling environment conducive to achieving multiple goals. Show synergies and complementarities.
2. A significant shift towards long-term strategic investments in EOA to generate results and impact is required.
3. EOA policies need to target country-specific constraints to development and to place greater emphasis on enabling well-functioning markets and innovation systems, and on investing more in people and infrastructure.
4. Countries need to have appropriate institutional frameworks with sufficient capacity in terms of skills and resources to formulate and effectively implement the right EOA policy decisions.
5. More actors including producers (women, men and youth) and consumers need to be involved in policy formulation processes.
6. Wide adoption of EOA brand (e.g. Kilimohai Mark) is needed – "Buy Ecological Organic Products" awareness, advocacy, and marketing campaigns as a way to promote the benefits of consuming ecological organically grown foods.`

1.3 METHODOLOGY OF THIS ASSESSMENT

The Initial Project Brief, Sample Frames and Data Sources

The study was based on a desktop work within a two-month period, and the team made use of primary and secondary sources of information to compile each country study (sources are listed at the end of each country summary). A literature review for each country established the main elements of agriculture in the country, the structure of the department of agriculture and the nature of extension services, the extent to which policy supported (or obstructed) EOA, and the type of support actually given to farmers at present.

Prof Auerbach constituted a multi-disciplinary team consisting of Sasha Mentz-Lagrange (Francophone countries and with PGS expertise), Dr Aharon de Grassi (Lusophone countries and with agricultural expertise), Dr Myles Oelofse (North Africa and with Monitoring & Evaluation expertise), Anne Ross (Legal regulations) and Hannelise Piek (Research Assistant). Ms Piek assisted with the 2020 contract in gathering data on the eight countries not covered in the 2019 contract. Dr Edith Kareko-Munene carried out the field research in East Africa, and wrote much of Section Four on policy formulation, as well as the policy formulation aspects of the country studies for Kenya, Uganda, Ethiopia, Tanzania and Rwanda. Her full report on EOA in Eastern Africa gives detail of the desirable and actual EOA policy formulation processes (Kareko-Munene, 2020).

Possible elements of current activity which could give rise to future support for EOA were identified, and these were discussed with country stakeholders. In each country, at least one local stakeholder (often up to twelve) commented on the preliminary findings.
Many people were interviewed telephonically, or e-mailed for comment. These included:

Beneficiaries/ Primary Stakeholders – People involved in organic agriculture and/or agro-ecology, and those who have been involved in EOA project activities to date.

Partners – Those who have knowledge of EOA and/or its projects and beneficiaries but who are not directly involved in policy development/formulation. This included co-financiers, donors and NGOs.

Policy Development & Management – Those who are directly involved in developing and implementing policies including think tanks, government officials, legislature, managers, staff, technical advisors and sub-contracted implementers.

The initial assessment was conducted in July and August 2019. Feedback from the stakeholder validation workshop held in Addis Ababa in October 2019, and feedback received via Alex Mutungi (EOA-i Secretariat, Nairobi) was incorporated into the 2019 report. Regional Policies, Section Three and the additional eight countries were then integrated into the report as part of the 2020 contracts.

1.4 LIMITS OF THE STUDY

In some countries – often in those where EOA is still "awaiting inspiration" – it proved very challenging to identify key informants. Findings for some of these countries could have been far better substantiated through direct interactions with local stakeholders; however, the time constraints in conducting the research, and the lack of identifiable resource people (despite extensive online research and reaching out to EOA, AfrONet and IFOAM colleagues for support) at times proved insurmountable. The arrival of the Covid-19 pandemic also limited travel during 2020. We trust the discerning reader will forgive us for any omissions and look forward to further improving our understanding of how African countries are progressing in terms of EOA development.

The key successful interventions which are working in Africa, and the factors responsible for the dis-adoption of organic farming in some countries are then identified; links to the market are examined, and links are shown to the positive parts of the Export Promotion for Organic Products from Africa (EPOPA) project and other East African successes such as the East African Organic Standard, especially with regard to quality management (QM); openings for regional co-operation, and the potential for regional research projects, including seed exchanges, soil analysis facilities, research collaboration and exchange of training materials are discussed. The anti-organic lobbies are analysed and ways of countering dis-information, and of reducing the influence of vested commercial interests in re-colonising Africa are discussed. Weaknesses, constraints and gaps to productive use of land are analysed, and progressive strategies are developed. The representative countries analysed are: **Tunisia** (Type 1); **Egypt (**Type 2); **Zambia** (Type 3); **Ivory Coast** (Type 4); **Angola** (Type 5); these countries were considered fairly typical of each of the five types.

OUR INPUTS DETERMINE
OUR OUTLOOK, AND FUTURE

2 Farm Input Subsidy Programmes, Grants and Food Security

In examining theories of development, the basic choice is "Africa as a basket case" or "Africa rising"; the first paradigm seems to adopt the following schematic narrative:

2.1 THEORIES OF DEVELOPMENT

"Africa is a basket case" scenario

Africa lacks infrastructure & governance is poor; therefore, sustainable development won't work. It is safer to give fertiliser, poisons & hybrid seeds to farmers, and even to give food to the poor, rather than develop capacity, infrastructure and institutions. This logic underpins the Farm Input Subsidy Programmes (FISP), social cash transfer programmes (SCTP) and food reserve purchases, which often distort the market and actively discourage local food production.

"Africa rising" scenario

The alternative "Africa rising" paradigm argues that this is the millennium of Africa; we have young people, innovation, natural resources and under-used land, and we can show the world what responsible sustainable development looks like; not only "can" – we HAVE TO, because climate change will affect us so dramatically that we will not survive unless we really think creatively and act intelligently. EOA is a major part of pro-active sustainable development, while FISP is an ineffective, short-term approach.

We agree with the analysis of FISPs provided by ACB (2016) that FISPs tend to direct farming households towards hybrid maize production even in marginal conditions, thus reducing the diversity of food available and negatively affecting ecological zones and soil health. Declining soil fertility results in declining yields, which places a further financial burden on poor communities. Without a clear idea of the condition of the soil across agroecological zones, large-scale fertiliser adoption initiatives are risky. In Malawi, despite an agricultural policy that encourages a diversity of crop cultivation, the FISP has contributed to a significant increase in maize cultivation and a concurrent reduction in the land planted to other crops, narrowing agricultural biodiversity, with negative implications for human and environmental health. FISPs do not direct investment towards building sustainable and resilient agricultural and food systems, and so do not address hunger, poverty and inequality; these programmes are often donor-driven.

Donors and development agencies such as the United States Agency for International Development (USAID), the Alliance for a Green Revolution in Africa (AGRA), the World Bank, the Food and Agriculture Organization of the United Nations (FAO) and the International Fund for Agricultural Development (IFAD) implement projects on their own or shape and support existing government strategies. Donors also influence the national research and development agenda— AGRA's Soil Health Programme provides funds for mainly public and parastatal institutions, and of course, they also have their own agendas.

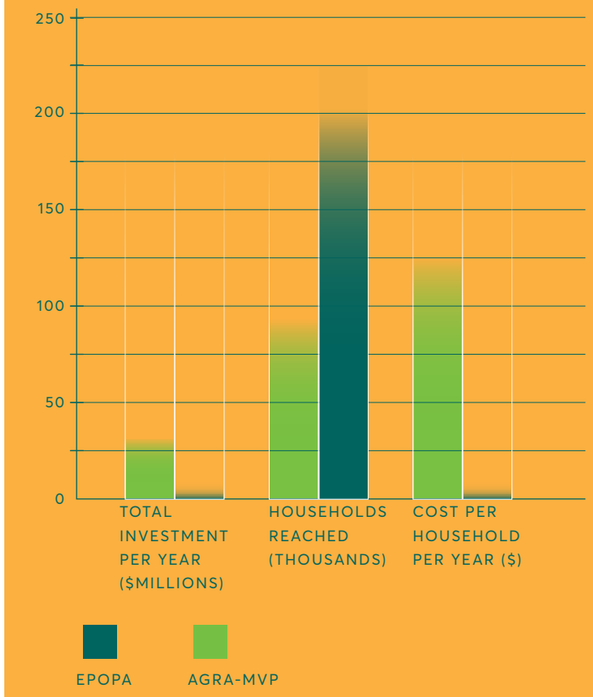
While EOA takes a developmental stance, FISPs adopt a short-term hand-out approach. Auerbach (2013) analyses AGRA's Millennium Villages Project (AGRA-MVP), and compares it with the Export Programme for Organic Products from Africa (EPOPA), and finds that EOA is a dramatically more efficient developmental tool, even with only a fraction of the finances of AGRA. Figure 4 summarises the findings of this analysis.

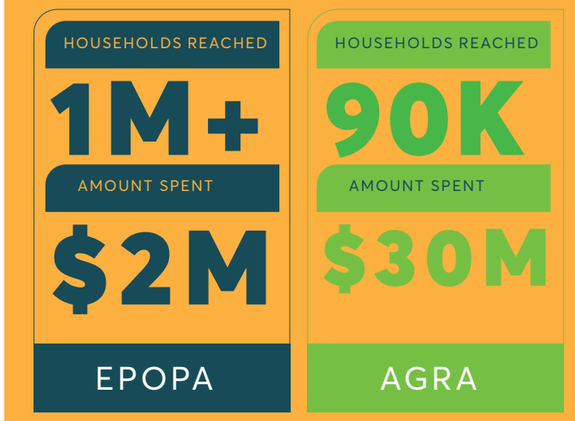
While AGRA's Millennium Villages Project (AGRA-MVP) reached 90,000 households and spent US$ 30 million over the first five years, EPOPA, over a similar period, spent $2 million and not only reached over a million farmers, but certified 200,000 farmers organic; while AGRA-MVP spent $120 per farm per year, EPOPA cost only $2 per farm per year. The EPOPA programme was more efficient because it trained local farmers as trainers, it connected producers to markets and it taught farmers how to use locally available resources to make compost, and how to include local crops in crop rotations (Auerbach, 2013). Thus the comparative analysis of the work of the AGRA-MVP and EPOPA concluded that sustainable development requires a long-term approach to building community participation in agriculture and other aspects of rural development. Resilience, biodiversity, improved productivity and strategies which address soil fertility and water use efficiency need to be adapted to local conditions and to robust predictions of the major climate change constraints likely to affect small scale farming. Capacity building and farmer support are essential in this process.

The analysis points out that each programme has strong and weak points, with the AGRA-MVP approach, having a broader range of activities including education, health and economic development aspects and the EPOPA project being more effective in helping farmers to use local resources, set up farmer-to-farmer training networks, and connecting farmers to markets while helping the distributors to understand the problems experienced by producers. Recommendations of this analysis were that if the approaches of both projects could be combined, a more sustainable, bio-diverse high-quality agricultural sector could be developed, with parallel emphasis on infrastructural development and macro-economic linkages, based on an EOA approach to support soil fertility and biodiversity.

The African Union (after the Malabo Declaration of 2014) has put a great deal of energy into the Comprehensive African Agriculture Development Programme (CAADP), and at its best, CAADP embraces EOA and sustainable development; at its worst, it buys into FISP and simply tries to copy the old green revolution, like AGRA-MVP. CAADP should help African farmers to deal with climate change, malnutrition, obesity, lifestyle diseases and biodiversity loss among other challenges. The Malabo Declaration points out that sustainable agriculture needs to bring down child stunting to below 10% and child under-nutrition to below 5%.

Figure 4:
A comparison of the performance of the Alliance for a Green Revolution in Africa's Millennium Village Project (AGRA-MVP) and the Export Programme for Organic Products from Africa (EPOPA), with regard to scale of investment, number of households reached and cost per household per year





The CAADP Compact called on signatories to adopt the following core principles:

- To pursue an agricultural sector growth rate of 6%.
- To allocate 10% of the national budget to agricultural development.
- To strengthen local ownership and promote interventions based on each country's opportunities and priorities.
- To build partnerships with a broad stakeholder group.
- To promote dialogue and build consensus among key stakeholders on priority issues.
- To enhance peer-review and sound analytical work to inform stakeholders in the sector.
- To encourage mutual accountability to ensure sustainable resource utilisation.
- To favour regional complementarities within the framework of regional economic communities, such as SADC, ECOWAS and the East African Community.
- To enhance policy reforms for a more favourable environment for agricultural growth.

The Member States of the AU signed the Maputo Declaration in 2003, committing to increasing agricultural budget allocations to 10% of the national budget and to designing CAADP, which was intended as a policy framework to transform the region's agriculture sector and create wealth and food security while generating economic growth. In 2004, SADC member states signed the Dar-es-Salaam Declaration, establishing priority focus areas for achieving food security in the region, including short-term measures such as increasing the availability of and access to improved seeds, fertilisers and agrochemicals. Two years later, the AU hosted the Africa Fertiliser Summit and the Abuja Declaration on Fertiliser for the African Green Revolution resolved to increase the intensity of fertiliser use to an average of 50 kg/ha. One of the ways in which this was to be implemented was through smart subsidy programmes aimed at improving access to fertilisers for small-scale farmers. The commitment to the Maputo Declaration was reaffirmed in 2014 and forms the basis for the Southern African Development Community (SADC) 's Regional Indicative Strategic Development Plan, as well as several other regional strategies for Africa.

It appears that there is an ideological struggle taking place, between those who believe that increased use of synthetic fertilisers, genetically engineered seeds and agro-chemicals will benefit Africa (often called "sustainable intensification"), and those who advocate sustainable agricultural development, including increased biodiversity, development of farmer seed networks, scientific research to build on Indigenous Technical Knowledge, organic food system development and food sovereignty (often called "ecological intensification").
While the Abuja Declaration on Fertiliser for the African Green Revolution aims to transform the region's agriculture-dependent economies by using seed and synthetic fertilisers, and by public-private partnerships and harmonisation of seed, fertiliser and agrochemical regulatory and policy frameworks, EOA-i aims rather to work for less dependency of small-scale farmers and more ecological understanding from food producers and policy makers.

In SADC, only Malawi and Madagascar spend more than 10% of their national budgets on agriculture, and only South African and Zambian farmers use more than 50 kg/ha of fertilisers. FISPs have not proved economically or ecologically sustainable, nor socially just and equitable.

Illustrating the problem: South Africa, Malawi, Zambia, Zimbabwe and FISP

In reporting on South Africa's FISP, ACB (2016) reports that seed, fertilisers and pesticides are provided free-of-charge in year one; a part payment must be made by farmers in years two to four; and full payment by year five. Rural villages with the best farming potential are supported, defined as having at least 500 mm of rainfall or reliable irrigation, specific rooting depths and slopes with less than a 6% gradient, and plot sizes of at least 50 ha. Farmers must use minimum tillage techniques and herbicides. Government procures inputs from multinational corporations, including Monsanto, which has acted as both supplier and technical advisor. The budget was US$ 27 million for 2008/09, for 420 projects. They followed a top-down approach with little consultation with farmers, many of whom have not been able to service their debts. Participating farmers were introduced to Green Revolution packages including genetically modified seed, and were encouraged to produce monocultures. There was evidence of corruption among contractors and significant leakage. Inputs often arrived late and farmers were not adequately trained on how to prepare the soil or apply the chemicals. The FISP contributed to destruction of agrobiodiversity and loss of indigenous knowledge, and created a market for genetically modified seed in small-scale farms.

ACB concludes that there is a danger of creating a culture of dependency (2016):

> "Besides the partial economic safety net that the subsidy obviously provides, it also lures farmers into dependency on synthetic inputs, trapping them on a technological treadmill that is difficult to escape, making a return to less expensive forms of production difficult. This is true in Zimbabwe where, after three decades of input subsidies, farmers are forced to keep paying to maintain yields, but still cannot afford to wean themselves off the external inputs. Given the significant increases in the price of hybrid seed and fertiliser in recent years, this ..will become increasingly expensive. ACB's field work in Malawi in 2014 found that many farmers were locked into a cycle of input dependency and debt, while at the same time facing an eroding natural resource base, including increasingly infertile soils."

Encouraged by FISPs to adopt improved technologies, small-scale farmers are starting to abandon the diversity of local seeds and traditional soil fertility management techniques, to enter a system that has none of the resilience offered by locally adapted inputs and practices. Reliance on the subsidy often contributes to a loss of income because farmers tend to produce the same crop in the same area at the same time, which leads to a market glut and reduced prices (as experienced in the AGRA-MVP). A World Bank report "Agricultural Sector Assessment and Agribusiness Development Strategy" (2018), indicates that subsidising seed and fertiliser and providing tractor services, can actually increase the unit cost of producing maize, because of the reduced market price for the crop. The increased productivity is not enough to compensate for the increased capital costs. Also, the continued sub-optimal use of chemical fertiliser applied by untrained farmers has been shown to contribute to a limited and often temporary increase of yields on degraded soils (SAIRLA 2019). Looking at our analysis of FISP, and at the country summaries, notably those for Malawi and Zambia (see Chapter Three), we conclude that EOA would provide a far better use of resources than FISP. Current use of resources is not empowering farmers, nor is it developing institutions. It constitutes inefficient use of scarce resources.

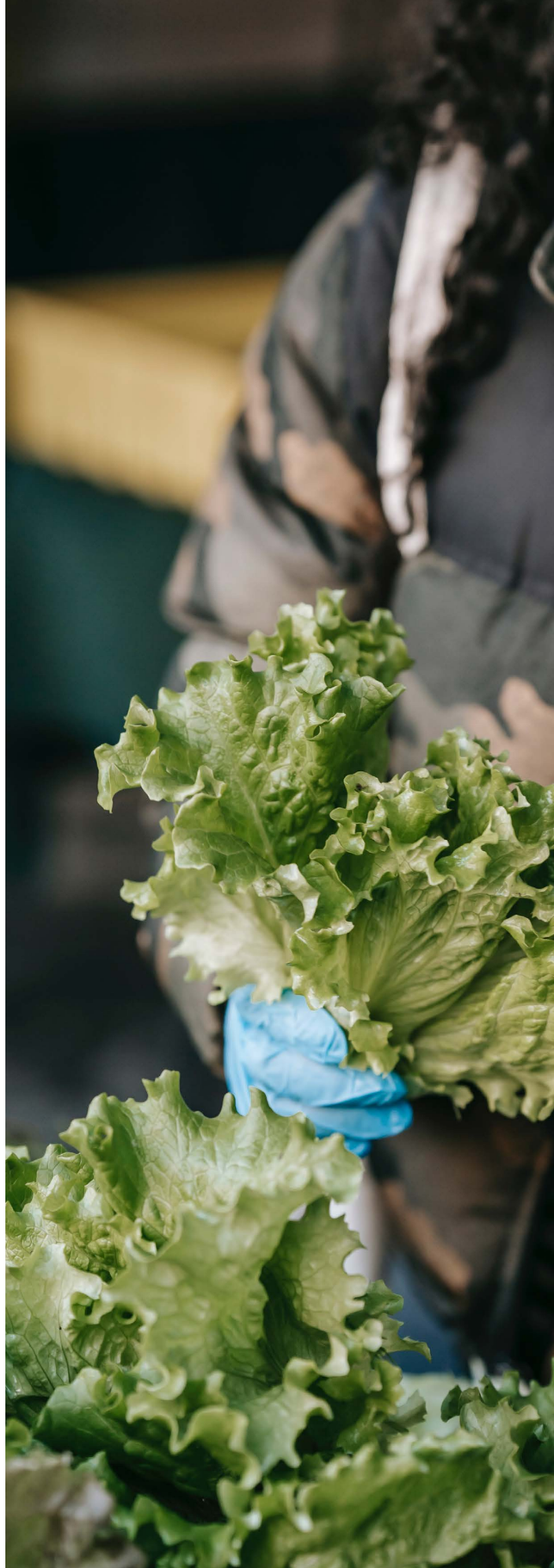
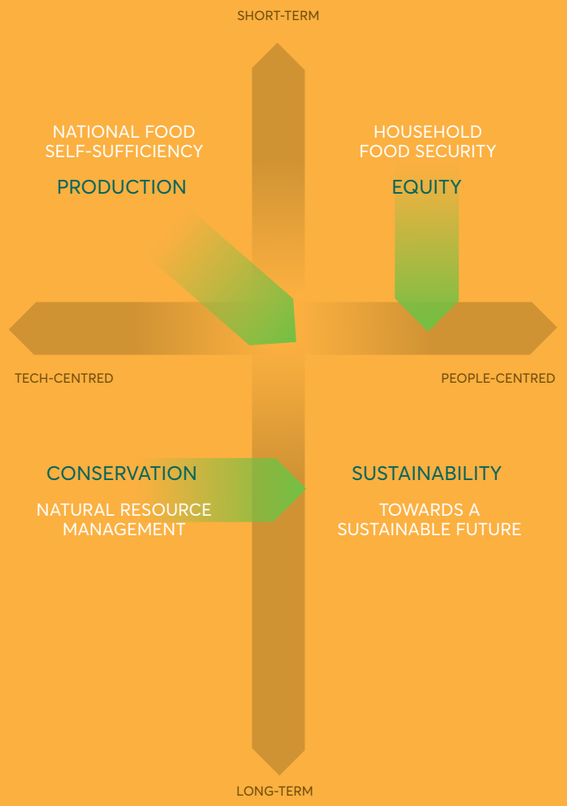


Figure 5:
Production, equity, conservation and sustainable development



How to bring about change: Ghana, Mauritius and sustainable development

On the other hand, Ghana invested substantial resources in training farm women, and this had the relatively rapid effect of halving hunger and poverty in Ghana; the President of Ghana was awarded a commendation by the Forum for Agricultural Research in Africa (FARA) during a Science Week in Accra in 2013 (IFAD, 2013). The Ghanaian Minister of Education explained how they had doubled spending on the agricultural education in line with the Malabo Declaration, ensuring that farm women were targeted, and this had contributed greatly to increases in production.

In his much-publicised book The End of Poverty: How We Can Make it Happen in Our Lifetime, Professor Jeffrey Sachs (2005) argues that if modern agricultural technology (fertiliser, hybrid seeds, pesticides and mechanisation) is combined with interventions on education and health, and made available to African villages, small-scale African farmers will be able to produce a surplus, and by selling this will enter the market economy and improve their livelihoods. This presupposes that there are roads, trucks, agricultural inputs, finance, demand for the crops and a market able to pay for the crops produced. Critiques of the approach adopted by Sachs claim that it has not worked (Munk, 2013; Auerbach, 2013), as the contextual conditions do not simply require technological solutions, but rather human and institutional capacity building. More recently, Tim Wise has critiqued AGRA-MVP (2020).

Resilience, biodiversity, improved productivity and strategies which address soil fertility and water use efficiency (WUE) need to be adapted to local conditions and to robust predictions of the major climate change constraints likely to affect small-scale farming. Capacity building and farmer support are essential in this process. Organic farming techniques allow small-scale farmers to use local resources to make compost, and this has been supported by the Mauritian FISP; this needs to be supplemented by mineral correction of deficient soils based on soil analysis, especially where soil is acidic and low in available phosphate. At the same time, farmer training and capacity building through institutional development are essential for the social and economic dimensions of sustainability. Long-term farming systems trials in South Africa (the Mandela Trials, Swanepoel et al. 2020) show that application of rock phosphate can help to bring organic yields to the same level as conventional, or higher.

This is illustrated conceptually by a paper from Auerbach, written in 1994 for the Journal New Ground entitled "Sustainable Development: Developing what to sustain whom?" (see Figure 5), which summarises the four common perspectives on rural development. Agricultural scientists are most comfortable with a production-oriented approach, which is often rather short-term and technology-centred. This is not to say that National Food Self-sufficiency is unimportant; it is essential. However, politicians and social scientists are concerned that the poorer households may not be able to access food if they have to purchase it, and therefore Household Food Security is important if there is to be reasonable equity (upper right-hand quadrant, ***Figure 5***). Natural resource managers on the other hand, have long been critical of the damage being done to the resource base by industrial agriculture. While their philosophy has always been long-term, they were often rather technical in their approach (bottom left-hand quadrant). Over the past 30 years, however, the World Wide Fund for Nature (WWF) has increasingly emphasized the importance of working with communities, if conservation is to become socially sustainable.

However, food systems are also linked to health issues such as diabetes, cancer, obesity and malnutrition, as well as to social justice factors such as household food insecurity, women's access to land, farmers' rights to exchange seed and FairTrade access versus dumping of agricultural products (Auerbach et al. 2020); they examine child stunting rates in South Africa, which have remained stubbornly high despite child grants and other welfare interventions (pp.91-94).

Food aid, which aims to help those who do not have access to adequate food, often distorts markets in a way which makes it difficult for local farmers to recover from droughts, given the unfair (but well-meaning) competition from free food. Given this complex international context, helping small-scale farmers in Africa to produce nutritious food while coping with increasingly erratic rainfall and rising temperatures, as well as erratic input supplies and rising prices (especially of energy) becomes challenging.

In all of the approaches to FISP, only Mauritius appears to have used a more creative approach, as reported by ACB (2016): Mauritius has implemented a range of interventions to increase productivity, including partial funding for rainwater harvesting equipment, sheltered farming, crop nurseries, agricultural and processing equipment and seed purchase schemes. It also offers small-scale farmers a compost subsidy scheme. Mauritius signed the CAADP Compact in 2015 and spends about 2.5% of its national budget on the sector, which averaged 1.5% growth per year between 2003 and 2012. Mauritius is an outlier compared with other African countries regarding subsidy policies. While the country uses subsidisation to help small-scale farmers (by reducing input costs) and also to increase productivity (through improved soil health), it has linked the compost subsidy to longer-term sustainable development goals. This is part of attempts to mitigate the damage caused by the large-scale application of synthetic fertilisers and to shift farmers towards more sustainable production methods. It is however not clear how many farmers have been reached through this programme. There are also reports of extremely high levels of poison use in Mauritian industrial agricultural systems, and low biodiversity on sugarcane plantations.

ACB (2016) argues that this approach to FISP can be useful in other countries:

> "There are alternative ways to implement subsidy programmes and Mauritius provides an inspiring example in this regard. …. The compost subsidy scheme also fits within a broader attempt to solve environmental problems, such as reducing the amount of organic waste that ends up in landfills. In 2006 the government launched a composting project in about 40 primary schools; by 2010 all primary schools were running composting projects. In 2013, it launched a large-scale domestic composting programme as part of its "Maurice Ile Durable" Fund, financed through a fuel levy and which focuses also on the uptake of renewable energy sources, such as solar geysers, and rainwater harvesting, among other initiatives. More than 11 000 composting bins were procured and distributed to households who paid about US$ 5 for a two-hour training session on how to make compost from household organic waste. This scheme is designed to encourage and increase community participation in environmental conservation and management and reduce the amount of waste that reaches landfills (an estimated 35 000 tons a year). Government support for the establishment and development of private composting companies, to help reduce municipal waste and produce compost that can be utilised by the farming sector, effectively has created an efficient closed loop system that benefits both the private and public sectors".

It is suggested that all FISPs in Africa should be reviewed, as the high cost of fertiliser subsidies is diverting government resources from other crucial investments required for the growth of the agricultural sector, and this funding could be so much better spent by rebuilding top soils and thereby truly supporting the resilience of African farmers. Instead of relegating farmers to "welfare recipients … passive receivers of technical advice, beneficiaries of public sector subsidised inputs and price takers in local markets", an "EOA-focused FISP" could be important in creating green jobs and attempts should be made to learn from Mauritius regarding FISP and from Ghana regarding training of women. Sustainable development requires integrating the building of capacity and institutions, and the development of farmer skills based on farmer-to-farmer training where possible. As National Organic Agricultural Movements emerge, these should be supported, and where needed, governments should support organic regulation and certification, without trying to control these aspects, as was done so successfully in Tunisia, leading to significant economic benefits for the country's organic sector (see Chapter Three).

Urgent transformative action is required, now, to bring about the required sustainable food systems of the future, formed through the collective, inclusive and democratic co-generation of the knowledge held by farmers, consumers and African governments, who are meant to serve the interests of their (farming) populations.

Sustainable agriculture in its broader sense means cultivation of the land that does not damage it; if we are to sustain life in Africa, biodiversity and soil fertility are essential, and strategies for improving both should be at the heart of development initiatives. This requires attention to finance, training (especially of farm women who have been neglected in the past), capacity building and institutional development. Nutrition education (especially for young mothers) will also be important in developing local markets, and in reducing obesity and other life-style diseases.

In Africa, we find the whole range from countries such as Tunisia, Morocco and Uganda, where there is good government support and strong farmer, consumer and NGO capacity, to many countries with dysfunctional economies and little support for farmers, whether they be big or small, male or female, organic or conventional. The typology matrix and possible "EOA enabling" interventions designed as part of this research draw on these parameters stemming from the IFOAM tools, as explained below.

An organic policy template is available on the IFOAM-website. A full set of 25 enabling measures is also available on the website. Some of these are shown in Box 1. The IFOAM website has a decision-support tool, which can be used to generate scenarios. This tool has assisted us in developing the typology criteria shown in Table 4; the decision support tool is extremely useful for government planners and CSOs engaged in strategic discussions about the most important aspects required for development of the organic sector.

The typology was developed through workshops with stakeholders in South Africa, Ethiopia, Kenya, Ghana and Tanzania. The selection criteria were gradually made more practical as the process of assigning a Type to each country in Africa proceeded; it became apparent that some criteria were more important in certain cases than in others, and, as with any model, the local circumstances need to be taken into consideration.

However, during discussions at the West African Organic Conference in Accra in November 2019, stakeholders commented favourably on the approach. They felt that the Typology provides an incentive for countries to improve and progress from Type 5 towards Type 1, and that this gives CSOs leverage to lobby policy-makers about the changes needed for the country to be seen as more progressive, in terms of climate resilient agriculture. Specific policy interventions can be identified, and practical support measures can form part of farmer and consumer lobby priorities.

2.2 A TYPOLOGY OF STATUS OF EOA AT COUNTRY LEVEL

The IFOAM Toolkit provides a Decision Tool for various scenarios as given on the website.

BOX 1 DECISION AID FOR ORGANIC POLICY-SETTING & STRATEGIC ACTION PLANS:

Choosing Relevant Support Measures

In the Global Policy Toolkit on Public Support to Organic Agriculture, we present a total of 26 categories of support measures which can be taken to boost supply and/or demand of organic products. However, it will not be possible for a strategic organic action plan to implement [all of] the 26 categories of measures (mostly because public resources are limited). In addition, not all measures are suitable in all contexts. Priorities will be set and choices will have to be made.
In order to help policy makers and stakeholders participating in strategic organic planning, we have developed this decision-helping framework that helps to filter the most suitable measures depending on the national context. Please pick the scenario that best corresponds to your situation for each question below, to discover which measures are most recommended in your context. This does not mean that other measures are not feasible: only that typically, in such a context, they might not be a priority, at least at the national level.

Stage of development of organic agriculture (How is the present situation?)

- ☐ Embryonic stage (exports not well developed, domestic market very small or non-existent)
- ☐ Exporting country (organic agriculture exports well developed but domestic market very small/non-existent)
- ☐ Importing country (domestic market well developed, but OA market supplied essentially with imports)
- ☐ Well-developed production and consumption (domestic market is important, OA production also well developed, even if there may be supply-demand imbalances in either direction).

Organic regulatory context (How is organic agriculture regulated?)

- ☐ No organic regulation, no officially referenced Organic Guarantee System.
- ☐ No organic regulation but an officially referenced Organic Guarantee System defining what is considered organic in terms of standard and control systems.
- ☐ Organic Regulation applies only for export, no officially referenced guarantee system for the domestic market.
- ☐ The organic market is fully regulated (for domestic market and trade).

Culture of government intervention in agricultural sector (What is political culture?)

- ☐ Free market approach, but with significant government intervention on the agricultural markets - e.g. taxes and subsidies to correct market deficiencies and to support the agricultural sector.
- ☐ Government has significant control of the agriculture market, but focusing on regulations, own programs and development cooperation projects, rather than permanent incentives.
- ☐ Government prefers to let market forces drive the agricultural sector and market development (low level of market interventionism).

Logic of policy intervention (What are the objectives?) - multiple choices possible

- ☐ Wanting to build OA export sector as strategy for earning foreign currencies and for poverty alleviation
- ☐ Wanting to encourage the production of positive externalities (environmental and societal benefits of OA) and the avoidance of negative externalities (hidden costs of conventional agriculture for the society)
- ☐ Wanting to increase self-sufficiency in sector with high consumer demand (reducing imports)
- ☐ Wanting to increase access to healthy food products for all citizens (popularize organic consumption).

We looked carefully at four sets of attributes to derive answers to the following questions:

- Has an organic policy been adopted and provided for in the agricultural budget?
- Are there national organic standards and certification body/ies?
- Is the government supporting EOA as an acceptable farming system?
- Are there regulations promulgated and implemented?
- Are farmers well organized, is there a NOAM, or other EOA farmer collaboration?
- Are there well-developed domestic and/or export markets?

This yields a matrix, out of which we derived our typology, shown in ***Table 3***.

Where there was some doubt about the type, we also looked at exports and at consumer awareness, and if these were developed, we moved the country up to the next type, if not, they stayed down. We hope and trust that many countries (if the governments do what they say they wish to do) will very quickly move up one grade. We believe that the attributes will need to be revisited during 2022, and perhaps every two years thereafter, to see what progress is being made.

Table 3:
Factors influencing the development of country organic sectors

Criteria	Strong/ Present		Moderate		Weak/ Absent
EOA policy and budget line	Yes	Yes	Little	Little	None
National EOA standards and certification	Yes	Coming	Coming	None	None
Government support to EOA & food sovereignty	Yes	Yes	Little	Little	None
Regulations promulgated and implemented	Yes, both	Yes, both	Regulations exist	Little	None
Civil sector strength and NOAM development	Yes	Yes	Yes	Weak	Weak
EOA private sector performance (export and domestic markets)	Yes, both	Yes, both	Yes, both	Export	None
EOA Type:	Type 1	Type 2	Type 3	Type 4	Type 5

2.3 EOA INTERVENTIONS ACCORDING TO TYPOLOGIES

Following many suggestions, the 'EOA type descriptors' were broadened to make them more reflective of the realities on the ground. The factors involved were also compared with the factors identified by IFOAM on their website, and their suggested tools for the development of organic policies and supportive EOA programmes. During the Accra conference, Gabor Figeczky, Head of Global Policy at IFOAM, used this discussion as a validation exercise for the methodology around the decision support tool; stakeholders were animated enough about the typology to continue discussions until well into the night!

Based on the descriptors shown in Table 2 the preliminary EOA country typology was developed and is also reflected in Figure 1 and Table 1:

1. Country has a NOAM, a policy and standards, and government is supporting the vibrant sector.
2. Country has some government support, there is a policy underway, a strong NOAM, a domestic market and strong NGO farmer support.
3. Country has a developing domestic and export market, some civil society activity, some guidelines and exports, but little government support.
4. Country has some NGO capacity, no guidelines, little or no support from government but could have some commercial activity in EOA and could be exporting.
5. Country has very little institutional capacity, no government support and is not exporting much.

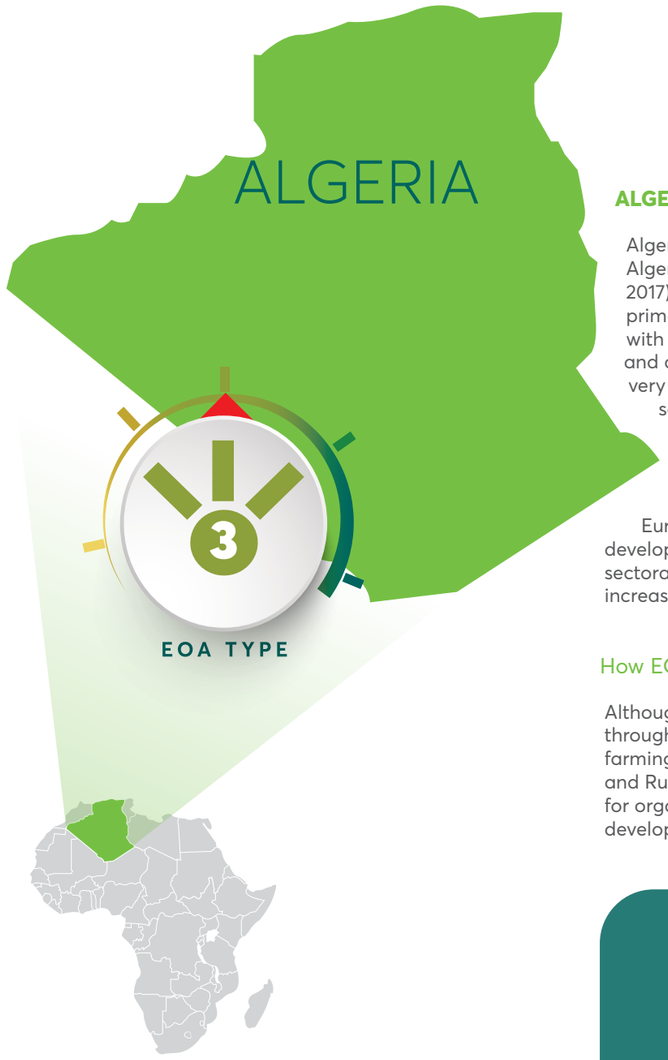
The typology is based on a broad, general assessment and allocates countries to preliminary typologies. It should not be used in a rigid way, but is simply a guideline to indicate how the next steps towards a thriving EOA sector can be made.

It is simply a "rule of thumb" to try to simplify a very complex process: a continent trying to change from irresponsible shorty-term biodiversity exploitation, extractive abuse of natural resources and poor understanding of the rich food and cultural traditions of Africa, towards sustainable development, food sovereignty and food security, under post-Covid conditions of climate change (PC4). This acronym is likely to become a shorthand term for encapsulating some of the challenges which will face Africa and the world in the coming decade.

THINK AGRICULTURE,
THINK AFRICA

3 Country Studies and Typology Characteristics Summary

3.1 COUNTRY SUMMARIES



ALGERIA

Algeria is 238,174,000 ha in extent, but organic agriculture in Algeria is relatively limited, with only 772 ha land certified (in 2017), and with little growth in the sector. Organic production is primarily focused on exports to the nearby European market, with the main commodities being olives, olive oil, grapes and dates. The domestic market for organics is considered very limited. Like other African countries, the agricultural sector in general is constituted of a large proportion of 'traditional' agriculture with relatively low external inputs (e.g. an estimated 7% of agricultural land is fertilized chemically). There is thus potential for growth of the EOA sector, particularly given the close proximity of European markets, and when compared in terms of sectoral development to neighbouring Morocco and Tunisia. However, sectoral development of EOA in Algeria requires a significant increase in institutional support (Oxford Business Group, 2013).

How EOA is included in agricultural and trade policies

Although Algeria decided in 2000 to introduce and promote EOA through various agricultural development programmes, organic farming is still in its infancy. The Algerian Ministry of Agriculture and Rural Development is aware of the need for a clear strategy for organic farming and previously engaged with the EU to develop a strategy.

43M POPULATION | **2.3M** AREA SQKM

Key past events include:

- In 2000, the Algerian government implemented financial support to organic farmers.
- In 2002, a central office for organic agriculture was established within the Ministry of Agriculture, although this office was only open for a short period and is not functional anymore.
- In 2008, the first law (a decree – Agriculture Orientation Law) including sections related to organic farming was published. The focus of this was on labelling of products.
- In 2013, a National Steering Committee for organic agriculture was established.

The 2008 law was framed primarily in terms of labelling, but envisaged a certification system which has as yet not been developed. Whilst Algeria is currently reported as being in the process of drafting legislation on organic agriculture, general policy and institutional support to the EOA sector is generally very weak. Algeria's agricultural policy has a strong focus on achieving domestic food security, and support structures for EOA are indirect.

Agricultural Sector Development

An Agriculture Development Plan (PNDA) was initiated in 2000 by the Ministry of Agriculture and an agricultural development strategy re-oriented in August 2008 [Agricultural and Rural Renewal Policy (Politique du Renouveau Agricole et Rural, PRAR)], focusing on delivering quality products and attracting more investors through better access to land and credit. Policy priorities included intensification of agricultural production, revitalisation of natural resources, improved usage of water resources, and food safety initiatives. The government's vision is to orient agriculture towards intensive models, particularly in the cereals sector, and to develop modern agricultural complexes. As Algeria works to enhance its domestic agricultural productivity, it remains one of the world's largest importers of wheat and dairy products and the Government is pursuing a strategy to control imports to offset the decrease in energy earnings and protect domestic production.

Government support and key institutions

An exploration of the Ministry of Agriculture's support structures to agriculture indicates that the broad sector does have institutions in place for research and extension [e.g. The National Institute for Agricultural Research of Algeria (INRAA)] as well as general support mechanisms for agriculture [1]. However, the institutionalisation of the EOA sector in Algeria in general is characterised by Hadjou et al. (2013) as being weak, with little support being offered toward the development of the sector. We found evidence of support in the form of subsidies to organic agriculture development (according to the National Chamber of Agriculture subsidies are granted for organic farming with support ranging from 2,000 to 5,000 DA/ha for the development of production and productivity).

Other key actors in the EOA sector in Algeria

The development of Algeria's organic sector was reportedly driven through active and dynamic farmers with a link to France. There are some international NGOs operating in the country, a sustainable agriculture network with a focus on agro-ecology (http://agroecologie-algerie.org/) and international organisations including IFAD, FAO, etc.

Overview of the certification landscape

A number of international certifiers operate in Algeria, offering certification services according to exporting country requirements (e.g. EU, NOP, JAS). International certifiers operating in Algeria include ECOCERT, KIWI, etc., but these services carry high costs to producers. There is one local certifier, BIOCERT ALGERIA, which states that they are certifying products and services according to Algerian and international standards. It is however unclear which Algerian standards are referred to.

Challenges, gaps and opportunities of existing policy framework

A challenge is the lack of clear policy support to the sector, with national legislation and organic standards currently not in place (although there is a decree on labelling of products, this is not solely dedicated to organic agriculture development). Institutional support to agriculture is in place, however it is considered weak for supporting EOA, and the sector has a strong reliance on international certification which is only affordable to a few operations. The close proximity to EU, coupled with the low input nature of agriculture in Algeria, means that the sector has opportunity for growth. This is best exemplified by considering the advanced EOA sectors in neighbouring countries Morocco and Tunisia. To realise this, Algeria needs to bolster support to the sector.

Preliminary EOA typology

Type 3; Country has a developing domestic and export market, some civil society activity, some guidelines and exports, but little government support. Algeria has some, but limited government support, some supporting legislation, but no EOA policy, and is exporting. Sector is weak. NGO activity limited.

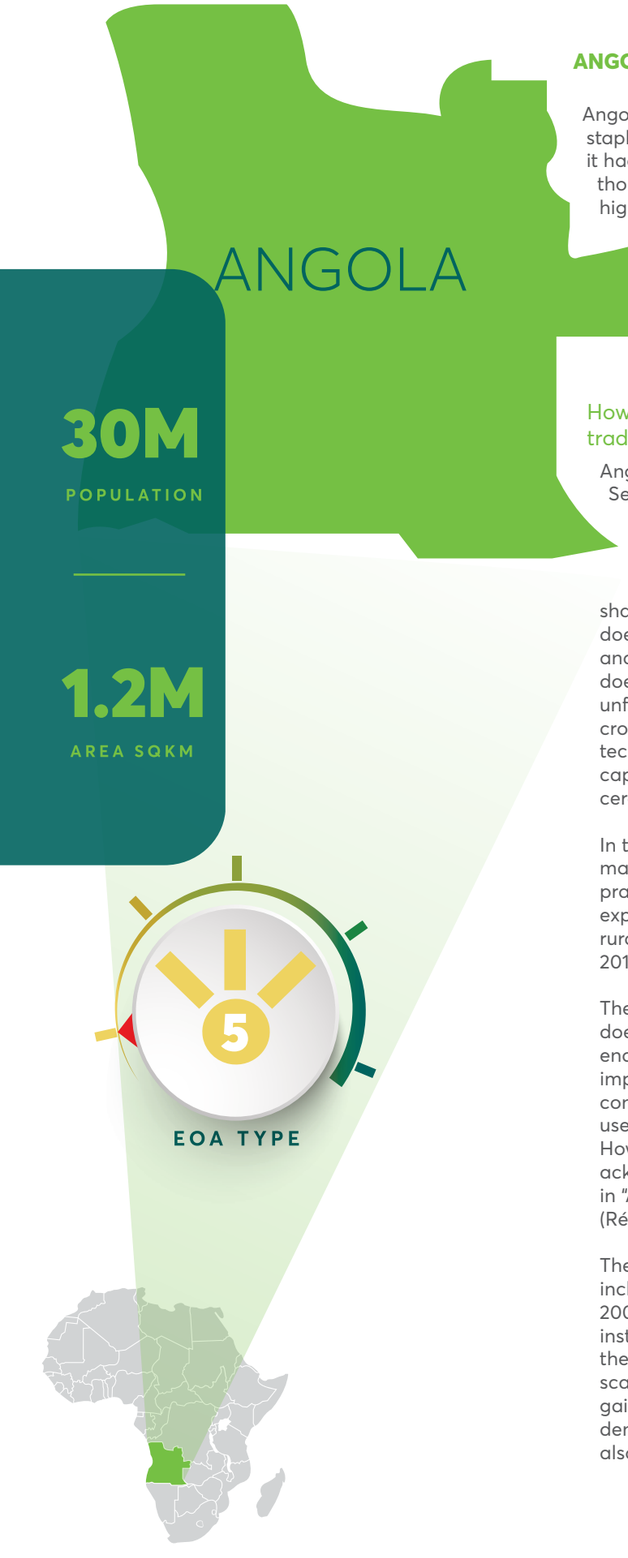
Benziouche SE, 2017. L'agriculture biologique, un outil de développement de la filière dattes dans la région des Ziban en Algérie. Cah. Agric. 26(3) 35008.

Hadjou L, Cheriet F and Djenane A, 2013. Agriculture biologique en Algérie: potentiel et perspectives de développement. Les cahiers du cread, 105(1), 113-132.

Oxford Business Group, 2013. Organic potential: A budding organic segment parallels sector expansion and growth. At: www. oxfordbusinessgroup.com/analysis/organic-potential-budding-organic-segment-parallels-sector-expansion-and-growth

Willer H, Lernoud J and Kemper L, 2019. The World of Organic Agriculture. Statistics and Emerging Trends. IFOAM, Bonn.

1 http://madrp.gov.dz/agriculture/developpement-et-regulation-des-productions-agricoles/conseils-interprofessionnels-des-filieres-agricoles-2/



ANGOLA

Angola has a large and diverse set of agro-climates, and main staples of cassava, maize, and beans. Prior to decades of war it had a strong agricultural and agribusiness plantation sector, though oriented around biased colonial support. The main highways have improved since the end of war in 2002, millions of farmers returned to agriculture, and billions of dollars have been spent on large agricultural and integrated rural development projects primarily for food production, but often with unrealistic foreign-designed plans. There are problems with planning, finances, implementation and management.

How is EOA included in agricultural and trade policies?

Angola's Medium-Term Development Plan for the Agrarian Sector (PDMPSA) 2013-2017 does not make much mention of EOA (República de Angola, 2013). The 2018-22 plan is not yet available online – this is indicative of a general lack of transparency, few dedicated resources to maintain available information, and unwillingness to share information and make it public. However, a draft also does not make much mention of EOA (República de Angola and CBSS, 2017). The ruling party's governing programme does not mention EOA specifically, and some aspects seem unfavourable to EOA (e.g. large-scale plantations, industrial crops) but there is also scope for it in the commitments to technical support, supply of factors of production, extension capacity, quality seeds, and the emphasis on various legumes, cereals, roots and tubers (MPLA, 2017: 34-5).

In terms of trade policy, the high exchange rate due to oil has made agricultural exports relatively uncompetitive, and in practice there has not been much emphasis on agricultural exports – the priority is more on domestic food production for rural welfare and to substitute imports for consumers (UNCTAD, 2016).

The Strategy and National Plan of Action for Biodiversity does include some EOA-related language to "Promote and encourage activities and incentives destined to develop and implement agricultural practices that support biodiversity conservation," and "promote the conservation and sustainable use of agrobiodiversity" (República de Angola, 2007: 22, 24). However, Angola's latest 5th report on biodiversity acknowledges little progress made with regard to agriculture in "Area D: Sustainable use of Biodiversity components" (República de Angola, 2014a).

The extension policy appears to date from 2004, and does not include much EOA-related language (República de Angola, 2004). Agronomy is taught at various post-secondary training institutes, so there may be scope for increasing EOA expertise there, but the material is usually conventional and for large-scale and commercial farms. Extension officers have also gained increased experience with farmer field schools and demonstration plots, which could also incorporate EOA, but also tend generally to emphasize conventional agriculture.

Further significant restructuring of the extension service to be more accountable to farmers and farmer organisations for EOA-related support also depends on restructuring of the civil service. The gradualist approach to decentralisation still only envisions de-concentration. Although Angola's first-ever local elections have now been held, local administrative services such as agricultural extension would still be governed by central ministries rather than local governments.

The extension service is effective in some areas but also struggles even with conventional support to farmers. There is some NGO extension work that incorporates EOA-related issues. There is a national farmers organisation, which is focused more on practical issues of implementation in collaboration with government programmes, and does not appear to address EOA or clearly have significant influence on major government policy directions.

There have been repeated efforts at state support for rural marketing, but these have had various problems (particularly bias towards larger conventional plantations). The 2014 commercial policy does however include not only general areas favouring conventional and large-scale agriculture, but also areas that could be supportive of EOA (for example, stabilising prices, protection of consumers, increased domestic food production to substitute imports, etc.) (República de Angola, 2014c).

The current state supermarket system was re-constructed and expanded during the oil-boom years, and could potentially have offered a mechanism to link consumers with EOA producers. However, it was primarily focused on cheap foods, with some luxury and western goods also, and it was sub-contracted and consequently experienced management and financial problems and has deteriorated significantly during more recent years. Demand for locally produced food (including from EOA) may improve through the Support Programme to Production, Diversification of Exports and Substitution of Imports (República de Angola, 2018c).

National Organic Agricultural Movement

There is some familiarity with EOA in certain sections of the environmental, agricultural, consumer, NGO, and broader society, partly in relation to experiences outside of Angola that people may have had due to study, work, international connections, or displacement during the war (Huntley et al., 2019). The Angolan NGO ADRA – Action for Rural Development and Environment (Acção para o Desenvolvimento Rural e Ambiente) has decades of experience, and is the main NGO operating in the rural areas, and often includes EOA-related components in its work (ADRA, 2014).

Existing capacity for EOA quality management appears to be low, but there is scope for increasing this within existing institutions, such as the National Institute for Consumer Protection (Instituto Nacional de Defesa do Consumidor, or INADEC), and the Angolan Association for the Rights of Consumers (Associação Angolana dos Direitos do Consumidor, or AADIC). Both of these organisations have broad mandates (2019).

Overview of certification landscape in the country and extent to which this links to national policy.

Angola does not have its own legally registered organic standards. There is an Angolan Institute for Standardization and Quality (IANORQ) within the Ministry of Industry, as well as INADEC (mentioned above). Angola is also a member country of WHO/FAO Codex Alimentarius International Food Standards. There have been problems (timing, cost, quality, etc.) with laboratory testing, including of food imports. It does not appear that Angola has any Participatory Guarantee Systems operating.

Overview of gaps and challenges within existing policy framework

Much of the approach after the end of war in 2002 was to provide farmers (including many recently returned rural people displaced by the war), with inputs, particularly seeds, machetes and hoes, followed in subsequent years with some fertiliser and credit. While some loss of agricultural knowledge occurred during the war, much knowledge remains. Farmers and state officials also continue to grapple with the legacies of Portuguese colonial training. In addition, the budget for agriculture has been low as a relative percentage of the total budget (but large in absolute terms compared with lower income countries). The budget also does indirectly affect agriculture through related sectors, such as transport. A large share of the agriculture budget however also has gone to large projects, often sub-contracted for construction and initial management to Brazilian and Chinese firms (sometimes through state agencies that provided the funding credit).

Similarly, policy remains guided by a dualist strategy that distinguishes 'family agriculture' on the one hand, and 'commercial agriculture' on the other. The large-scale commercial sector is heavily reliant on imported agro-chemicals, and produces mostly for the domestic market with some exports (see World Bank and IFC, 2019). Policy is also geared around an emphasis on aggregate production numbers (as in the National Development Plan), and a discourse of modernisation (República de Angola, 2018a). With regard to EOA, challenges are accessing information, influencing the policy process, and divisions between the Ministry of Agriculture and other Ministries (including environment and science).

The agriculture sector has had years of links with Cuban professors that could potentially offer an avenue for exchange of experiences with EOA in Cuba. However, such co-operation has also been strained with recent economic problems, and has also tended to emphasize somewhat standardised conventional agronomy without an emphasis on EOA.

According to the Financial Times of 14 June 2018 [2], Danish company Haldor Topsøe's largest and latest foreign investment in Soyo in Zaire province, agreed upon in December 2017 for the company to establish a new US$2bn fertiliser plant that will create 4,000 new jobs and the capacity to produce 2 million tonnes annually. It is expected to be operational by the end of 2020.

2 https://www.fdiintelligence.com/Sectors/Chemicals/Angola-proves-fertile-ground-for-Haldor-Topsoee-expansion-plan

Overview of opportunities for leverage within existing policy frameworks and how these opportunities can be explored

The government is currently revising the long-term strategy for 2050, with the process expected to conclude in September 2020. The first agricultural census in many decades is currently in process (with support from FAO and World Bank financing), and will provide important details that can help with advocating and planning for EOA (ANGOP, 2019). There are efforts to revive some export crops, and some of these have had success in boosting production and exports, particularly bananas and coffee. It may therefore be possible to have some influence in such efforts. While these sectors tend to be relatively input-intensive, foreign exchange constraints may provide an opportunity for experimenting with EOA.

Official policy has tended to prioritise large projects. However, as many of these have had extremely limited success, there may be more openness to discussing EOA as a more effective and low-cost alternative. Given the lack of foreign exchange to import inputs, there are more economic incentives for EOA. Similarly, while much oil revenue was spent on paving main highways (some of which have already deteriorated), tertiary rural roads under the responsibility of resource-constrained local governments were more neglected, also making EOA comparatively more feasible due to lower reliance on distant purchased inputs.

Preliminary EOA typology

Type 5: Country has very little institutional capacity and no government support.

ADRA, 2014. Study of the Implimentation of the Special Line of Credit for the Agricultural Campaign (Estudo sobre a Implementação da Linha Especial de Crédito Agrícola de Campanha), April, Luanda: ADRA - Acção para o Desenvolvimento Rural e Ambiente.

ANGOP, 2019. 'INE launches agricultural and livestock census,' April 17, Angola Press Agency.

Huntley BJ, Russo V, Lages F and Ferrand N (eds), 2019. Biodiversity of Angola - Science & Conservation: A Modern Synthesis, Springer.

IFAD, 2018. Republic of Angola: Country Strategy and Programme Evaluation, August 2018, Report No. 4837-AO, Rome: International Fund for Agricultural Development.

Jornal de Angola, 2018. 'Angola avalia agroecologia com a FAO,' Jornal de Angola, April 6, http://jornaldeangola.sapo.ao/politica/angola_avalia_agroecologia_com_a_fao .

MPLA, 2017. Government Programme, 2017-2022, Luanda: MPLA.

República de Angola, 2004. PROGRAMA DE EXTENSÃO E DESENVOLVIMENTO RURAL, IDA, CONSELHO DE MINISTROS RESOLUÇÃO - 32/04 - 2004.07.12 (2), Diário da República 2004.11.19 n93: 2177-2255.

República de Angola, 2007. Strategy and National Plan of Action for Biodiversity [Estratégia e Plano de Acção Nacionais para a Biodiversidade (2007-2012)], Ministry of Urbanism and Environment, Luanda.

República de Angola, 2009. National Strategy for Food and Nutritional Security and Action Plan (Estratégia Nacional de Segurança Alimentar e Nutricional e Seu Plano de Acção), Ministerial Council Resolution 130/08, December 29, Diario da República n246: 4239-4281.

República de Angola, 2013. Medium-Term Development Plan for the Agrarian Sector (PDMPSA) 2013-2017 [Plano de Desenvolvimento de Médio Prazo do Sector Agrário] (PDMPSA) 2013 -2017], Luanda.

Répubica de Angola, 2014a. 5th National Report on Biodiversity in Angola 2007-2012.

República de Angola, 2014b. National Strategy for Rural Commerce and Entrepreneurship (Estratégia Nacional de Comércio Rural e Empreendedorismo) (ENACRE), Presidential Decree 28/14, February 11, Diario da República n28: 957-978.

República de Angola, 2014c. New Commercial Policy of Angola (Nova Política Comercial de Angola), Presidential Decree 105/14, May 16, Diario da República n92: 2304-2314.

República de Angola, 2018a. National Development Plan 2018-2022 (Plano Nacional de Desenvolvimento), Presidential Decree 158/18, Diario da República 94: 3492-3716.

República de Angola, 2018b. Pest Management Plan (Plano de Maneio de Pragas), Ministério da Agricultura e Florestas, Commercial Agriculture Development Project, Luanda.

República de Angola, 2018c. Support Programme to Production, Diversification of Exports, and Substitution of Imports (Programa de Apoio à Produção, Diversificação das Exportações e Substituição de Importações – PRODESI), January.

República de Angola and CBSS, 2017. Medium-Term Development Plan for the Agrarian Sector 2018-22 (Plano de Desenvolvimento de Médio Prazo do Sector Agrário 2018-22), Government of Angola and CBSS Consultoria, July 2017.

UNCTAD (United Nations Conference on Trade and Development), 2016. Trade Policy Framework: Angola. Geneva: UNCTAD.

USDA (United States Department of Agriculture), 2019. Angola: Food and Agricultural Import Regulations and Standards Report, Foreign Agricultural Service GAIN Report, Washington, DC.

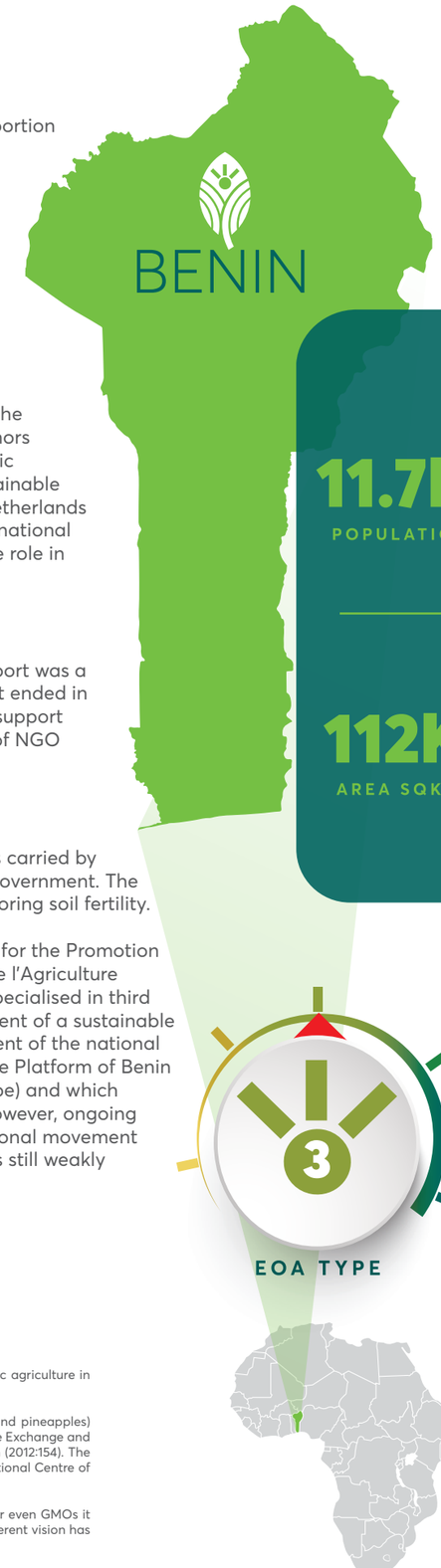
World Bank, 2018. Commercial Agricultural Development Project, Project Appraisal Document, May 7, Washington, DC.

World Bank, 2019. Environment and Renewable Natural Resources in Angola. Washington, DC.

World Bank and IFC, 2019. Creating Markets in Angola: Opportunities for Development Through the Private Sector, Country Private Sector Diagnostic, Washington: World Bank and International Finance Corporation.

BENIN

The area of land covered by Benin is 11,262,200 ha, with a high proportion of agricultural land.



Integration of EOA in agricultural and trade policies

There is no national regulation on organic agriculture in Benin. Some decrees were released making mention of organic farming in Benin but it doesn't seem to have materialised with tangible actions (Yombi, 2019).

Organic cotton the leading organic production in Benin

Because of the country's historical bias towards cotton production, the organic sector emerged around the cotton value chain, with the donors playing an important part in formalising this value chain. The organic cultivation of cotton was initiated in 1996 through the bilateral Sustainable Development Agreement (SDA) between the governments of The Netherlands and the Republic of Benin. This enabled the development of a transnational organic cotton network, with local Benin NGOs playing a very active role in supporting the promotion of alternative cultivation practices.[3]

Government support to EOA

At the initial phase of the organic cotton initiative, government support was a key factor through the financial mechanism of the SDA. This support ended in 2004 and since then, there hasn't been any significant government support to the sector (Glin, 2012) and EOA relies essentially on the initiative of NGO networks, private stakeholders and development funds. [4]

National institutional capacity

The emergence of EOA in Benin was far more the result of initiatives carried by local NGOs (with the support of international funding) rather than government. The local NGO sector is very active in EOA, with its work focused on restoring soil fertility.

Locally, a national NGO created in 1994, the Beninese Organisation for the Promotion of Organic Agriculture (Organisation Béninoise pour la Promotion de l'Agriculture Biologique OBEPAB - www.obepab.org) became the local agency specialised in third party certification for export, and played a key role in the development of a sustainable cotton supply chain. In 2014, the OBEPAB facilitated the establishment of the national organic movement, known as the Organic and Ecological Agriculture Platform of Benin (Plateforme de l'agriculture biologique et écologique du Bénin – Pabe) and which is today seen as the federating body of organic farmers in Benin. However, ongoing institutional fragmentation[5] and the absence of an overarching national movement overseeing organic initiatives in the country means that the sector is still weakly structured (Bedjebbar, 2018).

3 With a total budget of 11.2 million euros, this SDA project, represented the largest project supporting organic agriculture in Africa in the 1990s.

4 Bilateral cooperation actors who have supported the emergence of the organic sector (focus on cotton and pineapples) include Helvetas Benin (the Swiss association for international cooperation – see www.benin.helvetas.org), Textile Exchange and a few others. For an exhaustive list of Key organisations active in organic agriculture and related fields see Glin (2012:154). The French Development Agency also funded an organic cotton project in 2008. Currently, the Swiss funded International Centre of Experimentation and Development of African Resources is also active in the sector.

5 Another organisation, promoting agro-ecology as a whole and not opposed to the use of synthetic inputs or even GMOs it seems, is the Agro-ecological Federation of Benin [Fédération AgroEcologique du Bénin -Faeb]. Its lack of a coherent vision has not enabled it to federate organic producers.

The certification landscape and linkages to national policy

In Benin, organic standard development began in 2012, driven by the "Association for Maintaining Peasant Agriculture" (AMAP), supported by Helvetas, and involving all relevant stakeholders. These standards were finalised in 2013 and are used for PGS. Local actors have intended to amend these since, but for lack of funding, they have not been able to set up a work session (Yombi, 2019).

Third party certified organic farming and processing in Benin mostly follow the EU regulation 834/2007 on organic farming. Depending on buyers' demand, other certification regulations are also applied such as the US National Organic Program (NOP) and the Japanese Agricultural Standard (JAS) (Glin, 2012). The main third-party certification agencies active in the country are Ecocert and BCS. In 2016, the country counted 3,153 certified producers (Willer & Lernoud, 2018). By 2017, according to Willer et al. (2019), the area certified organic had risen to 18,928 ha, with an additional 3,700 ha of wild collection. The same source lists 4,030 producers, 25 processors and 18 exporters.

Markets and trade

While organic cotton fibre is almost all destined for export to the EU and the US most of the other organic commodities are traded within the region, essentially because of the small size of operations or lack of market access (Glin, 2012). Currently certified organic commodities from Benin include cotton, pineapples, shea nuts, vegetables and several fruits (Glin, 2012). Currently the "PGS certified" produce available locally includes vegetables (through AMAP), fruit juices and rice ("Matepo" rice), which can be found in local supermarkets.

Participatory Guarantee Systems (PGS)

One PGS exists in Benin since 2018, guaranteeing a total of 177 producers (Willer et al., 2019). The Union of Beninese Producers Federation (FUPRO) acts as the custodian/co-ordinator of PGS in Benin (Yombi, 2019). There is anecdotal evidence that the way PGS was set up in Benin (the brand is IP protected by the OAPI) prevents PGS from further flourishing and reaching more groups of farmers.

Gaps and challenges within existing policy framework

- One of the main challenges is the Government's agricultural vision, which is strongly biased in favour of a cash mono-crop (cotton) and supports the intensification of the value chain with active consideration given to the mechanization of the sector.
- Another challenge inherited is the Marxist-Leninist command/control approach to agriculture which has implied strong government intervention in a chosen value chain (cotton) with high external input practices. This has resulted in the organic sector emerging as a remedial response to these practices, with a strong emphasis on regenerative practices which sought to find alternatives to synthetic inputs and pesticides, but focused on specific products (e.g. cotton), as opposed to a more holistic development. The fact that agriculture is highly organised between producer organisations further limits integrated approaches to EOA.
- Competition between local movements involved in EOA to access funding from international organisations/funders has led to institutional fragmentation which still nowadays inhibits EOA's institutional capacity (with competition between structures).
- Lack of consumer awareness about organic farming.
- Lack of linkages between production and trade.

Opportunities for leverage within existing policy frameworks

The dynamics of the non-governmental sector, despite presenting a risk of fragmentation, also present an opportunity as a critical mass of actors will be receptive to legislation.

Preliminary EOA typology

Type 3; Country has a developing domestic and export market, some civil society activity, some guidelines and exports, but little government support.

Bedjebbar P, 2018. Vers un modèle bio africain? Trajectoires comparées d'institutionnalisation de l'agriculture biologique au Bénin et en Ouganda. PhD Thesis – Paris-Est University (2018:112).

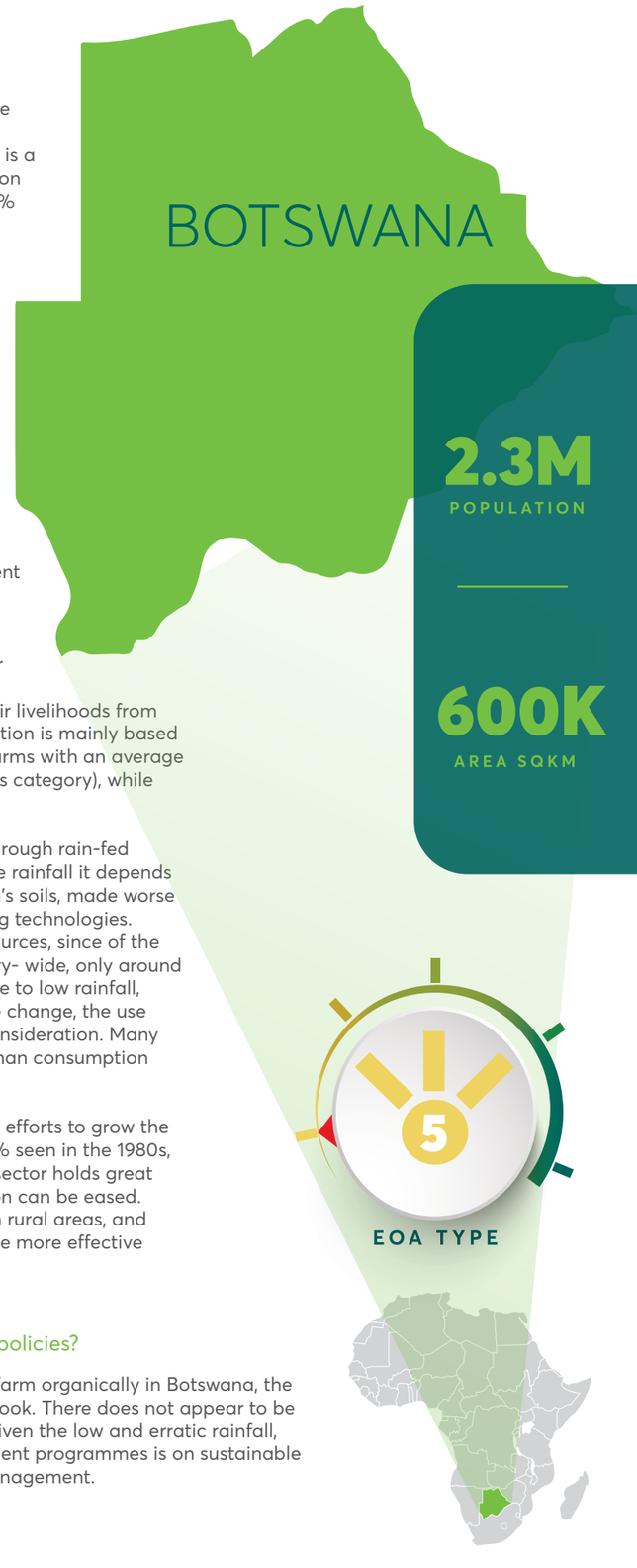
Glin L in Willer H and Kilcher L, 2012. The World of Organic Agriculture. IFOAM, Bonn, Germany.

Willer, Helga and Lernoud, Julia (eds.), 2018. The world of organic agriculture. Statistics & Emerging trends 2018. IFOAM. ISBN 978-3- 03736-067-5. Bonn, Germany.

Willer H, Lernoud J and Kemper L, (eds.), 2019. The Word of Organic Agriculture: Statistics & Emerging trends 2019. Available from: www.ifoam-eu.org/en/news/2019/03/27/world-organic-agriculture-2019 (p.165). IFOAM Bonn, Germany.

Yombi L, 2019. Personal Communication held on 6 August 2019. Lazare Yombi from the CECAGRID consulting firm and former Helvetas regional technical advisor for West Africa and Madagascar on organic agriculture and certification.

BOTSWANA



The majority of farmers are small-scale farmers who need capacity building to commercialise agriculture (UNDP, 2012). An effective extension service is therefore important in improving the performance of the sector and its resilience to climate change. The beef industry is a significant contributor to the national GDP. Contribution to GDP of agriculture as a whole declined from a 42.7% share in GDP at independence in 1966, to 1.9% as at 2008. Only 45% of farmers have access to roads, 17% electricity, 22% telecommunication, 64% water for livestock, 66% water for domestic use, 43% water for irrigation, 39% grain storage, 52% markets and 54% sanitation. This has resulted in slow growth of associated sub-sectors such as food processing, transport and manufacturing.

Crop production has been the most vulnerable part of the agricultural sector due to its heavy reliance on rainfall. As a consequence of low and erratic rainfall, and relatively poor soils, arable production is a high risk, rain-fed system with low productivity. The production of cereal grains (mainly sorghum and maize) varies considerably from year to year, dependent almost entirely on rainfall with annual production averaging 46,000 t, fluctuating between 8,200 and 175,000 t. Crop production is limited by recurring drought, lack of skills, inadequate market access, poor marketing facilities and inadequate use of improved technology. About 70% of rural households derive their livelihoods from agriculture, through subsistence farming. Crop production is mainly based on rain-fed farming, dominated by small traditional farms with an average size of five ha (about 63,000 arable farms fit under this category), while only 112 farms are larger than 150 ha (UNDP, 2012).

Access to Water: Nearly all of the grain is produced through rain-fed agriculture. This makes production as unreliable as the rainfall it depends on. Soil moisture retention is low in many of Botswana's soils, made worse by soil caking and layering resulting from inferior tilling technologies. Irrigation challenge is of underutilisation of water resources, since of the estimated 210,000m3 of wastewater generated country- wide, only around Gaborone city is some of this used for horticulture. Due to low rainfall, predicted to decline even further as a result of climate change, the use of underground water for irrigation requires careful consideration. Many aquifers are already being over-harvested just for human consumption (UNDP, 2012).

Mbulawa (2017) points out that in spite of government efforts to grow the agricultural sector, annual growth rates of around 7.5% seen in the 1980s, declined to around 3.8% by 2015. He argues that the sector holds great potential to reduce poverty, if constraints to production can be eased. Since he estimates that 75% of the world's poor live in rural areas, and argues that investment in the agricultural sector will be more effective than investment in other sectors.

How is EOA integrated in agricultural and trade policies?

Although there have been attempts by individuals to farm organically in Botswana, the country is not listed in the IFOAM organic data year book. There does not appear to be an organic movement active in Botswana. However, given the low and erratic rainfall, the emphasis in Botswana natural resource management programmes is on sustainable management of biodiversity, and on careful water management.

Overview of the certification landscape in the country

No regulations, organic standards or Participatory Guarantee Systems (PGS) were found.

Overview of opportunities for leverage within existing policy frameworks:

The UNDP (2012) states that due to the low levels of commercialisation in many of the agricultural sub-sectors, opportunities for organic production abound. Cattle production is still primarily free-ranging and a tracer system exists. What lacks is a system that matches supply-led to production-led agriculture so that producers are an integral and active part of the global value-chain. Without such a system, organic producers may struggle. Crop production efforts can be unlocked by such low-cost initiatives as labelling at retail-level. Organic products do also have stringent supply-chain management requirements – an element that speaks to the level and quality of agricultural extension services and intermediary services such as transport, packaging and storage (UNDP, 2012).

Preliminary EOA typology

Type 5; Country has very little institutional capacity, no government support and is not exporting.

Honde GJ, 2018. Botswana: African Economic Outlook. African Development Bank. Available at: www.afdb.org/fileadmin/uploads/afdb/Documents/GenericDocuments/country_notes/Botswana_country_note.pdf

Mbulawa S, 2017. Accelerating agricultural productivity to enhance economic growth in Botswana. Current Research in Agricultural Sciences, 2017, 4(1): 14-31.

UNDP (United Nations Development Programme), 2012. Agriculture and Food Security Policy Brief: Reflecting on the Challenges of Attaining a Green Economy for Botswana. UN Conference on Sustainable Development, Seanama Conservation Consultancy, Botswana.

BURKINA FASO

21M
POPULATION

274K
AREA SQKM

Integration of EOA in agricultural and trade policies

There is no legislation governing organic production in Burkina Faso. Neither the 2018-2027 Sectoral Agro-sylvo-pastoral Policy (Burkina Faso, 2018) nor the Country Resilience Priority Document (2016-2020) (Burkina Faso, 2019) make any mention of EOA.

However, there is important momentum towards the development of some form of EOA policy, with bilateral co-operation actors supporting initiatives in this direction.

Growing government support to EOA

An important point that differentiates Burkina Faso from other countries, is the appointment, in January 2018, of an "agro-ecology (AE) and organic agriculture" focal point within the Ministry of Agriculture (MoA). The current focal point is head of division within the plant production directorate. The MoA nominated him at the behest of local actors, and he plays a key role in facilitating their access to relevant institutions (Prosper, 2019).

Although it remains limited and at an early stage, the Government is showing some support to EOA. This began a few years ago, with the fertiliser division supporting NGOs and producers to access subsidised organic inputs.[6] Biopesticides have also been purchased in small quantities and subsidised by about 90%, primarily to benefit vulnerable producers. In January 2019, a workshop facilitated by the Dutch Ministry of Foreign Affairs was concluded with a call for government to allocate 30% of subsidies to organic inputs, which would imply an important shift away from conventional input. Government is reportedly "working" on this request.[7]

MoA has also, since 2019, started training its own extension officers on EOA, with the support of organic movement (CNABio - see below). Finally, some service providers active in EOA (i.e. organic input service providers for instance) are "partners" of government (Djiguemde, 2019).

Strong national EOA capacity

The National Organic Agriculture Council of Burkina Faso (Conseil national de l'agriculture biologique du Burkina Faso - CNABio) [8], which is legally established as an association which promotes EOA, was created in 2011. The CNABio is recognised as the country's organic movement and organises producers, processors, advocacy actors and traders.

There is good capacity in the NGO sector, and EOA mainly takes the form of land regeneration linked with agro-ecological production practices. These initiatives also have strong linkages with seed saving and food sovereignty movements.

The most active NGOs include: Hommes et Terres, Autres Terres (which has supported all AE practices in Burkina), l'Association Nourir sans détruire (ANSD), Fédération Nationale des Groupements Naam and the COPAGEN. One of the emblematic AE training centres is the Beo Neere training centre (Ouagadougou).

EOA TYPE

6 The farm input subsidy programme (which began in 2008 and included agrochemical input, then seed and then equipment and animal traction) started incorporating organic fertiliser in 2015. Effective Micro-organisms (EM) is also included in the subsidy package. Four enterprises producing organic fertiliser are now operating nationally.
7 To date, 1000 t of organic fertiliser was purchased through government's subsidy programme, on demonstration farms.
8 https://www.cnabio.net

The AE movement is very active in the country, with actors reporting the organisation of many AE events, AE training and AE fairs in the country (Martin, 2019). IFOAM provided training in early 2019.

The international donor community and other international organisations are also supporting the emergence of EOA in the country, with the following initiatives worth noting:

- Burkina Faso forms part of a regional programme funded by the Dutch Ministry of Foreign Affairs and implemented by IFOAM, AgroEco and the Louis Bolk Institute, which among others focuses on consolidating the organic movement, PGS, value chain development and policy development. [9]
- Burkina Faso is one of the countries which forms part of the Ecowas Agro-ecological Transition Support Programme (PATAE), funded by the French Development Agency. [10] It would appear the programme is only about to start in Burkina Faso, with a launch scheduled in August 2019. The Burkinabé work plan includes support towards drafting an organic policy (Prosper, 2019).

These two initiatives will play a key role in formalising the sector in the years to come. Another relevant institution is the National Scientific and Technological Research Centre (IRSAY/CNRST), which does some research focused on EOA. There is some dynamism in the private sector, with some companies selling organic inputs, such as BiotradeMark [11] and BioProtect. The National Agricultural Research Institute (INERA) compiled a database of all organic inputs available in the country, at the request of the CNABio.

Certification landscape in the country and the extent to which this links to national policy

Burkina Faso developed and released an organic production standard in October 2013. The coordinating entity that drove this process was the CNABio, with the support of the HELVETAS Swiss International Cooperation. These standards make reference to the 2012 Beninese standards on organic agriculture, the IFOAM standards, EU labelling laws, the French standards of Nature and Progrès and the Codex Alimentarius. Ecocert is the main certifying body in Burkina Faso.

Participatory Guarantee Systems (PGS)

According to IFOAM, there was one PGS operational in 2018, assuring a total of 371 producers (Willer et al., 2019). According to the CNABio, a total of 20 "sites" are now PGS endorsed in six regions of the country (Central, South Central, North Central, North, East, and Central Plateau). The PGS endorsed area is close to 48 ha.[12] Several PGS endorsed producers subsequently were certified by Ecocert, which shows that PGS is proving a viable introduction to quality management leading to third party certification in the country (Prosper, 2019). The CNABio website lists places where PGS endorsed produce can be found in Ouagadougou [13], through local markets and basket schemes.

Trade and markets

According to IFOAM, Burkina Faso had 58,891 ha under organic production in 2017; this area is more than double that of the previous year, which is testimony to the dynamism of the sector. In addition, over 230,000 ha are certified for organic wild collection. The number of organic producers also showed a significant increase in 2017, with a total of 26,626 producers and 71 exporters. In terms of crops, "The largest organic share is that of tropical and subtropical fruit area (66.6% of its total organic area)" (Willer et al., 2019:113). Other produce certified included cereals, oilseeds, vegetables and pulses as well as honey and cotton (Willer et al., 2019).

Overview of challenges within existing policy and institutional framework

The following challenges were flagged by national actors:

- The absence of organic legislation is a key challenge to the emergence of EOA in the country.
- The country is one of the few African countries which has approved GMO crops on its territory, notably GM Bt Cotton. Its biosafety legislation was approved in 2012. However, in 2018, the industry decided to phase out GM cotton because of the poor quality of production.
- The perceived lack of political will - especially on the part of the Ministries of Agriculture and Health – to promote EOA.
- Actors from the MoA explain that a key challenge to scaling up EOA is the country's focus on food security. This requirement means government looks at intensifying production and it feels this can only be done through conventional agriculture. EOA is in this respect perceived as "a luxury" (Djiguemde, 2019).
- The subsidy of pesticide and synthetic fertiliser by government comes as a great impediment to EOA, but for some reason, this is not seen as a luxury.
- Farmers often express reluctance to produce organically because of the lack of market for their produce, and they claim that they don't get a return on investment (Martin, 2019).
- Private actors involved in R&D of organic production deplore the high cost of analysis required for the registration of organic bio pesticides and bio insecticide, as well as the requirement to have their efficacy tested for the two years prior to registration, despite the proven efficaciousness elsewhere (Martin, 2019).

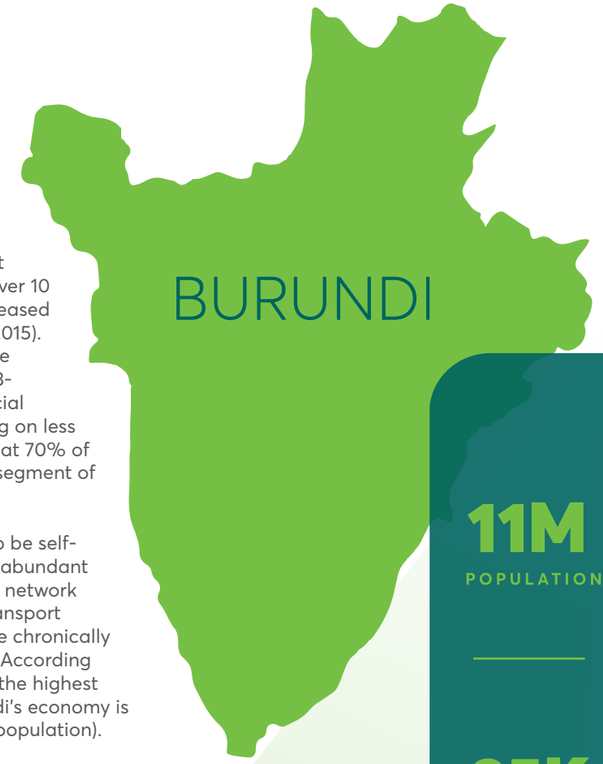
Opportunities for leverage within existing policy and institutional framework

- Momentum towards the elaboration of some form of EOA policy, with bilateral cooperation actors supporting initiatives in this direction, presents an important opportunity for EOA.
- Several actors called for the need to subsidise organic production.

Preliminary EOA typology

Type 2; Country has some government support, there is a policy underway, a strong NOAM, a domestic market and strong NGO farmer support.

BURUNDI



Burundi is a small, landlocked country in the west of the East African Community with the second densest population in the region (next to Rwanda), totaling over 10 million people, with the rural proportion having decreased from 89 to 80% over the past two decades (USAID, 2015). It is one of the five poorest countries in the world. The country has gone through a decade of civil war (1993-2003) which had severe effects on economic and social conditions of the population (in 2015, 90% were living on less than US$ 2 per day). In 2020, ASARECA estimated that 70% of the population live on less than $1 per day, and this segment of the population is chronically food insecure.

According to FAO (2015), Burundi has the potential to be self-sufficient in food production, counting on assets like abundant rainfall, a large farming population and an extensive network of lakes and rivers. Irrigation potential is high, but transport infrastructure is poor. Yet at least 50% of children are chronically malnourished, with a similar percentage of stunting. According to the Global Hunger Index, in 2014 the country had the highest level of hunger out of 76 countries worldwide. Burundi's economy is dominated by subsistence agriculture (90% of total population).

Agricultural research is poorly funded, and linkages to extension have deteriorated. The main staple crops grown are banana, cassava, sweet potato and beans. Coffee is the main export, accounting for more than 60% of export revenues, but national production is in decline since ageing coffee orchards produce only every two years. Other cash crops include tea, cotton, and sugar.

Most food production is consumed by smallholder families themselves; 1.5 million smallholders on an average of a half ha each cannot provide enough food to sustain life, and only 20% of harvests reach the market. Per capita crop production in 2007 was less than half the 1993 level (Curtis, 2013).

9 https://www.ifoam.bio/en/OM4D
10 ECOWAS. Nd. Programme d'Appui à la Transition Agro-écologique au Sahel et en Afrique de l'Ouest
Available from: http://www.araa.org/en/programme/programme-d'appui-à-la-transition-agro-écologique-au-sahel-et-en-afrique-de-l'ouest
11 www.biotrademark.org
12 https://www.cnabio.net/le-biospg/qu-est-ce-que-le-spg/
13 see https://www.cnabio.net/le-biospg/où-trouver-les-produits-biospg/

Burkina Faso, 2016. Priorités Résiliences Pays (PRP) 2016-2020.

Burkina Faso, 2018. Politique Sectorielle Production Agro-Sylvo-Pastorale 2018-2027.

Prosper Z, 2019. Pers. Comm. on 29 July 2019. Zemba Prosper is the agro-ecology and organic agriculture focal point within the Ministry of Agriculture.

Djiguemde P, 2019. Pers. Comm. on 18 July 2019 – Ministry of agriculture, fertilizer division.

Martin S, 2019. CEO BioTrademark SARL. Pers. Comm. on 11 July 2019.

Willer H, Lernoud J and Kemper L, 2019. The Word of Organic Agriculture: Statistics & Emerging trends 2019. Available from: https://www.ifoam-eu.org/en/news/2019/03/27/world-organic-agriculture-2019.

Analysis of the current policy structure governing EOA in the country

According to FAO (2015) the Second Growth and Poverty Reduction Strategy (2012) aims to reduce the vulnerability of the agriculture sector to shocks and to boost its profitability. Agriculture development priorities include improving access to inputs, restoring forest cover, rebuilding livestock herds, introducing drought-tolerant crop varieties and supporting agricultural research and extension activities. The end goal is to enable the transformation from subsistence farming to commercial agriculture through structural changes and the promotion of technical qualifications among all farmers. Also in 2012, a Farm Input Subsidy Programme (FISP) was introduced, with emphasis on low-priced fertiliser supply to 600,000 farm households. Burundi is suffering from high land degradation, accelerating soil fertility losses and low use of improved water management practices. Research needs to focus on ways to increase crop productivity under these circumstances, especially by promoting soil and water conservation management (Curtis, 2013).

Issues of land ownership and lack of land complicate their reinsertion into the economy. Soil fertility is declining because land is over-exploited, and marginal lands are being used without leaving fields fallow. In addition, farm sizes are shrinking, forcing people to clear forested land and drain wetlands (forest cover declined from 8.2% cover in 1992 to 6.3% in 2006). In 2011 a new Code of Land Tenure replaced the previous one in place since 1986. The Government has reviewed the code to facilitate its application and help revitalize the agricultural sector through the consolidation of agricultural holdings and the establishment of a genuine land market through greater respect for tenure rights, in order to encourage rural lending. Government still needs to support the rights of women to hold land if it wishes to improve sustainability (San Pedro 2011).

Extension system

Each Province has an Extension Director. The provinces in Burundi are: Bubanza, Bujumbura Mairie, Bujumbura Rural, Bururi, Cankuzo, Cibitoke, Gitega, Karuzi, Kayanza, Kirundo, Makamba, Muramvya, Muyinga, Mwaro, Ngozi, Rutana and Ruyigi. A Provincial Director is the overall head of the Directorate of Agriculture and Livestock (DPAE). Each province has six major services: Crop production, livestock production, watershed management, finance and administration, monitoring and evaluation, and training and extension. The extension service is coordinated by the chief of training and extension who works closely with the chiefs in charge of crop and livestock production.

According to Kinuthia et al. (2016), p.28 "Government extension services in Burundi are participatory in nature and they include: trainings, demonstration plots, use of model farmers and field visits. The major extension challenge faced by government institutions is inadequate budget which limits the services given to the communities. NGOs play a vital role in extension work. Major extension methods used by the NGOs include trainings, demonstration plots, open/field days, farmer field schools and field visits. Agro-forestry technologies such as establishment of tree nurseries, sourcing tree germplasm and on farm tree management are mainly initiated by the NGOs. These technologies stop when the NGO operations are halted. As a result, agro-forestry techniques in Muruta are still poorly developed. This study showed that agro-forestry technologies are a potential solution to the soil erosion menace (a predominant occurrence in Muruta commune) as well as meeting farmers' fuelwood, construction material and fodder needs".

How is EOA integrated in agricultural and trade policies?

According to Willer et al. (2020), there are 35 certified organic growers on 83 ha of land; this is about half of the area compared with 2008, before the war. There was a move to incorporate EOA into agricultural policy, but this seems to have stalled currently, and only general mentions of "sustainable agriculture" are made in policy documents.

The East African Organic Product Standard is accepted in Burundi, and Willer et al. (2020) report that the government is working on an Organic Policy for the country. There is one PGS group currently being set up, but little organisation of organic farmers, and little practical support for EOA.

Preliminary EOA typology

Type 5; Country has very little institutional capacity, no government support and is not exporting.

ASARECA (Association for Strengthening Agriculture Research in Eastern and Central Africa) 2020 Burundi Agriculture: What needs to be done to stimulate the sector. At: https://www.asareca.org

Curtis M 2013 Improving African Agriculture Spending: Budget Analysis of Burundi, Ghana, Zambia, Kenya and Serra Leone. Curtis Research.

FAO (Food and Agriculture Organization) 2015. FAPDA Country Fact Sheet on Food and Agriculture Policy Trends, Burundi.

IFAD (International Fund for Agricultural Development) 2016 Republic of Burundi - Country strategic opportunities programme 2016-2021.

Kinuthia R, Kiptot E and Nkurunzinza C 2016 The Extension System in Burundi: Kayanza Province, Muruta Commune. Aciar 'Trees for Food Security' Project.

Ludgate N and Tata SJ 2015 Integrating Gender and Nutrition within Agricultural Extension Services Burundi, Landscape Analysis. United States, USAID and INGENAES.

MoA&L (Ministry of Agriculture and Livestock). 2012. Global Agriculture and Food Security Program. Bujumbura, Republic of Burundi: Ministry of Agriculture and Livestock. Available at: www.burundi-gov.bi/minagrie (accessed 14 September 2020).

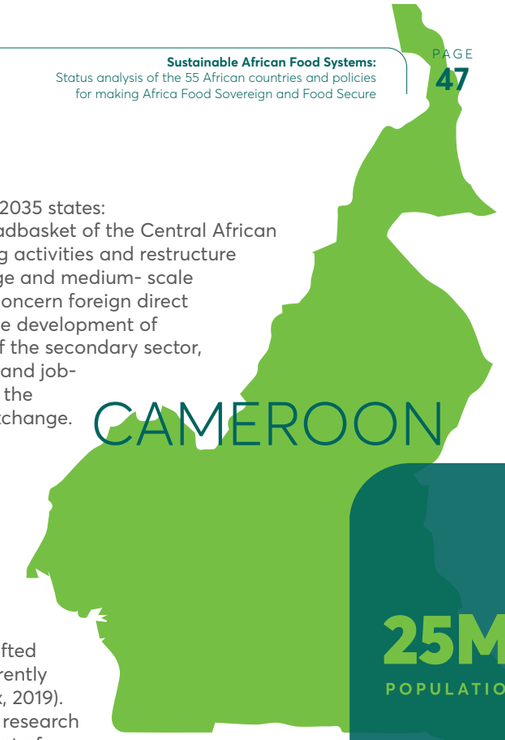
San Pedro, P. 2011. Investing in agriculture in Burundi - improving food security and conditions for women farmers. Oxfam Research Reports. Oxford, Oxfam.

Wageningen University and Research 2017 Supporting Agricultural Productivity in Burundi (PAPAB). At: https://www.wur.nl/en/project/Supporting-Agricultural-Productivity-in-Burundi-PAPAB.htm

Willer H & Lernoud J 2020 The World of Organic Agriculture: Statistics & Emerging Trends 2019 (IFOAM/FiBL).

CAMEROON

At the agricultural sector level, Rep. Cameroon (2009), in Vision 2035 states:
In order to address the food crisis and make Cameroon the breadbasket of the Central African region, there is need to intensify forest, agro-pastoral and fishing activities and restructure the rural world for more professionalism, with dominance of large and medium- scale undertakings. Development of mining operations should firstly concern foreign direct investors and allow for the acquisition of new technologies ... The development of industries and a bold trade policy will result in the dominance of the secondary sector, with an intensive primary sector and a professional, specialized and job-generating tertiary sector. This should go alongside a change in the foreign trade pattern with a more active integration in global exchange.



25M
POPULATION

475K
AREA SQKM

Integration of EOA in agricultural and trade policies

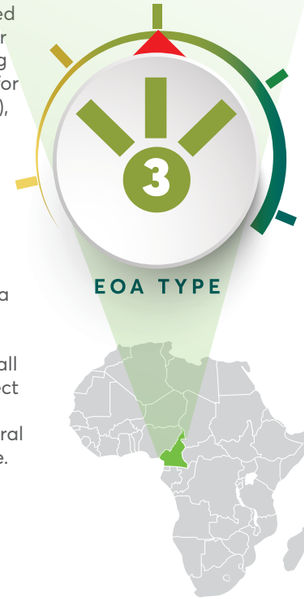
Cameroon does not have any legal framework regulating EOA yet. This is despite efforts initiated as early as 2006, when a first draft agricultural policy was formulated under the impulse of the Ministry of Agriculture and Rural Development (MINADER). The impulse stalled for lack of an inclusive process and because of governance issues. In 2009, another bill was drafted as part of an FAO funded project, and this current version is currently being amended by various EOA actors in Cameroon (De La Paix, 2019). Government support to EOA in Cameroon is currently limited to research carried out by the Agricultural Research Institute for Development of Cameroon (IRAD).

Strong national capacity but lack of a federating organic movement

In 1997, Cameroon had set up an Association for the Promotion of Organic Agriculture, which was disbanded. Some of its members, together with other actors, active in the sector, in 2016 created an platform called "Biofil". The association's constitution states that all members "must be certified organic for all or part of their activity". Another key platform is the Network of NGOs for Food Security and Rural Development in Cameroon (COSADER), which seeks to promote AE practices among small scale farmers. The RHORTICAM is another EOA network in Cameroon which was started by the Pesticide Initiative Programme (PIP), which only covers horticultural production.

Despite the existence of these various organisations and networks, none of these movements currently has the required traction/recognition to drive the EOA sector as a whole in Cameroon. While certified producers are gathered under Biofil, those uncertified farmers producing "naturally" still need an institutional home. There is scope however for Biofil to become the driving institution for the EOA movement (De La Paix, 2019). Among the key NGO actors feature: Biotropicals, Africa Bio, GIC Terrespoir, the Support Group for Sustainable Development (GADD), the Sustainable Development Actors Network (RADD), the National Consultation Framework of Farming Organisations in Cameroon (Cnop-Cam) and several other NGOs and associations [14].

World Bank commissioned an appraisal of organic agriculture in Cameroon (World Bank, 2018), which describes the current organic sector and identifies potential value chains. The French Centre for International Co-operation in Agronomic Research for Development (CIRAD) and the French National Institute for Agronomic Research (INRA) co-implemented the programme "Diversity of organic agricultures in Sub-Saharan Africa and contribution to food security" (ABASS) (2015-2017) which formed part of the meta programme "Transition for global food security". ABASS was run in several West African countries, including Cameroon, where a national workshop was held in 2016, gathering all key EOA actors. GIZ has assisted, especially with its support to PGS. FAO funded a project on the export of organic produce and FairTrade (2015/16). Other key players supporting EOA include: The University of Yaoundé I and II, the University of Dschang, the Agricultural Research Institute for Development of Cameroon (IRAD), the World Agro-forestry Centre.



For an exhaustive list of EA actors in Cameroun, see Bayiha, G., Temple, L., Mathe, S. and Nesme, T. 2019. Typologie et perspective d'évolution de l'agriculture biologique au Cameroun. Cah. Agric. 2019, 28, 3. https://doi.org/10.1051/cagri/2019003 Am

Certification landscape in the country and links to national policy

Cameroon does not have its own standards, and so producers essentially comply with EU regulation 834/2007. The certifying bodies active in the country include Ecocert and Utz-Kapeh. In 2018, CIRAD facilitated a workshop gathering all key EOA stakeholders and to identify the linkages between EOA and food security for organic farming in Cameroon.

Markets and trade

In 2017, the country had 1,089 ha under organic cultivation, which represents almost a threefold increase over 2016. In addition, 47,000 ha are certified for wild collection (mostly for apiculture). In the same year, the sector counted almost 500 producers, including 19 exporters. The key certified crops include honey, cocoa beans, coffee and tropical and subtropical fruit (Willer & Lernoud, 2019).

Participatory Guarantee Systems (PGS)

There is no PGS in place, but there is interest. The GIZ (PROCISA project) is supporting emergence of PGS nation-wide, whilst the GADD and the IDEE-Afrique association are involved with setting up PGS in the western part of the country (De La Paix, 2019).

Gaps and challenges within existing policy & institutional framework

Stakeholders in the EOA sector in Cameroon have flagged the following key challenges:

- The lack of legislation/regulatory framework governing EOA;
- The Government's orientation in favour of Green Revolution type of agriculture;
- The lack of a structured organic movement currently undermines the growth of EOA and may also compromise progress made in terms of the emergence of an organic policy;
- Lack of financial support from donor community, biased towards supporting conventional agriculture, which slows the emergence of EOA (De La Paix, 2019).

Opportunities for leverage within existing policy & institutional framework

- From a policy perspective, a law passed in 2003 regulates the activities of the fertiliser sub-sector in the country. It sets strict controls and requirements in the use of synthetic (as well as organic) fertilisers, out of concern for environmental impacts (Rep. Cameroon, 2003).
- Other than that, the current policies impacting the agricultural sector: the Rural Sector Development Strategy (Rep. Cameroon, 2006) (SDSR) or Vision 2035 (Rep. Cameroon, 2009) do not make provision for EOA. However, the key objectives outlined in the SDSR relating to the sustainable development of the agricultural sector, the sustainable management of natural resources, job creation and fighting food insecurity, could contribute to EOA.
- Another piece of legislation that could support EOA (through the commercialisation of organic value chains) is the Growth and Job Creation Strategic Document (DSCE), which in its second phase (2020-27)(Government of Cameroon, 2003) aims to strengthen the "territorialisation of development" (i.e. decentralisation) (De La Paix, 2019).
- There is significant activity on the part of international cooperation organisations and INGOs that are seeking to formalise the EOA sector. Their role is proving seminal for structuring the sector and supporting enabling legislation.
- Another study (forthcoming) that will further inform actors on how best to capitalise on the organic sector looks at various scenarios for the evolution of OA in Cameroon (De La Paix, 2019).

Preliminary EOA typology

Type 3; Country has a developing domestic and export market, some NGO activity, some guidelines and exports, but little government support.

De La Paix G, 2019. Two forthcoming works: BAYIHA (PhD candidate Yaoundé II University (Cameroon) and l'Institut SupAgro (France); and Ludovic TEMPLE (Head: Agriculture and agro-processing innovation and research at Cirad UMR Innovation). Pers. Comm. 30 July 2019.

Government of Cameroon, 2003. Document de Stratégie pour la croissance et l'emploi.

Rep. Cameroon, 2003. Loi n° 2003/007 du 10 Juillet 2003 régissant les activités du sous-secteur engrais au Cameroun.

Rep. Cameroon, 2006. Strategie de Developpement du Secteur Rural: synthese du volet agriculture et developpement rural.

Rep. Cameroon, 2009. Vision 2035.

Willer H, Lernoud J and Kemper L, 2019. The Word of Organic Agriculture: Statistics & Emerging trends 2019, p.179. Available from: https://www.ifoam-eu.org/en/news/2019/03/27/world-organic-agriculture-2019.

CAPE VERDE

Cape Verde's small farmers are spread across diverse island agro-climates and cultivate roughly 40,000 ha. Agriculture constitutes 10% of GDP and employs 20% of the workforce. Inconsistent rainfall is a key issue for Cape Verdean agriculture, as 95% of cultivated land is not irrigated. Connected with the issue of rainfall are soil quality issues. About 80% of the country's food is imported, but agriculture remains an important sector also in terms of livelihoods for people in poverty. The horticulture sector has expanded in recent years (World Bank, 2018), producing for urban demand, particularly with some increase in dams and drip irrigation. Cape Verde's agricultural exports consist mostly of coffee, wine, rum, cheese and processed fish.

How is EOA included in agricultural and trade policies?

It is not clear if Cape Verde has an overall National Agricultural Policy.[15] There is not much regarding EOA mentioned in FAO's (2012) Country Programming Framework. The country's Sustainable Development Strategy however does emphasize horticulture, rather than maize, as well as concerns about sustainability and biodiversity (Governo de Cabo Verde 2017: 89-90). The Strategic Plan for the National System of Agrarian Research mentions "development of organic agriculture" as a priority (Governo de Cabo Verde 2018: 918, 934). An update to the National Strategy for Food Security also mentions some agricultural production could be organic, as well as referencing sustainable and agroecological production (Governo de Cabo Verde 2014: 30, 41).

There are some indications of support from the Ministry of Agriculture and Environment for EOA. There is also an emphasis on decentralisation of services to municipalities, which may be conducive to more local level EOA activities (Governo de Cabo Verde 2017: 90). The links are unclear between extension and the National Institute for Agrarian Research [Instituto Nacional de Investigação agraria (INIDA)]. INIDA has been involved in a small ($130,000) project that addressed "agro-ecology in protected areas," funded by GEF's Small Grants Programme, and with the Spanish Centro de Estudos Rurais e Agrícolas Internacional (CERAI).[16] Some training has been reported by the Ministry of Agriculture and Environment,[17] and a UN backed project in Alto Mira, Santo Antão, in 2013, on EOA,[18] involved Community Voice Association of Alto Mira; they held 20 trainings and worked with the Ministry of Rural Development. However, the Maia municipal council provides some information on purchasing organic agricultural products.[19] Tourist markets are a possible area of support.

There are signs of some activities and interest in broader coordination on EOA, but no overall formal organisation was found during this review. For example, the Association for Consumer Protection (or ADECO - Associação para Defesa do Consumidor),[20] with support from Consumers International has done training and education projects on environmental citizenship and on pesticide risks and reduction. There is also a National Federation of Consumption Co-operatives (Federação Nacional das Cooperativas de Consumo). São Vicente has a Friends of Nature Association (Associação dos Amigos da Natureza), and EOA has been included in a course at the University of Cape Verde.[21] An Institute for Quality and Intellectual Property Management was created in 2010, headed by an agricultural food engineer, and an EU-funded PERVEMAC project in 2014-15 studied residue levels of pesticides and micro-toxins in vegetable products, which generally showed low levels of residue.

15 Little information is available at http://www.maa.gov.cv , though more is at FAO's legislation archive: http://www.fao.org/faolex/country-profiles/general-profile/en/?iso3=CPV .
16 https://cerai.org/cabo-verde/; https://noticias.sapo.cv/economia/artigos/santo-antao-agricultura-ecologica-e-integracao-agropecuaria-sustentavel-e-tema-de-atelie-para-agricultores ; https://www.sgp.undp.org/spacial-itemid-projects-landing-page/spacial-itemid-project-search-results/spacial-itemid-project-detailpage.html?view=projectdetail&id=25839
17 https://www.inforpress.cv/brava-agricultores-capacitados-em-materia-da-agricultura-biologica/
18 http://www.sia.cv/index.php/teste/148-actualidades/637-sistema-das-nacoes-unidas-ajuda-a-promover-agricultura-biologica-em-santo-antao
19 https://www.cm-maia.pt/pages/1273?poi_id=239
20 https://adeco.cv/
21 https://www.unicv.edu.cv/en/curso-de-licenciatura/5269-agronomia-socio-ambiental-2

Overview of certification landscape in the country and extent to which this links to national policy

In 2017 it was reported that there is no certification for organic agricultural products.[22] The Agency for Regulation of Pharmaceutical and Food Products [Agência de Regulação dos Produtos Farmacêuticos e Alimentares (ARFA)] is an independent agency created in 1998 (but not implemented), re-created 2004, and merged with a food security agency in 2013. There is also a National Institute for Quality Management (Instituto Nacional para Gestão da Qualidade). Cape Verde did sign the Rotterdam convention and is working on implementation.[23]

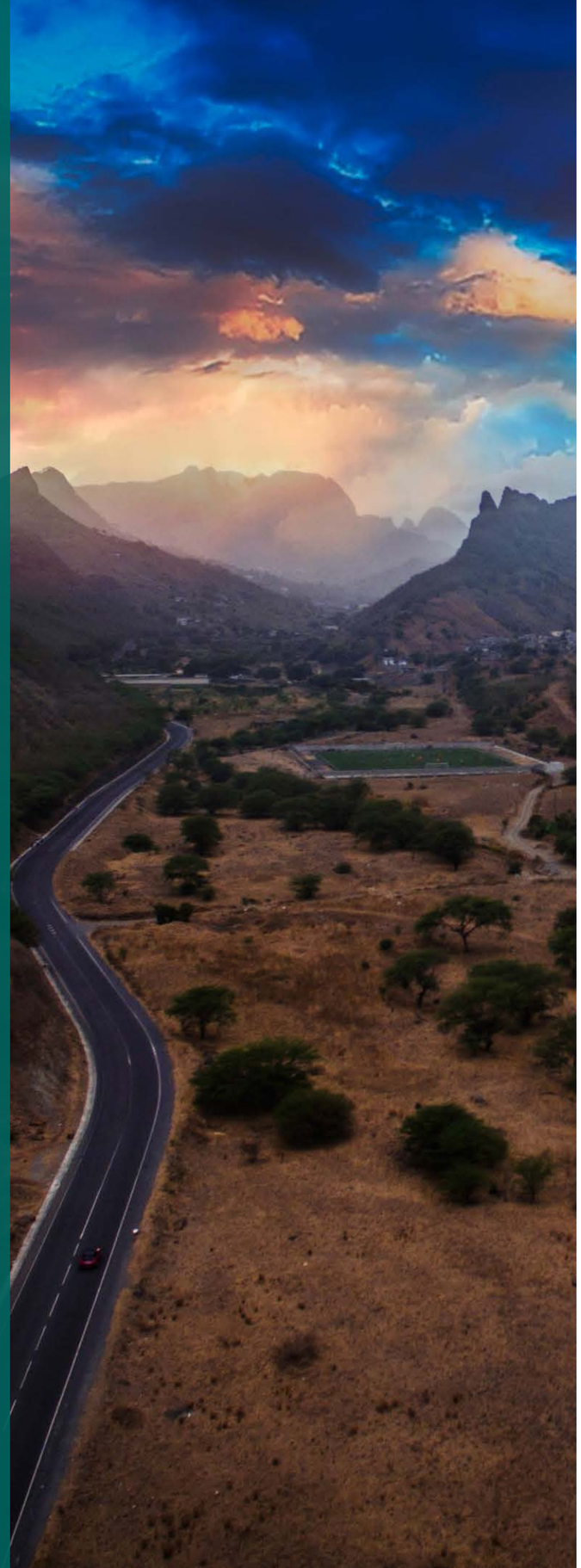
There was no evidence of participatory guarantee systems (PGS).

Overview of gaps and challenges within existing policy framework

Co-ordinating national policy and coherent implementation on EOA faces the challenges of multiple fragmented contexts, and numerous small, diverse agro-climates. The agricultural sector in general is already said to experience logistical difficulties (World Bank, 2018). Due to the effects of climate change for the island's agro-climates, there is increased attention to sustainability and natural resources (e.g. Governo de Cabo Verde, 2015). Of immediate importance is the National Committee on Pesticide Management [Comité Nacional de Gestão de Pesticidas (CNGP)], which was created in 2017 and is now examining a proposed law on pesticides. [24] Decentralised projects might allow for greater receptiveness in some areas, but there are also risks of fragmentation and duplication.

Preliminary EOA typology

Type 4; Country has some NGO capacity, no guidelines, no support from government and few exports.



FAO, 2012. FAO Country Programming Framework for Cape Verde (2012-2016).

Governo de Cabo Verde, 2014. National Strategy for Food and Nutrition Security: Update Horizon 2020 (Estrtégia Nacional de Segurança Alimentar e Nutricional: Atualização Horizonte 2020).

Governo de Cabo Verde, 2015. National Strategy and Action Plan for the Conservation of Biodiversity [Estratégia Nacional e Plano de Ação para Conservação da Biodiversidade (ENPACB, 2015-2030)].

Governo de Cabo Verde, 2017. Strategic Plan for Sustainable Development 2017-22 (Plano Estratégico do Desenvolvimento Sustentável 2017-22).

Governo de Cabo Verde, 2018. Strategic Plan for the National System of Agrarian Research [Plano Estratégico do Sistema Nacional de Investigação Agrária (PE-SNIA-2017-2024)].

World Bank, 2018. Republic of Cabo Verde, Systematic Country Diagnostic, Washington, DC: World Bank.

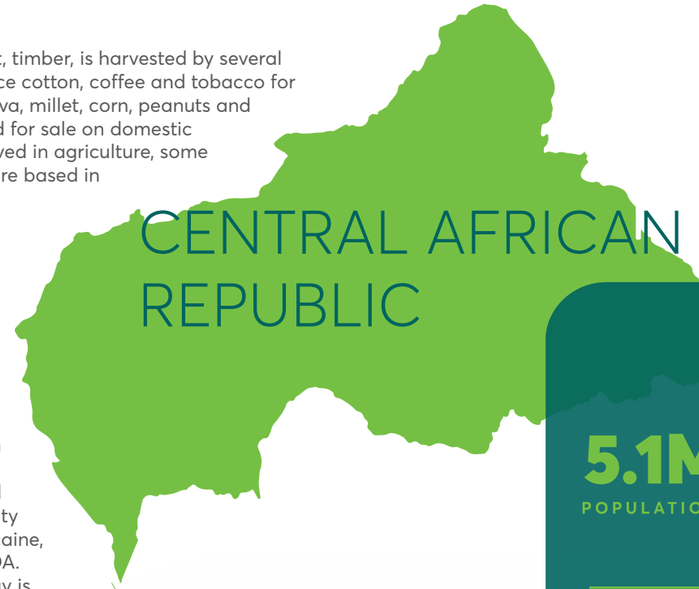
https://expressodasilhas.cv/pais/2017/06/25/seguranca-alimentar-ii-organico-e-o-novo-verde/53706

https://noticias.sapo.cv/economia/artigos/cabo-verde-precisa-urgentemente-de-lei-abrangente-de-pesticidas-e-quadro-legal-para-agricultura-organica .

(2017) Conselho de Ministros Resolucao 63, June 29, Boletim Oficial n36: 784-6; http://www.maa.gov.cv/index.php/noticias/202-3-reuniao-do-comite-nacional-de-gestao-de-pesticidas.

CENTRAL AFRICAN REPUBLIC

The country's largest agricultural export, timber, is harvested by several foreign companies. Farmers also produce cotton, coffee and tobacco for export. Subsistence farmers grow cassava, millet, corn, peanuts and bananas for their own consumption and for sale on domestic markets. While 74% of people are involved in agriculture, some 54% of the country's GDP was agriculture based in 2018.



Extent of integration of EOA in agricultural and trade policies

There is no legislation governing organic production in the Central African Republic (CAR). The country does not have an organic agricultural policy and the policy framework very much prioritises food security. The main policy that touches on the agricultural sector, namely the National Agricultural Investment, Food and Nutritional Security Programme (2013-2018) (Rep. Centrafricaine, 2013) does not make any mention of EOA. The National Rice Development Strategy is orientated towards conventional practices, with one mention of "biological control" (Rep. Centrafricaine, 2012).

At this stage there is no indication of government support for EOA. The promotion of EOA or AE is done under the banner of climate change adaptation and the management of natural resources (anti-erosion works, restoration of degraded lands, agro-forestry, etc.) within traditional development and resilience building programmes managed by multilateral or bilateral agencies.

According to TRT News, Pascal Bida is training organic farmers in the capital, Bangui, and several hundred farmers are converting to organic methods.[25] World Vision is assisting with the re-integration of child soldiers into society (Muslim/Christian tensions have been a major feature for over a decade), and they are supporting some agricultural projects. [26]

Certification landscape in the country and extent to which this links to national policy

There are no organic production standards; no evidence of Participatory Guarantee Systems (PGS). The CAR does not feature in IFOAM's 2019 World of Organic handbook. The narrow policy vision of the National Agricultural Investment, Food and Nutritional security programme (2013-2018) is an impediment to EOA. On-going violence makes progress very difficult

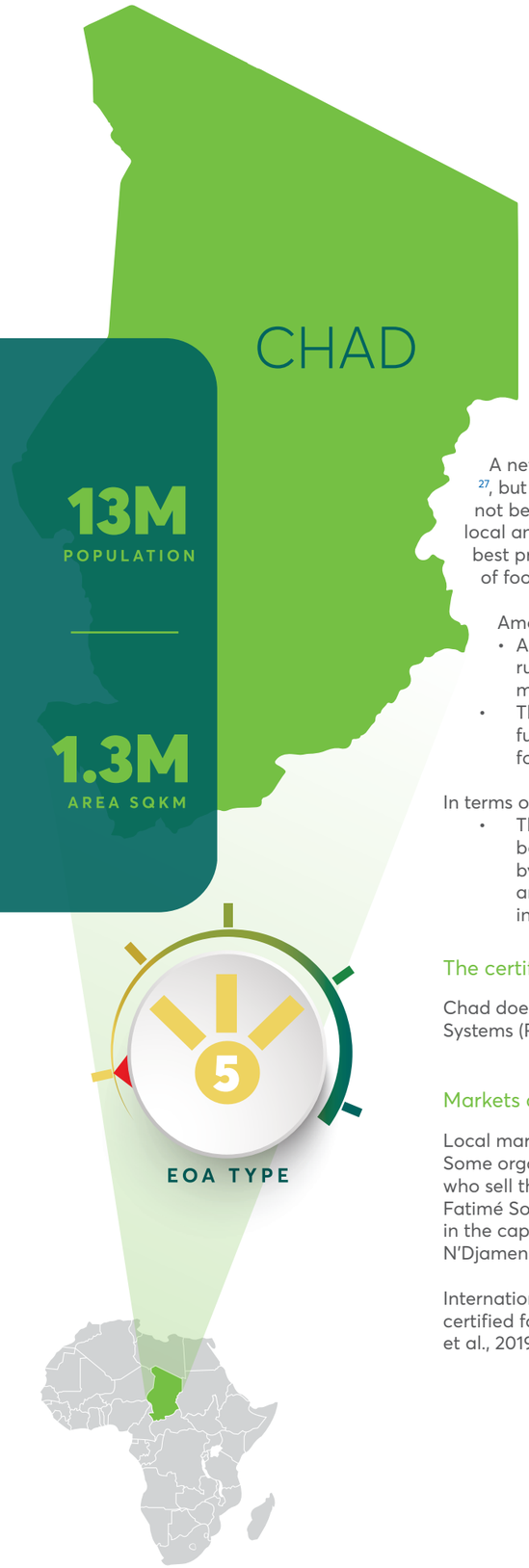
Opportunities for leverage within existing policy & institutional framework

Advocacy activities should be targeted at aspects of the plan that will follow the National Agricultural Investment, Food and Nutritional Security Programme (2013-2018) that will touch on developing export value chains, capacity building of local actors who should be trained in EOA as well on accessing export markets. PGS could also be used as strong way of capacitating producers.

Preliminary EOA typology

Type 5; Country has very little institutional capacity and no government support.

25 See https://www.youtube.com/watch?v=OQ_3q5UDHVU
26 See https://www.wvi.org/central-african-republic/video/children-peace-builders-damara-central-african-republic



CHAD

Chad is almost entirely reliant on subsistence agriculture for food and much of this is produced with virtually no external inputs.

Integration of EOA in agricultural and trade policies

There is no national regulation on organic agriculture in Chad. The country's agricultural orientation is articulated in the 2016 National Investment Plan for the Rural Sector (Government of Chad, 2016), which seeks to make the rural sector an important source of economic growth, ensuring the food and nutritional security of the people in the context of sustainable development. The plan does not make mention of EOA but speaks of sustainable fertility land management and regenerative practices, which gives extensive scope to EOA (see the opportunities section). There is no government support to EOA (Müller, 2019).

A network of actors for organic agricultural production in Chad was created [27], but more specific information on its composition and current activities could not be obtained. EOA Initiatives in Chad remain limited, and are often carried by local and international NGOs backed by international donors. The promotion of best practices that are linked to EOA or AE is essentially done under the banner of food security, improved resource management, or agro-pastoral resilience.

Among the NGOs involved in EOA feature:

- A French NGO called the GRDR (Migration, Citizenry, Development), which runs three projects in the country [28] focusing on sustainable resource management, food security and agriculture and has some EOA focus.
- The Organisation of African Youth in Agri-business (AYA-CHAD) [29] (co-funded by Fatimé Souckar – although it could not be ascertained that they focus on EOA).

In terms of support of international organisations to EOA, worth noting are:

- The project called "Improving urban food security in Central Africa through a better availability of locally produced food (GCP/SFC/001/MUL)" and funded by the Africa Solidarity Trust Fund (ASTF). This project was launched in 2015 and is implemented by the FAO, and focuses on supporting local producers in the towns of N'Djaména and Moundou. [30]

The certification landscape and linkages to national policy.

Chad does not have organic standards; no Participatory Guarantee Systems (PGS) operate in Chad (Willer et al., 2019).

Markets and trade

Local markets: there is limited information available on local markets. Some organic producers are apparently emerging in the capital city, who sell their produce on a market on Saturday mornings, [31] with Fatimé Souckar owning one of the most successful organic businesses in the capital (she cultivates organic products 30 km outside of N'Djamena). [32]

International markets: According to IFOAM, Chad had 124,130 ha certified for wild collection in 2017, exploited by four exporters (Willer et al., 2019) (no further details available).

Gaps and challenges within existing policy & institutional framework

- The 2017-2021 National Development Plan (Government of Chad, 2017), which seeks to achieve food sovereignty by 2021, does not mention EOA.
- There is an almost complete lack of government support.

Opportunities for leverage within existing policy & institutional framework

- A recent pest and pesticide management plan (2018) (Government of Chad, 2018) defines the conditions for the use of pesticides in respect of the national and international regulations, and is designed to minimize the potential negative effects on human and animal health and the environment. It makes provision for alternative pest management and therefore would create some important precedent for EOA.
- There is tremendous scope for EOA to become a leveraging point to serve the objectives of the 2016 national investment plan in the rural sector, which specifically aims to promote sustainable development of the rural world through the improvement of the living environment of rural producers and the sustainable management of natural resources.
- Advocacy efforts should also be targeted at demonstrating how EOA can contribute towards food sovereignty, a key objective of the 2017-2021 National Development Plan.
- Finally, EOA actors might derive benefits from the forthcoming RIMFIL (to be implemented by the Belgian organisation – ENABEL), and which will only be focused on the agricultural and pastoral sectors. The project's main expert confirmed that they intend emphasizing EOA under this project, so as to ensure EOA becomes embedded into government planning in future (Müller, 2019). There may thus be scope to co-shape how activities could support to EOA.

Preliminary EOA typology

Type 5; Country has very little institutional capacity and no government support.

27 BBC News. 2018. Fatimé Souckar, fournisseuse bio du Tchad. Available from: https://www.bbc.com/afrique/region-42770021
28 https://grdr.org/-Agriculture-et-alimentation-
29 http://aya-chad.org .
30 http://www.fao.org/africa/news/detail-news/en/c/425012/
31 See for instance the case of this producer, Moussa Kane, feature on this you tube link: https://www.youtube.com/watch?v=XZlxVNQBW1w
32 BBC News. 2018. Fatimé Souckar, a fournisseuse bio du Tchad. Available from: https://www.bbc.com/afrique/region-42770021

Gover nment of Chad, 2016. Plan National d'Investissement du Secteur rural (PNISR, 2016-2022).

Government of Chad, 2017. Plan National de Développement 2017-2021.

Government of Chad, 2018. Plan de gestion des pestes et pesticides (PGPP).

Müller F, 2019. Key expert of the EU RIMRAP project. Pers. Comm. on 31 July.

Willer H, Lernoud J and Kemper L, 2019. The Word of Organic Agriculture: Statistics & Emerging trends 2019. Available from: www.ifoam-eu.org/en/news/2019/03/27/world-organic-agriculture-2019 (p.165).

COMOROS

872K
POPULATION

2.2K
AREA SQKM

EOA TYPE

COMOROS ISLANDS

The Strategy for Accelerated Growth and Sustainable Development (SCA2D) (Comoros, 2015), which covers the period 2015-2019, is the only policy document that touches on agriculture, and there is no agricultural policy per se. It makes no reference to EOA. There is no government support for EOA.

There is limited NGO activity in the country, and initiatives seeking to support farming communities (most of the archipelago's population are subsistence farmers) are focused on promoting sustainable farming techniques and soil restoration, as slash and burn agriculture is extensively practiced. International organisations such as FAO support the country with a focus on boosting domestic food production and improving food safety control and even agro-forestry – such was the focus of the later "Partnering for sustainable agricultural development and food and nutrition security" FAO-backed programme (FAO, 2015).

Only one national NGO active in the sector could be identified: "Dahari" [33] , works on developing "sustainable productive landscapes" but its work is not specifically focused on EOA. There is also very limited INGO capacity in the country with an INGO called Initiative Development (ID) purporting to be "the only western NGO operating in Anjouan (since 1996) and Mohéli (since 2006)". [34]

Certification landscape in the country and links to national policy.

The country does not have its own standard but some organic produce is certified by Ecocert [35]. As there is very little information available online on EOA in the Comoros, some (cautious) extrapolation can be made, from an AE perspective, with the trends in Mayotte, the French island that neighbours the Comoros (which obviously enjoys very different socio-economic circumstances, and which is the main destination of emigration from the Comoros). In Mayotte, "92% of the island's 8,700 ha of agricultural land and the crops that grow there [is said to be] free of pesticides or even chemical fertilisers" (Perso, 2017). These assertions would need to be verified for Mayotte, but assuming such is the trend, and that the same can be found in the Comoros, this type of baseline means that there is tremendous potential to unlock the organic sector on the island.

Trade & Markets

The economy of the archipelago shows little diversity, the insularity and the deficit in infrastructures strongly limiting its ability to diversify. In 2017, agriculture accounted for 30% of GDP, but was based on three main crops: vanilla, clove and ylang-ylang, which account for 70% of exports. [36]

In 2017, the surface area under EOA was 1,445 ha, a net decrease from the previous year (2,577 ha in 2016), with 63 ha under wild collection. This production (essentially citrus according to IFOAM) involved 1,540 producers and five exporters.

Gaps and challenges within existing policy & institutional framework

- The overall absence of an agricultural policy and a heavy reliance on food importation (the archipelago is a net importer of food) means that the agricultural sector is very constrained, which doesn't bode well for the development of EOA at this stage.
- It would also appear that the emergence of any organic value chain, for tropical crops such as those listed in the opportunity section below, would be strongly impaired by two factors (here we extrapolate from findings for Mayotte): 1) the small size of the domestic market means that no certifying bureau will settle on the island, making the costs of certification very high; 2) even if some organic produce were exported, they would be in direct competition with the well-established Madagascar exports (NB: in the 1980s Mayotte was exporting organically certified vanilla but the sector could not compete with Madagascar and the arrival of synthetic vanilla and eventually organic exports were discontinued) (Perso, 2017).

Opportunities for leverage within existing policy & institutional frameworks

- No policy leverages identified at this stage.
- According to this same (Mayotte) source, pineapple, cassava, maize, taro, mango, breadfruit, cinnamon apple, lychees as well as essential oils of ylang-ylang or vanilla are "naturally organic" crops (Perso, 2017).
- Given the Comoros' heavy reliance on the export of a few tropical crops (vanilla, ylang ylang and clove), there would be scope to certify these cash crops.

Preliminary EOA typology

Type 5; Country has very little institutional capacity and no government support

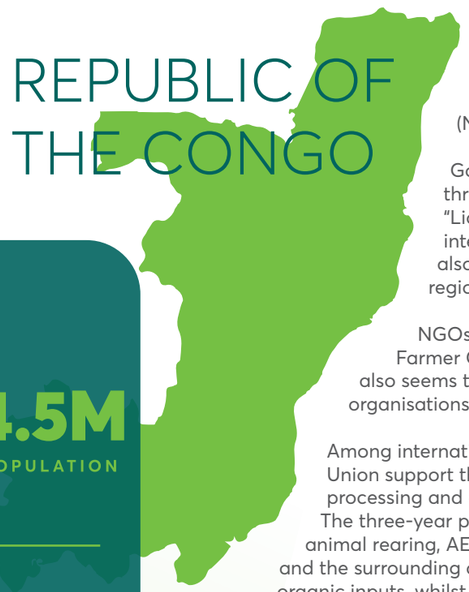
33 https://daharicomores.org .
34 http://www.id-ong.org/en/comoros .
35 Sandra Randrianarisoa from Ecocert was contacted for more information but didn't respond.
36 France diplomatie. Nd. Comores. Available from: https://www.diplomatie.gouv.fr/fr/dossiers-pays/comores/

Comoros, 2015. Stratégie de Croissance Accelerée et de Développement Durable (SCA2D).

FAO, 2015. Partnering for sustainable agricultural development and food and nutrition security. Available at: www.fao.org/3/ax422e/AX422E.pdf.

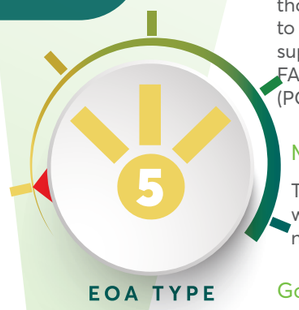
Perso A, 2017. Le journal de Mayotte. Available from: www.lejournaldemayotte.yt/2017/09/21/le-bio-cest-naturel-ou-ca-se-travaille-a-mayotte

REPLUBLIC OF THE CONGO



4.5M
POPULATION

342K
AREA SQKM



EOA TYPE

There is no national regulation on organic agriculture in the Congo Republic. As such, there is also no agricultural law, with only a few directives and other laws (e.g. relating to forestry and land tenure) steering the sector.[37] The agricultural policy has been under development since 2016 and is expected to be released in the near future (Ntsouanva, 2019).

Government's support to EOA remains limited and has recently manifested through some support given to the manufacturing of a bio-fertiliser called "Liambou-Gisèle" as part of a project being piloted on a few sites, with the intent of rolling it out on a broader scale in future. The Ministry of Agriculture also indicated it promotes AE practices within farmer schools in the Culo region (Ntsouanva, 2019).

NGOs active in the sector include: Congo ESSOR and AGRIDEV, the Congolese Farmer Confederation (Confédération paysanne du Congo – CNOP). AgriCongo also seems to be one of the leading training institutions. The capacity of these organisations in terms of EOA could not be assessed (no website).

Among international donors, the French Development Agency (FDA) and the European Union support the Government with a project: "Support to market gardening, agro-processing and commercialisation of produce processed in Brazzaville" (PAMTAC 2-B). [38] The three-year programme will run from 2018 to 2021 and focuses on market gardening, animal rearing, AE and agro-processing, and will be located in the capital Brazzaville and the surrounding area. One of the project's components is support to the production of organic inputs, whilst another is an AE market value chain and the formalisation of artisanal agro-processing. The project is implemented by the international NGO ESSOR, the Congolese Association for agricultural development (AGRIDEV) and the youth and infrastructure development club (Club Jeunesse Infrastructures et Développement) (CJID), which targets 600 farmers, 100 agro-processors and capacity development for two NGOs. Government's direct involvement in this project could not be established.

The certification landscape and linkages to national policy

There are some organic standards in the country. The Ministry of Agriculture has indicated that it had requested the national agency for standards (Agence Nationale de normalisation) to look into the establishment of standards, so as to set up a national certifying body to support EOA. The country does not have laboratory facilities to test pesticide residues. The FAO is said to be supporting this process. There are no known Participatory Guarantee System (PGS) groups active in the country. The ministry is not familiar with the concept.

Markets and trade

The status of organic export in Congo is unclear; Mr Ntsouanva indicated some producers were managing to export certified produce, but more information from these producers could not be obtained. Congo does not feature on IFOAM's world of organic database.

Gaps and challenges within existing policy & institutional framework

- Absence of any legislation governing the agricultural sector.
- The absence of laboratory facilities to test pesticide residues for crops earmarked for export means that testing is done overseas, which is very costly.

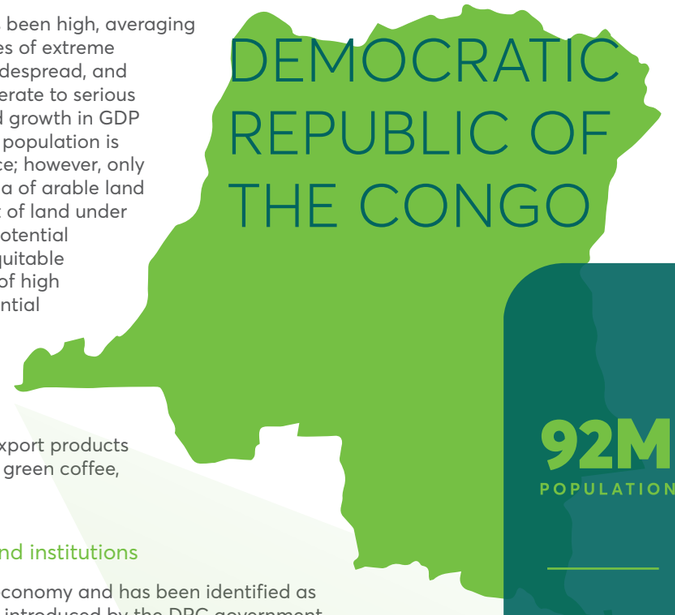
Opportunities for leverage within existing policy & institutional framework

The fact that the current agricultural policy is still at a draft stage means that there is opportunity to incorporate elements in support of EOA in the legislation. The Director General of Agriculture, who was interviewed for this report, welcomed the idea.

Preliminary EOA typology

Type 5; Country has very little institutional capacity and no government support.

DEMOCRATIC REPUBLIC OF THE CONGO



92M
POPULATION

2.3M
AREA SQKM

EOA TYPE

Although the annual growth rate in DRC has been high, averaging 7.3%, the country has one of the highest rates of extreme poverty in the world. Child malnutrition is widespread, and most of the people live in conditions of moderate to serious food insecurity. The country has experienced growth in GDP in recent years. About 70% of the employed population is engaged in agriculture, mostly for subsistence; however, only about 10 million of the country's 80 million ha of arable land are under cultivation. Increasing the amount of land under cultivation is considered to hold enormous potential to increase food security and sustainable, equitable economic development. With millions of ha of high potential agricultural land, there is vast potential for development.

Key agricultural commodities include cassava, plantains, maize, groundnuts/ peanuts, tobacco, coffee, sugarcane, cocoa, palm oil, rubber and rice. The main export products are export commodities, especially tobacco, green coffee, rubber, cocoa, palm oil kernel and palm oil.

General agricultural policy framework and institutions

Agriculture is a key component of the DRC economy and has been identified as a key part of the huge development agenda introduced by the DRC government in recent years. The DRC National Agriculture Investment Plan (NAIP) is the DRC's national planning framework for domestic and foreign investment in the agriculture sector and rural development sphere. It takes into account the needs, achievements, gaps with regard to the agriculture sector, and provides a blueprint for the investment and operation of the sector over a period of eight years (2013-2020).

The implementation strategy prioritised six principles, five of which are relevant here: The inclusion and accountability of all public and private stakeholders involved in agricultural and rural development; the establishment of Centres of Agricultural Enterprise (PEA) in order to boost the different sectors; mainstreaming gender aspects and good governance across all of the planned interventions; promoting and facilitating capacity building among all public and private stakeholders to enable them to perform their respective roles more effectively and efficiently; and focusing on the enhancement of agricultural productivity in a sustainable manner that also respects relevant environmental and social constraints.

There are a number of Laws and Decrees guiding the development of the agricultural sector – and it is clear that these seek to attract investment [e.g. The New Investment Code (cfr. Act No. 004/2002 of 21/02/2002)]. Whilst a general policy framework exists guiding agricultural development, the institutions in DRC are characterised as being weak. For example, an IFPRI study in 2011 concluded:

> "The weak institutions for managing, coordinating, overseeing and monitoring, seriously hinder the attainment of an evidence-based and inclusive policy process. Findings also suggest an alarmingly inadequate and aging staff in key public-sector organisations both at the national and local levels, which warrant an urgent and speedy design and implementation of the civil service and human resource reform process to accelerate recovery and development in the economy".

37 Lexology, 2013. La législation agro-foncière en République du Congo. Available from: https://www.lexology.com/library/detail.aspx?g=caab56e4-0da8-416d-84f8-6b7490854eba

38 ESSOR, 2019. Appui au Maraîchage, à la Transformation Agroalimentaire et à la Commercialisation des produits transformés à Brazzaville. Available from: http://www.essor-ong.org/index.php?id=308&L=0

Ntsouanva B, 2019. Director General of the Ministry of Agriculture, Republic of Congo. Pers. comm. on 19 July.

Due to poor funding from government budgets, significant extension priorities have been devolved to the private sector, NGOs, church-based organisations or producer organisations that attempt to fill the gaps mostly from ad hoc or donor-funded projects. Thus, decision-making about the extension agenda was distorted toward short-term goals of the projects that are often out of alignment with national and regional priorities, and thus fragmented. The absence of linkages between education and extension limits the impact of agricultural education, the University, the Faculty of Agronomy and the Institutes of Agronomic Studies (ISEAs) and Rural Development Studies (ISDRs) on the extension system, whose mission is to contribute to the sustainable education and socio-economic development of the agricultural sector.

Strong presence of donors and NGOs

A large number of international organisations (governments and private NGOs) operate in the DRC, in response to the multiple challenges the country faces. These include the World Bank, FAO, USAID, WFP, FHI 360. For example, in 2017, World Bank approved an additional credit of $75 million for the Agriculture Rehabilitation and Recovery Support Project to increase agricultural productivity and improve marketing of crops, and animal products in targeted areas, to broaden the scope of project beneficiaries. The UNFCC supported a project: Building the Capacity of the Agriculture Sector in DRC.

How EOA is integrated in agricultural and trade policies, and government support

Organic agriculture is not explicitly addressed in DRC's agricultural policy, and the country does not have an organic law or standard. As outlined above, the general agricultural policy development is one that focuses on addressing food security as well as generating investment in high value chains.

The certified organic area in DRC has grown rapidly over the past decade, though it fell between 2016 and 2017. In 2017, 60,624 ha land was certified, against 6,611 ha in 2009. However, in 2015 and 2016, the certified organic area reported was 94,386 ha. The organic sector in DRC is characterised by the production of high value commodities, primarily cocoa (52,000 ha) and 8,600 ha of coffee (Willer et al., 2019). These chains seem to be organised in various forms, e.g. co-operatives [39] and driven by private sector investment, international organisations/donors as well as private NGOs [40] , rather than being state driven.

Overview of the certification landscape

Predominant organic products in DRC are cocoa and coffee, other commodities include vanilla. For coffee, we found evidence of UTZ/Rainforest Alliance certified production [41] , a cooperative for coffee producers with more than 5,000 producers. For cocoa, UTZ certifies a number of groups in DRC (ESCO KIVU SARL – WATALINGA, a private company; Esco Kivu SPRL – Beni, also a private company), and MAISON KAHINDO MUVUNGA (ECOCERT certified). UTZ uses the following approved certification bodies in DRC: CERES, DNV GL, ECOCERT. ECOCERT certifies many co-operatives and business entities in DRC. The certification landscape is dominated by international certifiers.

Challenges, gaps and opportunities of existing policy framework

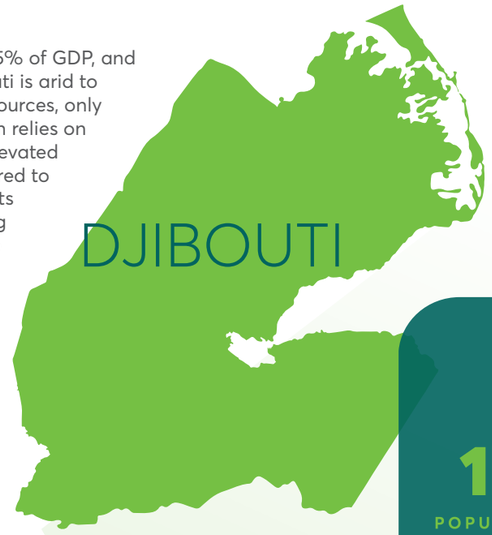
The DRC has vast economic potential via its enormous reserves of land, minerals, water, and energy; however, most Congolese have yet to reap the benefits. High levels of corruption, crippling formal and informal taxes, and a poor enabling environment for business forces most enterprises to operate in the grey economy, depressing revenues and the potential for private sector-led, inclusive economic growth. There are opportunities to modernise and strengthen the agricultural sector, but these will require overcoming resource constraints, administrative difficulty, poor infrastructure, and institutional and human capacity challenges. Besides academic institutions, formal Agricultural Education and Training and vocational training institutions could be key players in the modernisation of agriculture in DRC to increase agricultural production and productivity by supplying the needed skilled professionals in the agricultural workforce.

Preliminary EOA type

Type 4; Country has some NGO capacity, no guidelines, no support from government and is exporting.

Djibouti

In Djibouti, the agricultural sector contributes less than 5% of GDP, and only a few people work in farming. The climate in Djibouti is arid to semi-arid and because of the scarcity of fresh water resources, only irrigated and seasonal agriculture is possible. Production relies on mechanised irrigation, resulting in high costs, causing elevated prices for locally produced agricultural products compared to imported fruits and vegetables. Djibouti therefore imports most of its fresh vegetables and fruits from neighbouring countries, including Ethiopia, Yemen, Kenya, and Europe (France). More than half of the rural population are food-insecure and the poorest households spend more than three-quarters of their budget on food. [42]



1M
POPULATION

23K
AREA SQKM

General agricultural policy

Vision 2035 is the government's long-term strategy for Djibouti to build the country's future. This government-driven strategy was developed through participation of Djibouti's youth, political parties, civil society, businesses, development partners and the international community, and therefor reflects a set of economic, political and social goals for the whole of society. The general development of agriculture and processing is identified in the policy document, with a strong focus on food security improvement.

In 2009 the Ministry of Agriculture, Livestock and Marine Affairs put together the Master Plan for the Development of the Primary Sector 2009-2018 (Plan Directeur du Développement du Secteur Primaire, PDDSP). The plan set out goals, including the expansion of the sector's contribution to national GDP, the increase of crop and animal production, and a better exploitation of the country's water resources. This strategy can only be achieved through improved access to surface and underground water resources, training of human resources and improvement of farming techniques. Existing government and private sector support initiatives target the sector for preferential treatment and have met with some success. Tax exemptions for fuel used in fishing activities and farmer access to agricultural equipment and seeds through participation in sector co-operatives help somewhat to mitigate the difficulties the sector faces. Although the government understands that it will unlikely be able to develop large-scale agriculture production, authorities see small-scale agricultural development on certain products as an effective way to create employment and increase the amount of locally produced food.

EOA TYPE

39 www.atlascoffee.com/coffees/muungano-cooperative/
40 www.confectionerynews.com/Article/2017/07/20/Cocoa-in-the-Congo-Emerging-origin-for-organic-chocolate-makers
41 www.afca.coffee/portfolio-item/soprocopiv/
42 https://www.usaid.gov/djibouti/food-assistance

EAC (East African Community), 2019 The East African Community Food and Nutrition Security Action Plan 2019-2023

Lubanda JP, Smutka L and Selby R, 2016. Agricultural Production and Trade Structure Profile in Democratic Republic of Congo (DRC). AGRIS on-line Papers in Economics and Informatics, 8(665-2016-45123), p.67-87.

Manage, 2013 Demand Analysis Report. Democratic Republic of the Congo.

Otchia CS, 2014 Agricultural modernization, structural change and pro-poor growth: Policy Options for the Democratic Republic of Congo. Journal of Economic Structures, 3(1), p.8.

Ragasa C, Babu SC & Ulimwengu J, 2011 Institutional and Capacity Challenges in Agricultural Policy Process. IFPRI. Melbourne.

USAID 2019 www.usaid.gov/democratic-republic-congo/agriculture-and-food-security [Accessed 6 August 2019]. & also www.usaid.gov/democratic-republic-congo/fact-sheets/usaiddrc-fact-sheet-democracy-human-rights-and-governance & finally: www.usaid.gov/democratic-republic-congo/fact-sheets/usaiddrc-fact-sheet-economic-growth .

Willer H, Lernoud J and Kemper L, 2019. World of Organic Agriculture. Statistics and Emerging Trends 2019. IFOAM, Bonn

Based on the basic concept of the national plan and strategy, the Ministry of Agriculture has formulated the PDDSP as a basic strategy for the primary sector. The strategic target is to achieve continuous food security, which contributes to poverty reduction and promotes the economic development in the rural areas. In the PDDSP, the primary sector is divided into four sub-sectors: water, agricultural production, animal husbandry and fishery, with strategies for each. The Ministry of Agriculture takes responsibility for the primary sector including agriculture, animal husbandry, fishery, etc., and has the duties of planning, implementing and evaluating development projects. It has five directorates under a secretary general. The Directorate of Agriculture and Forest takes charge of matters of agricultural production, irrigation support, technical extension, etc. The Water Directorate is in charge of the wells for water sources. The Directorate of Grand Works is in charge of the establishment of dams, recharge dams, etc.

How EOA is integrated in agricultural and trade policies

No explicit reference is made in government policy to EOA, instead policy focuses on general agricultural sectoral development. Djibouti is not included in the annual EOA statistics compiled by FiBl and IFOAM. There are several projects focused on sustainable agriculture in the area, including projects through the Djibouti Ministry of Agriculture, Water, Fisheries, Livestock and Marine Resources (MAWFLM), the World Bank Group and the African Development Bank Group. These projects are diverse and focus on aspects from economic sustainability to increasing clean water supply. International organisations having their offices in Djibouti include FAO, WFP, EU and UNDP. Most international organisations put emphasis on water resource matters and agricultural development. A number of NGOs also operate in the general civil society space in Djibouti, but agricultural focus is limited (other than food aid).

Overview of the certification landscape

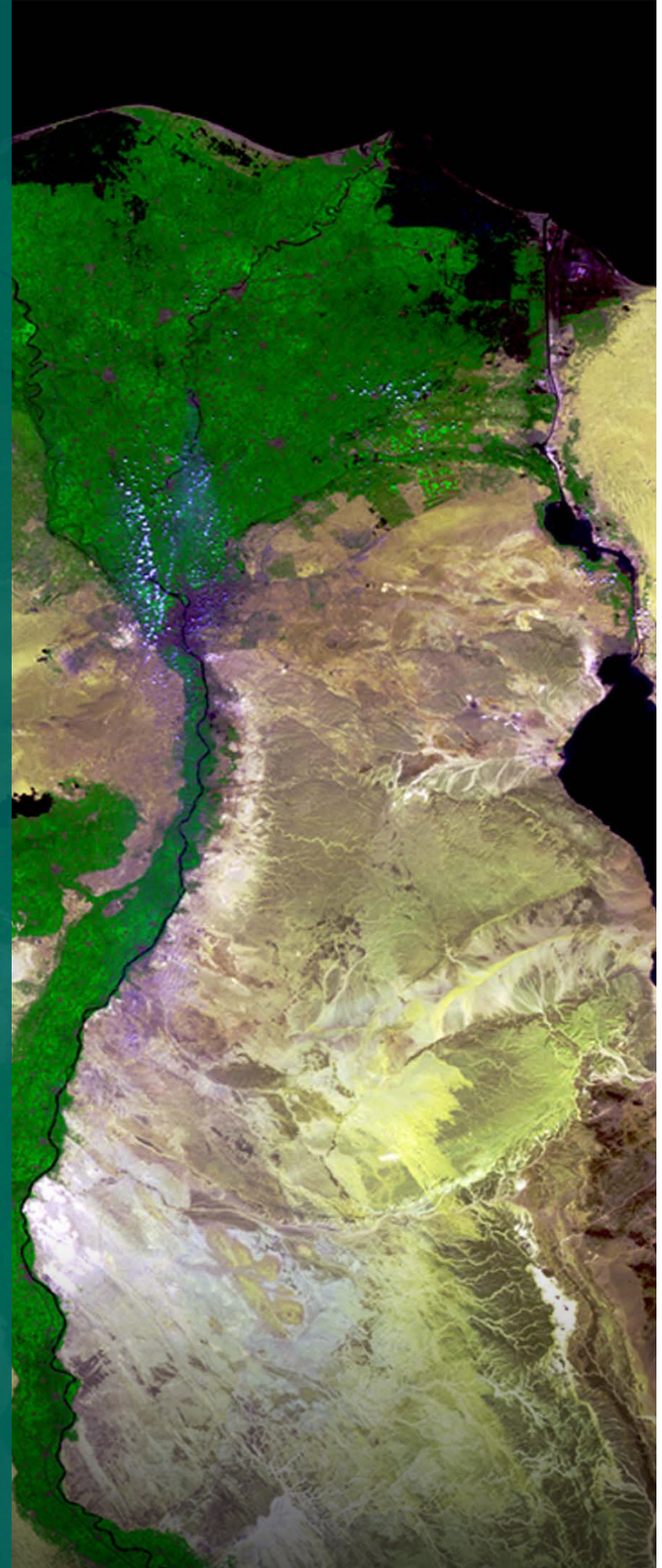
Djibouti does not have any certification activities in country. No Participatory Guarantee Systems (PGS) were identified.

Challenges, gaps and opportunities of existing policy framework

General uncertainties in Djibouti are related to: (i) the high dependence on Ethiopia which is going through a transition period; (ii) high vulnerability to exogenous shocks, such as price hikes on its high food and fuel imports, and cyclones and floods; and (iii) the failure to implement reforms. Without significant implementation of policy reforms, Djibouti may become a modern port enclave in a country otherwise equipped with lagging energy, ICT and education system, with high poverty at the periphery. Whilst there is policy which focuses on improving agriculture to promote food security and improve rural development, there is little expression of interest in pursuing EOA in the country.

Preliminary EOA typology

Type 5; Country has very little institutional capacity and no government support.



Atteyeh Sougal A, Pon B, Bates M and Petersons A, 2009. Irrigated agriculture in Djibouti. An economic and physical analysis of irrigation systems. FAO Technical paper.

FAO: http://www.fao.org/faolex/country-profiles/general-profile/en/?iso3=DJI

World Bank, 2016. Djibouti - Performance and learning review of the country partnership strategy for the period FY2014-FY2017. Washington, D.C. World Bank Group. http://documents.worldbank.org/curated/en/561571467995814631/Djibouti-Performance-and-learning-review-of-the-country-partnership-strategy-for-the-period-FY2014-FY2017.

EGYPT

Organic agriculture in Egypt began in the late 1970s with the foundation of the pioneering Sekem biodynamic farm. Market demand from Europe has to a large extent driven the development of the organic sector in Egypt, the supply of high-value counter-seasonal vegetables to the EU being particularly lucrative. The major organic crops produced for export are fruit and vegetables as well as a variety of herbs. About 2.8% of agricultural land in Egypt is organically certified.

Integration of EOA in agricultural and trade policies

Egypt has, for at least ten years, been in the process of drafting national legislation on EOA, and therefore does not yet have national legislation on organic agriculture. Egypt's first draft law regulating organic farming was approved by government in 2017, and the bill has now been passed to Parliament for ratification [43] . The details of the law were being debated in parliament and the law was ratified and then became effective from 2020. The Egyptian organic legislation largely follows EU legislation. It contains 32 articles arranged under six Titles.

The organic law provides the basis for the sustainable development of organic production while ensuring the effective functioning of the internal market, guaranteeing fair competition, ensuring consumer confidence and protecting consumer interests. It establishes common objectives and principles to underpin the rules set out concerning all stages of production, preparation and distribution of organic products and their control, and claims referring to organic production in labeling and advertising. The law recognizes EOA as a specific market responding to a consumer demand for organic products, and also delivers public goods contributing to the protection of the environment and animal welfare, as well as to rural development.

Government support to organic agriculture

The Agricultural Research Centre is affiliated to the Ministry of Agriculture and Land Reclamation and has Departments dealing directly and indirectly with organic agriculture:

1. Department of Soil Microbiology, Soil, Water and Environment Research Institute: research on compost, BNF, etc.;
2. Department of Biological Control, Plant Pathology Research Institute: research on agents controlling plant diseases;
3. Department of Biological Control, Plant Protection Research Institute: identifies biological control agents against insects.

The Central Laboratory for Organic Agriculture (CLOA), affiliated to the Ministry of Agriculture and Land Reclamation (MALR) was established in 2002, as a research institution dedicated to organic agriculture. The functions of this laboratory are to:

1. Organise organic agriculture training courses for the private and public sector, including agricultural extension specialists, farmers, processors and exporters, and to increase public awareness;
2. Establish a database on organic farming and register all certified organic farms in Egypt;
3. Coordinate the work of the certification bodies working within Egypt;
4. Make specifications for organic products sold in the local market and exported;
5. Carry out research to solve problems concerning organic agriculture focusing on medicinal plants and aromatic plants (MAPs) as well as fruit and vegetables;
6. Provide alternatives to agrochemicals.

99M
POPULATION

1M
AREA SQKM

EOA TYPE

43 The Egyptian parliament passed the Organic Law in January 2020.

The Agriculture and Biology Research Division, National Research Centre has a focus on EOA across agricultural areas.

There are two government supported universities that have departments supporting EOA:

1. Al-Azhar University, the Department of Environment and Organic Agriculture, established in 1997.
2. Ain Shams University, Department of Organic Agriculture was established in 2005.

Civil and Private Sector Support

NGOs and sectoral support bodies have played, and continue to play a significant role in the support of organic agriculture in Egypt. This is highlighted by the number and type of organisations operating in the country, including:

The Egyptian Biodynamic Association (EBDA): Established in 1994, is an independent non-governmental organisation that supports farmers in Egypt to shift from conventional agricultural practices to sustainable biodynamic ones.

The Centre of Organic Agriculture in Egypt (COAE): A private company founded in 1990 to provide organic and biodynamic agriculture training and consultation. Over the years, activities progressed from training and consultation to inspection and certification based on the international standards (Vision: to become the leading certification and technical services provider in the Egyptian food supply chain). COAE is accredited according to EN45011 (ISO65) and recognised by EU, international Demeter Organization and Global GAP as an inspection body operating in a third country.

Several organisations work under the umbrella of the Exporters' Union, to assist with quality issues, and certification: The Union of Growers and Exporters of Organic and Biodynamic Agriculture (UGEOBA) (est 1998); Fayoum Agro-Organic Agriculture Development Association (FAODAS) (2003); Tomorrow's Youth for Organic Agriculture (TYOG); Ecological Agriculture Protection Association (EAPA); Egyptian Centre of Organic Agriculture Society (ECOAS); Wafaa Society for Organic Agriculture Development (WSOAD) and the Council of Organic Agriculture within Egyptian Agribusiness Association (EAGA).

The following activities are performed by the abovementioned organisations:

1. Support legislation for national organic laws;
2. Support the production of Egyptian standard specifications (ESS);
3. Improve farmers' awareness of how to minimise the microbial content of different products;
4. Establish laboratories for pesticide residue analysis;
5. Support development of the Central Laboratory of Organic Agriculture into a research and extension body, with help from the NGOs, to coordinate the organic movement and disseminate knowledge of EOA among farmers and extension staff;
6. Encourage and support the establishment of organic and consumer protection associations;
7. Establish a database and information centres for organic farming;
8. Establish market information centres for organic produce;
9. Encourage exports to international markets;
10. Encourage the establishment of an organic exhibition;
11. Increase public awareness of organic agriculture and the need for safe food.

A number of international organisations and programmes work on promoting organic farming in Egypt in various ways. These include the FAO, Care International, Italian Technical Support and USAID. Assistance includes general EOA training, technical assistance, and establishing organic farmer organisations.

Overview of certification landscape in the country and extent to which this links to national policy.

Egypt has a national standard; ministerial decision No. 1411 in December 2008 adopted the standards governing organic agriculture in Egypt and this was in force as a law until the law on organic agriculture was ratified in 2020. The standards provide a national definition of organic products and a reference point for certification activities. They do not necessarily lead to adoption of a national inspection and certification system supervised by the government.

The two national offices (ECOAS and COAE), each have different agreements with different bodies such as the Soil Association, KRAV and BCS to collaborate in the field of product acceptance and inspection work. COAE has its own standards, which cover the main rules of the international norms such as IFOAM Basic Standards and the EU Regulation.

Egypt does not have third country status within the EU. The norms currently applicable in Egypt include: EU Regulations, US National Organic Program (NOP), Japanese Agricultural Standards (JAS), International Demeter Guidelines for Growers and Cultivation and Demeter Processing Standards (1999 and revised 2004), Social Association Standards, KRAV standards and Bio-Suisse standards.

Certification

There are two levels of organic production in Egypt: certified organic production and non-certified/ agro-ecological farming. Certified production is mostly geared to products destined for exports. Organic certification in Egypt is mainly provided by two local organisations: ECOA and COAE. Both companies are members of IFOAM and have been accredited. Neither is accredited according to NOP-USDA and JAS yet, but they co-operate with the accredited bodies to certify their customers upon request according to NOP and JAS.

In addition to the two local organisations, a number of foreign certification bodies operate in Egypt. The presence of third-party certifiers in the country has varied over time, but those operating in the country have included Soil Association (UK), IMO (Switzerland), IMC (Italy), Ecocert, BCS, Lacon, CERES from Germany, a-CERT from Greece. ECOA and COAE certify the majority of farms in Egypt, with the remainder covered by foreign entities. The absence (until recently) of organic agriculture legislation, and thus the lack of a convenient legal environment, may explain why most of the foreign certifiers do not work at full capacity.

Overview of gaps and challenges within existing policy framework

There is currently no public subsidy for organic farming in Egypt. Some agricultural and food policies that can have negative impacts on organic agriculture development include subsidies on chemical fertilisers and synthetic pesticides, approval of pesticide imports and pesticide use, competing environmental schemes, unfavourable regulations on farm-made and organic fertilisers, plant protection products and farmers' seeds, food safety and other health requirements, laws related to farm land access in the new desert areas.

As identified by Siam (2019): Although new agricultural legislation and laws have been issued, particularly with regard to agricultural co-operatives and organic agriculture law, these are regarded as either not sufficient and/or have not been correctly implemented. The Agricultural Research Centre (ARC) and the agricultural extension structures suffer from lack of finance and human capital. There is also insufficient clarity in communicating prevailing agricultural policy (including price incentives) and lack of information on input and output markets.

Egypt has a well-developed organic sector, with strong support from NGOs and the private sector, and evidence of support for sector development from the government. Increasing consumer demand for organic products means that the sector has high growth potential but needs some initial support to structure itself to the scale that will allow it to fulfill this demand.

Institutional challenges include lack of co-ordination related to the needs of the organic sector, and lack of local certification and inspection capacity. The organic sector is considered marginalised with no clear approaches developed to support organic agriculture, through policies, strategies and plans or government action plans.

Preliminary EOA typology

Type 2; Country has some government support, there is a policy underway, a strong NOAM, a domestic market and strong NGO farmer support. Egypt has recently passed a Law on Organics. Egypt has its own standards. Historical civil and private sector support to the sector with some government support. Country is exporting.

Siam G, 2019. Organic Agriculture in Egypt. ENPARD South Support Project II.

Willer H, Lernoud J and Kemper L, 2019. The world of organic agriculture (p.22-31). IFOAM, Bonn, Germany.

EQUITORIAL GUINEA

887K
POPULATION

28K
AREA SQKM

EOA TYPE

EQUITORIAL GUINEA

There is little NGO activity in the country. Key international donors who play an active part in supporting EOA include: UNICEF and FAO. In terms of the country's "Horizon 2020" programme, the country is committed to creating jobs in sustainable agriculture. UNICEF worked with FAO in a project to train 80 women for better use of financial and environmental resources. These small scale farmers learned to use organic pesticides, optimize irrigation systems, value multi-crops instead of mono-cultures and replace traditional harmful techniques with environmentally correct ones (UNICEF, 2017). There is no national regulation on organic agriculture in Equatorial Guinea.

There seems to be limited national capacity in EOA in Equatorial Guinea and the sector is poorly documented. However, there is some documented activity on the part of some producers, with one of the leading organic producers reported to be a man called Biotop (Essiane, 2019).

The certification landscape and linkages to national policy

Organic standards: Equatorial Guinea does not have a national organic standard. There is no Participatory Guarantee System (PGS) operational in Equatorial Guinea (Willler and Lernoud, 2019).

Equatorial Guinea does not feature in the IFOAM World of Organics report (Willler and Lernoud 2019). For the few organic producers wanting to export, markets still need to be developed, with the Community of Portuguese speaking countries constituting a potential market (Essiane, 2019).

The country does not have an overarching agricultural policy and there is a lack of recognition of the sector in the existing legislation. The 2010 National Food Security Programme (Rep. of Equatorial Guinea, 2012), which is backed by the FAO, lists 4 overarching objectives:

1. increasing agricultural production and improving productivity;
2. adding value and commercializing agricultural production and increasing access to credit;
3. improving the nutritional status of the population and alleviating its vulnerability;
4. institutional strengthening.

There is no mention made of EOA as a potential leverage to help meet these objectives. Advocacy for EOA could be built on these points. Most agricultural production is cultivated using organic fertiliser (which doesn't mean that no pesticides are being used) [44] – this "organic by default" situation could be harnessed to develop EOA.

Preliminary EOA typology

Type 5 Country has very little institutional capacity and no government support.

44 International Institute for Sustainable Development. N.d.Analyse des NAMA potentielles – Guinée Équatoriale

Essiane F, 2019. Farnandino Eloko, le promoteur du bio en Guinée Equatoriale. Published in Sputnik News Frenace www.fr.sputniknews.com/afrique/201906031041322491-fernandino-eloko-le-promoteur-du-bio-en-guinee-equatoriale/

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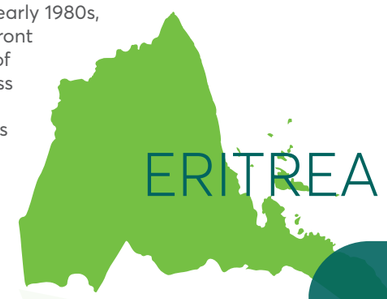
Rep. of Equatorial Guinea, 2012. Programa nacional para la seguridad alimentaria (PNSA).

UNICEF, 2017. Equatorial Guinea. https://www.unicef.org/about/annualreport/files/Equatoria__Guinea_2017_COAR.pdf

Willler H and Lernoud J (eds.), 2019. The world of organic agriculture. Statistics & Emerging trends 2019. Ifoam. Bonn.

ERITREA

Eritrea gained independence de facto in 1991 and de jure in 1993 after an independence struggle that lasted for 30 years (1961–1991). Since the early 1980s, the struggle had been dominated by the Eritrea People's Liberation Front (EPLF), which later formed the government of the independent state of Eritrea. In 1994, the EPLF held its third and last organisational congress and changed its name to the PFDJ. The former secretary-general of the EPLF, Isaias Afewerki, has ruled the country since independence as president without ever having been confirmed in his office by popular vote.



ERITREA

After decades of near total diplomatic isolation, 2018 was a year of significant change in Eritrea's relationship with its neighbours. In July, the leaders of Eritrea and Ethiopia signed a five-point declaration to usher in "a new era of peace and friendship," formally ending a border war that began 20 years earlier.

A month later, Eritrea and Somalia resumed diplomatic relations after 15 years, and Djibouti and Eritrea did the same shortly after. In November, the United Nations Security Council lifted its nine-year arms embargo against Eritrea. Despite these changes, there was no sign of Eritrea ending its severe repression of basic rights. According to Human Rights Watch: "Eritrea's government under President Isaias Afewerki continues to be responsible for repeated serious rights violations. Thousands of Eritreans flee the country monthly to avoid "national service," conscription that lasts indefinitely. Eritreans are subject to arbitrary arrest and harsh treatment in detention; no means exist to challenge detention or other abuses. Eritrea has had no national elections, no legislature, independent press, or independent civil society organisations since 2001. Religious freedom is severely curtailed. The 2018 peace agreement with long-standing enemy Ethiopia provided some hope that restrictions on national service would be lifted, but so far there has been little change."

6M
POPULATION

117K
AREA SQKM

EOA TYPE

Agriculture and Policy in Eritrea

Eritrea's main agricultural products include sorghum, millet, barley, wheat, legumes, vegetables, fruits, sesame, linseed, cattle, sheep, goats and camels. A large share of the population - nearly 80% - is engaged in subsistence agriculture, but the agricultural sector only produces a small share of the country's total economic output. Drought and erratic rainfall and the large percentage of the labour force tied up in military service have a detrimental effect on agricultural production and economic development. Eritrea's harvests generally cannot meet the food needs of the country without supplemental grain purchases.

The achievement of food and nutrition security, both at the national and household levels, is a key objective of the Government of the State of Eritrea (GoSE) as reflected in the National Indicative Development Plan (NIDP), which reflects Eritrea's projected five-year developmental and economic growth trajectories for the period 2014-2018. In the area of agriculture, the GoSE is implementing an integrated Five-year Strategic Agricultural Development Plan in order to achieve sustainable food security. The objectives of this integrated strategic development plan are to:

1. Increase the agricultural and livestock annual output for use as food and as raw material for associated industries in a sustainable manner; and,
2. Earn foreign currency through exports of agricultural and agro-industrial products and substitute imports.

In collaboration with the Eritrean Government, the FAO has identified priority areas for collaboration with FAO over the period 2017–2021. These are:

- Priority 1: Sustainable natural resources management;
- Priority 2: Improved agriculture sector production, productivity and market access for enhanced food security and nutrition;
- Priority 3: Preparedness and response to natural threats and improved resilience.

In 2016, the Ministry of Agriculture published a booklet, titled, "Impact of Climate Change on Agriculture and Food Systems: the Eritrean Context". This booklet outlines its plan to improve the sustainability of agriculture in Eritrea. Important efforts include:

- the development of water reservoirs and accompanying infrastructure;
- mitigating pests and plant diseases;
- planting in accordance with predictable weather patterns;
- increasing biodiversity of planting sites;
- promoting crop rotation to help sustain soil quality;
- promoting sustainable energy to decrease traditional wood fire stove use.

Eritrea aimed to increase collaboration with the United Nations Development Programme (UNDP) to promote sustainability and food security, and there has been some success with projects that aim to increase sustainable agriculture in Eritrea.

Government support and key institutions

Key Public Sector Actors In The Agriculture Sector Are The Ministry Of Agriculture (Moa) And Ministry Of Fisheries (Mof). In Terms Of Research, Eritrea Has The Hamelmalo College Of Agriculture At The University Of Asmara.

How EOA is included in agricultural and trade policies

Whilst some stability has come since 2018, Eritrea faces significant challenges; its people are among the most deprived of the world's people by many social indicators. The inability of Eritrea to feed itself is chronic. As many as 80% of all Eritreans depend on food and other aid for their existence.

This is the context of efforts to rehabilitate and develop the agricultural sector. An article about the status and future of agriculture in Eritrea found the following: "High population densities, no longer relevant land tenure systems, inappropriate policies, 30 years of war and intermittent but long-term drought are some reasons why the agricultural sector cannot fulfill the country's basic food needs. Development and rehabilitation of agriculture are two different tasks but each has a role to play in one or other of the major zones and systems. Restructuring the Highland system, conventional irrigation and pastoralism in the Western Lowlands and spate irrigation in the Eastern Lowlands offer possibilities for increased and sustainable agricultural output and national food security."

Furthermore, the researchers state that much of the land area of Eritrea is badly degraded, due to several factors, including the land tenure systems, gross overstocking of the grazing lands, the use of marginal land for cultivation, recurrent drought, and the war. Commercial agriculture is currently restricted to two large estates, which are reportedly operating below capacity in difficult technical and financial circumstances.

Overview of the certification landscape and general country outlook

The Government of Eritrea has declared that it is investing in three priority areas: food security and agricultural production, infrastructure development, and human resources development. Yet, Eritrea's economic conditions remain challenging as a result of the global economic slowdown, a difficult macroeconomic situation, and limited physical and human capital. The country's development is also negatively affected by its political isolation, sanctions, a large young population and high youth unemployment.

Eritrea does not have any activities in the EOA space – no national law, standards or export activities. No Participatory Guarantee Systems (PGS) were reported in Eritrea.

Indications are that the rebuilding of the agricultural sector requires significant investment – and whilst perhaps optimistic, AE thinking could influence the future development of the sector.

Preliminary EOA typology

Type 5; Country has very little institutional capacity, no government support and is not exporting.

FAO: Country programming framework for the state of Eritrea, 2017 to 2021.

Wilson R, Howe G and Zeremariam F, 2018. Agriculture in Eritrea: Roots of disaster and routes to development. 10.13140/RG.2.2.34639.79528.

World Bank: https://www.worldbank.org/en/country/eritrea/overview

ESWATINI

Eswatini is the new name for the Kingdom of Swaziland, changed by royal decree in 2018. Main cash crops include: sugar cane, cotton, maize, tobacco, rice, citrus fruits, pineapples, sorghum, peanuts; livestock activities include the breeding and herding of cattle, goats and sheep.

According to the FAO [45] "The vast majority of Swaziland's 1.2 million people depend on subsistence farming for their livelihoods, which has been drastically handicapped by a struggling economy and recent droughts linked to climate change". FAO estimates that a third of the people are under-nourished even though the Swaziland Agricultural Development Project (EU and FAO funded) was launched in 2009, and has trained over 20,000 smallholders on crop production and marketing.

The eSwatini Ministry of Agriculture states on its website [46] that agricultural productivity is expected to increase on decreasing areas of available arable land, as the population grows. Dams and efficient use of water are national priorities.

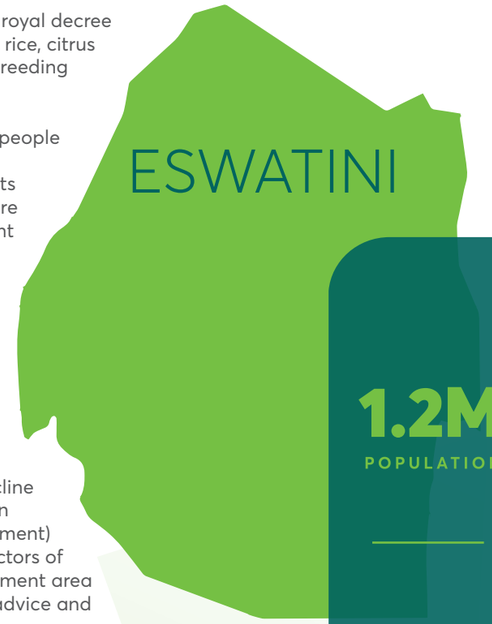
Agricultural Extension

The agricultural extension system in eSwatini has suffered severe decline in recent years (Simelane et al., 2019), after the Agricultural Education and Extension Programme (started in the 1930s by the British government) was stopped when external funding ended. According to former directors of Swaziland Extension Service (Dicks, 1979), in the 1960's, rural development area centres throughout Swaziland, helped with soil analysis, agronomic advice and livestock improvement schemes.

However, Simelane et al. (2019) point out that "Over the years, the government has reduced the budget to train, hire and support agricultural extension" (p.2). On p.4, they report: "There were only two EOs (extension officers) who had training in agricultural extension and they were above 50 years of age. This is a result of the University of Eswatini [no longer providing] professional agricultural extension courses at undergraduate level. These two EOs were remnants of the old programme which is why they are both about to retire since the retirement age in Eswatini is 60 years". Of the thirteen EOs interviewed, twelve had agricultural degrees and one had a diploma.

"The EOs listed the following challenges they faced in their department:

> Lack of transport to visit the large number of farmers and assist them to address their needs; Lack of office and field facilities like internet connected computers, appropriate clothing, demonstration facilities, communication and travelling allowances; understaffed (1 EO: over 500 farmers) …; EOs frequently left the department because they felt government was neglecting their welfare…. This was viewed as a big let-down to EOs' efforts; Lack of rigorous workshops and in-service training to capacitate EOs; Very unsatisfactory remuneration of EOs by government was identified as the biggest setback in the department; New EOs found dissatisfied (hopeless) farmers and collapsing farmer groups, who have been holding empty promises from government/ Parastatals and NGOs for years; Climate change made it difficult to advise farmers on issues of production; and Famers were in and out of farming, which made it difficult to keep a register of farmers such that when assistance came, it was difficult to identify the right beneficiary. This also made it difficult to plan training programmes for farmers" (Simelane et al., 2019, p.12).



45 http://www.fao.org/in-action/swaziland-looks-to-a-revitalized-agriculture-sector/en/
46 http://www.gov.sz/index.php/departments-sp-741563992/agricultural-research-and-specialists/80-agriculture/agriculture/730-irrigation-agronomy-section

The discussion on the merits of colonial extension systems should be balanced with what we have learned in Africa over the past fifty years about participatory approaches to rural development, the establishment of Farmer Field Schools to assist farmers in setting the research agenda and contributing to on-farm research with their local experience as practitioners, ways of helping rural communities to take ownership of the development process, and appropriate training for EOs in communication and community development.

How is EOA integrated in agricultural and trade policies?

Only two producers (with a total of 186 ha) are listed in Willer and Lernoud. (2019). No organic movement could be found in the country, although the Africa Co-operative Action Trust (ACAT) does some training in EOA (https://www.ecosolidar.ch/en/project/eswatini/)

Preliminary EOA typology

Type 5; Country has very little institutional capacity, no government support and is not exporting.

Alan Dicks, Former Regional Director, Swaziland Extension Service. Personal communication, 1979.

Simelane SM, Terblanche SE and Masarirambi MT, 2019. Perceptions of extension officers regarding public extension services: A case study of horticultural extension officers in the Hhohho Region, Eswatini. S Afr J Agric Ext, vol 47 no 1; p.1-19. Available at: http://dx.doi.org/10.17159/2413-3221/2019/v47n1a485.

ETHIOPIA

Ethiopia has one of Africa's fastest growing economies, with growth averaging over 10% per year. It is a landlocked country situated in the Horn of Africa. It shares frontiers with Eritrea to the north, Djibouti to the northeast, Somalia to the east, Kenya to the south, and Sudan to the west. Ethiopia covers an area of 1,133,380 km2, measuring about 1,200 km from north to south and approximately 1,600 km from east to west. 85% of Ethiopia's population lives in rural areas and is engaged in agricultural production. It is endowed with significant environmental and natural resources to increase agricultural productivity. However, agriculture in Ethiopia is characterised by low production and productivity, and inability to provide adequate food for the population as well as raw materials for export and the growing industry.

Numerous environmental, physical and institutional factors contribute to low productivity (weak extension service delivery, crop and livestock diseases, soil and environmental degradation, inadequate coordination and lack of institutions that provide adequate and quality services to the smallholder farmers). The Government of Ethiopia's (GoE) commitment to country-led development programmes and exceeding the Comprehensive Africa Agriculture Development Programme's (CAADP) investment and growth targets, along with the development of the new Agricultural Growth Programme (AGP) provides a unique and promising opportunity to implement a transformative food security strategy aligned with an Ethiopian-owned and comprehensive plan, strategically coordinated with a range of actors.

109M
POPULATION

1.1M
AREA SQKM

According to the Global Food Security Strategy for Ethiopia for 2019-2023:

> Despite Ethiopia's great progress and improvement in health and nutrition over the past 30 years, poor nutrition remains a persistent challenge. In 2016, 38% of children under five were stunted and 18% severely stunted. Even the highest wealth quintile shows a stunting rate for children under five of 2%. Other nutrition indicators for children show that 10% are wasted, 24% underweight, and 1% overweight, while 13% of newborns are born with low birth weight, an indicator of inadequate nutrition among pregnant women. While undernutrition among women of reproductive age has declined from 30% in 2000 to 22% in 2016, the prevalence of women who are overweight or obese has increased from 3% to 8% during that same time period. Anaemia is also prevalent among women of reproductive age (2%) and children under five (57%)…Households escaping and then falling back into poverty is a major issue… poverty fell by 33% between 2000 and 2011, [but] 63% of those who escaped poverty between 1999 and 2009 fell back into it […] suggesting that net poverty reduction would be substantially higher if households were able to sustainably escape (Feed the Future 2019, p.7).

EOA TYPE

And (Ibid. pp.9 &10):

> Ethiopia's economy remains highly agrarian. Agriculture accounts for approximately 40% of GDP, 80% of exports, and employs an estimated 75% of the workforce. Ethiopia cultivates a variety of staple and cash crops while also having the largest livestock population in Sub Saharan Africa. The country's agriculture production is dominated by highland smallholder farmers who manage over 90% of the agricultural land. Cereals comprise 63% of total crop production and nutrition sensitive agricultural production is limited. In contrast to the highlands, lowland pastoralists primarily rely on livestock as their livelihood. The nature of pastoralism in the lowlands has changed due to landscape fragmentation, increases in climatic shocks, conflict and population growth. While these changes have largely left pastoral populations more vulnerable, opportunities exist through increased market orientation and improvements in livestock productivity…

To counteract those trends [deforestation and soil degradation], the sector will require significant investment in climate-smart agronomic technologies and practices that are supported by aggressive soil and watershed natural resource management activities. The Tigray region's recent Gold Award by the World Future Council for the world's best land restoration effort… provides an inspiring example of what can be achieved.

The agricultural policy of the Imperial regime had a feudal/capitalist orientation, while the agricultural policy of the Derg regime had a socialist footing. This was followed by a mixed type agricultural policy (Demese, 2004). In the era of the Imperial regime, the three Five-Year Plans (FYPs), were formulated from the top down and included exclusive involvement of the elites and clergy (Amdissa 2007). The MoA, in the Derg regime, developed the Peasant Agricultural Development Extension Programme (PADEP), which focused on improving extension service and redirecting agricultural resources to the peasant sector. The current government has adopted and used the ADLI strategy since 1995 as an overall development strategy for the country. Concomitant with the ADLI, a series of Poverty Reduction Strategy Papers (PRSP) were launched, including the Sustainable Development and Poverty Reduction Programme (SDPRP) (2001–2005), the Plan for Accelerated and Sustained Development to End Poverty (PASDEP) (2004-2010), and the current Growth and Transformation Plan (GTP) (2009–2015). In all these programmes and policies, poverty reduction is the central theme, and agriculture is given top priority, particularly in regard to smallholder farmers.

Policy formation and implementation in Ethiopia is shaped by the ideology and political strategy of the ruling party, the influence of key actors (including the international community), and capacity constraints at all levels of government (Amdissa 2007). Policy priorities are led by the GoE's visions, like ADLI, with focus: poverty reduction, food security, commercialisation and export promotion. ADLI assumes that in a capital-scarce country like Ethiopia, labour-intensive agriculture is the engine of growth and poverty reduction, and agricultural development is the first stage in a multi-step process leading to industrial development. According to GoE guidelines, policymaking in Ethiopia is a systematic, technocratic, consultative and evidence-based process. Policy formulation process: (1) problems identified; (2) evidence and analysis of these problems is amassed; (3) priorities are set on the basis of this evidence, and draft policies are formulated; (4) key stakeholders (including regional decision-makers) consulted to test suitability and practicality of proposed policy; (5) policy is then reviewed and reformulated; (6) the policy is implemented.

EOA in Ethiopia

In 2003, GoE formed a team to come up with organic agriculture law and regulations to describe how organic products would be defined as part of the government's new commitment to supporting the development of organic agriculture. The OA System (Proclamation No.488/2006) was issued, signed into law, and was approved by the Ethiopian Parliament on 8 March 2006. This made it possible for Ethiopia to access new markets. In 2007 the Ethiopian Association of Organic Agriculture (EOAO) was formed by 12 NGOs who directly and indirectly supported the organic sector development in terms of training, funding and advocacy. These NGOs included the Institute of Sustainable Development (ISD) in the Tigray Project and Save the Children of the UK, which initiated the first organically based integrated pest management programme in SNNP, Amhara and Tigray regions, and private companies for the development of EOA. More recently, Ethiopia joined the EOA Initiative.

According to Yilma (2018):

> A road map for Ecological Organic Agriculture policy in Ethiopia, as a guidance document to implement ecological organic agriculture nationally, has been drafted in 2018, using lessons and experiences from EOA activities conducted by the different implementing partners. This is due to be submitted to the Ministry of Agriculture and Livestock Resources for adoption as supportive guidance of the already existing organic agriculture proclamation. A clear, strong national policy from Ethiopia's federal and regional governments to promote agroecological production will serve as a major driving force for organic producers, traders and consumers to build a safer, more sustainable, and socially just, local food system. However, a national organic regulation that enforces its implementation is required.

And:

> The Institute for Sustainable Development (ISD), in collaboration with numerous partners including the national Ministry of Agriculture and Livestock Resource, universities, NGOs and media institutions, has been implementing EOA activities in different parts of the country since 2013. In recent years they worked with smallholder vegetable farmers in the Holeta area of the Oromia region and the South Wollo zone of Amhara region…and helped these farmers to set up their own organic farming associations in order to find better market links… they were able to create better market links and bridge the gap between organic producers and consumers. The results revealed a strong demand for organic products, mainly in the capital, Addis Ababa. To link trained, organic farmers more directly with consumers in Addis Ababa, ISD supported farmers in agreeing contracts with supermarkets and organising organic market open days… A road map for EOA policy in Ethiopia, as a guidance document to implement ecological organic agriculture nationally, [was] drafted in 2018.

The Feed the Future initiative (2019, p.12), gives as the first objective of this programme:

> Inclusive and Sustainable Agriculture Led Economic Growth, is built on sustainably increasing crop and livestock productivity and diversification, improving the business enabling environment, increasing alternative livelihood pathways including employment and entrepreneurship opportunities, especially for the youth, and expanding access to markets with increased urban opportunities. Taken together, these will increase employment and incomes in rural and urban areas, and increase the availability of diverse and nutritious foods. This growth will support a gradual shift from an agrarian economy to an economy that has an increased share of manufacturing and services coupled with urbanization. Furthermore, the coordinated effort to link nutrition sensitive agriculture with other nutrition specific and sensitive approaches will reduce overall malnutrition.

Objectives 2 and 3 involve resilience and nutrition, which are also major aspects of the programme. As with most US government-sponsored programmes, the recommendations are closely tied to biotechnology use, and EOA is not mentioned in this report.

The Tigray project which recently won the World Future Council Gold Policy Award (Embassy 2017) shows how well-planned participatory EOA projects can transform severely degraded regions:

> This award recognises the work of the Tigray regional government, which has mobilised villagers to volunteer 20 days a year to build terraces, irrigation projects, build stone walls on mountains and hillsides, and other projects, to restore land on a massive scale. As a result, erosion has decreased significantly, groundwater levels are recharged, and the uptake of sustainable agricultural practices made a significant contribution to food self-sufficiency and economic growth. Since 1991 Tigray has managed to improve soil and water conservation, and closed off 1.2 million ha of land to allow plants to regrow. "Ethiopia's Tigray region shows that restoration of degraded land can be a reality …The model provides hope for other African countries to follow suit," [said Council Chair]. "The Tigray region of Ethiopia is now greener than it has ever been during the last 145 years," said Chris Reij, desertification expert at the World Resources Institute. "This is not due to an increase in rainfall, but due to human investment in restoring degraded land to productivity."

Edwards et al. (2007, p.237) report:

> The "Tigray Project", as it is often referred to, demonstrates that ecological agricultural practices such as composting, water and soil harvesting, and crop diversification to mirror the diversity of soil conditions can bring benefits to poor farmers, particularly to women-headed families. Among the benefits demonstrated are increased yields and productivity of crops, an improved hydrological cycle with raised water tables and permanent springs, improved soil fertility, rehabilitated degraded lands, increased incomes, increased biodiversity, and increased mitigation and adaptation to climate change.
> The project is farmer-led, and builds on the local technologies and knowledge of the farming communities. Local communities have been empowered and they now develop legally-recognized bylaws to govern their land and other natural resources management activities.
> The successes of the project have led to its expansion to include many more communities in the Tigray Region and in the rest of the country. This happened because the government has now adopted the approach used by the project as its main strategy for combating land degradation and for eradicating poverty from Ethiopia.

Organic Certification

Organic certification has taken place since the mid-1990s, started by Ecocert. An estimated 80% of Ethiopian coffee produced is organically produced but not certified. In 2000, there were four international organisations offering certification in Ethiopia: IMO, Ceres, BCS, and Control Union. BCS has currently certified most of the organic producers in the country. Almost all certified organic production in Ethiopia is certified according to the EU regulation 2092/9 (and more recently, 834/2007). As producers target more distant markets, production is also certified according to the US National Organic Program (NOP), or according to Japan Agriculture Standards (JAS). There are no local certification bodies or laboratory facilities capable of conducting residue analyses on Ethiopian crops and products. Since 2007, EOAO lobbies the GoE for the establishment of an Ethiopian certification company and laboratory facility under the Ethiopian Standard and Quality Authority (ESQA) to help smallholder farmers lower the cost of international certification. This could help them in local market development. Other certification systems in Ethiopia include HACCP, Fair Trade, Rainforest Alliance, Eurocap, and ISO (Rieks & Edwards, 2007).

Key organic products

Ethiopia has certified organic coffee, honey, sesame, pulses, teff, pineapple, bananas, incense (myrrh), linseed, spices and herbs. Coffee export comprises 65% of foreign exchange for the country. Further export crops are oil seeds and pulses such as Niger seeds, sesame, linseeds, sunflower seeds, groundnuts, rapeseeds, castor oil seeds, pumpkin seeds, haricot beans, pea-beans, horse beans, chickpeas and lentils. Floriculture also has significant share in the export market. The export of honey is currently low, but there is great potential. According to the data provided by the Ministry of Agriculture, Germany is Ethiopia's primary export partner, accounting for 11-13% of the export volume. Other major partners are Saudi Arabia, Netherlands, United States, Switzerland and Italy.

The future of organic regulation in Ethiopia is not clear with conflict in Tigray. Support for organic farmers through government research and extension has been non-existent. An important development over the past five years is the establishment of Quality Management training and procedures.

It is essential that the organic industry speaks with one voice in communicating with the government, and understand and respect the EOA/OA objectives in Ethiopia. Policy proposals need to emphasize how EOA/OA can contribute to sustainable rural development. The potential for EOA/OA to help the country deal with low and erratic rainfall (through combining organic farming and rainwater harvesting), and with the development of a vibrant small commercial organic agricultural sector (through skills training, development of quality management systems, and the establishment of secondary co-operatives to support the emerging primary co-operatives), needs to be illustrated with practical projects. A number of successful pilot projects will serve to show that an EOA/OA policy is a practical proposition.

Despite these challenges, there are many opportunities to improve the performance of Ethiopia's agriculture sector that can directly impact poverty reduction, given that the vast majority of Ethiopians are engaged in agriculture and related activities. Ethiopia has a high potential for organic production, but the country is at a very low stage compared with other countries, even in Africa. The potential needs a further developmental support to establish production, processing and trading infrastructure, as well as to increase the human capacities for organic production along the whole value chain.

Preliminary EOA typology

Type 3; Country has a developing domestic and export market, some NGO activity, some guidelines and exports, but little government support.

Access Capital. 2010. The Ethiopia Macroeconomic Handbook. Addis Ababa: Access Capital.

Amdissa, T. 2007. Agriculture, Growth and Poverty Reduction in Ethiopia: Policy Processes Around the New PRSP (PASDEP). Brighton, UK: Future Agricultures Consortium.

Baten, Jörg. 2016. A History of the Global Economy. From 1500 to the Present. Cambridge University Press. pp. 351–352. ISBN 9781107507180.

CSA. 2012. National Statistics (Abstract) 2012, Ethiopian Central Statistical Agency, Addis Ababa.

Debebe, H. 2012. PANE: Contribution of Charities and Societies for the Achievement of the MDGs and PRSP in Ethiopia. Addis Ababa: PANE.

Demese C., Ademew B., and Mellor J. 2010. Ethiopia's Agriculture Sector Policy and Investment Framework: Ten Year Road Map (2010/2020). The Federal Democratic Republic of Ethiopia Ministry of Agriculture and Rural Development. Working Paper. Addis Ababa. Ethiopia.

Desalegn. 2008. 'Agriculture Policy Review', in Taye Tesfaye (eds) Digest of Ethiopia's National Polices, Strategies and Programs, pp:129-151. Addis Ababa.FSS.

Edwards, S., Egziabher, T.B.G. & Araya, H. 2007. Successes and Challenges in Ecological Agriculture: Experiences from Tigray, Ethiopia. (In: Climate change and food systems resilience in sub-Saharan Africa). Rome, FAO.

Embassy (of the Federal Democratic Republic of Ethiopia). 2017. Tigray project wins gold for land restoration. At: www.ethioembassy.org.uk/tigray-project-wins-gold-for-land-restoration/.

Feed the Future. 2019. Global food security strategy: Ethiopia country Plan. US Government, Washington.

MoFED (Ministry of Finance and Economic Development). (20100. Growth and Transformation Plan (2010/11/2014/15) Addis Ababa.

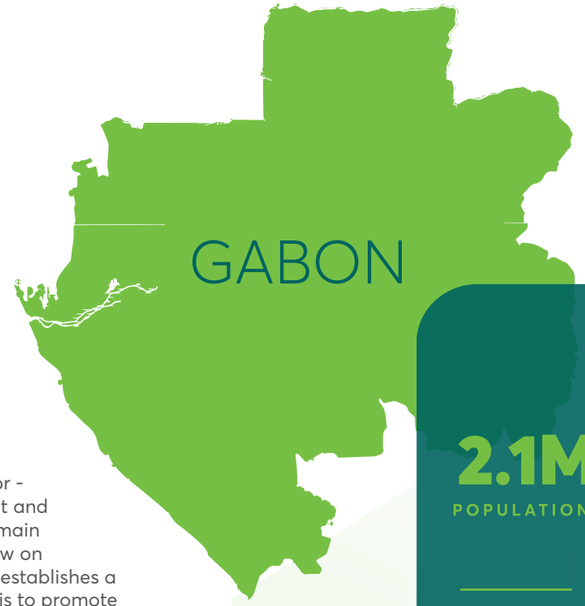
MoRAD. 2008. Agricultural Development, Meaning and Its Origin In Ethiopia. Addis Ababa. Ministry of Agriculture and Rural Development.

Najam, A. 2005. Policy Analysis for Integrated Environmental Policy. Presentation at the United Nations Environment Programme's West Asia Regional Training Workshop, Manama, Bahrain.

Taye A. 2008. Digest of Ethiopian National Policies, Strategies and Programs. Addis Ababa: Forum Social Studies.

Yilma S. 2018. The rise of organic agriculture in Ethiopia. In: Pesticide Action Network UK.

GABON



Gabon's overarching development plan, Vision 2025 Strategic plan (Rep. of Gabon, 2011), puts forth the following vision for the agricultural sector "Gabon, through the rise of agriculture and animal husbandry, will ensure sustainable food security for its population and will be a global exporter of agricultural tropical produce, with respect to 'scientific' agriculture and sustainable development" by 2025 (Rep. of Gabon, 2011:93).

The 2008 law on sustainable agricultural development, the GRAINE programme - although initiated by a private investor - combined with the "National Plan for Agricultural Investment and Food and Nutrition Security" adopted in 2015, form the two main components of the country's agricultural sector. The 2008 law on sustainable agricultural development (Rep. of Gabon, 2008) establishes a sustainable agricultural development policy whose purpose is to promote income-generating activities in the rural world, to revitalise it, to participate in the demographic rebalancing of the territory, to contribute to food self-sufficiency and to diversify exports.

The GRAINE programme, funded by the African Development Bank, and implemented by the Gabonese Society for Agricultural Processing and Rural Development (SOTRADER) started in 2017 and aims to make Gabon a food self-sufficient country. At this stage, the programme is reportedly performing below expectations (Lawson, 2018). It could not be determined whether the programme has any EOA orientation.

The 2017-2025 National Food and Nutrition Security Policy's overall objective is to contribute to the elimination of food insecurity and malnutrition in all its forms in Gabon. Specifically, this policy aims to: enhance sovereignty through sustainable growth of agricultural production (Rep. of Gabon, 2017). The Plan does not articulate the production approaches promoted in so doing; it does speak of "reasoned" approaches and the need to ease access to inputs, although government retains the right to prohibit any input that may be deemed harmful.

Integration of EOA in agricultural and trade policies

There is no legislation governing organic production in Gabon. There is limited information available on EOA in the country. A key national actor of the rural world is the National agency for support to rural development (ANADER) whose key role is to support the "professionalisation" of producers and farmer organisation. ANADER provides support to specific value chains and supports "Climate Smart Agriculture" and "reasoned agriculture". A number of donor-led programmes play a major role assisting the country meet its objectives to develop agricultural production. Other than the GRAINE programme, the PRODIAG project, led by AFD, is one of the main agricultural programmes in the country [47]. However, these don't seem to incorporate an EOA dimension.

47 https://www.tresor.economie.gouv.fr/Pays/GA/le-secteur-agricole-au-gabon

Certification landscape in the country and Participatory Guarantee Systems (PGS).

Gabon does not have any certification activity; no PGS groups were reported.
Gabon does not feature in IFOAM's 2019 World of organic handbook.

Opportunities for leverage within existing policy frameworks

- The Vision 2025 policy reference to "reasoned agriculture", although it falls short of EOA or agro-ecology, indicates that government is not as imbued with the Green Revolution rhetoric as its neighbouring countries, suggesting there could be a receptivity to EOA in the future.
- The way the 2008 law on sustainable agricultural development [48] frames the role of agriculture, as a means to promote income-generating activities in the rural world, to revitalise it, to participate in the demographic rebalancing of the territory, to contribute to food self-sufficiency and to diversify exports, indicates that EOA could play a key part in this value adding function.

Preliminary rating emerging from the light touch assessment

Type 5; Country has very little institutional capacity and no government support.

48 Loi n°023/2008 du 10 décembre 2008 portant politique de développement agricole durable.

Lawson A, 2018. Les résultats mitigés du projet Graine. Publihsedin Afriqeu Agriculture. Available from: https://www.afrique-agriculture.org/articles/lessentiel/les-resultats-mitiges-du-projet-graine.

Rep. of Gabon, 2008. Loi n°023/2008 du 10 décembre 2008 portant politique de développement agricole durable.

Rep. of Gabon, 2011. Plan Stratégique Gabon Emergent: Vision 2025 et Orientations Stratégiques 2011-2016.

Rep. of Gabon, 2017. Politique Nationale de Sécurité Alimentaire et Nutritionnelle (PNSA), 2017-2025.

THE GAMBIA

THE GAMBIA

Poverty and food insecurity are widespread in the Gambia, and nearly half its estimated 2 million people live in poverty. Forty per cent of inhabitants live in rural areas where 74% live below the poverty line. The Gambia is a small economy that relies primarily on tourism, rain-dependent agriculture, and remittances, and is vulnerable to external shocks.

The Gambia recently emerged from 22 years of autocratic rule characterised by weak governance, economic mismanagement, and political control. Following a contested election, the new President has embarked on a transition promising a new future for The Gambia – the coalition administration has embarked on a policy shift toward reversing the country's fragility by enacting urgent reforms to ensure macro-stability, consolidate democratic rule, strengthen governance and service delivery and improve competitiveness. The new administration has re-engaged international partners, including the European Union (EU), International Monetary Fund (IMF) and the World Bank, who have also provided important assistance for economic recovery and democratic consolidation.

Agriculture represents about 30% of GDP and over 60% of Gambians depend on farming for their livelihood. Farmers and agricultural workers, especially women and young people, form a large part of the poor and extremely poor. Many are illiterate, and lack knowledge, skills, economic opportunities and access to productive resources such as credit, land ownership, and support services. Yields of main food crops, including rice, are either stagnant or declining, and domestic agricultural output meets only 50% of the country's needs. The main agricultural products grown locally are peanuts, rice, millet and sorghum. The main fruits produced include mangoes and cashew nuts. These are also the major cash crops, while rice is the staple crop.

Key obstacles include adverse climatic conditions; inadequate investments, particularly low private investment in agricultural value chains amid limited fiscal space; unsustainable agricultural practices without sufficient crop diversification; a weak policy and institutional framework; insufficient access to finance and modern farm inputs; and ineffective extension and advisory services.

Looking forward, the government seeks to update sector policies to enable private-sector led growth, invest in agriculture production (i.e., innovation, irrigation, farm inputs, mechanisation), and support commercial agriculture and agribusiness value chains, including matching production and processing to the needs of the tourism sector. Multilateral development agencies such as the World Bank, African Development Bank, and specialised United Nations agencies (e.g. UNDP, IFAD, and FAO) frequently fund agricultural projects in the country.

2.2M
POPULATION

10K
AREA SQKM

EOA TYPE

How EOA is integrated in agricultural and trade policies

Agriculture is listed as a strategic priority in the National Development Plan [49] (2018–2021). Given steady population growth of about 3% per annum, the demand for imported rice will remain strong. The NDP seeks to increase maize, groundnut, rice, onion and tomato production; and the livestock production in cattle, sheep, goat, pig and poultry farming.

Key interventions outlined in the NDP include an Agriculture Sector Policy and associated sub-sector policies to attract private sector investments; agriculture value chain development, including promotion of agri-business and agro-processing; rebuilding and revitalizing the agricultural market infrastructure through co-operatives and commodities exchanges; quality assurance mechanisms development to strengthen access to export markets; increased production and productivity using sustainable land and water management practices to address hunger and food security needs; research and development and extension to ensure that farmers have access to the latest technologies, irrigation, seeds and other inputs to enhance productivity; promotion of climate smart agriculture to build resilience; pest and disease control, reduction of post-harvest losses, as well as inputs management. Increased support will be provided to the livestock sector through promotion of value chains, development of feed resources and disease control.

GIEPA, the Gambian Investment and Export Promotion Agency, identifies considerable potential for Gambian agriculture, both biophysically (irrigation) and technically (relevant technical departments, the technical expertise and trained personnel, are all readily available in the country: the agricultural sector has the highest number of graduates, degree and PhD holders in the country).

The identification of policy towards improving the overall sustainability of the agricultural sector offers promise. The degree to which EOA is explicitly outlined in this is limited. Notably, the extent of certified organic agriculture is very limited in The Gambia – the latest IFOAM statistics reporting 20 ha in 2017 – prior to this no data were reported.

Interestingly, former President Yahya Jammeh, in his speech at the State Opening of the National Assembly for the 2015 legislative year, stated that: "I must emphasize here that despite our obsession with becoming a major food exporter after 2016, we will never accept Genetically Modified Organisms in our agriculture. The Gambia is strictly maintaining organic agriculture for both our consumption and export."

Overview of the certification landscape

The Gambia does not have organic legislation or standards. Certification is undertaken by ECOCERT (groundnuts and mango).

Challenges, gaps and opportunities of existing policy framework

The key long-term development challenges facing The Gambia are related to its undiversified economy, small internal market, limited access to resources, lack of skills necessary to build effective institutions, high population growth, and lack of private sector job creation. Whilst it is a small country, the new government of The Gambia and its revised policies seek to focus on bolstering agricultural performance. The organic sector in The Gambia is nascent, and there is opportunity for further development.

Preliminary EOA typology

Type 4; Country has some NGO capacity, no guidelines, no support from government and could be exporting.

49 https://mofea.gm/ndp

Willer H and Lernoud J, 2015. The World of Organic Agriculture. Statistics and Emerging Trends 2015. IFOAM, Bonn, Germany.

Willer H, Lernoud J and Kemper L, 2019. The World of Organic Agriculture. Statistics and Emerging Trends 2019. IFOAM, Bonn, Germany.

World Bank, 2018. The Gambia - Country engagement note for the period of FY18-FY21 (English). Washington, D.C. : World Bank Group. http://documents.worldbank.org/curated/en/986341530895907648/The-Gambia-Country-engagement-note-for-the-period-of-FY18-FY21

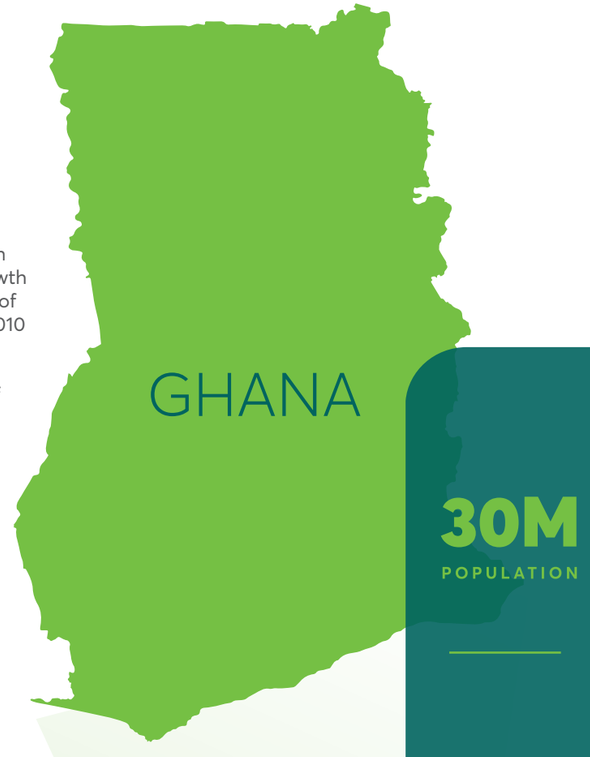
GHANA

Ghana's economy has experienced significant development in the past years with a healthy GDP growth rate (driven by growth in the industry sector from petroleum and mining). The share of the agriculture sector in total GDP has fallen from 29.8% in 2010 to 18.9% in 2016. However, agriculture remains an important economic sector in Ghana's economy. The agricultural sector accounts for one-fifth of Ghana's GDP, employs nearly half of the workforce and is the main source of livelihood for most of the country's poorest households. Two-thirds of non-oil manufacturing depends on agriculture for raw materials. The country produces a variety of crops, including cocoa, maize, yam, palm oil, coffee, rubber, and timber. Smallholder farms dominate the agricultural sector. The major export crop, cocoa, accounts for 20–25% of total foreign exchange earnings. Agribusiness has a very high multiplier effect on employment, creating over 750 jobs for every additional US$1 million of output. Agriculture is therefore identified as having significant opportunities to develop and significantly support economic and social development in Ghana.

Ghana has one of the best records in Sub-Saharan Africa as it halved extreme poverty from 36% to 18% between 1991 and 2006, being one of the first African countries to reach the first Millennium Development Goal (MDG) of halving poverty and hunger before 2015. In presenting the President of Ghana with an award for this achievement, FARA (the Forum for Agricultural Development in Africa) paid tribute during a Science Week held in 2013 in Accra "Africa feeding Africa through Science & Technology", highlighting the role that training of farm women had played.

During the FARA Science Week, the President of the International Fund for Agricultural Development (IFAD) stated: "To farm successfully, women need agricultural resources and inputs, as well as access to rural finance, education, and knowledge. They also need rights to the land they farm and a voice in the decisions that affect their lives" (IFAD, 2013). Later that week, FARA presented the President of Ghana with the award, after the ministers of Agriculture and of Education reported how Ghana had halved poverty and food insecurity: the key intervention was education of farm women, and this was achieved by doubling of the agricultural education budget in Ghana (Auerbach, 2020).

Ghana's development plans and flagship initiatives focus on economic transformation through value-addition in order to create employment and enhance social inclusion. The Ghana Mid-term Development Framework (MTDF) (2018-2021) outlines medium term priorities of the Co-ordinated Programme of Economic and Social Development Policies (CPESDP), 2017-2024. The title of the CPESDP, An Agenda for Jobs: Creating Prosperity and Equal Opportunity for All, reflects the Government's vision that the CPESDP is to create: "An optimistic, self-confident and prosperous nation, through the creative exploitation of our human and natural resources, and operating within a democratic, open and fair society in which mutual trust and economic opportunities exist for all."



The Ghanaian Ministry of Food and Agriculture (MOFA) is the lead agency responsible for the agriculture sector within the context of a co-ordinated Government Programme. Two key policies are the Food and Agriculture Sector Development Policy (FASDEP II) and the Medium-Term Agriculture Sector Investment Plan (METASIP). The FASDEP II states the long-term policy objectives of government in relation to the development of the agriculture sector aimed at ensuring that the sector's stakeholders are best positioned to take advantage of the emerging opportunities. A METASIP plan for 2009-2015 focused on investments to address sector constraints on productivity, market access, sustainable production and institutional coordination of relevance were programmes focusing on sustainable land management, market focus and increased focus on science and technology. Ghana is currently running confined field trials of some selected GE crops, but analysis of ongoing genetically modified organism (GMO) debates and published opinions shows a considerable amount of opposition to GMOs in Ghana.

Programmes implemented at national level include the Fertiliser Subsidy Programme (the FSP for the non-cocoa sector implemented in 2008 increased the use of fertiliser and resulted in higher yields and profits for participating farmers), the Block Farming Programme (the programme groups individually owned farms into large blocks with subsidised inputs and mechanisation services), Agricultural Mechanisation Centres and the Irrigation Development Programme.

The organic sector in Ghana

Ghana had 15,323 ha land certified to organic agriculture in 2017 – the amount of land certified peaked in 2015 with 23,380 ha. The 2019 IFOAM trends (Willer et al., 2019) reports an area of more than 100,000 ha of wild collection. The organic market in Ghana is basically seen to be supported by international companies present and local businesses that produce for export. These businesses provide funding to producers and support the process of certification into organic products.
Main commodities produced organically are cocoa, citrus, and pineapples.

How EOA is included in agricultural and trade policies

It is evident that the Ghanaian government has the development of the agricultural sector and value chains as a priority; however, the broad approach to sectoral development focuses on development of conventional agriculture. A recent study (2018), conducted by the Coalition for the Advancement of Organic Farming (CAOF), an NGO, showed that organic agricultural practices in Ghana were considered to be mainly a farmer and private sector initiatives with no full-scale support from the government. However, there is evidence of growing awareness and activity within the Ghanaian government focusing on the development of the organic sector. Good governance within the sector is essential to halt the decline in certified organic production, as is the case with Zambia, where the NOAM collapsed due to poor management (Munthali et al. 2020).

Although Ghana is yet to develop a specific policy on organic agriculture, the development of organic standards for Ghana is reportedly underway. In 2015 the government launched its own "Ghana Green Label" certification, a national scheme that reassures consumers of the safety and environmental sustainability of fruits and vegetables. However, there is no national standard for organic certification.

Programmes under METASIP have components which relate to organic sector development, for example Market Oriented Agriculture Programme (MOAP) refers to "Motivating farmers to obtain necessary certificates (e.g. GAP, organic farming) to access the international markets by facilitating trainings to farmers" [50].

We also found evidence of support by MOFA to the organic cocoa sector development (METASIP II sub programme 3.3 "This sub-programme aims at promoting the production of organic cocoa to capture the organic cocoa niche market"). Under programme area 5, Management of Land and Environment, promoting sustainable use of land and water resources, EOA is mentioned: "Appropriate incentives will be provided to encourage farmers to adopt less exploitative and non-degrading agricultural practices, and also to adapt to climate change impacts and undertake mitigation measures such as promoting EOA."

However, government's flagship programmes in the area of agriculture have failed to feature organic agriculture prominently in terms of inputs support and certification, whilst support programmes to agriculture in general include a focus on subsidising fertiliser and other inputs. Interestingly the fertiliser subsidies go to both mineral and organic fertiliser sources [51]. The most notable activities by the government are the Organic Desk hosted by MOFA and the Development of the Code of Organic Practices.

Ghana was reported in IFOAM statistics in 2016 to have a national set of standards, however, we have not encountered such, instead finding that the development of national standards is underway. Ghana has no national legislation on organic agriculture.

Government and institutional support

As outlined above, MOFA is a key institution, indirectly influencing the potential uptake of EOA. Ghana furthermore has a number of key research institutions which have produced outputs relating to EOA in Ghana. Our review encountered a rich number of research outputs focusing specifically on EOA aspects in Ghana, providing an indication of local research efforts, although much of the research is co-produced with international researchers.
Research is undertaken at Universities (Univ. of Ghana; KNUST, etc.); the CSIR: Crop Water and Soil Research Institutes. Research focus includes FSR, organic fertilisers and soil amendments, livestock in organic systems, and value chain development. Training in agriculture is offered at agricultural colleges and MOFA undertakes in-service training. Ghana has a Senior Organic Agriculture Officer at the Ministry of Food and Agriculture, who helps drive training of farmers as well as general dissemination of EOA in Ghana. Market development is primarily private sector led, however, cocoa is directly controlled by the government.

Other stakeholders

The Ghana Ecological Organic Agriculture Platform (GEOAP) was established in June 2015 as the over-arching body for all the ecological organic agriculture and related platforms in Ghana. The platform aims to promote Ecological Organic Agriculture, networking among members of the platform and represent the organic agriculture sector in Ghana on local, regional and international platforms. It also lobbies government for policies favourable to Organic Agriculture and supports the formulation and implementation of these policies. Furthermore, GEOAP aims to develop a strategic plan for strengthening the Organic Agriculture Sector in Ghana and to coordinate activities/interventions within the EOA sector to promote uniformity.

Other stakeholders in the EOA include international and local funding agencies, private sector organisations and non-governmental organisations. The NGO sector plays an important role in the development of the sector. For example, the Coalition for the Advancement of Organic Farming (CAOF) has a membership of 17 non-governmental organisations working closely with farmers in Ghana to promote organic farming in the country.

Overview of the certification landscape

Organic certification in Ghana is undertaken by international certification companies, including ECOCERT, Kiwa, Certisys, Control Union. A Green Label Certification Scheme (2016) is an initiative of the Ministry of Food and Agriculture (MoFA) in collaboration with GIZ's Market Oriented Agriculture Programme, the Ghana Standards Authority and small stakeholders in the fruit and vegetable sector. Participatory Guarantee Systems (PGS) are developing rapidly under PGS Ghana.

Government and stakeholders should look at developing and setting up local certification institutions to conduct auditing of all organic products in Ghana. The government of Ghana should make sure that the processes leading to organic certification are simplified so that organic produce can attract premium prices on the market. Participatory Guarantee Systems (PGS) can facilitate the development of the domestic sector, and we understand efforts are underway to develop these. The government could improve extension services to train and share information about organic farming. Options include: the development of a national strategy for EOA development, which could outline the pathway for national law development, local standard development, institutional support needs (dedicated research and training for example).

Suggestions are that the Farm Input Subsidy approach could change to [52] :

> Reforming farm input subsidies by including organic fertilisers to promote increased production; Achieving economically viable use of chemical fertiliser through an integrated soil fertility management approach; Promoting climate smart agriculture and agro-ecological farming practices for a more sustainable and climate resilient approach to agriculture.

Preliminary EOA typology

Type 2; Country has some government support, there is a policy underway, a strong NOAM, a domestic market and strong NGO farmer support.

50 http://mofa.gov.gh/site/?page_id=13897
51 http://mofa.gov.gh/site/?p=15019
52 https://sairla-africa.org/wp-content/uploads/2019/07/Ghana-FISP-policy-brief_with-references-FINAL-1.pdf .

Auerbach RMB (ed) 2020 Organic Food Systems: Meeting the Needs of Southern Africa. CABI, Wallingford, UK.

Danso-Abbeam G, Ehiakpor DS and Aidoo R, 2018. Agricultural extension and its effects on farm productivity and income: insight from Northern Ghana. Agriculture & Food Security, 7(1), p.74.

IFAD (International Fund for Agricultural Development) and WFP (World Food Programme) (2013) The State of Food Insecurity in the World 2013. The Multiple Dimensions of Food Security. Food and Agricultural Organization of the United Nations (FAO), Rome. Available at: http://www.fao.org/docrep/018/i3434e/i3434e.pdf (accessed 9 June 2018).

Kuwornu JK, Nafeo AA and Osei-Asare YB, 2013. Financial viability, value addition and constraint analyses of certified organic pineapple production and marketing in Ghana. African Journal of Basic & Applied Sciences, 5(1), pp.12-24.

Munthali R, Auerbach RMB and Mataa M 2020 Factors contributing to Adoption or Disadoption of Organic Agriculture in Zambia. In: Organic Food Systems: Meeting the Needs of Southern Africa (Ed. RMB Auerbach), CABI, Wallingford, UK.

Osei-Asare YB, 2009. Status of organic agriculture in Ghana: A survey of consumers, producers, and marketers.
Available at: www.ifoam.org/about_ifoam/around_world/aosc_pages/Marketing_products. html.

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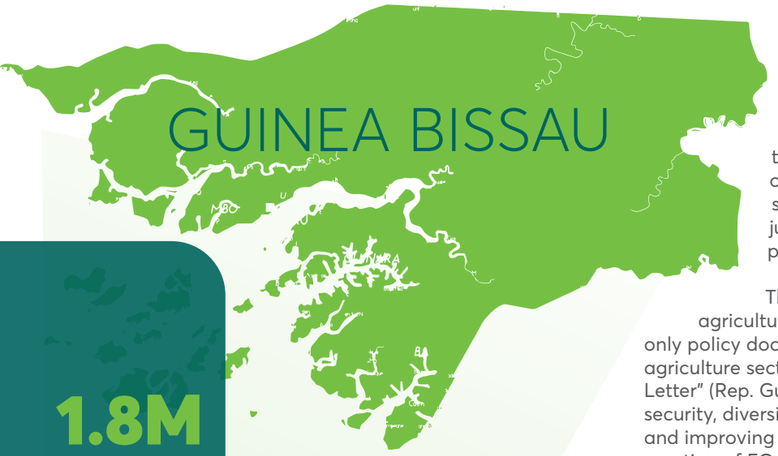
Available: http://documents.worldbank.org/curated/en/113921519661644757/Third-Ghana-Economic-Update-agriculture-as-an-engine-of-growth-and-jobs-creation .



1.8M
POPULATION

36K
AREA SQKM

EOA TYPE

GUINEA BISSAU

The Strategic and Operational Plan 2015-2020 "Terra Ranka" for Vision 2025 unpacks the country's main sustainable development orientations. The plan articulates how resources should be managed sustainably, and includes just one reference to "organic farming without polluting minerals" (Rep. Guinea Bissau, 2015).

There is no national regulation on organic agriculture in Guinea Bissau (Glin, 2012). The country's only policy documenting framing the orientation of the agriculture sector is the "Agricultural Development Policy Letter" (Rep. Guinea Bissau, 2002), which focuses on food security, diversifying exports, sound resource management and improving living conditions. This policy does not make mention of EOA, which relies essentially on the initiative of NGO networks and development actors. Local actors report discussions about the ecological and biological potential for domestic agricultural production and access to external markets, but the constant political instability and governance issues in the country have not yet translated into any concrete achievements (Fernando, 2019).

It is mainly through the promotion of agro-ecology (AE) that the EOA sector is bolstered. The active national institutions and NGOs include: IBAP (Institute of Biodiversity and Protected Areas), NGOs (TINIGUENA, AD, KAFO and SWISSAID Guinea-Bissau). These have been organising training and capacity building for teams of technicians on AE (Fernando, 2019). International NGOs and project worth noting are:

- The NGO ESSOR, which currently supports a project aimed at facilitating the emergence of sustainable food value chain in peri urban area (around Bissau); [53]
- A French NGO called the GRDR (Migration, Citizenry, Development), runs three projects in the country [54] , with one focusing on the development of the cashew value chain and the other on palm oil and this project has some EOA focus.

The certification landscape and linkages to national policy

Organic standards: There are currently no organic standards in the country. In the past, some CSOs expressed some interest in the formalisation and certification of the cashew nut and cotton value chains, but it is unclear whether there was any progress in these value chains (Fernando, 2019). There is no recorded Participatory Guarantee System (PGS) in the country.

Markets and trade

Guinea Bissau's surface area dedicated to organic cultivation seems to have followed a downward trend over the past decade, with the 2019 World of organic study reporting a major drop in the surface area dedicated to organics between 2015 (3,403 ha) and 2017 (689 ha) with a minor recovery in 2017 (911 ha). Among the main crop exported in 2017 featured are tropical fruit (59 ha) and oilseeds (835 ha) (FiBL and IFOAM, 2019).

Gaps and challenges within existing policy & institutional framework

The following challenges were flagged by the main informant (Fernando, 2019):

- The prevailing mono-cultural approach to farming in the country;
- The limited capacity of national actors;
- The overall very limited investments of Government in agriculture in general;
- The lack of banks and access to credit to help the agricultural sector develop;
- At a policy level, the lack of a strategic development plan for the agricultural sector in the short, medium and long term.

The country has in 2008 developed a national policy on biotechnology and bio-safety; a legislative and regulatory framework on biotechnology and bio-safety, which is the first step required to allow the cultivation of GMOs (Rep. Guinea Bissau, 2008), a direct threat to EOA.

Opportunities within existing policy & institutional framework

- There is scope for growth of several crops on international markets.
- There is scope for advocacy efforts to push for a greater support to EOA under the provisions made for sustainable development plan of the "Terra Ranka" Vision 2025 plan.

Preliminary EOA typology

Type 5; Country has very little institutional capacity and no government support

53 http://www.essor-ong.org/fr/zones-dinterventions/guinee-bissau.html
54 https://grdr.org/-Agriculture-et-alimentation-

Celestino Fernando (Civil society network secretariat for Guinea-Bissau's food sovereignty and food security (RESSAN-GB), 2019. Pers. comm. on 24 July 2019.

Willer H, Lernoud J and Kemper L, 2019. The Word of Organic Agriculture: Statistics & Emerging trends 2019. Available from:https://www.ifoam-eu.org/en/news/2019/03/27/world-organic-agriculture-2019 (2019:165).

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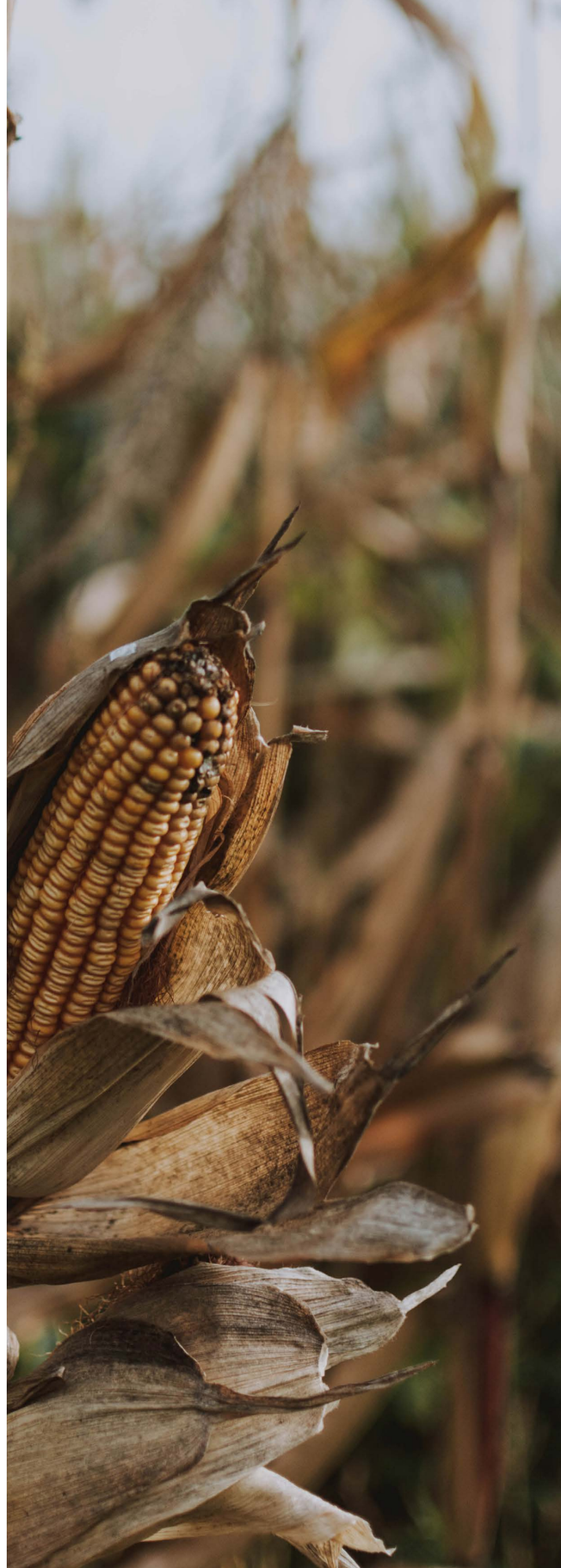
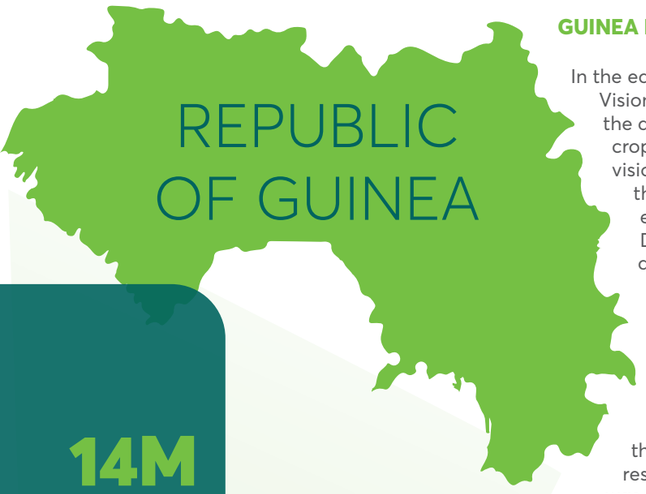
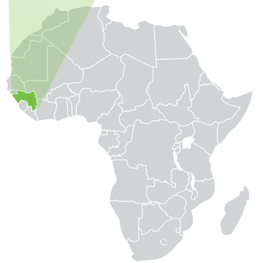




14M
POPULATION

245K
AREA SQKM

EOA TYPE



GUINEA REPUBLIC

In the early 2000s, the National Agricultural Development Policy – Vision 2015 (Rep. de Guinée, 2007) made provision for supporting the development of several organic value chains. The specific crops mentioned include green beans, banana and plantain. The vision document called for the development of these value chains through contracting agreements between producers and exporters. However, the latest National Policy for Agricultural Development (2017) is mute on EOA (Rep de Guinée, 2017a) and so is the latest programme initiated by the Presidency and touching on the agricultural sector, the 2016-2020 Accelerated Programme for Food and Nutritional Security and Sustainable Agricultural Development (Rep. de Guinée, 2017b).

To date government has provided capacity development for farmers and the training of extension officers, especially in the context of a national project focused on food security, resilience and agro-ecology (SARA - Guinea), and which was launched in 2016 following the Ebola crisis. The project is funded by the EU and other INGOs. Where AE practices are promoted, the emergence of these value chains is more focused on promoting local farmer innovations and ensuring the traceability of locally grown produce and this has not translated into the organic certification of this produce (see the section on opportunities), nor to export.

Government support to EOA is marginal. EOA relies essentially on the initiative of NGO networks and international donors (Tolno, 2019). The international and regional NGOs supporting EOA in Guinea include: the French NGO GRET (focus on developing and commercialisation of local produce and on AE), ACORD International, TRIAS (support the development of local food value chains), Guinée 44, United Purpose, the Coalition for the Protection of African Genetic Heritage (COPAGEN), the West African chapter of Global Convergence of Struggles for Land and Water (CGLTE-OA). The national NGOs active in the EOA are the Guinean Network for Animal Traction and Integrated Development (RGTA-DI) and the Fouta Djalon Farmer Federation (FPFD). All these actors play an active role in identifying existing EOA practices, selecting and training farmers, piloting and monitoring new practices, facilitating farmer to farmer training visits, and supporting a consultation process at the national and regional level (Tolno, 2019). There are also local initiatives involved in the promotion of bio-fertilisers, bio pesticides, composting and adapted seeds (Bah, 2019).

The key projects focusing on EOA are:

- The SARA project, implemented by the GRET, the Maison Guinéenne de l'Entreprenariat (MGE), the Fouta Djalon Farmer Federation and the Catholic Committee Against Hunger and for Development (CCFD-TS) which focuses on promoting AE for food security. [55]
- DEFMA project (2017-2020), focused on developing market gardening value chain in Upper and Lower Guinea and was implemented by Guinee 44, TRIAS and United Purpose (UP), which seeks to develop market gardening as an income generating value chain (Guinee44, 2019).

The certification landscape and linkages to national policy

Organic standards and Participatory Guarantee Systems (PGS): There are currently no organic standards in Guinea, nor could we find any PGS group operating in the country. In 2019, for the first time, Guinea featured in IFOAM's World of Organics data. In 2017, the country had 10 ha under certified organic cultivation (nuts) and 1,000 ha for wild collection. The organic produce exported from the country stems from wild harvest (for which 2,800 ha features in the 2019 data). Three producers in total feature among the country's exporters of certified organic crops (IFOAM, 2019).

Local actors mentioned niche produce that was being exported, although this is not organically certified. The crops include:

- Dorota Oil (made from red palm oil), produced without any additives or preservatives (Sophy Anne Company). The product is sent for testing in Dakar and then exported.
- Ziaa coffee and the "Böra Maalé Fanyi" mangrove rice, which received the seal of the African Intellectual Property Organisation (OAPI) (Tolno, 2019).

Gaps and challenges within existing policy & institutional framework

- The current policy framework is very much focused on food security, but this focus heralds export-driven agro-processing as the solution and overlooks the opportunities offered by EOA to meet the country's food needs and generate more sustainable income for a population that is heavily reliant on agriculture.
- The government's objective to ensure food self-sufficiency translates into a Farm Input Subsidy programme for agrochemical inputs, which constitutes one of the main challenges to EOA in Guinea (Tolno, 2019).

If organic certification seems to be very marginal at this stage, the development of niche markets for locally grown crops (coffee, palm oil, rice) certainly represents an opportunity to grow the organic sector. Worth further investigating is the involvement of the OAPI, the office which regulates intellectual property for 17 Central and Western African states. Guinea's "Böra Maalé Fanyi " rice became the first "collective brand" processed in the OAPI space. [56]

Preliminary EOA typology

Type 4; Country has some NGO capacity, no guidelines, no support from government and is not exporting.

55 https://eeas.europa.eu/sites/eeas/files/fiche_projet_sara.pdf
56 https://www.gret.org/2019/02/marque-riz-bora-maale-guinee/

Bah M, 2019. Pers. Com held on 17 Juy 2019. Macky Bah is the Guinean focal point of COPAGEN.

Guinee44, 2019. Développement Filière Maraichère en Basse et Haute Guinée. Available from: https://guinee44.org/2017/03/07/demarrage-du-projet-de-developpement-de-la-filiere-maraichage-en-haute-et-basse-guinee/ .

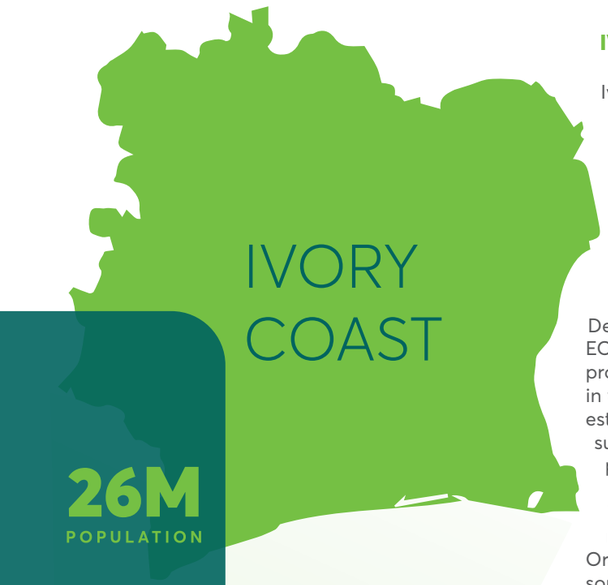
IFOAM, 2019. The Word of Organic Agriculture: Statistics & Emerging trends 2019. Available from: https://www.ifoam-eu.org/en/news/2019/03/27/world-organic-agriculture-2019 (2019:165).

Rep. de Guinée, 2007. Politique Nationale de Développement Agricole Vision 2015 : nouvelle vision de l'agriculture guinéenne. Available from: http://extwprlegs1.fao.org/docs/pdf/gui147378.pdf

Rep de Guinee, 2017a. Politique Nationale de Développement Agricole Vision 2015 : nouvelle vision de l'agriculture guinéenne.
Available from: http://www.aguipegn.com/document/download/34

Rep. de Guinée, 2017b. Programme Accéléré, de Sécurité Alimentaire et Nutritionnelle et de Développement Agricole Durable (PASANDAD).
Available from: http://extwprlegs1.fao.org/docs/pdf/gui172926.pdf

Tolno E, 2019. Pers. comm. Etienne Tolno works for the GRET in France.



26M
POPULATION

322K
AREA SQKM

EOA TYPE

IVORY COAST

Ivory Coast's 2015 Agricultural Orientation Law (Côte d'Ivoire, 2015) spells out strategic interventions for the optimal realisation of the AE potential and the agricultural know-how of the country. It also aims to create an environment conducive to the development of a structured agricultural sector. However, there is no mention of EOA in this policy document. The second generation National Programme for Agricultural Investment (2017-2025) (PNIA II) (Côte d'Ivoire, 2017) explicitly refers to the promotion of organic agriculture.

Despite the provisions in the PNIA II, there is no direct support to EOA and government funded initiatives systematically entail the provision agrochemical inputs. One programme worth mentioning, in which the Government (indirectly) supports EOA, is the establishment of a "competitive fund for sustainable agriculture" supported by the French government, which has selected several AE projects among its grantees (Zei, 2019).

The country does not have an established national organic movement. There is a network called the Innovation Network for Organic Agriculture (RIABD) which seems to be involved in driving some EOA projects (including in the rice sector). A recent movement was formalised in early 2019, with the intention of federating various ecological orientated initiatives, called "Eco Responsible Ivoire".[57] It regroups different sets of actors, including a few producers who are growing crops "naturally". The forum states that some form of organic certification now seems called for. [58]

The EOA sector has been growing essentially as a result of the work of NGOs backed by international donors and INGOs. Some of the national NGOs involved in the sector include (non-exhaustive list):

- Inades-Formation Côte d'Ivoire (IFCI) provides support to producers in accessing organic markets. It has played a role in supporting professional agricultural organisations (OPAs) in the cashew nut and cacao sectors in becoming organic and FairTrade certified.
- Young Volunteers for the Environment (JVE).
- The Ivorian Coalition for Biovigilance (CIBIOV) member of COPAGEN (with IFCI as a focal point).

In terms of international donor support, worth flagging are:

- The FCIAD project, funded by FIRCA and implemented by Inades-Formation Côte d'Ivoire is involved in supporting such organic value chains (Sikeli, 2019).
- Côte d'Ivoire is one of the countries which forms part of the Ecowas Agro-ecological Transition Support Programme (PATAE), funded by the French Development Agency. [59]
- The launch in early 2019 of the "Green Innovations Centre for Agro-processing in Cote d'Ivoire CIV-A)" financed by Germany which seeks to diversify cacao producers' income, promote technical innovations and preserve forest resources.
- The Hellen Keller International (HKI) foundation, which runs an agricultural and nutrition project that advocates for the use of biopesticides.

All these interventions, combined with capacity development of producers getting ready for certification, contributes to creating a critical mass of organic producers.

The value chain is further supported by the emergence of organic input providers, such as "Eléphant Vert" (from Morocco) which produces organic fertiliser and biopesticides (Sikeli, 2019).

Cacao value chain a key driver of EOA

Historically, multinational firms have managed to secure their cacao supply through large-scale (non-organic) certification schemes driven by INGOs such as the Rainforest Alliance, UTZ Certified and FairTrade. The emergence of organic cacao certification is fairly recent but growing rapidly and given the importance of cacao production in Cote d'Ivoire (the country is the leading producer worldwide), cacao has been driving the organic production landscape.

Some cooperatives embarked on organic cacao production, such as the Bandama FairTrade Co-operative (SCEB). Inades-Formation Côte d'Ivoire supports the SCEB with organic production and commercialisation, thanks to funding from MISEREOR (Sikeli, 2019). One of the key challenges in the sector with regards to cacao earmarked for certified exports is the issue of traceability. Therefore, private sector and donor support is strongly focused on the production and the certification of organic cacao in the country. Some capacity is being developed to support traceability, notably through a project called "Cocoblock", which just started (2019-2021) and which seeks to use blockchain to track the origin of cacao, with the support of CTA. The local certified producers involved include Ecookim, the cooperatives SCEB and PCBM of Biéb, which are organic and FairTrade certified, as well as cacao co-operatives from the Redd+ zone. [60]

Certification landscape in the country and links to national policy.

Ivory Coast does not have its own standards. The certifying bodies active in the country include CERTISYS (Belgium), Control Union (The Netherlands), Ecocert West Africa (Ougadougou, Burkina Faso). A local bureau, Institute for Market Ecology (IMO-Côte d'Ivoire) provides support capacity for compliance with export standards. No Participatory Guarantee Systems (PGS) were found.

Markets and trade

Organic production is very much geared towards export markets, and the domestic market remains marginal and driven by the expatriate community, with a few markets (and basket schemes) running in Abidjan i.e. "les maraîchers de Babi" (Weisman, 2019).

In 2017, the country had 50,446 ha under organic cultivation, which represents almost double what it was 10 years ago. 1,060 ha are also certified for wild collection, meaning that the total surface area under organic is just below 51,500 ha. That same year, the sector counted over 2,777 producers, including 15 exporters. The country is the world's leading producer of cacao with 2,8 million ha but only 2,248 ha are under organic management. It is also

57 http://ivoire-eco-responsable.e-monsite.com .
58 http://ivoire-eco-responsable.e-monsite.com/blog/l-agriculture-biologique/ .
59 ECOWAS. Nd. Programme d'Appui à la Transition Agro-écologique au Sahel et en Afrique de l'Ouest. Available from: http://www.araa.org/en/programme/programme-d'appui-à-la-transition-agro-écologique-au-sahel-et-en-afrique-de-l'ouest
60 https://www.nitidae.org/actions/cocoblock-la-blockchain-pour-une-meilleure-tracabilite-du-cacao

one of the leading coffee producers (1 million ha) but there is no data as to the percentage of coffee under organic management. Other key organic certified products include tropical and subtropical fruit and oilseed (IFOAM, 2019). In 2018, Ivory Coast was the third largest exporter of organic produce to the EU, with 14,392 tons (Commodafrica, 2019).

The main challenge to growth of EOA remains lack of political will to genuinely support the sector.

- Currently the growth of the organic sector is very much driven by external demand, with domestic demand being limited by the Western expatriate community
- The limited structure of the OPAs (and their limited skills with book-keeping) inhibits the efficiency of international certifying system in the country.
- A major impediment in the development of the organic cacao value chain is that of the country struggles with tracking the origin of cacao. This issue of traceability was raised with regards to FairTrade cacao, some investigation showing that often "FairTrade" labelled cacao was in fact produced by children (Envoyé Spécial, 2019).

Opportunities for leverage within existing policy & institutional frameworks

- The second generation National Programme for Agricultural Investment (2017-2025) (Côte d'Ivoire, 2017), which spells out the orientation of police and private investments in the country up to 2025, includes provision for promoting biological control (2017:65), financial incentives for organic input producers (2017:70); integrating "techniques that promote green agriculture, organic agriculture and agro-ecology in the training of producers" (2017:71) and "developing and promoting a social marketing strategy for organic produce" (2017:88). These provisions represent great opportunities for EOA.
- The recent emergence of the "eco responsible" movement and its flagging of the importance of some form of certified organic production indicates that the country would be ready to set up PGS as a first step towards growing the domestic market.
- The numerous training initiatives and capacity building programmes are contributing to creating a critical mass of producers knowledge about EOA practices.
- The experience relayed by IFCD in terms of the intermediary role it played in the initial phase of supporting cocoa co-operatives with complying with certification requirements is an important institutional dimension worth looking at when bolstering national capacity with EOA (Inades-Formation Côte d'Ivoire, 2019).

Preliminary EOA typology

Type 4; Country has some NGO capacity, no guidelines, no support from government and is not exporting.

Commodafrica, 2019. L'Afrique peine à s'imposer dans le bio en Europe, même sur le segment des noix et produits tropicaux. Available from: http://www.commodafrica.com/28-05-2019-lafrique-peine-simposer-dans-le-bio-en-europe-meme-sur-le-segment-des-noix-et-produits

Côte d'Ivoire, 2015. Loi n° 2015-537 du 20 juillet 2015 d'orientation agricole de Côte d'Ivoire.

Côte d'Ivoire, 2017. Programme National d'Investissement Agricole de deuxième génération (PNIA II) . Available from http://www.fao.org/faolex/results/details/en/c/LEX-FAOC176030

Envoyé Spécial, 2019. Caco: les enfants pris au piège. 10 January 2019. Can be viewed on: https://www.youtube.com/watch?v=RMioC4HwyL4

IFOAM, 2019. The Word of Organic Agriculture: Statistics & Emerging trends 2019. Available from: https://www.ifoam-eu.org/en/news/2019/03/27/world-organic-agriculture-2019 (2019:179).

Inades-Formation Côte d'Ivoire, 2019. Contexte de l'agriculture biologique en Côte d'Ivoire (unpublished).

Sikeli JP, 2019. National coordinator of the COPAGEN in Côte d'Ivoire. Pers. com. held on 17 July 2019.

Weisman N, 2019. Pers. Com. held on 16 July. N. Weisman is an organic cacao producer.

Zei P, 2019. Director: Inades-Formation Côte d'Ivoire. Pers. Com. held on 31 July 2019.

KENYA

Agriculture is the mainstay of the Kenyan economy, directly contributing 26% of the GDP annually, and another 25% indirectly. The sector accounts for 65% of Kenya's total exports and provides more than 70% of informal employment in the rural areas. Therefore, the agricultural sector is not only the driver of Kenya's economy but also the means of livelihood for the majority of Kenyan people. Low agricultural productivity, increasing population pressure on arable land, the encroachment of agriculture into unsuitable rangelands and wildlife areas, increased urbanization, climate change, poor soil fertility, inadequate access to financial and extension services, high unemployment rate (especially among youth), poor governance, inadequate infrastructure, and a variety of cultural challenges have combined to create Kenya's current complex poverty, malnutrition, and food security dilemma. With the current population growth rate, demand for food is projected to soon outweigh growth in productivity. Stagnant productivity combined with limited ability to expand the area under production pose critical challenges to food security.

51M
POPULATION

569K
AREA SQKM

EOA in Kenya

There are no official policies for EOA in Kenya, even though public interest and recognition of organic agriculture are both on the rise. The organic sector has developed to date with little government policy support. The Ministry of Agriculture has an organic desk to lead in the development of an organic policy under the department of Food Security and Early Warning Systems. The ministry's approach is to develop a policy for organic agriculture and incorporate it into other policies relating to agriculture, food security, and the environment. So far, organic agriculture has been incorporated in the Food Security Policy draft and the Soil Fertility Policy draft.

The first ever organic agriculture policy is in the pipeline, drafted by Kenya Agriculture, Livestock Research Organization (KALRO) and other stakeholders. The process of drafting the organic policy began in 2009 and is in the mid-stages of completion, and was to be tabled in Parliament (Kimaru, 2013). KALRO was established in 2013 to co-ordinate agricultural research, and is tasked with formulating policy and prioritising areas for agricultural research, according to its webste (www.kalro.org). This website speaks of the need to improve food safety, but only mentions cholera, diarrhoea and Covid-19; there is no mention of agricultural chemicals leading to poisoning, nor of non-communicable diseases such as diabetes, hypertension and cancer and their connection to diet. An interview with the CEO mentions collaboration with the gates Foundation to promote biotechnology and the use of modern tools and technology. EOA is not mentioned, nor is there an update on the policy that is supposed to be under development on the website (Dec 2020).

EOA TYPE

According to TAABCO (2019, p.35):

> The limited adoption of organic agriculture [is due] mostly to the overwhelming appeal of and push by conventional agriculture. Whereas organic practices were readily used in the past (organic manure, local seeds, adapted animals, etc.) …, the policies pushing for use of synthetic fertiliser coupled with seed bred to respond to a narrow set of external inputs, have slowly eroded the availability of adaptable seeds and use of organic fertilizers. This means that large farms that need organic seed and fertiliser in sufficient quantity may not get adequate supplies. The strategy for EOA is therefore to kick start vibrant market and supply systems to increase the supply of these inputs through practices like seed bulking, germplasm selection and lobbying the private sector input suppliers to invest in innovating and producing sufficient organic inputs.

Also TAABCO (2019, p.37):

> Unfortunately, the Government and the private sector (farm input suppliers) have increasingly subscribed to modern agriculture and policies due to the promise that its populations will be adequately fed. In addition, seed laws that do not favour small scale farmers have been enacted, whilst land tenure systems and policies designed to favour commercial large scale farming and government subsidies on synthetic fertiliser are put in place.

As well as TAABCO (2019, p.42):

> With increased awareness about organic products in Kenya, the potential local and regional markets for organic products are also increasing. KOAN sees this as a great opportunity for the sector actors to capture while it lasts. With this as impetus, KOAN is set to facilitate organic sector actors, to take advantage of the existing potentials …

The TAABCO Sector Review (2019, p.46-57) states that KOAN has called for training of Extension Officers, funding for Research Projects, support for Quality Management, Consumer Education and farmer training workshops. A detailed Logical Framework Analysis is presented (pp.67-102). A mid-term evaluation will be carried out in 2021. The Extension Service has been the subject of several attempts to make it more responsive to farmer needs, more participatory in approach and to base itself on a Farming Systems Approach (Muyanga and Jayne 2006); Box 1 from this paper is reproduced below (p.20):

> ***Box 1: Farmer groups as key intermediaries in extension***
> The farmer group approach has become popular with most extension providers both public and private in Kenya. On average, groups have 15 members of which about 50 percent are women. All groups surveyed had in place an elected management committee consisting of five executive members and four co-opted members. Most groups ensured that there was gender representation in the management committees. Some of the groups have additional sub-committees to manage specific group activities. For example, marketing sub-committees search for markets for bulked produce and procurement of farming inputs, loan sub-committee looks for credit sources and negotiating credit terms while training sub-committee organises seminars and demonstrations visits. Most of the groups hold meetings once every three months. All the groups visited had a written constitution since it is a registration requirement.
>
> Farming Systems Kenya (FSK) has shifted from the individual group approach to promote Farmers Marketing Federations (FMF). The FMF approach brings together several groups on average of 5-10 groups with a membership of 100-1,000 farmers. FSK has initiated 30 federations from 450 groups with total membership of about 10,000 farmers in Nakuru district. In Uasin Gishu, about 3,000 farmers in 150 groups have been clustered to form Kesses FMF.
>
> The coming together of groups has drastically reduced extension costs per farmer to KSh42. It has also enhanced easier access to loans from micro-finance institutions through group guarantee system. Groups also enjoy price discounts resulting from joint input procurement from manufacturers and low input prices where groups have started input stores. Bulking of farm output empowers groups to negotiate for better prices and result in economies of scale in transport. Groups also form forums for farmers to share information on good production practices, market information, and networking. Using TAMPA data, however, we established that group membership attracts relatively wealthier members of the society. However, contact with the Extension Service did not bring about better farming practices, nor did the cost of extension seem to be a good investment in productivity (Muyanga and Jayne 2006).

Organic Certification

Kledal et al. (2010) state that there are five international certification bodies involved in Kenya, namely: Soil Association (UK), Ceres (USA), Encert (France), IMO (Germany) and Bio Suisse (Switzerland). However, to minimize the cost of certification by the external certifiers, most of the certifiers use locally trained inspectors. A national certification body Encert was established in 2005 to certify for the national markets.

In May 2007, the East African Organic Products Standard (EAOPS) was launched after a consultative process, which started in 2005 by harmonizing organic standards that existed in the East African region. Together with the EAOPS, the "Kilimohai" brand was developed to promote regional trade. However, a regional brand without an implementation of regional trade and organic farming policies can quickly be undermined if one of the countries allows, for example, cultivation of harmful GMO crops. Strong economic and political interest groups are at the moment lobbying for these inputs to be allowed in agriculture in Kenya and Uganda.

Key organic products produced in Kenya

According to the Kenya Organic Agriculture Sector Strategic Plan of the Kenya Organic Agriculture Network (KOAN) for 2017 to 2023, (TAABCO, 2019, p.14):

> Currently there is 150,479 ha of land under certified organic management. By 2016, over 35,000 farmers were certified organic and thousands more practicing organic agriculture. In the same year, 27,879 t worth K Sh 439 were traded locally, while 104,841 t worth K Sh 3 billion were exported. There has been increased diversity of organic products grown and the geographical coverage nationally. The main crops grown are horticultural crops, coffee, tea essential oils, nuts, cereals and pulses, herbs and spices. There are more than 15 outlets where one can buy organic products within Nairobi. The market outlets include supermarket chains, specialized organic shops, organic restaurants, organic farmers' open markets and basket delivery systems to consumers' homes or workplaces. The main products for the national market include horticultural products, nuts, beverages, livestock products and by-products. There are six international certifiers operating in Kenya, … [and] four local certification bodies operating in Kenya: Encert, Nesvax Control, A Cert. and KOAN.

Opportunities and challenges in developing and implementing policies in EOA

Agricultural policy in Kenya revolves around the main goals of increasing productivity and income growth, especially for smallholders: enhanced food security and equity, emphasis on irrigation to introduce stability in agricultural output, commercialization and intensification of production especially among small scale farmers, appropriate and participatory policy formulation, and environmental sustainability. Some opportunities for EOA include the following:

- Kenya is a leader in the Eastern Africa region in both dairy and horticulture. With the largest dairy herd in East and Southern Africa and a relatively well-developed industry, Kenya is in an excellent position to meet the growing local demand for milk as well as target the regional market. Kenya's horticulture industry is an established leader among African suppliers of fresh produce to Europe. Known for their competitiveness, Kenya's producers, including women and youth, are in an excellent position to capture the emerging global demand for new EOA value-added products, as well as the local and regional fresh market.
- Kenya is the regional hub for trade and finance in Eastern Africa with its dynamic private sector, and its air, sea, road, and information and communications technology (ICT) infrastructure is relatively well developed and improving. If investments in EOA are availed to address quality and any blockages in key value chains from farm-level productivity, to improved access to markets, building sustainable business models, and creating a conducive enabling environment for the private sector, the country could grow its economy, address food insecurity and reduce poverty.
- In response to the CAADP, the Government of Kenya (GoK) has been building momentum around agricultural reform for several years with the creation of the ASCU that works across all agriculture-related Ministries. The combination of the GoK's well-researched ASDS, its MTIP, and a new constitution that promotes accountability has set the stage for significant progress for EOA to be made at least in the next decade.
- Although Kenya' challenges may seem daunting, there are several opportunities to leverage EOA. Kenya's agricultural sector employs over 75% of the workforce directly, indirectly accounts for 51% of Kenya's GDP, and has the capacity for significant growth if irrigation, agricultural inputs, extension, marketing, and health/nutrition constraints can be addressed. Because the livelihoods of many Kenyan households in rural areas are based on small scale agriculture, improving agricultural productivity through EOA innovations, thereby increasing farmers' incomes, is keys to achieving food security and improved nutritional status, especially for all.

Challenges Facing Agriculture in Kenya

Kenya has not carried out a comprehensive census of agriculture since gaining independence in 1963. As a result, it has not been able to benchmark any agriculture indicators. All its agricultural indicators have been produced through estimation arising from sample surveys. This means that the reliability of key production indicators cannot be adequately verified due to lack of benchmark indicators. In 2019, the Ministry of Agriculture's Cabinet Secretary, Mwangi Kiunjuri reported that lack of data on farmers is the main obstacle to accessing cheap fertilizer through the e-voucher payment system.

Although all parts of Kenya are facing significant problems, poverty density, food production, and malnourishment vary significantly across Kenya's agro-ecological zones and within the urban areas. These high-potential zones have attracted large populations, resulting in sub-division of land, decreased productivity, and high densities of impoverished and malnourished Kenyans. Semi-arid regions produce 20% of Kenya's agricultural output, but this region offers significant potential for increases in agricultural output, if water management and harvesting, irrigation, and crop varieties can be improved upon. Rainwater harvesting offers many possibilities for small scale farmers, and has helped over 40,000 farmers to make an average of a hectare of land more productive, improving food security in semi-arid areas (Feed the Future, 2015).

Female farmers play a key role in agriculture, whether directly through the management of farm produce or through labour. Additionally, women are responsible for 80% of paid and unpaid labour in food production, including staple crops. Their contribution to secondary crop production—such as legumes, fruits, vegetables, roots and tubers (e.g. sweet potatoes and cassava)—is even greater. Yet, women have few incentives to increase productivity due to their lack of access to income from their labour. Discriminatory beliefs and harmful sociocultural factors sometimes hamper women's ability to for example upgrade their skills and move into higher technical and supervisory positions in value chains. Kenya's agricultural value chains are disadvantaged by the high taxes and costs of doing business. The expense and risk of doing business in the country have slowed the growth of private sector investment in key areas, including agricultural production, storage, transportation, processing, and marketing. Various World Bank studies identify infrastructure, transport, and non-tariff barriers (including bribery, roadblocks, frequent off-loading, and weighbridges) as the leading causes of high marketing costs in Africa.

Regional trade is crucial to mitigating volatility, especially in staple food markets. The East African Community (EAC) and African governments have committed themselves to regional integration as a broad policy agenda thus opening up free trade areas to increase access to markets. The efforts of such regional agreements are yet to be realized Due to the importance of the agriculture sector in the Kenyan economy, and motivated by the need to support the design, formulation and implementation of agricultural and rural development policies, the lack of relevant, reliable and up-to-date agricultural statistics is a major constraint both for the development of strategies and policies in the sector and for monitoring and evaluation.

Lessons Learnt

EOA methods and technologies are well suited small farmers in Kenya, as they tend to rely on locally and naturally available materials to produce healthy, safe, and marketable products. EOA is important to protecting the multifunctional nature of agriculture, and it encourages a holistic approach to farming that is more diverse and resistant to climatic stress than conventional methods. Furthermore, many smallholders in the region actually engage in organic production by default.

The availability of reliable, consistent, comprehensive and timely agricultural data for the development of agricultural sector is critical. Credible data is required to inform the planning process, compile reliable national accounts, monitor sector performance, evaluate the impact of policies and programs, and contribute to the decision-making process.

Agricultural data is required by a wide spectrum of stakeholders ranging from decision-makers in government, the private sector and academia for research and teaching, and development partners, bilateral and multilateral communities. The quality of agricultural statistics is essential in improving efficiency, production, marketing, and distribution of agricultural commodities. Agricultural statistics data users consist mainly of government ministries and departments involved in rural development, development partners, students, and researchers both inside and outside academic institutions.

Preliminary EOA typology

Type 3; Country has a developing domestic and export market, some NGO activity, some guidelines and exports, but little government support.

Food and Agriculture Organization (FAO) of the United Nations. 2014. Country Programming Framework for Kenya, Food and Agriculture Organization, 2014-2017. Available at: http://www.fao.org/3/a-bp634e.pdf

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GoK (Government of Kenya). (2013a). Agricultural Sector Policies and Strategies at a Glance. Nairobi: Kenya.

Gitau, R., Kimenju, S., Kibaara B., Nyoro J., Bruntrup M., and Zimmermann R. (2009). Agricultural Policy-Making in Sub Saharan Africa: Kenya's Past Policies. WPS 34/2008. Tegemeo Institute of Agric Pol and Dev. Egerton Univ.

Hine, R. and J. Pretty. (2008). Organic Agriculture and Food Security in Africa. New York: UNEP-UNCTAD CBTF.

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Muyanga, M. & Tegemeo, T.S.J. 2006. Agricultural Extension in Kenya: Practice and Policy Lessons. Working Paper. Kenya, Egerton University.

Research PLUS Africa 2015. Kenya Policy Gap Analysis. A consultancy report submitted to OSOSEA, Nairobi Kenya.

TAABCO (Transforming Analyzing Accompanying Building Change Organizations Research and Development Consultants), 2019. Kenya Organic Agriculture Sector Strategic Plan, 2019. Downloaded 29/12/2020. Available at: https://www.koan.co.ke/wp-content/uploads/2019/07/KENYA-EOA-SECTOR-STRATEGIC-PLAN-2018-2023.pdf

LESOTHO

2M
POPULATION

30K
AREA SQKM

EOA TYPE

When asked for his views on Lesotho agriculture by the Lesotho Times in October 2017 [61], Minister of Agriculture and Food Security, Mr Mahala Molapo said: "We understand that the cost of production is very high. Inputs are expensive and the majority of our farmers cannot afford the costs associated with land-preparation, seed, fertiliser, herbicides and pesticides. Our plan is to provide input-support through subsidy to encourage all our farmers to be productive. We are aware that there are some land-owners who may not be interested in farming this year and we are encouraging them to partner with commercial or Block Farmers willing to utilise the land and then share the crop. The ministry is also resuming support for commercial farming in order to increase production with a view to satisfying the local market".

In response to a question from the Lesotho Times journalist: Do you think subsidy is the answer to the challenges facing the sector? The Minister answered: "The government's current intervention is short-term while we work on sustainable ways to help improve the competitiveness of the sector. We believe that for now, subsidy can help but we also know that time must come when our farmers should be able to finance their own operations. Another solution is to strengthen the Out-Grower Schemes that will see big-time farmers providing support to their small-scale counterparts within their local communities. But of course, issues of creating local markets for our farmers to make agriculture profitable is key on our agenda".

Agricultural Extension System

Stevens and Ntai (2011) carried out research into attitudes of farmers towards extension officers (EOs), in order to elaborate on the very important role extension support should play in the practising of sustainable irrigation farming by smallholders. A structural questionnaire was administered amongst 153 irrigation farmers and 31 extension officers randomly in the four southern districts of Lesotho, namely Maseru, Mafeteng, Mohale's Hoek and Quthing. The research found (Table 1, p.107) that farmers saw EOs on average once per year, that only 7% of farmers interviewed were members of a Farmer Group (Table 2, p.108), and that 86% of farmers viewed the EO as having "Poor" knowledge, with only 5% viewing their knowledge as "Good" (Table 3, p.108).

They comment (p108-9):

> "From the farmers' point of view, there are numerous constraints surrounding the delivering of efficient extension services (Table 4). 60% of farmers complained that most extensionists are not able to help them with technical aspects such as measuring of the fields and minor management in the Ministry of Agriculture. 30% of the respondents indicate that irrigation engineers are not available to assist them with irrigation planning and design. Farmers complained that in general poor linkages existing between extension, research and the farmers (22%) and as such, coordination is very poor. Farmers also perceived that some extensionists have a negative attitude towards fixing problems experienced in irrigation management".

Extension Staff, on the other hand, perceive that their fertiliser, crop and weed management skills are good, but they admit that they lack understanding of irrigation management (81%) and Interpretation of agro-climatology data (77%) (Stevens and Ntai 2011).

The conclusions of their study are useful:

> "The credibility and competence of extensionists is highly questionable in many aspects of farming operations. It is recommended that Agricultural Extension and Research organisations should form very strong linkages in the country in order to help guide farmers to attain their goals and objectives. Greater political and institutional support is recommended to enhance irrigation development in Lesotho. There is a need to design and develop alternative policy instruments and institutions for extension, technical assistance, training and credit service. Effective training of both extensionists and farmers should receive the highest priority to improve irrigation performance in Lesotho. This priority is highly accentuated with the low percentage of farmers and extensionists recorded that actually receive training and the related absence of training courses being presented by colleges and universities. Smallholders and extensionists need to understand the basic principles regarding the biological functioning of plants and to gain the necessary insight into the complexity of soil-plant-atmosphere systems management skills before entering into complex irrigation farming systems. These findings show very similar tendencies identified in a study conducted in South Africa where very few of the tertiary organisations present courses that prepare extensionists appropriately for the extension tasks they have to perform on the irrigation schemes. According to the findings, very few farmer associations or groups exist in Lesotho. It is therefore recommended that extensionists should be properly trained on aspects of mobilising of farmer groups so that farm communities are encouraged to form associations. Extension services are without doubt very important and therefore it is important that the country develop agricultural extension institutions with competent staff to address the challenges of farmers. The security of land use rights and improved land tenure systems for land users is absolutely essential for sustainable agriculture development in Lesotho" (Stevens and Ntai, 2011).

As with Swaziland, there was a colonial tradition of agricultural extension, but this has not continued, and the lack of farmer associations presents an opportunity for EOA.

The certification landscape in the country and extent to which this links to national policy.

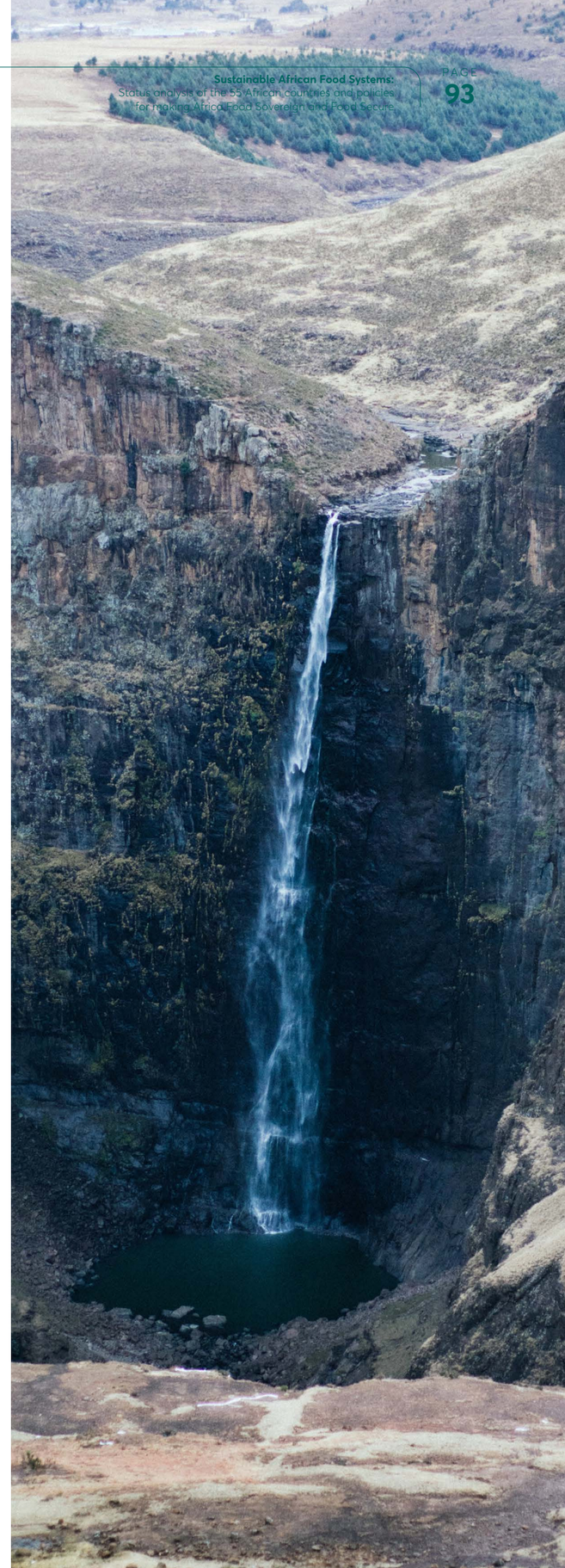
There is no regulation of EOA, nor any organic standard in Lesotho. Although in 2014 about 600 ha of land was certified organic in Lesotho, Willer et al. (2019) could only find one processor certified for wild collection in Lesotho in 2017, and no Participatory Guarantee Systems (PGS).

Preliminary EOA typology

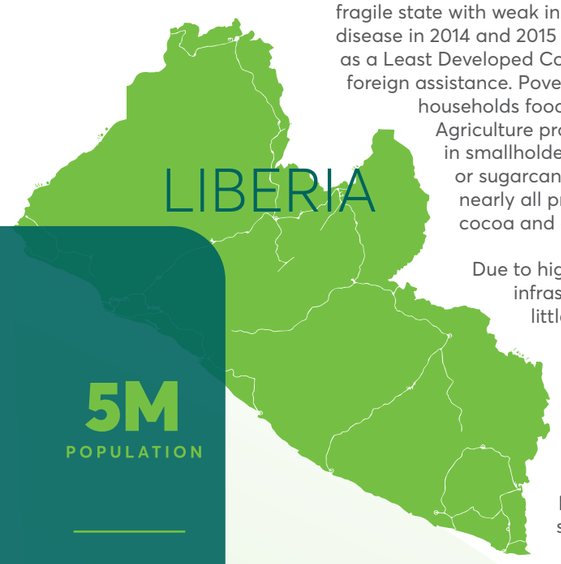
Type 5; Country has very little institutional capacity, no government support and is not exporting.

61 Lesotho: 'Agriculture Sector At a Turning Point. Interview; https://allafrica.com/stories/201710140095.html

Stevens JB and Ntai PJ, 2011. The role of extension support to irrigation farmers in Lesotho. S.Afr.J.Agric.Ext., Vol. 39, Nr 2 p.104 – 112.
Available at: https://www.ajol.info/index.php/sajae/article/view/87557



LIBERIA



5M
POPULATION

111K
AREA SQKM

EOA TYPE

Liberia, a post-conflict nation, is often considered one of the most food-insecure countries in Africa. Despite significant improvements since the end of its civil war in 2003, it remains a fragile state with weak institutions, policies and governance. The outbreak of the Ebola virus disease in 2014 and 2015 compounded the challenges the country faces. Liberia is classified as a Least Developed Country and a Low-Income Food-Deficit Country and relies heavily on foreign assistance. Poverty is widespread in Liberia with an estimated 55% of rural Liberian households food insecure. The economy depends heavily on export of minerals. Agriculture provides the main livelihood for just under half of the workforce, mainly in smallholder and subsistence farming of cassava, rubber, rice, oil palm, cocoa, or sugarcane production. Despite once carrying the nickname "Grain Coast," nearly all private sector investments in agriculture have funded rubber, palm oil, cocoa and coffee plantations.

Due to high transport and energy costs in Liberia, an overall lack of adequate infrastructure, and highly fragmented marketing channels, there is very little investment in food-based value chains. Subsistence farming cannot compete on the market with cheaper food imports, and agriculture has suffered as a result of the 2014 Ebola outbreak and prolonged civil crises. The sector's productivity remains low: little technology and poor pest management, combined with the extremely limited use of fertiliser and other modern cultivation methods, are some of the factors responsible for this. Other factors include the lack of good quality farm inputs, high pre- and post-harvest losses, and the lack of incentives to produce food beyond subsistence level, given that marketing is difficult because of poor road networks and high transport costs.

On 16 October 2009, Liberia signed the Comprehensive Africa Agriculture Development Programme (CAADP) Compact after several days of intense roundtable meetings in Monrovia with agricultural experts, policy-makers and international donor partners. This shared framework for the development of the agriculture sector in Africa will assist in the design of future national development planning in Liberia. The main objective of CAADP is to help African countries achieve higher economic growth through agriculture-led development, thereby eliminating hunger, reducing poverty and ensuring food security.

General economic development policy identifies agriculture as being central to Liberia's vision of economic transformation. The second generation of the Liberian Agriculture Sector Investment Plan (LASIP II, 2018-2022) claims to set out a transformational agricultural agenda for the country, hinged on five broad strategic objectives or investment programmes, the fourth of which could develop into support for EOA, though that is not specifically mentioned in the policy. The five broad strategic objectives of the LASIP II broadly align with the three areas of the 2008 Food and Agriculture Policy and Strategy (FAPS). The FAPS is an important component in addressing poverty reduction, with agriculture being a major entry point for the Poverty Reduction Strategy. The national development goal (as set out in the Poverty Reduction Strategy of 2008), is: "Shared, inclusive, and sustainable economic growth and development; food and nutrition security; employment and income; and measurable poverty reduction". Poor water and sanitation challenge rural communities, as do poor road network and power supply.

Liberia has a number of policies and strategies to reduce poverty, end hunger and malnutrition, achieve food security and nutrition (SDG2), and provide decent work and economic growth (SDG7). These are supported by a number of policies including: National Nutrition Policy, 2009; National Health and Social Welfare Policy and Plan, 2011-2021; National Health Policy and Plan, 2011; Water, Sanitation and Hygiene Sector Strategic Plan, 2011-17; and Environmental Health annual work plans.

How EOA is included in agricultural and trade policies

EOA is not explicitly addressed in agricultural and trade policy. As outlined in the five strategic objectives, agricultural policy focuses on general development of the sector to ensure food security and value chain development. It is evident that much is needed to develop the agricultural sector. Coupled with the traditional nature of the subsistence sector, an EOA approach to development would seem an appropriate approach.

CHAP – a community-based farming organisation. CHAP has been working with a private company (Grain Coast Inc.) to promote organic farming. Grain Coast has been providing farmers with tools and training to increase their farm yields, and buying their surpluses. It then sells the surplus in the capital Monrovia, where they fetch higher selling prices thus making a small profit to sustain Grain Coast operations. Grain Coast now wants to extend its reach to more Liberian farmers to produce even more organically grown produce. It's a box scheme on a fairly small scale.

We found evidence of an organic mini-market being opened and supported by MoA: https://allafrica.com/stories/201708310882.html although it is unclear what methods are used to produce the vegetables, it may be an uncertified practice. We also found evidence of an organic fertiliser producer (vermicompost and compost tea) in the country www.organicmattersafrica.com/.

Donors

A large number of international donors and other organisations are present in Liberia, including FAO, UN, USAID, World Bank, implementing a diversity of projects in collaboration with the Liberian government. For example: Agriculture Sector Rehabilitation Project: The Ministry of Agriculture, Programme Management Unit (PMU), and the NGOs WelthungerHilfe, Africare and Concern are seeking to contribute to food security and poverty reduction through the Agriculture Sector Rehabilitation Project (ASRP).

Civil Society

A large number of civil society organisations (CSOs) operate in Liberia: Rights and Rice Foundation (RRI), Sustainable Development Institute (SDI), National Civil Society Council of Liberia (NCSCL), National Charcoal Union of Liberia (NACUL), Search for Common Ground, Save My Future Foundation (SAMFU), Foundation for Community Initiatives (FCI), Federation of Liberian Youth (FLY), Women NGO secretariat of Liberia (WONGOSOL), Association of Liberia Community Radio (ALICOR), Natural Resource Women Platform (NRWP), Alliance for Rural Development (ARD), Rural Human Rights Activists Programme (RHRAP), Parley, Farmers Union Network (FUN) of Liberia, Voice of the Voiceless (VOV) and the Liberia Reform Movement (LRM). We did not find evidence of organisations working explicitly with organics although some had a focus on sustainable agricultural practices.

Overview of the certification landscape

We found indicative evidence of certified cocoa in Liberia (cocoa products sold as organic), although the certification landscape is in a nascent phase. The Liberian National Cocoa Export Strategy 2014-2018 identified the organic market as a clear priority area: "Liberian cocoa is de facto organic due to the lack of chemical fertilisers and pesticides used. It is expected that once the overall quality levels increase, marketing this cocoa to international markets would be feasible, however this is dependent on a high degree of value chain improvements taking place.

As certification levels in neighbouring competitors such as Ghana and Côte d'Ivoire are still ramping up, developing a strong reputation as a supplier of certified cocoa (be it organic, Rainforest Alliance, UTZ or FairTrade) would allow Liberian cocoa to develop a strong differentiating attribute against its regional competitors. Additionally, certification in the cocoa sector is quickly taking the shape of a necessary requirement rather than a value driver. For instance, Mars Chocolate (operational in Liberia) has announced that it will only procure certified beans after 2020. This presents an opportunity – to be realised over the medium-long term – for Liberian exporters to keep engaged with existing market segments and gradually start to penetrate the certified cocoa segment in the country." The strategy identifies steps to achieve this potential.

Challenges, gaps and opportunities of existing policy framework

Production in Liberia is characterised as low as a result of poor quality inputs, the absence of extension services and the poor quality of infrastructure such as roads and storage and processing facilities, which generates high post-harvest losses and little added value. Organisational capacity within farmers' organisations (FOs) and the Ministry of Agriculture is also weak.

The country produces cocoa and has large plantations of rubber – and farmers are often organised in a co-operative or by international corporations. The agriculture sector, in general, is challenged by inadequate farm-to-market roads, lack of familiarity with measurement and quality standards, lack of storage facilities, and limited access to updated price and market information. Beside the cash crops, there are market opportunities and potential for agribusiness investment, which focuses on developing the value chain of the available food crops such as rice, cassava, vegetables, fruit, poultry and fish. Liberia has a suitable climate for horticulture such as production of peppers, okra, onions, tomatoes, squash, etc., which are in high demand throughout the country all year round.

Preliminary EOA typology

Type 3; Country has some NGO activity, some guidelines and exports but no Government support. (No clear government support, some civil support. Yet organics recognised in some strategies).

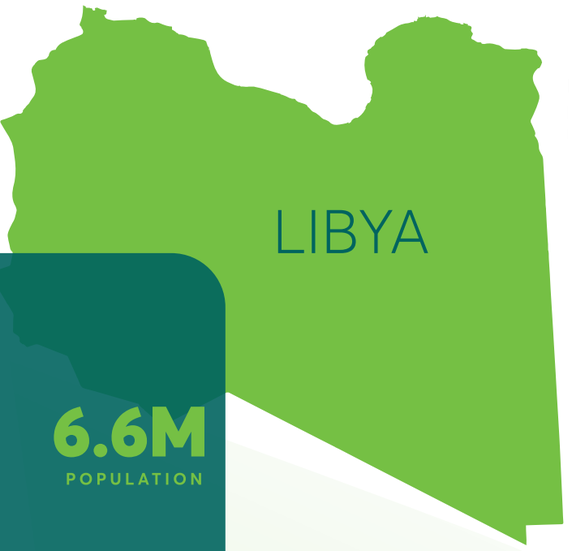
Broderick CE and Appleton NS, 2018. A case study for Liberian agro-forestry: science and the implementation of a co–management prospectus for agriculture and forestry. Forest Res Eng Int J, 2(4), pp.214-224.

Hendriks S, 2018. Review of the Draft Liberia Agricultural Sector Investment Plan (LASIP II) for 2018 – 2022 with a Focus on Component 4 of Malabo CAADP Results Framework. Feed the Future Innovation Lab Food Security Policy. Policy Brief 58.

IFAD, 2017. Liberia Country Context. [Accessed 9 August 2019]: https://www.ifad.org/en/web/operations/country/id/liberia

THE REPUBLIC OF LIBERIA: NATIONAL EXPORT STRATEGY; COCOA EXPORT STRATEGY 2014-2018.

World Bank (2017): Liberia Laying the Foundations for Sustainable Agriculture. [Accessed 9 August 2019]: https://www.worldbank.org/en/news/feature/2017/06/26/liberia-laying-the-foundations-for-sustainable-agriculture



LIBYA

Libya has a dry climate that does not lend itself to agriculture, particularly as most of the country is desert, and coupled with low rainfall levels, freshwater supply in Libya is limited. Water for the agriculture industry has to be sourced from dams and aquifers, and only 5% of the land is arable. Desertification and salinity problems are key challenges to agriculture. Since 2011, the country has experienced ongoing political instability and unrest. An FAO report on Libya stated:

"Previous qualitative assessments have shown that the crisis has exacerbated pre-existing challenges associated with agricultural production in Libya, including water scarcity, animal and plant diseases, desertification and labour shortages. In addition to these longer-term challenges, the crisis has ruptured market linkages and disrupted access to water, electricity, inputs, and transportation."

World Bank developed a new strategy (2019) which draws on the Bank Group's global experience working with countries coping with instability and addresses urgent priorities while laying the groundwork for future recovery and reconstruction (FAO 2019). Environmental constraints constituted severe limitations on the development of agriculture in Libya before the crisis, the sector was still considered to have the potential to expand and increase its efficiency. Prior to the crisis, approximately 85% of Libya's 15.4 million ha of agricultural land was pasture, whilst 2.1 million ha of arable land was available. Permanent crops, primarily fruit trees, comprised a significant portion of arable land in these areas. Half the land developed for irrigation (470,000 ha) was actually irrigated, whilst additional irrigable land (750,000 ha) relied on groundwater, which was scarce (FAO 2018).

A Dutch study, prior to the crisis, assessed opportunities for agribusiness development in Libya (Heemskerk and Koopmanschap 2011), and identified organic products for export, including olive oil, vegetables and fruit – targeting primarily the EU. Unfortunately, much of the institutional landscape outlined in this report, which could support general agricultural development in Libya, has been transformed, and the country remains in a state of political instability, and is paralysed by this. There are recent efforts at the ministerial level of cooperation between Libya and Tunisia (and Libya & Italy) towards developing partnerships for learning exchanges in agricultural production. However, a precursor to agricultural development is that the country becomes more stable allowing institutions to operate. At a national level, there is a need to promote conflict-resilient and climate-sensitive agricultural production while facilitating farmers' access to high-quality inputs and support, such as agricultural extension services, vaccines, capacity building and financial support.

6.6M
POPULATION

1.8M
AREA SQKM

EOA TYPE

Preliminary EOA typology

Type 5; Country has very little institutional capacity, no government support and is not exporting.

Abagandura O G and Park D, 2016. Libyan Agriculture: A Review of Past Efforts, Current Challenges and Future Prospects. Journal of Natural Sciences Research. Vol. 6, p.2224-3186.

Abdelwhab, MW, 2012. The importance of agricultural infrastructure to transformation to organic farming in Libya. Doctoral thesis, Sheffield Hallam University (United Kingdom).

FAO (Food and Agricultural Organization of the United Nations), ND. Libya country profile. http://www.fao.org/countryprofiles/index/en/?iso3=LBY . FAO, Rome. Accessed 7 August 2019

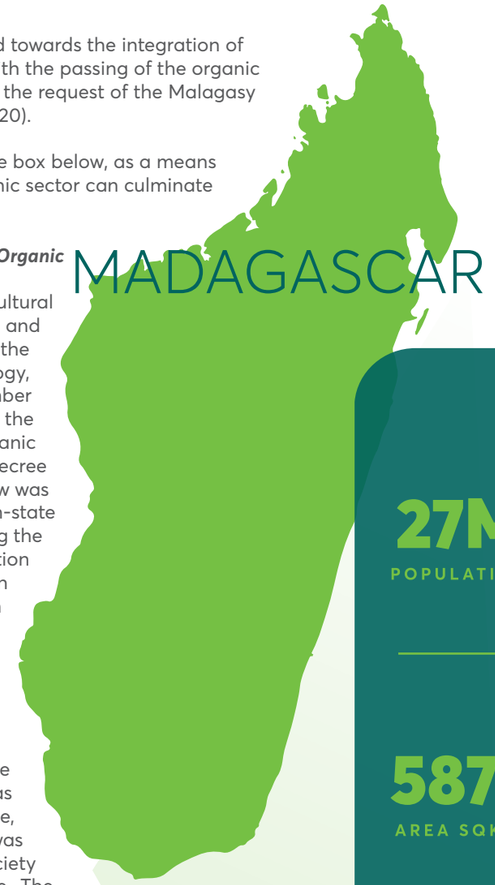
FAO, 2018. Libya: The impact of the crisis on agriculture. Key findings from the 2018 Multi-sector Needs Assessment. FAO.

Heemskerk WCS and Koopmanschap EMJ, 2011. Agribusiness development in Libya: A fact-finding mission. Royal Tropical Institute, Amsterdam, The Netherlands. Centre for Development Innovation, Wageningen, The Netherlands.

MADAGASCAR

The Malagasy Government has over the past five years steadily worked towards the integration of EOA in agricultural and trade policy, something which was achieved with the passing of the organic agriculture law in May 2020. This policy was elaborated and passed at the request of the Malagasy Union for Organic Farming (SYMABIO) (described below) (Etancelin, 2020).

The steps towards the elaboration of this law are captured briefly in the box below, as a means to showcase how political will married to active support from the organic sector can culminate in the strong emergence of the organic sector in Africa.



Box: ***Stepping stones in the elaboration of the Malagasy Law on Organic Agriculture***

Policy intent was expressed in the 2015 National Agricultural Investment Plan: sectoral programme for agriculture, breeding and fisheries (Government of Madagascar, 2015), which states that "the promotion of conservation agriculture based on agro-ecology, including organic agriculture, will be scaled up". In December 2017, an Organic National Conference was organised. This was the start of an 18-month long mapping of stakeholders in the organic sector which was concluded in May 2018. That same month, a decree establishing the drafting committee of the organic agriculture law was passed. This committee involved the relevant ministries and non-state entities, gathered in a formal platform responsible for overseeing the drafting process. This committee worked towards the elaboration of a draft law on organic agriculture, which was first tabled in December 2018. A national workshop gathering all actors from the public and private sectors was held for the final validation of the preliminary draft (Government of Madagascar 2020). The sector organisation SYMABIO confirmed the participatory nature of the development of the organic agriculture law (Etancelin 2020).

Following the elaboration of this draft law, a technical committee for the drafting of the national strategy on organic agriculture was set up (August 2019) under the aegis of the Ministry of Agriculture, Animal Husbandry and Fisheries (MAEP). This committee was composed of representatives of the private sector, civil society and the public sector, including the MAEP drafting committee. The capacity of this committee was strengthened prior to its work through a four-day training on policies to support the development of organic agriculture, organised and financed by the MAEP (MAEP 2019). In October 2019, the law was passed by the Government Council and it was then passed by the Ministerial Council (November 2019) and debated in the National Assembly in March 2020 until its adoption in May 2020. It was adopted by the Senate the same month and the law was promulgated in July 2020 (Etancelin 2020).

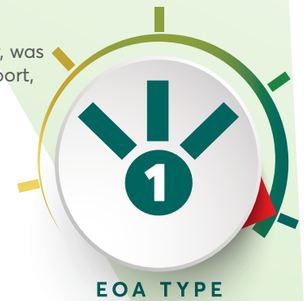
Worth noting and of critical importance for the protection of the organic sector in Madagascar, was the passing (in the same period) of decree N° 2018-397 (May 2018) on the prohibition of the import, distribution, production and sale of products of plant or animal origin derived from Genetically Modified Organisms (GMOs) (Government of Madagascar, 2018).

The 2020 law on organic agriculture enshrines the powers and competences of the State in relation to the sustainable development of organic agriculture in Madagascar. It defines the conditions regulating the marketing of organic products, establishes the National Commission for Organic Agriculture (and defines its composition and attributes). [62] It also spells out the principles governing the system for assessing organic products and defines the offences and penalties provided for any breach of this Law.

A very interesting aspect of this law is that it makes provision for the establishment, under the supervision of the newly created OA unit within the MAEP, of "Organic Farming Territories". These are defined as "areas in which public-private partnerships are encouraged to facilitate the development of organic production, particularly in the outskirts of protected areas, in areas with a high propensity for organic farming, or peri-urban areas which show potential for supplying domestic markets with fresh organic products" (Government of Madagascar 2020:5) [63]. The establishment of vast territories dedicated to OA will prove highly beneficial to the sector whilst curbing any risk of agrochemical contamination through drift.

27M
POPULATION

587K
AREA SQKM



EOA TYPE

62 This Commission is attached to the MAEP and serves as a multi-stakeholder consultative body whose function is to oversee the implementation of the law; it also regulates the registration of certification bureaus, as well as the registration of PGS groups.
63 Translated by the author

Government support to the sector

Aside from this strong support to the policy process, the Malagasy government is committed to developing the Malagasy organic brand (BIO ORIGINE MADAGASCAR) (Etancelin 2020).

Strong support is also given to the sector through the Fihariana National Entrepreneurship Programme [64], which provides technical and financial support to 200,000 farmers to convert to organic farming. To this end, the sixty-member companies of SYMABIO will benefit from support from the Fihariana programme so that they can boost their production, whilst increasing the number of farmer members. Within the framework of this partnership agreement, the Fihariana programme and SYMABIO will also support these 200,000 target farmers in obtaining organic certification (Midi Madagasikara 2000).

There is strong national capacity in Madagascar; the EOA sector's capacity is bolstered, among others, by the presence of an organic movement, a union of organic producers and an AE research and training centre.

The Malagasy Union for Organic Farming [Le Syndicat Malgache de l'Agriculture Biologique – SYMABIO] [65] was created in March 2011 at the behest of operators aware of the sector's potential and the need to organise to raise awareness and lobby authorities to support organic farming. Headquartered in Antananarivo, the union consists of about 30 members working in the organic sector and who are certified. The network counts 5,000 rural producer partners located in different regions of Madagascar. Many Madagascans also derive income from wild harvesting in the areas certified as organic. This organisation is backed by a trade association called Promabio.

Another important platform which has been in place since 2001 is the GSDM (formerly known as the semi direct grouping of Madagascar), now called "Professionals of Agro-ecology" [66]. This not for profit organisation constitutes a core interface of agricultural research and rural development, development actors and public policies, rural training centres and practitioners. It acts as the focal point of the National Task Force on Conservation Agriculture (TFNAC), a national platform supported by FAO which aims to support and promote the adoption of Climate Smart Agriculture in the country. The platform clearly contributes to increasing the knowledge base on AE with many resources posted on its website.

The country has a very strong capacity in AE training, with the School of Agronomy offering a Masters degree in Agro-ecology, biodiversity and climate change (ABC).

Among the key strategic donors supporting the emergence (and formalisation) of the sector feature:

- The World Bank, through the CASEF initiative. [67] The project focused on agricultural production and securing land tenure rights. Among other components, the project seeks to provide quality assurance services such as veterinary services, standards, certification and traceability mechanisms, as the country encounters many problems with its agricultural production earmarked for export being stopped at customs.
- The German Development Agency (GIZ).
- The French Development Agency.

The international NGO NITIDAE and the local NGO Fanamby are also involved in supporting EOA through projects in the agricultural sector. One of the NGOs specifically involved in supporting the emergence of PGS is the NGO AgriSud.

Certification landscape and extent of links to national policy

Currently, Madagascar does not have its own standards and essentially relies on organic regulations from the EU, the US and Japan (Symabio, 2019). Work on the elaboration of standards is underway (Etancelin, 2020). Ecocert is one of the main CBs active in the country.

The law on organic agriculture recognises the role of PGS as a certification mechanism and establishes that – alongside third-party certification – "products grown for the domestic market can be marketed as "organic" if they have been guaranteed by a PGS approved at the national level in conformity with the national organic specifications" (Government of Madagascar 2020:8). At the time of writing, there were no PGS groups in place yet, but there is interest from AgriSud to support the emergence of PGS in Madagascar.

Markets and trade

In 2017, Madagascar featured among the top ten countries with the largest organic area in Africa, with 63,954 ha, of which 15,500 ha is under wild collection (ranked 9th just before the DRC) (Willer et al. 2019). That same year, the number of organic producers in the country was just below 22,000, with a total of 111 exporters. The products exported as certified organic included honey, cereals, citrus fruit, cocoa beans, coffee, pulses and tropical fruit. The export of organic produce in 2019 brought in about $94 million in revenue for the country (Etancelin in Midi Madagasikara 2000).

Gaps and challenges within existing policy framework

Key gaps identified by stakeholders include the high costs of certification (Rajaonarison, 2019). Donor projects intervening in agriculture promote high input practices, such as the PAPRIZ programme run by JICA; these interventions undermine the efforts of EOA (Etancelin, 2019).

Opportunities for leverage within existing policy frameworks

The fact that the organic movement is well structured, with SYMABIO bringing together many of the professionals of OA in Madagascar (producers, input suppliers, processors, specific distributors, certification bodies) constitutes a key asset for the sector, and SYMABIO is reforming its statutes with a view to becoming a NOAM (Luttikholt, 2019).

Preliminary EOA typology

Type 1; Country has a NOAM, a policy and standards, and government is supporting the vibrant sector.

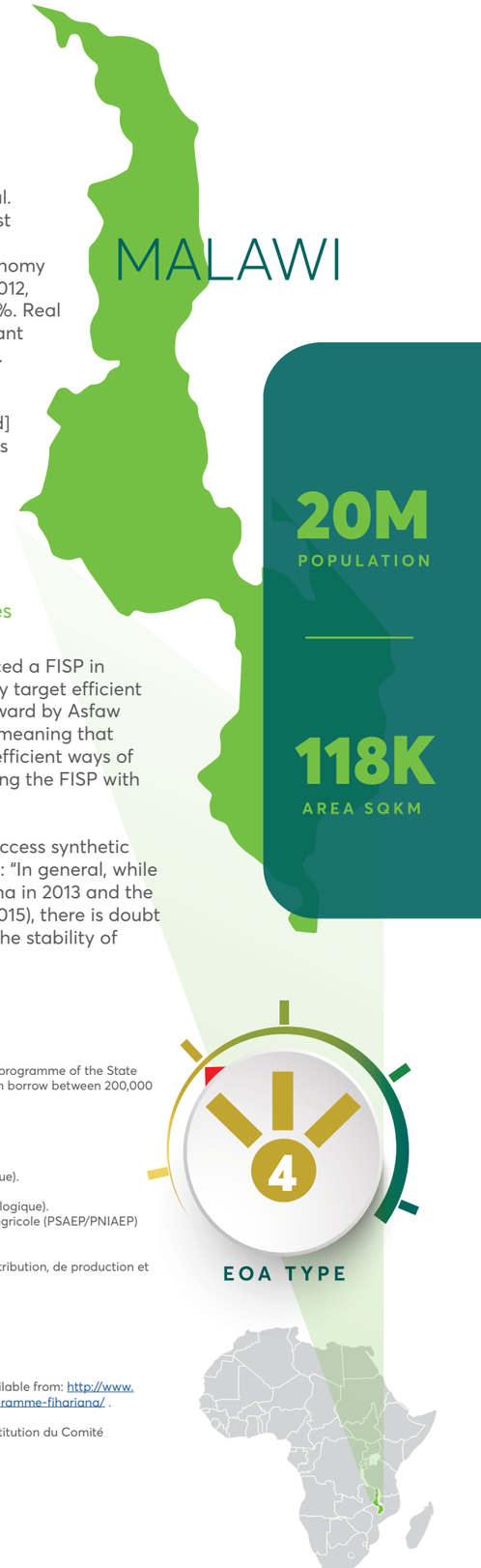
MALAWI

Most Malawians depend on small scale agriculture for survival. Daidone et al. (2017) summarise the situation: "The Republic of Malawi is among the poorest countries in the world. The Human Development Index (HDI) in 2014 ranked Malawi 174th out of 189 countries with an HDI of 0.414. In 2014, Malawi's economy continued on a path to recovery in the aftermath of the economic crisis of 2012, which saw a contraction in real Gross Domestic Product (GDP) growth to 2.1%. Real GDP growth was 5.7% in 2014, largely driven by agriculture, but with significant contributions from manufacturing, wholesale and retail trade, and services… Agriculture accounts for nearly 35% of GDP, as compared with services and industry, which account, respectively, for 46 and 19% of GDP. Agriculture employs about 80% of the workforce, the majority of whom are women [and] accounts for more than 80% of export earnings. Overall, agriculture supports nearly 85% of the population and contributes significantly to national and household food security… close to 2 million of the total 2.7 million ha of cultivated land in the country are cultivated by smallholder farmers, who tend to work small and fragmented landholdings averaging less than 1 ha per household.

An example of the poor efficiency of Farm Input Subsidy Programmes (FISP):

In common with many African countries, the Malawian government introduced a FISP in 2005. Some critics argue it creates dependency, and others say it should only target efficient farmers, and assist "inefficient farmers" with food aid. The argument put forward by Asfaw et al. (2017) is that the problem in sub-Saharan Africa is poor infrastructure, meaning that farmers cannot easily access crop production inputs. The solution is to find efficient ways of getting the inputs to farmers. The Government of Malawi is currently reviewing the FISP with the aim of cutting costs.

The whole emphasis of the Malawian government is on helping farmers to access synthetic fertiliser, poisons and hybrid seed. Asfaw et al. (2017) state early in the paper: "In general, while maize productivity shifted on average from 1,480 kg/ha in 2006 to 2,100 kg/ha in 2013 and the prevalence of undernourishment decreased from 27% to 20.8% (FAOSTAT, 2015), there is doubt whether such improvements have been driven by FISP and concerns about the stability of food security as well as the distributional impacts of the programme itself".



64 See https://fihariana.com/en/about/. Initiated by President Andry Rajoelina, the Fihariana project is a national programme of the State whose main objective is to provide technical and financial support to Malagasy wishing to start a business. They can borrow between 200,000 Ariary to 200 million Ariary (at a subsidised rate) from the programme to finance their project.
65 http://www.symabio.mg
66 http://gsdm-mg.org
67 http://www.casef.net.

Etancelin G, 2019. Pers. Comm. on 25 July 2019. President of SYMABIO (Syndicat Malgache de l'Agriculture BIOlogique).

Etancelin G, 2020. Pers. Comm. on 23 October 2020. President of SYMABIO (Syndicat Malgache de l'Agriculture BIOlogique).
Government of Madagascar, 2015. Programme sectoriel agriculture, élevage, pêche Plan national d'investissement agricole (PSAEP/PNIAEP) 2016-2020.Available from : http://www.fao.org/faolex/results/details/en/c/LEX-FAOC169997 (2015:28).

Government of Madagascar, 2018. Décret n° 2018-397 du 02 mai 2018 portant sur l'interdiction d'importation, de distribution, de production et de vente des produits d'origine végétale ou animale issus des Organismes Génétiquement Modifiés (OGM).
Available from: http://www.fao.org/faolex/results/details/es/c/LEX-FAOC185239 .

Government of Madagascar. 2020. Loi n° 2020-003 sur l'Agriculture biologique à Madagascar.

Luttikholt L, 2019. Pers. Comm. 23 October 2019. Louis Luttikolt is Executive Director of IFOAM-OI, Bonn, Germany.

Midi Madagasikara 2000. Agriculture biologique: 200 000 paysans accompagnés par le programme Fihariana. Available from: http://www.midi-madagasikara.mg/economie/2020/09/25/agriculture-biologique-200-000-paysans-accompagnes-par-le-programme-fihariana/ .

Ministry of Agriculture, Animal Husbandry and Fisheries (MAEP). 2019. Decree N 028-19/MAEP/SG/DGA/DAAB. Constitution du Comité Technique de Rédaction pour l'Elaboration de la stratégie nationale sur l'Agriculture Biologiue. 27 August.

Rajaonarison N, 2019. Pers. comm. on 20 July. Njaka Rajaonarison is an IFOAM member.

Symabio, 2019. Le règlement en vogueur-Symabio. Available from www.symabio.mg/reglement-en-vigueur .

Willer H, Lernoud J and Kemper L, 2019. The world grows organic. IFOAM, Bonn, Germany.

Later they state: "progress on poverty reduction has been limited. According to the Malawian National Statistical Office (NSO), Malawi's poverty level decreased only marginally from 52.4% in 2005 to an estimated 50.7% in 2011. The proportion of ultra-poor people increased from 22.2% in 2005 to 25.7% in 2011. The incidence of rural poverty in fact increased slightly from 55.9% in 2005 to 56.6% in 2012, while urban poverty fell sharply from 25% in 2004 to 17% in 2011…The slow progress in poverty reduction and worsening income distribution suggest that growth has not been inclusive and both poverty and income distribution have been aggravated by the high vulnerability of poor households to shocks (e.g. health, floods, drought and price increases). … SCTP and the FISP, which are described in the next subsections, are examples of social protection and agricultural interventions that could be better coordinated in order to more effectively combat poverty and food insecurity in Malawi."

These studies show some of the benefits of FISP and SCTP, similar to the argument made by Jeffrey Sachs (2005), in his book "The end of Poverty: How we can make it happen in our lifetime". Sachs has had massive support for his Alliance for a Green Revolution in Africa (AGRA) programme, in particular for the Millennium Villages Project (MVP). However, his promises from 2005 have not been delivered, and the reasons for this are discussed in the body of this report. Malawi aize yields with FISP reached 2.1 t/ha in 2013. South African research showed how, simply by using very modest levels of cow manure, and by using good quality seed and controlling weeds properly, and by ploughing and planting at the right time, maize yields in KwaZulu-Natal were raised from one to three t/ha (Auerbach, 1995).

Neither the massive infrastructure of AGRA-MVP, nor the massive cost of FISP are required to do this. Malawian organic farmers are making steady progress with very modest assistance, and without FISP or SCTP help.

How is EOA integrated in agricultural and trade policies?

Already in 2014, Malawi had over 20,000 organic farmers, organised into an effective National Organic Agricultural Movement (described below), which is developing rapidly. Certified organic land grew from 102 ha in 2014 to 18,551 ha (including 6,319 ha wild harvested) in 2017, according to Willer et al. (2019).

A report by Christopher Jimu from December 2014 in the Malawian newspaper "The Nation" quotes summarises the situation for EOA in Malawi: [68]

> "Malawi Organic Growers Association (Moga) executive director Stanley Chidaya says despite the market for organically grown crops in the world growing steadily every day, Malawi is not doing enough to take advantage of the situation. Moga, formed in 2000, encourages farmers to grow crops without using synthetic fertilisers because most European countries prefer organically grown crops compared to those grown using synthetic fertilisers.
>
> Currently, Moga has secured markets in Germany, China and other European countries for farmers growing rice, coffee, macadamia, tea, legumes as well as horticultural crops. Chidaya said the world market for organic crops is currently at $80 billion because more people are interested in consuming crops without health risks.
> "Currently, we are working with 23,000 farmers who have adopted this system of growing crops. Most of them are in the Central Region followed by the North and the South in that order. These farmers are growing crops such as garlic, ginger, cereals, maize, soya, legumes, coffee, tea and vegetables. By 2018, we want to reach as many as 120,000 farmers because the market in Europe is huge," he said. Chidaya said neighbouring countries are doing well in organic farming (Tanzania and Kenya doing well, and Zambia and Zimbabwe also recording more farmers than Malawi). In fact, we refused to host the Africa Organic Farming Conference, which was supposed to take place in 2015 because we are just not ready. There is a lot that we need to do so that when we host the conference, our visitors should know that we are serious with organic farming," he said.

Chidaya said some people have the misconception that without using synthetic fertiliser, the country cannot develop. "The materials for producing organic fertilisers are found at household level. These are things like animal manure, agricultural wastes such as maize stalks, leaves and other locally found materials which can help government save a lot of resources by reducing FISP beneficiaries," he said. [End of newspaper article quote]. Mr Chidaya confirmed these details (pers. comm. 2019).

Malawian Organic Regulations and Standard

More recently, the Sheffield University Management School management reported [69]:

> "[MOGA] is a national membership organisation founded in 2000 although it started to operate as a fully-fledged organisation in 2005. MOGA's main focus is to improve the profitability and sustainability of organic farming as practised by smallholder producers. In this case MOGA as an Umbrella organisation services 3,200 farmers all of which are now engaged in organic farming. The crops that farmers grow organically include food crops, vegetables, legumes, fruits, mushrooms, and herbal plants and spices. MOGA trains farmers in organic production and planning, establishment of internal quality control systems. MOGA further supports farmers who want to convert to organic farming with advice. One of the challenges facing small scale farmers in Malawi are difficulties in accessing formal produce markets. Much of this is a result of farmers failing to produce quality produce and to plan their production in a way that meets quantities and time lines required by the markets. Thus MOGA in its training activities will assist farmers to overcome these problems. MOGA in association with the Malawi Bureau of Standards has developed local organic standards and farmers will be trained to meet these standards to be able to access local organic markets".

No mention of EOA could be found on the Ministry of Agriculture website. The Mission of the MoA of Malawi [70] is: To promote agricultural productivity and sustainable management of land resources to achieve food security, increased incomes and ensure sustainable socio-economic growth.

The following statement occurs at the end of Food Security Policy, under "Environment" [71] : The policy recognises the existence of National Environmental Policy and advocates participation of all stakeholders in sound management, conservation and use of natural resources & environment to achieve increased but sustainable productivity and development now and in the future. Malawi needs to move away from FISP towards agricultural policies which support EOA. Sustainable yields can easily be achieved, as shown for southern KwaZulu-Natal in South Africa.

Overview of opportunities for leverage within existing policy frameworks and how these opportunities can be explored

Given the long experience of Malawi with FISP and SCTP, a fair evaluation of the results in terms of sustainable development, health and nutrition, and assisting small scale farmers to reduce vulnerability in terms of climate change, weather shocks and market volatility, must conclude that institution building, training of farmers in AE and a broad nutrition education programme are the priorities for Malawi, if it wishes to escape hunger and poverty in the long term. Simply handing out farm inputs and social grants may keep people from starving, but it has failed to build the Malawian economy, and has led to land degradation.

Preliminary EOA typology

Type 4; Country has some NGO capacity, no guidelines, no support from government and is not exporting.

68 https://mwnation.com/malawi-not-well-organic-agriculture/
69 https://www.trickleout.net/index.php/directoryofenterprises/Malawi_/malawi-organic-growers-association
70 http://agriculture.gov.mw
71 http://agriculture.gov.mw/Food%20security%20policy/D-Food-Security-Policy-11-09-06.pdf

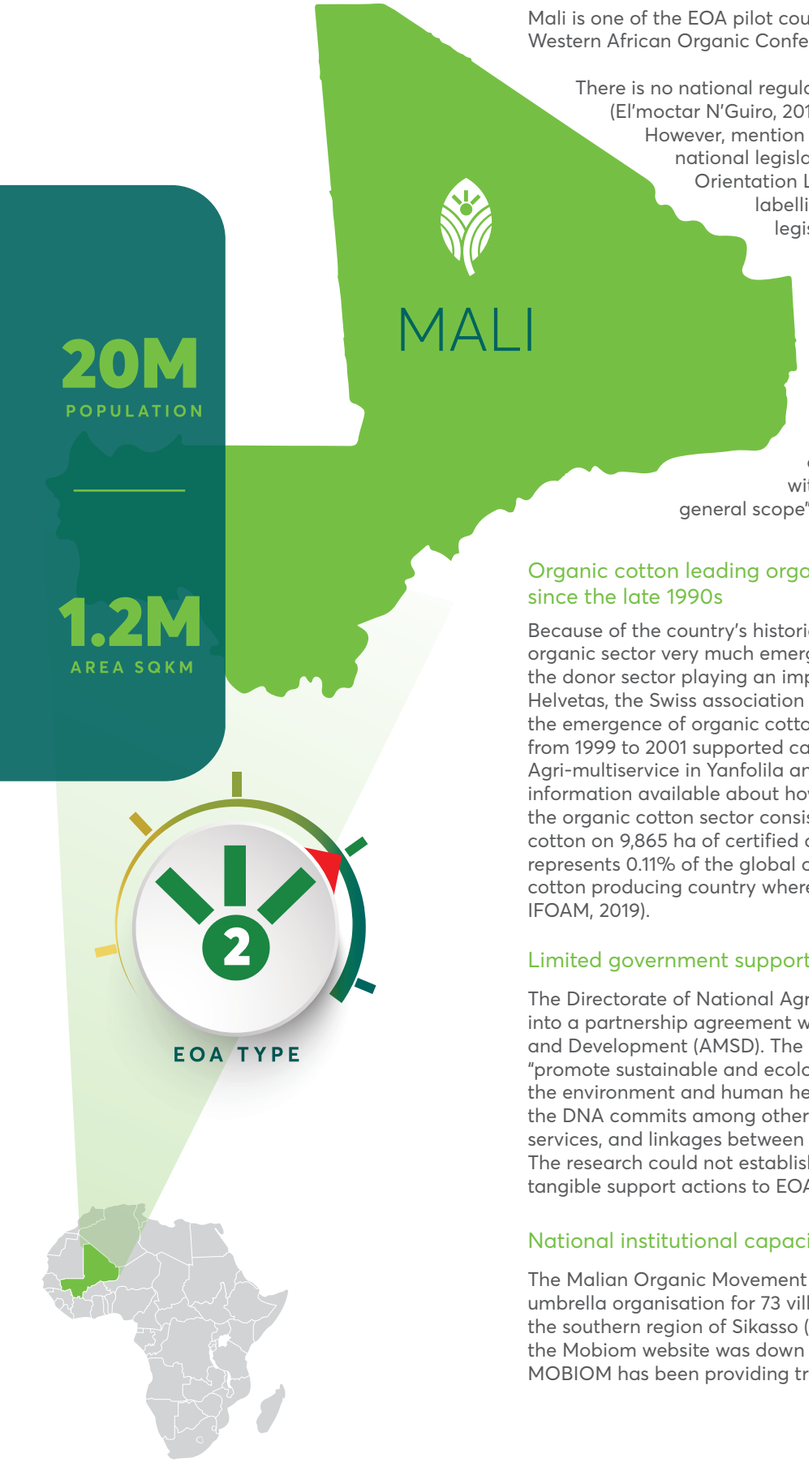
Asfaw S, Cattaneo A, Pallante G and Palma A, 2017. Impacts of modifying Malawi's farm input subsidy programme targeting. FAO Agricultural Economics Working Paper. ISBN 978-92-5-109908-7. FAO, Rome, Italy.

Auerbach RMB, 1995. A farming systems research evaluation of maize production practices in southern KwaZulu. M Sc, University of KwaZulu-Natal, Pietermaritzburg, quoted in Chapter One of Auerbach, 2020; p.12.

Auerbach RMB (editor), 2020. Organic Food Systems: Meeting the Needs of Southern Africa. Chapter One: The developing organic sector in southern and eastern Africa, RMB Auerbach. CABI, Wallingford, UK.

Daidone S, Davis B, Knowles M, Pickmans R, Pace N and Handa S, 2017. The Social Cash Transfer Programme and the Farm Input Subsidy Programme in Malawi: Complementary instruments for supporting agricultural transformation and increasing consumption and productive activities? FAO, Rome, Italy.

MALI



Mali is one of the EOA pilot countries in West Africa. Mali hosted the Western African Organic Conference in Bamako in December 2017.

There is no national regulation on organic agriculture in Mali (El'moctar N'Guiro, 2019).

However, mention of organic agriculture is made in the national legislation. Chapter VI of the 2006 Agricultural Orientation Law deals with quality assurance and labelling of agricultural produce. As such, this legislation therefore makes provisions for the protection of quality and identification of agricultural produce, with explicit mention of the traceability of produce. It states that the State is responsible for quality control of produce, notably by supporting the graduation of national laboratories into reference and certified laboratories. Article 169 stipulates that "sections dedicated to produce stemming from organic agriculture can also be created within the professional organisations having a general scope".

Organic cotton leading organic production in Mali since the late 1990s

Because of the country's historical tradition of cotton production, the organic sector very much emerged around the cotton value chain, with the donor sector playing an important part in formalising this value chain. Helvetas, the Swiss association for international cooperation, supported the emergence of organic cotton in the late 1990s. A project which ran from 1999 to 2001 supported capacity building of two national NGOS: Agri-multiservice in Yanfolila and SE- TADE à Kolondiéba. [72] There is little information available about how the organic cotton sector is faring. In 2017, the organic cotton sector consisted of 1,363 producers, growing organic cotton on 9,865 ha of certified organic land. Over the 2016/17, Mali - which represents 0.11% of the global organic cotton production - was the only cotton producing country where organic production declined (FiBL and IFOAM, 2019).

Limited government support to EOA

The Directorate of National Agriculture (DNA) has in August 2018 entered into a partnership agreement with the the Malian Association for Solidarity and Development (AMSD). The overall objective of this agreement is to "promote sustainable and ecological agriculture that is more respectful of the environment and human health". Within the collaborative framework, the DNA commits among other to supporting EOA training and extension services, and linkages between producers, market and technical experts. The research could not establish whether this had translated into any tangible support actions to EOA (Diawara, 2019).

National institutional capacity

The Malian Organic Movement (MOBIOM) was born in 2002 and is an umbrella organisation for 73 village co-operatives and 6,547 farmers in the southern region of Sikasso (El'moctar N'Guiro, 2019) (unfortunately the Mobiom website was down at the time of the research). Since 2008, MOBIOM has been providing training to its farmer members, which has included some internal control of compliance with standards and support to the organisation of certification visits.

The Malian Association for Solidarity and Development (AMSD) appears as a key players in EOA, as it has signed a partnership agreement with the DNA to promote EOA. It is also strongly involved in promoting PGS among its producers (see "PGS" section).

The EOA initiative in Mali is supported and implemented by the following national organisations:

- The Rural economy institute [L'Institut d'Economie Rurale (IER)] is in charge of the research pillar. The IER is a financially autonomous public scientific, technical and cultural establishment. It is tasked with improving agricultural, pastoral and aquacultural production and productivity to ensure food security and sovereignty and preserve human health and biodiversity in Mali.
- The Rural Polytechnical Training and Applied Research Institute (IPR/IFRA de Katibougou) is in charge of the communication and information pillar of EOA.
- The Malian Network for the Transformation of Organic Cotton [Réseau Malien pour la Transformation locale du Coton Biologique (REMATRAC BIO)] is in charge of the processing pillar of EOA.
- The EOA project is being co-ordinated by the Association of Organisations of Professional Farmers [Association des Organisations de professionnelles paysannes (AOPP)].

Other NGOs or local associations involved EOA include: Office de la Haute Vallée du Niger (OHVN); SANGANA de Loulouni; the Bananmba Union Producers of Organic Sesame (UPSB) (El'moctar N'Guiro, 2019), Union for an Ecological Future and the Union of Market Gardening Groupings (Union des groupements maraichers) . [73]

The efforts towards the development of the EOA sector in Mali have also been supported by the international donor sector:
Among the INGOs present and active in the field of EOA in Mali are:

- Helvetas, the Swiss association for international cooperation. It is currently managing an agricultural training programme targeting the youth (called Jigitugu) with a focus on organic practices. The project is funded by the Lichtenstein Development Services (2017-2020). [74]
- Swiss Contact: the NGO seeks to support the emergence of an organic value chain and has been providing training to farmers. [75]
- Both these Swiss organisations have been involved in the elaboration of production standards for Mali (see below).
- Mali is one of the countries which forms part of the Ecowas Agro-ecological Transition Support Programme (PATAE), funded by the French Development Agency. [76]

The certification landscape and linkages to national policy

In 2009, Helvetas, which works with small scale producers, started work on the elaboration of organic standards; for undisclosed reasons, this process was interrupted. In 2016, an attempt was made to reinitiate work on these standards and linked with institutionalising PGS, but again, this process was halted. According to IFOAM there was no Participatory Guarantee System (PGS) in 2018. Among the factors inhibiting the growth and uptake of PGS among farmers is the requirement for any interested farmers to have soil tested (Diawara, 2019). In 2017, Swiss Contact set out to develop another set of standards, labelled as "Sustainable market gardening" ("Maraîchage durable") which is not entirely focused on organic production and allows the use of "low toxicity" pesticides.

Both these standards were developed with the support of CECAGRID, a private firm based in Cotonou, set up by Swiss partners, that operates at the regional level to provide advisory work in agricultural and sustainable Development (Yombi, 2019). The "established" standard used in Mali at this stage is not organic as there is a degree of allowance for pesticide usage. Furthermore, Mobiom developed draft standards in 2017, taken from this draft by Swiss Contact (El'moctar N'Guiro, 2019). The main third-party certification agencies in the country are Ecocert and Certysis. The main export countries are Burkina Faso, France, Germany, Switzerland and Holland (El'moctar N'Guiro, 2019).

Markets and trade

In 2017, Mali had 12,550 ha under organic production (including conversion) and 8,690 ha under wild collection (nuts), which made a total of over 21,000 ha under organic. A total of 13 producers and 16 exporters were involved in the certified market. The main crops certified are cereals, tropical and subtropical fruits, oilseeds, cotton and (wild harvested) nuts. The flagship crops include sesame, shea butter and mangoes (El'moctar N'Guiro, 2019). That same year (2017), Mali was ranked the 10th among African countries in terms of its number of organic producers, with a total of 12,272 producers (FiBl and IFOAM, 2019).
Among the key challenges flagged by MOBIOM feature:

- The lack of structure/formalisation of the EOA value chain among the actors (producers, processors, input suppliers, researcher and traders);
- The fact that decision makers do not receive adequate information;
- The lack of knowledge management of information;
- The fact that organic produce do not fetch a higher price (locally);
- The heavy lobbying against EOA on the part of multi-national agro-chemical firms;
- Difficult access to quality seeds, equipment and financial resources (El'moctar N'Guiro, 2019).

72 https://thinksustainabilityblog.com/2018/03/10/mobiom-cotton-in-mali/
73 Afronet, Nd. African organic agricultural actors directory.
74 https://www.helvetas.org/fr/suisse/ce-qu-on-fait/comment-on-travaille/nos-projets/afrique/mali/mali-jigitugu-formation-agricole
75 http://aebmali.org/?p=616
76 ECOWAS, Nd. Programme d'Appui à la Transition Agro-écologique au Sahel et en Afrique de l'Ouest
Available from: http://www.araa.org/en/programme/programme-d'appui-à-la-transition-agro-écologique-au-sahel-et-en-afrique-de-l'ouest

Opportunities for leverage within existing policy & institutional frameworks

The dynamism of the non-government sector and the existing research capacity presents an opportunity in the sense that a critical mass of actors will be receptive to legislation.

The existing provisions in the 2006 agricultural law should be harnessed towards formalising EOA.
Critical support flagged by MOBIOM include (El'moctar N'Guiro. 2019):

- Formalising EOA through adequate legal frameworks and establishment of an EAO fund;
- Dropping the costs of certification;
- Setting a price fixing mechanism that will help get a higher price (+20-25 cents CFA).

Preliminary EOA typology

Type 2; Country has some government support, there is a policy underway, a strong NOAM, a domestic market and strong NGO farmer support.

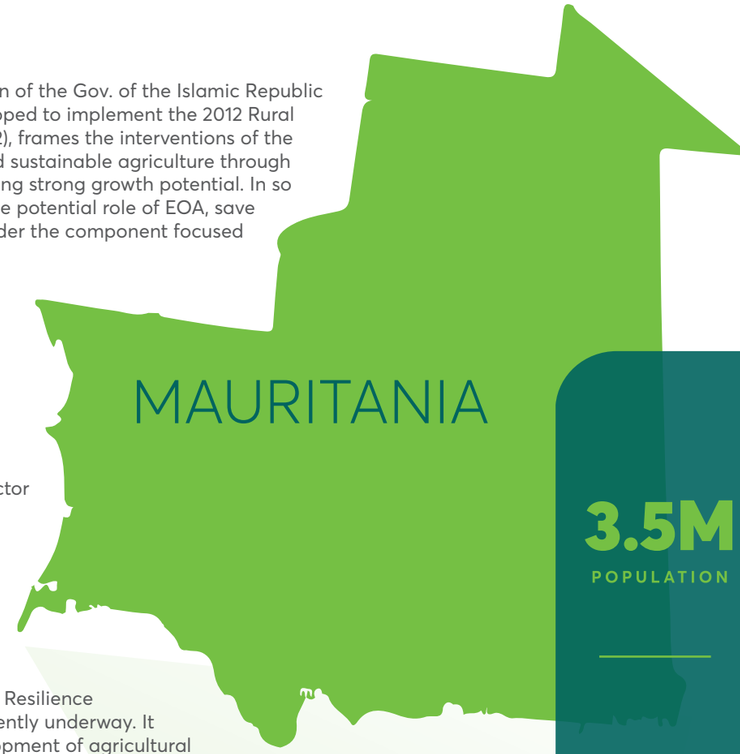
Diawara H, 2019. Pers. Com., August 2019. Mr Diawara is President of Malian Association for Solidarity and Development.

El'moctar N'Guiro S, 2019. Pers. Com. Held on 22 July 2019. Mr Sidi El'moctar N'Guiro is the Director of MOBIOM.

FiBl and IFOAM, 2019. The world of organic agriculture. Statistics & Emerging trends 2019. 1 st. Germany Bonn. WILLER, Helga et LERNOUD, Julia (éds.), FiBL, Frick, Ifoam. ISBN 978-3- 03736-067-5.

Yombi L, 2019. Pers. Com. Held on 6 August 2019. Lazare Yombi from the CECAGRID consulting firm.

MAURITANIA



3.5M
POPULATION

1M
AREA SQKM

The 2015-2025 Agricultural Development Plan of the Gov. of the Islamic Republic of Mauritania, GIRM, 2015), which was developed to implement the 2012 Rural Sector Development Plan (SDSR) (GIRM, 2012), frames the interventions of the State to promote: a modern, competitive and sustainable agriculture through the development of plant value chains showing strong growth potential. In so doing though, no consideration is given to the potential role of EOA, save for some provision for biocontrol of pests under the component focused on the development of oasis culture.

Research capacity stems from the agricultural directory of research, training and advice as well as the National Centre for Agronomic Research and Agricultural Development (CNRADA). There is little information available about NGO activity in the country, with the "Platform for rural development in Mauritania" (RIM Rural) [77] seemingly being active in the agricultural sector and linked to organic fruit production (Sidi Ould Ely Menoum, 2019) (this could not be confirmed).

A five-year project funded by the EU and implemented by the Ministry of Rural Development through the support of GiZ and the Spanish AECID called Institutional Strengthening Programme for Agro-Pastoral Resilience in Mauritania (RIMRAP) (2016-2021) [78] is currently underway. It includes a component focused on the development of agricultural and pastoral sectors [79] and although not specifically geared toward EOA, the project seeks to encourage such practices. The project will be followed by a second phase project, called the RIMFIL (to be implemented by the Belgian organisation ENABEL), and which will only be focused on the agricultural and pastoral sectors. The project's main expert confirmed that they intend to emphasize EOA under this project, so as to ensure EOA becomes embedded into government planning in future (Müller, 2019).

The emergence of EOA in Mauritania remains largely undocumented. Most interventions backed by the donor community that promote agro-ecology or some form of EOA is actually being implemented under the banner of climate change adaption and resilience and food security. [80]

There is no national regulation on organic agriculture in Mauritania (Sidi Ould Ely Menoum, 2019). There is limited government support to the agricultural sector at large, with only just over 6% of the government budget being allocated to agriculture in 2017 (NEPAD, 2017).

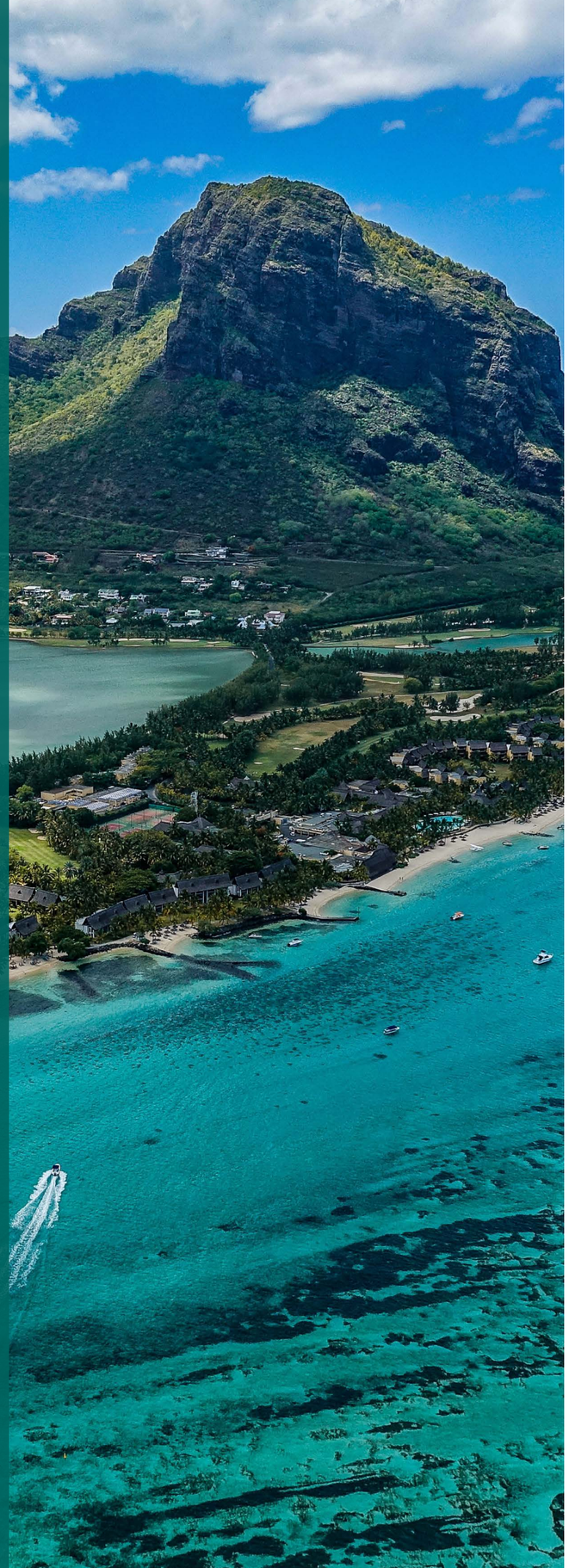
EOA TYPE

The certification landscape and Participatory Guarantee System (PGS):

There are no Mauritanian organic standards and no PGS operational in Mauritania. In 2019, for the first time, Mauritania featured among the countries for which organic data was captured by FIBI and IFOAM's Word of Organics data. According to IFOAM, in 2019, the country did not have dedicated surfaces under organic cultivation and the organic produce exported from the country stemmed from wild harvest (for which 2,800 ha feature in the 2019 data) (IFOAM, 2011).

However, it would appear that since then - some producers have started producing organically for the EU market, including a national firm, called RIM FRUIT ROSSO, [81] said to export organic production to the EU market (Sidi Ould Ely Menoum, 2019) (this could not be verified). An international firm, Elite Agro is also established and exports organic blueberries[82] (not verified).

77 http://www.rim-rural.org/archives/8149 .
78 https://eeas.europa.eu/sites/eeas/files/14._fiche_action_rimrap_fed_11.pdf
79 http://www.rim-rural.org/archives/1615
80 See a list of on-going rural development and food security projects here: http://www.rim-rural.org/projets_programmes .
81 NB – there is some controversy around this firm, which grows produce on land owned by a cousin of the President and who obtained concessions rights without due diligence – see http://www.mauriweb.info/node/2969
82 https://www.yasholding.ae/index.php/subsidiaries/elite-agro-mauritania-sarl/



Gaps and challenges within existing policy & institutional framework

One of the main challenges is Government's agricultural vision, focused on modernising the sector with no consideration given to EOA as a means to strengthen food security or help hoist the population out of poverty (42% of the population is considered poor).

Opportunities for leverage within existing policy & institutional framework

Mauritania is one of the leading producers of crops that are considered as "naturally organic", such as dates. There is tremendous potential to develop the date value chain, however infrastructure challenges (transport networks, lack of clod chain) remain problematic.

Preliminary EOA typology

Type 4; Country has some NGO capacity, no guidelines, no government support and no exports.

Diawara H, 2019. Pers. Com., August 2019. Mr Diawara is President of Malian Association for Solidarity and Development.

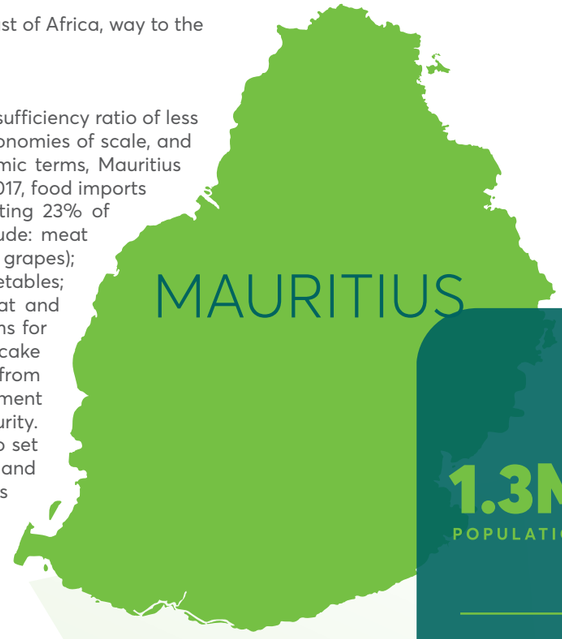
El'moctar N'Guiro S, 2019. Pers. Com. Held on 22 July 2019. Mr Sidi El'moctar N'Guiro is the Director of MOBIOM.

FiBl and IFOAM, 2019. The world of organic agriculture. Statistics & Emerging trends 2019. 1 st. Germany Bonn. WILLER, Helga et LERNOUD, Julia (éds.), FiBL, Frick, Ifoam. ISBN 978-3- 03736-067-5.

Yombi L, 2019. Pers. Com. Held on 6 August 2019. Lazare Yombi from the CECAGRID consulting firm.

MAURITIUS

The tropical island of Mauritius is located two time-zones east of Africa, way to the east of Madagascar and south of the Seychelles islands.



1.3M
POPULATION

2K
AREA SQKM

According to the US publication "export.gov" [83]

> "Mauritius is a net food importer, with an overall self-sufficiency ratio of less than 30%. Due to its limited size, the absence of economies of scale, and the comparative advantage of sugarcane in economic terms, Mauritius imports many of its essential food requirements. In 2017, food imports [mainly French] accounted for $1.2 billion, representing 23% of total Mauritian imports… . Products imported include: meat and fish; certain fruits (e.g., oranges, mandarins and grapes); pulses; milk and dairy products; fresh and frozen vegetables; coffee, tea and spices; cereals; oil; beverages; wheat and food preparations. Mauritius also imports some items for the production of animal feed, such as corn and oil cake and solid residues from soybean oil extraction, mostly from Argentina. In the 2018-2019 budget speech, the government emphasized import substitution to enhance food security. The government announced it will provide funding to set up 100 sheltered farms on a ready-to-operate basis and that concessional financing as well as tax exemptions will be given to interested "agripreneurs." A major issue in Mauritius is the excessive use of pesticides by farmers. Over the past few years, the government has been supporting planters in a bid to promote organic farming".

Facknath et al. (2014), report on Climate Smart Agriculture (CSA) which they define as building on the concept of sustainable agriculture, and using the ecosystem approach as well as principles of sustainable land and water management, along with resource and energy use assessments, to make decisions on the appropriate site-specific farming methods to use; they report that:

> "The Republic of Mauritius is a Small Island Developing State (SIDS) and, in common with other SIDS, is highly vulnerable to climate variability and climate change. A narrow resource and livelihood base, high dependence on external markets and other exogenous forces, increasing population, frequent extreme weather events, and the high risk of sea level rise, make Mauritius (as other SIDS) particularly exposed to the vagaries of a changing climate".

Facknath et al. (2014) further report that the total land area of Mauritius is 2,040 km2, with an Exclusive Economic Zone of about 1.9 million km2, and an extended continental shelf of 400,000 km2 jointly managed with the Republic of Seychelles, and that the economy, which was a sugarcane monocrop economy, has diversified considerably; mean sea levels have increased by about 7 cm since 1950; with greater evaporation and less recharge of underground aquifers, usable water resources are expected to decrease by about 13% by 2050. They report that many projects aim at CSA and sustainability, and an agro-ecological approach to agriculture and food production is recommended; they describe the vision of the prime minister in section 2.3.2 of their report:

> "The 'Maurice Ile Durable' (MID) vision of the Prime Minister, and now translated into the MID Strategy and Action Plan, comprises a number of policies and initiatives that promote sustainable development. Developed following several nation-wide dialogues, and consultations with a wide range of stakeholders, the participatory approach led to the identification of a series of policy and strategic recommendations to make Mauritius a sustainable island in line with the Brundtland three-pronged definition of sustainability (economic, environment and social). One key goal of MID is to render Mauritius less dependent on fossil fuels by enhancing energy efficiency and increasing the use of renewable energy sources. Although its main thrust is mitigation, several of the activities funded under the MID programme are climate-smart and have adaptation benefits, e.g., promoting water saving technologies such as drip irrigation, provision of free composters to farmers and households, support to farming and other associations to transit from conventional farming to ecological farming, promotion of low energy technology (solar dryers and evaporative cooling) for agro-processing, etc."

EOA TYPE

83 https://www.export.gov/article?id=Mauritius-Agricultural-Sectors

With regard to Policy and Legislation, they conclude Section 3.1 with the comment: "Agricultural research and extension programmes have not incorporated climate change sufficiently into their research and extension agendas, in particular the impacts of climate change on production and on farmers' livelihood. The imperative of climate change requires building capacity of extension services to make planning decisions and technology choices and to disseminate climate change related information efficiently, as well as capacity building of farmers to empower them to adopt new ideas and technologies for CSA. There are no incentives from Government to farmers to adopt appropriate and efficient CSA measures and technologies. While farmers develop their own coping strategies to face the challenges of climate variability to their livelihoods, there are no measures in place to reward sustainable agricultural practices such as mixed cropping, mulching, reducing use of synthetic fertilisers and pesticides" (Facknath et al., 2014).

The International Fund for Agricultural Development (IFAD) carried out various development activities in Mauritius in the 1980s, and in 1994 they reported [84]:

> "Over the last twenty years, Mauritius has undergone major structural changes from an agricultural mono-crop economy with a rapidly growing population, high unemployment and low per capita incomes to a situation characterised by fairly stable population growth, near-full employment and an economy which is undergoing rapid diversification with the emergence of new sources of growth in export manufacturing and tourism. Rapid economic growth, besides creating employment, also altered the occupational structure of the country. In 1972, the number of people employed in the agricultural sector was 2.5 times the number in manufacturing. In 1983, this ratio had fallen to 1.2 and by 1990, this situation had reversed. Mauritius is heavily dependent for its food supplies on imports. It imports the total amount of its two basic staples, rice and wheat (both of which are subsidised), and over 80% of its consumption needs in milk, beef and lamb".

More recently, government again implemented subsidy programmes, although they were slightly more progressive and developmental than those of many other African countries:

The Mauritian Farm Input Subsidy Programme (FISP) summarised from ACB (2016, p.13-14):

> "Approximately 1.2 million people live on the islands of the Republic of Mauritius and slightly more than 40% of the land is allocated to agriculture, mostly to sugar production. Fewer than 1% of the population live below the absolute poverty line but relative poverty is increasing as equality indicators worsen. Mauritius produces roughly 23% of the staples it needs and about 8,000 small-scale farmers in the non-sugar sector practise rain-fed agriculture on plots that average 0.25 ha in size. Farmers find it difficult to access agricultural land, to find affordable labour and to secure financing for production costs. The sector's strategic plan (2016) aims to increase production, to satisfy local demand and reduce import dependencies, by shifting its focus to sustainable agricultural practices (bio-farming and permaculture). Mauritius has implemented a range of interventions to increase productivity, including partial funding for rainwater harvesting equipment, sheltered farming, crop nurseries, agricultural and processing equipment, and seed purchase schemes. It also offers small-scale farmers a compost subsidy scheme. Mauritius signed the CAADP Compact in 2015 and spends about 2.5% of its national budget on the sector, which averaged 1.5% growth per year between 2003 and 2012 (ACB, 2016, p.13).

The Mauritian Compost Subsidy Scheme (2013):

The compost subsidy scheme is part of a broad aim to reduce organic waste in landfills, reduce production costs for farmers, and enhance soil fertility. Objectives: To reduce production costs, decrease the use of chemical fertiliser, and improve soil quality. Implementer: The Small Farmers Welfare Fund (SFWF), a parastatal body. Subsidy package: Farmers receive a subsidy for up to 5 tons of organic fertiliser per year. This saves farmers about US$ 530 per ton of fertiliser. Farmers must register with the SFWF, farm on less than 10 ha of land, and be able to provide a copy of a title deed or lease agreement. Compost is allocated on a first come, first served basis, to the value of the allocated budget. Distribution: Farmers recoup vouchers from registered private suppliers and the suppliers reclaim costs from the government. Compost is procured from Solid Waste Recycling Ltd, which is contracted to compost municipal waste. Two other private composting projects have been approved. In 2013 and 2014 the government provided US$ 1.1 million in subsidies" (ACB, 2016, p.14).

How is EOA integrated in agricultural and trade policies?

In March 2019, African Farming commented [85] :

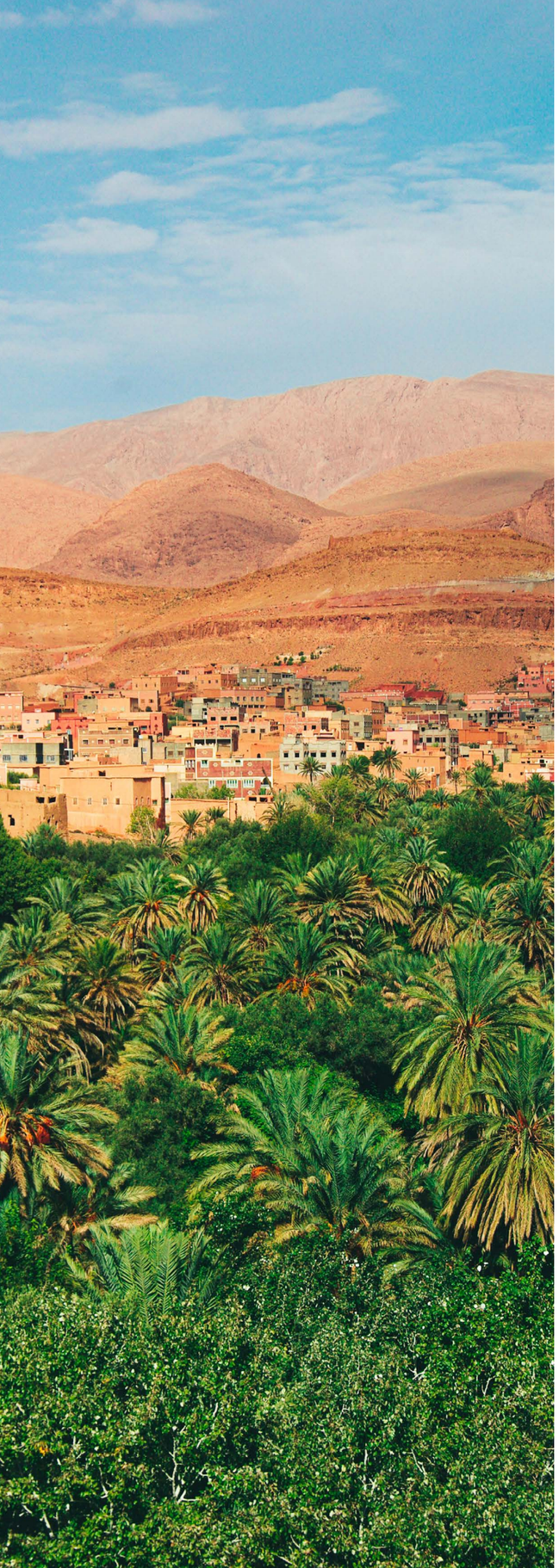
> "Mauritius has launched the Household Organic Garden project at the Farmers Service Centre of Union Park, with an aim to develop and encourage organic farming in the country. Mahen Seeruttun, Minister of Agro-Industry and Food Security (MAIFS), said that the aim is to transform Mauritius into an organic island in the near future, through different projects implemented by the MAIFS, as well as other institutions. Citizens will thus be encouraged to cultivate, as far as possible and without the use of any chemical product, vegetables in their backyard for their own consumption.
>
> Seeruttun highlighted that several incentives are being offered to shift from a conventional method to an organic one. One of these methods is the bio-farming scheme whereby the government is financing all costs associated with the registration, certification and audit for those holders of a Bio-farming Development Certificate who would wish to acquire the international organic label for their farm produce. The launch of the Household Organic Garden project is part of a sensitisation campaign so as to encourage and enable the population to use the organic method of cultivation. Union Park has been chosen for the launching of the project, following several surveys carried out by the Food and Agricultural Research and Extension Institute (FAREI), as its climate is favourable and many inhabitants have space in their backyard to implement this method of agriculture. FAREI will provide training, which is approved by the Mauritius Qualifications Authority, to around 200 inhabitants of Union Park, before implementing the project in other regions around the island. During the launching ceremony, several beneficiaries received a starter kit to set up their own organic garden while certificates were also awarded to some organic growers who satisfy all required criteria in organic agriculture."

Again, "export.gov" [86] comments:

> "Processed Foods and Inputs for Organic Farming: Food habits of Mauritians have been changing over the past few years with consumers placing more emphasis on quality and food safety. The range of organic products and convenience foods available in supermarkets is expanding. Furthermore, concerns about pesticides are driving consumers to buy branded bio products. This has led to a sharp increase in imports of processed foods. There are thus opportunities for more US processed food products to enter the market if they can compete with imports from South Africa, China, Malaysia and Europe. Prospects also exist for procurement of organic farming inputs in light of incentives offered by Government to promote bio farming".

However, not all popular comments are complimentary concerning the trend towards organic production in Mauritius. Henry Booluck writes in the English News Magazine (Readers Corner Weekly) Issue no 3621 (15-21 August 2019) under the title "Are our foods hazardous to health?" that the use and abuse of pesticides is rampant in Mauritius, and that in spite of various government calls for Mauritius to switch to organic production, there are no regulations, no definitions, no certification bodies and no quality management laboratories. The article claims that many farmers and supermarkets are claiming that produce is organic when it is not. No evidence was provided to back up these claims. Although there have been sporadic statements about EOA in Mauritius, including the commitments of government to "Organic Mauritius", the funding line items in the FAO budget for Priority A relate more to biotechnology than EOA. Mauritius needs to put its money where its mouth is (and also to put good healthy, homegrown food into the mouths of Mauritians)! FAO also needs to have the courage of its recommendations.

84 https://www.ifad.org/en/web/ioe/evaluation/asset/39832507
85 http://www.africanfarming.net/crops/agriculture/mauritius-set-to-become-an-organic-island
86 https://www.export.gov/article?id=Mauritius-Agricultural-Sectors .



Overview of opportunities for leverage within existing policy frameworks and how these opportunities can be explored

The Executive Summary of the FAO Country Programming Framework for Mauritius 2014-2017 (FAO, 2014) states under Priority Area A: Support to agribusiness development:

> "(ii) improving institutional capacity … to promote organic agriculture through development of relevant institutional framework, voluntary standards and market promotion for selected strategic crops and livestock products;"

The report commences:

> "Being a Net-Food Importing Developing Country (NFIDC) and a Small Island Developing State (SIDS), Mauritius is particularly vulnerable to a rapidly changing global food system due to the challenges of rising and volatile prices of basic food commodities, climate change and bio-energy production", and then continues: "The country has achieved constant progress in its Human Development Index from 0.655 in 1980 to 0.721 in 1990 and 0.804 in 2005. Although in recent years the agricultural sector has experienced a relative decline, it is still … an important sector because of its contribution to rural employment and above all to food security and imports reduction".
> In concluding the planning section of the report, output 1.2 is: "Improved institutional capacity of MoA to promote organic agriculture through development of relevant institutional framework, voluntary standards and market promotion [FAO Org. Output 4.2.1]."

There is thus major potential in this relatively well-governed country to support the development of EOA, and to engage in a major import substitution and export process of agricultural development. There is grass-roots and government support for EOA, but little training, marketing, quality management or extension capacity.

Preliminary EOA typology

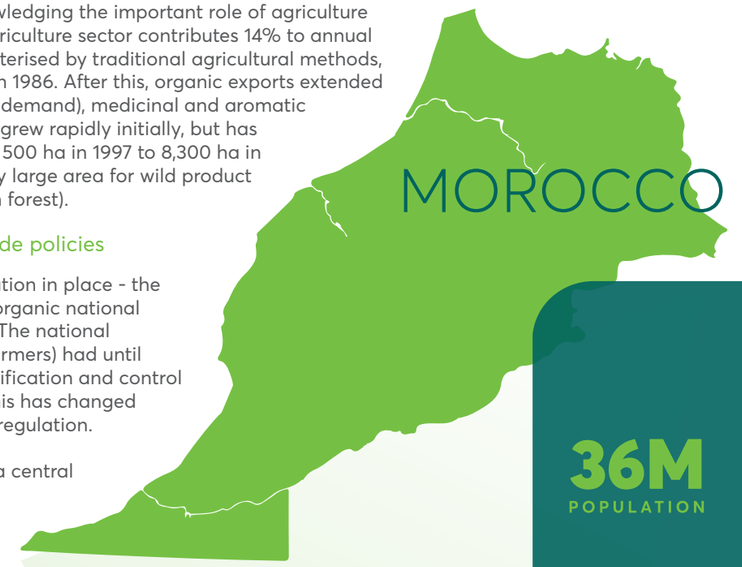
Type 2; Country has some government support, there is a policy underway, a strong NOAM, a domestic market and strong NGO farmer support.

Facknath S, Lalljee B and Boodia N, 2014. A comprehensive scoping and assessment study of climate smart agriculture policies in Mauritius. Food Agriculture Natural Resources Policy Analysis Network (FANRPAN).

FAO (Food and Agriculture Organization of the UnitedNations), 2014. Country Programming Framework for Mauritius 2014-2017. FAO, Rome, Italy.

MOROCCO

The agriculture sector in Morocco has been a priority sector for development by the Moroccan government since independence in 1956, acknowledging the important role of agriculture for economic as well as social objectives (the agriculture sector contributes 14% to annual GDP). Whilst agriculture in the country is characterised by traditional agricultural methods, exports of organic citrus from Morocco started in 1986. After this, organic exports extended to vegetables and fruit (targeting EU off-season demand), medicinal and aromatic products. The certified organic area in Morocco grew rapidly initially, but has thereafter remained relatively constant (approx. 500 ha in 1997 to 8,300 ha in 2003 to 9,175 ha in 2018), although there is a very large area for wild product collection (approx. 180,000 ha – including Argan forest).



36M
POPULATION

446K
AREA SQKM

How EOA is included in agricultural and trade policies

Morocco has a fully implemented organic legislation in place - the Moroccan Ministry of Agriculture developed an organic national regulation (N°39-12 published in February 2013). The national regulation came into force in 2018. Operators (farmers) had until then certified their products through private certification and control bodies as no national body was available, but this has changed following the impleme ntation of decrees of the regulation.

In 2004, the Moroccan government established a central office for organic agriculture at the Ministry of Agriculture, Fisheries, Rural Development and Forests. In 2011, the Moroccan government and AMABIO [87] formulated an organic sector development strategy outlining the development of the organic sector, with a programme of investment up to 100 M€ (until 2020). Targets set included goals for growing the organic area, production, exports, jobs created and foreign income generation. AMABIO was replaced in 2016, by a federation bringing together three separate associations operating in the field (Organic Producers, Organic Processors and Organic Distributors and Exporters). The federation, called FIMABIO (Moroccan Federation of Organic Movements) brings together these three in a united manner, and FIMABIO is recognised as the sole representative of the organic agriculture sector in Morocco.

CNPBio (National Multidisciplinary Commission of Organic Agriculture) was created to develop the implementing decrees specific to organic plant and animal products. The CNPBio is an advisory entity, and consists of members representing government authorities, government institutions (INRA, INHR, etc.), researchers and relevant professional organisations (including FIMABIO). CNPBio is mandated to provide specifications for organic production, the granting or withdrawal of approvals of regulatory bodies and certification, complaints related to the suspension or revocation of certification and all questions of scientific, technical or legal aspects under the application of the rules on organic production

Other policy instruments in place in Morocco

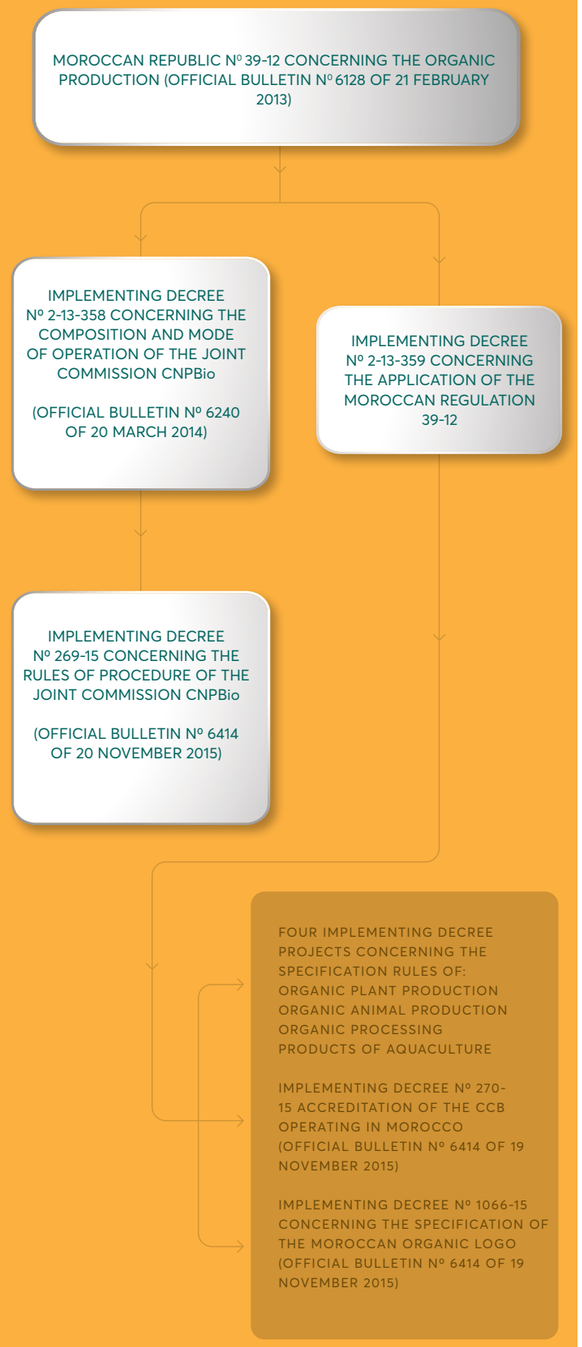
The Green Morocco Plan (PMV) in 2008 has two pillars, the first being where government wants to invest in agriculture to increase productivity and value, the second focuses on investment in social initiatives to combat rural poverty. Recent revisions to the plan include focussing on building a climate smart agricultural sector. The 2020 strategy for rural development seeks to correct the regional and local imbalances affecting the rural world and to develop and optimise natural resources. Increasing the visibility of organic farming is also an important objective of the Green Morocco Plan. The strategy aims to diversify the sector in order to reduce its dependence on cereal production, which currently accounts for about 75% of the cultivated area in the country but generates only 15% of the sector's revenue. In order to achieve this goal, PMV has identified a number of segments within the agricultural sector; organic fruit, vegetables and cereals are, however, given special attention because of the expected increase in production and revenues of the sector.

EOA TYPE

Numerous government initiatives, such as incentives and measures to ease access to land, improve irrigation systems and contribute to segment-specific growth, are expected to bolster prospects in the medium to long term. However, adding value to agricultural products remains an area for further progress. A public programme is seeking to incentivise the enhancement of production capacity, the development of exports, and the modernisation of marketing and distribution. Morocco is also set to continue playing a key role in supporting growth of agricultural yields and battling the effects of climate change.

87 AMABIO (The Moroccan Association of Organic Production Value Chain) was created in 2010, and played an important role in the evolution of the sector. AMABIO's mission was to define and implement, a strategy for the future development of organic agriculture in collaboration with the Moroccan government.

Figure 6:
An overview of the legal framework of the organic sector in Morocco (Azim, 2017)



Government support to organic agriculture

To promote organic farming, the Moroccan government has developed a strategy that aims both to encourage producers to move towards organic production, and then to convert to organic, and to raise awareness among producers and the population in general on the importance of organic farming. The main mechanism for doing so is utilising the implementing decree, which has only recently been approved by relevant national authorities. This will enable government to provide a grant for certification costs – as a subsidy. We understand that subsidies for certification will be at 70% of the cost (depending on system type and market). The grant will be given only during the conversion period. The Ministry of Agriculture and Fisheries subsidise agriculture in general by other financial supports for agricultural equipment (drip irrigation) and agricultural inputs, which are freed of tax when imported to Morocco.

Research and extension

FIMABIO is one of the first explicit support systems for organic farmers created by the government. This is considered to represent a transition from the role many NGOs have previously played to one where government assumes a more prominent role, indicating a greater institutionalisation of OA in Morocco. INRA which is the only government institution dedicated to agronomy research in Morocco is aware about the research in organic sector. Beside its cooperation with AMABIO, a national research program is under consideration in order to develop links between different agro-ecosystems needs and the experimental sites.

International cooperation with EU research institutions in the framework of CORE Organic and TIPI Organics will be an excellent opportunity to link northern with southern Mediterranean countries to sustain organic research in a globalised world.

Civil Sector Support

There are a number of civil society organisations that work towards supporting general sustainable and agro-ecological approaches in Morocco. Organisations mentioned in the review include WWOOF, RIAM and a host of others. There are also international development organisations operating in Morocco to support and promote the development of EOA.

Overview of certification landscape in the country and extent to which this links to national policy

The passing of Law 39-12 on organic production of agricultural and aquatic products only occurred in 2018. Prior to this, certification was done by international organisations (six in total, Ecocert being the main one) for many standards (organic farming, fair trade and organic cosmetics) on the basis of international standards according to primarily European, American or Japanese regulations.To ensure the certification of organic products in accordance with the new regulations, the Department of Agriculture has so far approved two control and certification bodies, namely CCPB Morocco and ECOCERT Morocco. Ecocert Morocco has been approved for a period of three years to carry out the control and certification activities of products from organic farming in Morocco. From now on, the organisation will certify according to the Moroccan regulations resulting from the law 39-12, relative to the organic production of agricultural products, and its decrees of application. Control and certification bodies are however approved by order of the Minister of Agriculture. According to the draft decree 2-13-358, an organisation of control and certification may be approved for certification. Certification bodies operating in Morocco include Ecocert Morocco, Veritas, BMI, QC&I, and Lacon Morocco (offering EU, NOP and JAS certification). Morocco is not on the third country list for the EU, and does not have an equivalence agreement. Moroccan farmers exporting to EU therefore must use a European certification body (rather than the national authority).

Participatory Guarantee Systems (PGS): Alternative certification (Participatory Guarantee System) has already been studied and promoted by RIAM (Agro-ecological Initiatives' Network in Morocco). There is at least one functioning example in the country.

Challenges, gaps and opportunities of existing policy framework

The Ministry of Agriculture has been slow to put in place the regulations, specifications and certifications, both in the 2011 Framework Convention and in the Organic Production of Agricultural and Aquatic Products Act. promulgated in 2013. However, the framework was fully adopted in 2018 – and the main gaps now are in regards to the implementation of decrees. Having a national logo and legislation is considered particularly important for small scale farmers to adopt OA. Expensive third party certification has primarily been done previously by larger farms or companies targeting the export market. Support for conversion, for example in the form of subsidies in the conversion period, is still regarded as an imperative to support smaller farmers in the conversion process. FIMABIO have stated that the next step is to have the "Bio Maroc label" recognised by the European Union, the country's main export zone.

In general, the opportunities for growth of the EOA sector are considered high: i) a policy framework in place; ii) institutional support exists for its implementation; iii) the sector is well organised, and has a federation (FIMABIO) with strong government collaboration, research and extension; iv) the agro-ecological context and farm types offer opportunity for sector expansion.

Preliminary EOA typology

Type 1; Country has a NOAM, a policy and standards, and government is supporting the vibrant sector.

Alaoui SB, 2009. Organic Farming in the World, and case study of Morocco: Achievements, Drawbacks and Future Perspectives. Séminaire International sur la conservation du sol et de l'eau en région Méditerranéenne, Rabat.

Azim K, 2017. Country report: Organic agriculture development in Morocco. ISOFAR.

Kuck M, Boecker SJ, Ghahremani SI and O'Dell SM, 2018. A Sustainable Future in Agriculture: An Investigation into Support Systems for Natural and Organic Farmers in Morocco.

MOZAMBIQUE

Agriculture accounts for over two thirds of Mozambique's work force, but its share in the country's overall GDP has been declining, from 31% in 2003 to 21% in 2017. Mozambique's diverse rural sector consists of roughly 4 million farms throughout the country, with some larger farms in the centre and south. Maize and cassava are the main staples produced (roughly 1.6 and 0.6 million ha cultivated, in 2015), with cash crops constituting about 14% of cultivated land (tobacco, sugar, cashews, cotton, sesame, wheat, bananas, etc.). Only a relatively small portion of farmers use agrochemical inputs (4.5% for chemical fertiliser and 5.1% for pesticides) (World Bank, 2019).

How is EOA included in agricultural and trade policies?

Mozambique's main agricultural exports are cotton, cashews, sugar, peanuts, banana, and sesame, but there is little in the National Development Strategy on agricultural exports, and nothing on trade of EOA products (República de Moçambique, 2014). There are some companies that have exported EOA products, however, including from the important cashew sector – for example, Moçambique Orgânica was exporting some organic products to Europe, America, and South Africa (baby corn, green beans, eggplant) from Inhambane province in 2014. [88]

There are several EOA-related topics mentioned briefly as priorities in the 2010 Strategic Plan for the Development of the Agrarian Sector (PEDSA): 2011-2020 (República de Moçambique, 2010b: 28, 38-39). These include "expanding use of legumes, agro-silviculture and conservation agriculture … increasing public awareness of the importance and mechanisms of pest control in a safe and sustainable manner … promoting the use of integrated pest and disease control technologies, including biological control methods, always when viable," as well as use of organic and rock-based fertiliser, and integration of soil fertility with forestry, aquaculture, and livestock.

The National Agricultural Investment Plan (PNISA) 2013-2017, extended to 2019 (República de Moçambique, 2013), also mentions organic fertiliser for rice (21), biological control for cashew (24-5), and conservation agriculture (47-9). The latter is not necessarily reliant on herbicides and agro-chemicals, but this is often implied, without being explicit (and this has been the subject of various published studies and academic articles).

There appears some but only limited explicit extension support for EOA. The main extension plan does not have much specific on EOA, but does have some general language about sustainable management of natural resources (República de Moçambique, 2007). In some instances, the agricultural extension system has depended for support on external loans and co-ordinated projects, which often emphasize conventional approaches. On the other hand, there are many years of experience with farmer field schools also (Escolas na Machamba do Camponês, or EMC) that represent an opportunity to incorporate more EOA. Similarly, the extension plan also emphasizes decentralisation, de-concentration, and links with NGOs.

The Mozambique Agrarian Research Institute (IIAM) could potentially support EOA for farmers, but requires more funding and staff (República de Moçambique, 2010a). In contrast, farmers' organisations are relatively stronger in Mozambique than in some other African countries. They have some links with Brazilian farmer organisations that might already include EOA components and offer possibilities. [89] The National Union of Farmers and Peasants (UNAC) provides some EOA-related support to farmers through general activities and projects. [90] The government has supported some farmers via specific projects – for example, near Chimanimani reserve through the MozBio project emphasising ecological principles (República de Moçambique, 2018: 16). In 2008 the government created a centre for research on ethno-botany (Agostinho, 2016). [91]

Maputo's Municipal Council and the Directorate of Agriculture and Food Security have a "Development of Sustainable Urban Agriculture" project (DAUPU) with external funding to disseminate AE products. [92] The project reports 100 producers around the city of Maputo, whose products are sold through the company Empresa ComOrganico.

National Organic Agriculture Movement

There is a fledgling organic agricultural movement. Mozambique participated in the 2014 FAO symposium on agro-ecology. [93] In 2017, there was a conference in Maputo on Organic and Sustainable Agriculture and Local Production. [94] Some Mozambican NGOs have EOA as a specific focus, including ABIODES – the Association for Sustainable Development (formerly the

Association for Organic Agriculture, Biodiversity, and Sustainable Development). [95] Various international NGOs (e.g. Caritas) have also supported EOA activities in Mozambique. There has also been emphasis on EOA as an alternative approach emphasized in contrast to critiques of larger conventional projects such as ProSavanna. [96]

The National Phytosanitary Authority in the MoA inspects and tests vegetable products, including for import and export (governed by Decree No. 5/2009 of 1 June 2009), but their remit and capability with regard to EOA is not clear. There is also a National Institute for Standards and Quality [Instituto Nacional de Normalização e Qualidade (INNOQ)], [97] but their activity with regard to EOA is unclear. The Ministry of Health has a National Hygiene Laboratory for Food and Water.

In general, there is an emphasis on increasing aggregate production levels, and a heavy reliance on international agencies largely promoting conventional approaches (e.g. IFAD 2018). There are emphases on 'conservation agriculture' that in practice often rely on herbicides and/or chemical fertiliser. [98] Conversely, there is a lack of substantive and explicit discussion of EOA in several key orienting documents, plans, and strategies. Although there has been a concerted push also for various larger conventional projects, these have not been particularly successful. Therefore, the critiques of these and dissatisfaction with the results have also fostered more awareness and receptiveness to EOA.

Organic certification and Participatory Guarantee Systems (PGS)

There is progress on organic certification for cashew exports through MozaCajú project supported by the American NGO TechnoServe. [99] It has an Organic Certification Strategy. In 2013 a Seeds Regulation Decree was passed (12/2013 of 10 April), but does not appear to address EOA standards.
While Mozambique does not appear to have a national PGS, there is some limited participatory certification by DAUPU project (see above), which could be valuable experience to draw on. The MozaCajú project relies on an Internal Control System for organic cashew exports.

EOA should be incorporated into major strategy documents for the future. The government is preparing its Five Year Government Plan 2020-204 [Plano Quinquenal do Governo/PQG (2020-2024)], and Agrarian Sector Investment Programme (2020–2024) (also known as PNISA II). There are various committees on which UNAC has a member, including seeds, and pesticides. While just one member on a committee is not much leverage, it could be used for both accessing information and circulating awareness about EOA. In addition, close links between UNAC and Brazil could be pursued, and would benefit from longer-term reliable financing (see also related comments for Angola).

Preliminary EOA typology

Type 4; Country has some NGO capacity, no guidelines, no support from government and is not exporting. There is some NGO capacity and activity, government does not appear to have dedicated specific guidelines (just a few lines in general policies), and there are only very low exports of EOA products.

88 https://macauhub.com.mo/pt/2012/05/28/portugues-mocambique-organica-exporta-produtos-vegetais-para-europa-america-e-africa-do-sul/
89 https://viacampesina.org/es/africa-agroecologia-vino-para-quedarse-en-marracuene-aseguran-campesinos-de-la-asociacion-agricola-alfredo-nhamitete/
90 https://www.unac.org.mz/index.php/artigos/nacional/95-mocambique-camponeses-expoem-produtos-agroecologicos-na-maior-feira-do-pais
91 http://ns.mct.gov.mz/mctestp/?q=content/centro-de-investiga%C3%A7%C3%A3o-e-desenvolvimento-em-etnobot%C3%A2nica
92 http://produtosagroecologicos.co.mz/
93 http://www.cloc-viacampesina.net/simposio-internacional-de-agroecologia-de-la-fao-en-roma-hoy-se-abre-una-ventana-en-lo-que-por-50
94 https://www.jornalnoticias.co.mz/index.php/ciencia-e-ambiente/73060-amiga-do-ambiente-agricultura-organica-conquista-produtores.html
95 http://www.abiodes.org.mz/
96 https://www.farmlandgrab.org/post/view/28618-declaracao-de-toquio-reiteramos-a-rejeicao-ao-prosavana-e-ao-matopiba-e-defendemos-a-soberania-alimentar-dos-povos https://www.grain.org/bulletin_board/entries/4738-open-letter-from-mozambican-civil-society-organisations-and-movements-to-the-presidents-of-mozambique-and-brazil-and-the-prime-minister-of-japan
97 http://www.innoq.gov.mz/
98 A National Platform for Conservation Agriculture was created in 2015, promoted by USAID.
99 http://www.mozacaju.com/

Agostinho Adelaide Bela, 2016. Ethnobotany Research and Development Center: Transforming Traditional Knowledge to Science (Centro de Investigação e Desenvolvimento em Etnobotânica: Transformando o Conhecimento Tradicional em Científico) Biodiversidade 15(1), http://periodicoscientificos.ufmt.br/ojs/index.php/biodiversidade/article/view/3589

IFAD (International Fund for Agricultural Development), 2018. Republic of Mozambique: Country Strategic Opportunities Programme 2018-2022.

República de Moçambique, 2007. Master Plan for Agrarian Extension, 2007-2016 [Plano Director de Extensão Agrária, 2007-2016], Ministério da Agricultura, Maputo.

República de Moçambique, 2010a. IIAM Strategic Plan 2011-2015 [Plano Estratégico do IIAM (2011-2015)], Maputo.

República de Moçambique, 2010b. Strategic Plan for the Development of the Agrarian Sector (PEDSA): 2011-2020 [Plano Estrategico para o Desenvolvimento do Sector Agrário (PEDSA): 2011-2020].

República de Moçambique, 2013. Mozambique National Agricultural Investment Plan (PNISA): 2013-2017 [Plano Nacional de Investimento do Sector Agrário PNISA 2013-2017], Maputo.

República de Moçambique, 2014. National Development Strategy (2015-2035) [Estratégia Nacional de Desenvolvimento (2015-2035)], Maputo.

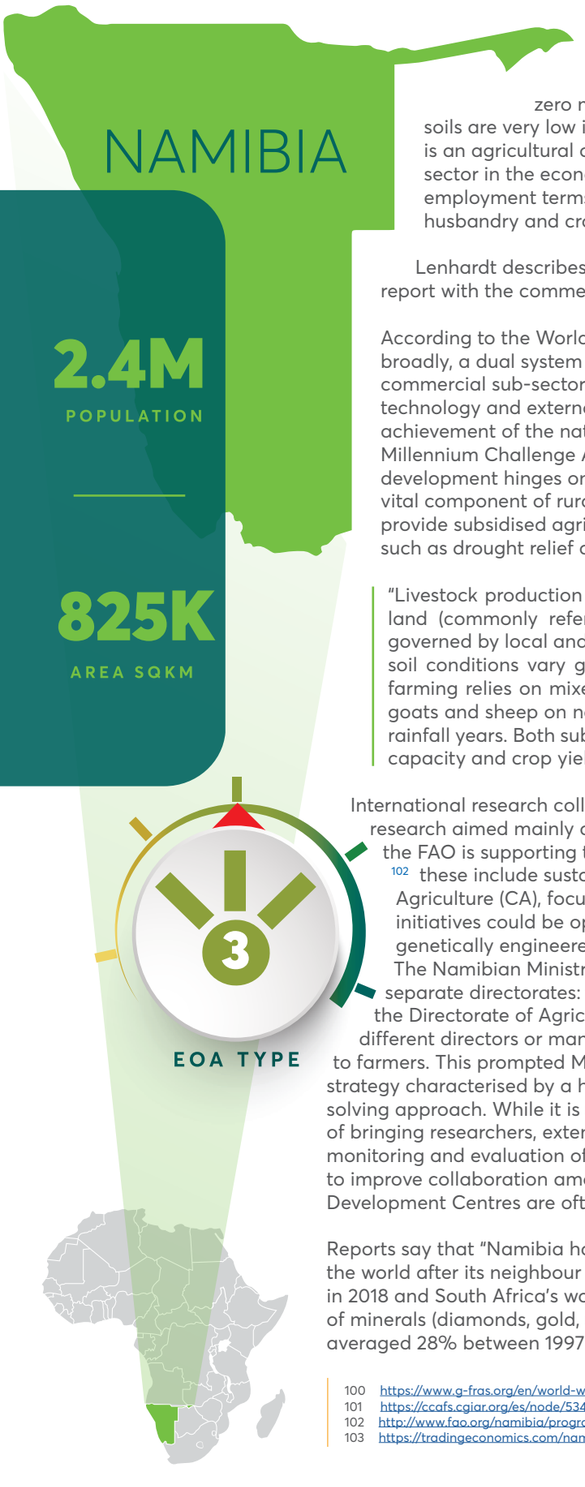
República de Moçambique, 2015. National Strategy and Action Plan of Biological Diversity (2015-2035), Maputo, Ministry of Land, Environment, and Rural Development.

República de Moçambique, 2018. Mozambique Conservation Areas for Biodiversity and Development – Phase 2: Pest Management Plan (PMP).

World Bank, 2019. Republic of Mozambique - Agrarian Sector Transformation: A Strategy for Expanding the Role of the Private Sector, Washington, DC: World Bank.

WTO (World Trade Organization), 2017. Trade Policy Review: Mozambique. World Trade Organization.

NAMIBIA



According to Lenhardt (2019): "Namibia is a sparsely populated country in southwestern Africa. Its official census of 2011 put the population at 2.1 million with a 2018 population variously estimated to be between 2.4 and 2.6 million. It covers 825,292 km^2 and includes two deserts: the Namib (all of the Atlantic coast) and the Kalahari that it shares with Botswana and South Africa. It is frequently called the driest country in Africa south of the Sahara. The extreme north eastern portions of the country receive the most rainfall but the climate there still only reaches a classification of sub-humid. Long term average annual rainfall is at its highest in the far northeast (approximately 700 mm) falls progressively in a south westerly direction toward the cold Atlantic Ocean to virtually zero mm in large parts of the Namib Desert. The great majority of Namibia's soils are very low in native fertility. In spite of these very challenging conditions Namibia is an agricultural country. Agriculture employs the greatest number of Namibians of any sector in the economy, between 20% (2016) and 30% (2014) of total employment in formal employment terms and a major portion of its people pursue traditional forms of livestock husbandry and crop production – mostly for their own use and consumption".

Lenhardt describes the growing Vocational Education Sector in Namibia, prefacing his report with the comment that developed economies require artisanal skills, not PhDs.

According to the World-wide Extension Study [100] the Namibian agricultural sector still has, broadly, a dual system comprising a well-developed, capital intensive and export oriented commercial sub-sector and subsistence based communal farming sub-sector, low in technology and external inputs and highly labour intensive. Both sectors contribute to the achievement of the national agricultural development goals, The long-term Vision 2030, the Millennium Challenge Account and the short term National Development Plan. Agricultural development hinges on the proper use of information and agricultural extension services (a vital component of rural development). The government agricultural extension services mainly provide subsidised agricultural services and the administration of government programmes such as drought relief and credit schemes. Volkmann (2013, p.39) says:

> "Livestock production in Namibia takes place on freehold land, as well as open access land (commonly referred to as communal land), which is owned by the state and governed by local and regional authorities and traditional leaders. Rainfall patterns and soil conditions vary greatly over these communal lands and much of the subsistence farming relies on mixed agricultural practices with a strong reliance on running cattle, goats and sheep on natural rangeland because dry land crop harvests often fail in poor rainfall years. Both subsistence and commercial farmers experience a decline in carrying capacity and crop yields".

International research collaboration aims at livestock resilience and productivity, with crop research aimed mainly at "climate smart" pearl millet, sorghum and maize production, [101] and the FAO is supporting the government of Namibia in four food-security related priority areas; [102] these include sustainable production initiatives, with an emphasis on Conservation Agriculture (CA), focused on raising productivity of agricultural resources. Both of these initiatives could be open to EOA, but are currently emphasising fertiliser, chemical and genetically engineered seed use.

The Namibian Ministry of Agriculture, Water and Forestry (MAWF) is organised under two separate directorates: the Directorate of Extension and Engineering Services (DEES) and the Directorate of Agricultural Research and Training (DART). These offices are managed by different directors or managers and there is an urgent need to connect research and extension to farmers. This prompted MAWF to develop a Farming Systems Research and Extension (FSRE) strategy characterised by a holistic, participatory, demand driven, multidisciplinary and problem-solving approach. While it is unclear whether the FSRE approach actually lives up to its mandate of bringing researchers, extension specialists and farmers together in the design, implementation, monitoring and evaluation of agricultural programmes, new strategies have emerged recently to improve collaboration among all actors in the agricultural extension system, but Agricultural Development Centres are often far away from farmers in this vast and sparsely populated country.

Reports say that "Namibia has the second highest gap in income between the rich and the poor in the world after its neighbour and former master South Africa. Namibia's Gini coefficient was 55% in 2018 and South Africa's was 58%. This is despite having and exploiting its considerable resources of minerals (diamonds, gold, uranium, copper, zinc and more). The unemployment rate in Namibia averaged 28% between 1997 and 2018." [103]

100 https://www.g-fras.org/en/world-wide-extension-study/africa/southern-afrca/namibia.html
101 https://ccafs.cgiar.org/es/node/53441#.XUnFK_IzbIU
102 http://www.fao.org/namibia/programmes-and-projects/en/
103 https://tradingeconomics.com/namibia/unemployment-rate

How is EOA included in agricultural and trade policies?

The 2015 Agricultural Policy [104] of the Namibian Government does mention EOA, in that it advocates that organic crop and livestock production and certification should be supported, but it gives no details. Volkmann documents the consultation on rangeland management (2013):

> "The convincing results that farmers on both freehold and communal land have had were shared in various ways, mostly in farmer-to-farmer exchanges. Presentations were given at the Namibia Rangeland Forum, an annual gathering of scientists, agricultural extension agents, farmers and other stakeholders…. In 2010, the Community Based Rangeland and Livestock Management (CBRLM) programme was initiated with funding from the Millennium Challenge account. It is implemented in partnership with the Ministry of Agriculture, Water and Forestry by project managers GOPA-CBRLM with technical support from IRDNC (Namibian Rangeland Forum, 2010). The rigorous monitoring accompanying the implementation of the CBRLM programme and envisaged scientific research in partnership with sites and institutions from Botswana, Zimbabwe, Namibia and Germany will soon make reliable research data available… Their willingness … to consider and manage natural complexity, rather than reacting against the dynamics of nature, now informs national policy and the Namibian example is being copied by producer organisations and government institutions in neighbouring countries".

Namibian Organic Association and Namibian Organic Standards

The Namibian Organic Association (NOA) is a dynamic organisation which has developed organic standards based on the IFOAM standards, and has also supported the emergence of participatory guarantee systems (PGS). The standards and links to PGS information can be found on the NOA website. [105] Judith Isele of the NOA, and her late husband Ekkehard Kuelbs point out that organic livestock management is in its infancy, with few farms certified organic by NOA, but an increasing number making use of Natural Resource Management:

> "Natural circumstances favour extensive livestock farming on the basis of free-range grazing on indigenous pasture. The majority of the agricultural land in the semi-arid country receives an average yearly rainfall of 150–500 mm supporting only marginal savannahs. An area of 8-30 ha is needed to supply year-round fodder for one large livestock unit. Even when conventionally managed, these free-range conditions naturally allow animal husbandry that is closer to organic ideals than most European farming systems ever achieve. In such a marginal environment, the adaptability of livestock to their specific circumstances is of utmost importance. On Namibia's extensively managed commercial farms (farms are usually 3,000 – 20,000 ha) the natural environment differs greatly, even between two neighbouring farms" (Isele and Kuelbs, 2013).

Isele and Kuelbs (2013) conclude (p.58 and p.64):

> "With the practice of NRM, planned grazing on Springbockvley, it was possible to increase stocking rates over the years (see also Barrow, Binding and Smith, 2010). This has been achieved in spite of inconsistent rainfall which, since 1989 varied between a minimum of 60 mm (in 1995) and a maximum of 680 mm (in 2011)."

> "Namibian farmers are watching with great interest the developments on the farm Oasis just across the border with Botswana in the Ghanzi area. Here the Barnes family have also been practicing Holistic Management planned grazing for over ten years, running very large herds of cattle (up to 2,000 cows in one herd). Although the soil (Kalahari sandveld) is similar to Springbockvley, the average rainfall is higher and the vegetation composition is different. On Oasis, a higher animal density is achieved by combining 2,000 large stock units in camps of around 300 hectares and therefore, an average density of 6.6 animals per hectare when they are grazing in a camp. This higher animal density and herd size effect may well have led to improved growing conditions, and with that the remarkable spread of Brachiaria negropedata, arguably the most nutritious and palatable perennial grass found in Southern Africa" (p.64).

Learning from the behaviour of large herds of game is a major principal of NRM, as expounded by Alan Savory, and this has broadened the understanding of ecology and contributed to the development of African EOA. Wild harvest includes mainly Devil's Claw and Moringa (Manjo Krige, 2019).

Overview of opportunities for leverage within existing policy frameworks and how these opportunities can be explored

Given the more open attitude of government in the past decade, there is the hope that in the near future, EOA will be accepted as an important part of Namibian agricultural policy. Comparbisons between input-intensive strategies of the "Alliance for a Green Revolution in Africa" and the "Export Programme for Organic Products from Africa" show that organic farming systems use resources which are locally available, and most organic projects connect farmers to markets and develop local training capacity (Auerbach, 2013). The NOA has been pro-active in lobbying government and international NGOs, and there is broad support for mainstreaming EOA in Namibia.

Preliminary EOA typology

Type 3; Country has a developing domestic and export market, some NGO activity, some guidelines and exports, but little government support.

104 http://www.mawf.gov.na/documents/37726/48258/Namibia+Agriculture+Policy/80928f95-f345-4aaa-8cef-fb291a4755cf?version=1.0
105 www.noa.org.na

Auerbach RMB, 2013. Organic Agriculture: African experiences in resilence and sutainability. Food and Agricultural Organization of the United Nationas, Rome, Italy.

Barrow S, Binding H and Smith M, 2010. Assessment of the potential of organic meat production and markets for Namibia. Future Earth cc., Namibia.

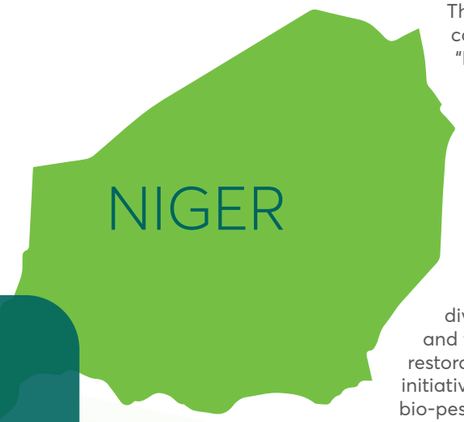
Namibian Rangeland Forum, 2010. Proceedings. Namibia Centre for Holistic Management, Windhoek, Namibia.

Isele J and Kuelbs E, 2013. Holistic management of livestock in Namibia. In: Aurbach, 2013.

Lenhardt PJ, 2019. Final Draft Assessment Report ATVET Namibia.

Volkmann W, 2013. Managing community-based rangelands in Namibia. In: Auerbach, 2013

NIGER



20M
POPULATION

1.3K
AREA SQKM

There is no national regulation on organic agriculture in Niger. The country's agricultural policy, notably articulated in the initiative "Nigerians Nourish Nigerians" (3N), is very much inspired by the Green Revolution (facilitating access to chemical fertilisers and pesticides, improved seeds). There is little research and training in AE or EOA and no national programme (that could be identified) integrates this dimension.

EOA Initiatives in Niger remain limited, and are often carried by local and international NGOs in partnership with producer organisations. The promotion of best practices that are linked to EOA or agro-ecology is essentially done under the banner of climate change adaptation (improved water management, diversification of varieties, introduction of short cycle varieties) and the management of natural resources (anti-erosion works, restoration of degraded lands, agro-forestry, etc.). There are also some initiatives focusing on the manufacture and use of organic compost and bio-pesticides (based on neem, pepper, soap, oil). Despite these many concrete actions, the term agro-ecology remains little mentioned in the strategies of these organisations and "organic farming" even less so.

One of the main development partners involved in supporting the emergence of EOA in Niger is Swiss Aid, which has authored an appraisal of AE in the country (the main source of information for this section). Their 2013-2017 strategic plan for Niger among others included the promotion of EOA to guarantee food security, access of small farmers to natural resources and their sustainable use, as well as influencing agricultural policy, in particular to oppose GMOs. There is still little research and training on this theme (Mathieu and Mamadou, 2014).`

Organic standards

Niger does not have organic standards, nor Participatory Guarantee Systems.

Local market: there is limited information available on local markets. Despite absence of supporting institutional environment, several organic farm groupings (of women) have emerged, some with the support of Swiss Aid for instance. One of them, the Cernafa grouping in Djoga, is said to have been producing organic produce for a local market for several years now, purely based on trust.

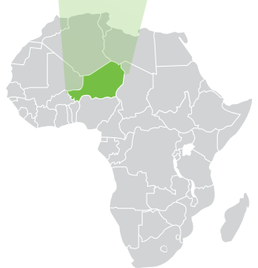
International markets: According to IFOAM, Niger had 254 ha under certified production in 2017 (Willer et al., 2019). Although Niger is one of the three most important dry pulse-growing countries in the world, there is no information available in this sector for Niger.

One of the main challenges is the Government's agricultural vision, which is strongly biased in favour of food security and reducing import dependency, and strong bias towards the promotion of agro-chemical farming. Although the country's consumption of chemical fertilisers remains low (less than 40,000 tons per year), the government subsidy of this input (by up to 50 to 60%) plays against EOA. There is thought to be a lack of raw materials for compost making and poor access to bio-pesticides.

EOA TYPE

Preliminary EOA typology

Type 4; Country has some NGO capacity, no guidelines, no support from government and is not exporting.



Mathieu B and Mamadou A, 2014. Le volet Agroécologie de SWISSAID au Niger: Diagnostic et propositions de renforcement. Available from: http://www.reca-niger.org/IMG/pdf/Diagnostic_AE_Swissaid_Niger.pdf.

Willer H, Lernoud J and Klemper L, 2019. The Word of Organic Agriculture: Statistics & Emerging trends 2019. Available from: https://www.ifoam-eu.org/en/news/2019/03/27/world-organic-agriculture-2019 (2019:165).

NIGERIA

200M
POPULATION

923K
AREA SQKM

Although Nigeria has a massive agricultural research infrastructure, the amount of resources devoted to EOA is woefully inadequate. A "Green Alternative" entrepreneurship programme targets women and youth, with a focus on information and communication technologies (ICT), but there is little mention of AE or EOA in the USAID review of Nigerian Extension Services (Huber et al., 2017). Most literature emphasizes FISP, and problems in getting fertiliser and poisons to farmers, and crops to market.

According to Huber et al. (2017), less than 1% of cultivated land is irrigated, significantly depressing total land productivity, and despite 77% of the land in Nigeria being available for agriculture, Nigeria spends NGN 1.3 trillion (approximately US $4.1 billion) annually in food imports. On p.13 of their comprehensive review, they state:

> "In 2012, the Nigerian government introduced the Growth Enhancement Support Scheme (GES), which launched an e-Wallet system to distribute fertiliser subsidies directly to farmers through mobile money to avoid the graft and losses that had previously occurred. Currently, e-Wallet has 15 million subscribers, several million of whom are women farmers. In 2016, the federal government of Nigeria launched a follow-on policy to the Agriculture Transformation Agenda called the Agricultural Promotion Policy, or the Green Alternative, which highlights the need to fund, coordinate and improve quality of extension services across the country".

The agricultural extension system in Nigeria has been reviewed by Huber et al. (2017), and the summary of their review states:

> "in each state [there are] a large number of agricultural research institutions and extension training programs, a system to connect them to farmers called the Research-Extension-Farmer-Input Linkage System (REFILS), and a body of 7,000 extension agents (28% female). Most of these structures were established with World Bank funding in the 1980s and have since suffered from a severe lack of funding and coordination in times of both economic growth and recession. However, there is growing involvement of the private sector in EAS" (p.6).

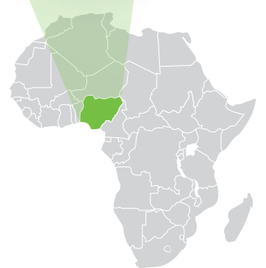
How is EOA integrated in agricultural and trade policies?

In their social survey, Atoma and Atoma (2015) make the point that there is growing interest in organic farming in Nigeria; below, the abstract of their recent paper is reproduced in full:

> "[There is] concern over nutrition, health and food safety issues. Consumers perceive high risk associated with the consumption of conventionally grown produce. Organic farming is beneficial because it is a source of healthy food and healthy living….Only three organic farming practices are being used – animal manure, tillage, and organic fertiliser". The social survey research found that many farmers perceive EOA as involving a lot of hard work with carting of organic soil amendments, making of compost, applying compost and weed control seen as too difficult for them to incorporate into their farming systems. They conclude (p.219) that "The study revealed high-level awareness of organic farming practices but low-level use".

According to Willer et al. (2019), Nigerian certified organic agriculture grew from 5,021 ha in 2014 to 53,402 in 2017, plus 1,000 ha of wild collection and 3,600 ha of aquaculture (Total 58,002 ha). They list 1,087 producers, five processors and 80 exporters (mainly cocoa, oilseeds and vegetables, with the wild collection being mostly beehives). They list one PGS with 47 farmers. This data was supplied by the Association of Organic Agriculture Practitioners of Nigeria (NOAN), Ibadan, and Dr. Olugbenga O. AdeOluwa, and University of Ibadan, Nigeria; the data includes the PGS-guaranteed area.

EOA TYPE



Olaito (2014) reviews the emergence of the EOA sector in Nigeria on p.2:

> "There are [many] involved in the development of organic agriculture in Nigeria. These main stakeholders are:
> - Dara/Eurobridge Farm, which is known as the pioneer organic farm in Nigeria and produces lemongrass, turmeric, ginger, plantains and medicinal herbs;
> - Organic Agriculture Project in Tertiary Institutions in Nigeria (OAPTIN), which organised a pioneering network in 2004. Its activities focus on capacity building and networking of academics in organic agriculture;
> - Olusegun Obasanjo Centre for Organic Agriculture Research and Development (OOCORD), which was established in 2007 and is the first of its kind in Nigeria. It focuses on research and development in organic agriculture;
> - Nigerian Organic Agriculture Network (NOAN) umbrella body for organic agriculture activities in Nigeria since 2008. Its function is to network organic agriculture organisations in Nigeria;
> - Organic Farmers Association of Nigeria, Organic Fertilizer Association of Nigeria, "Nigeria Go Organic", "Ibadan Go Organic", are other organic stakeholders in the country.
> - World Wide Opportunities on Organic Farms (WWOOF), a network of national organisations that help volunteers to live by and learn organic farming properties. WWOOF has a passionate team who believe in the potential of organic farming in Nigeria. They bring volunteers from around the globe to work on farms in Nigeria and also work to promote organic agriculture among the Nigerian population" [quote ends].

> " With funding support from the MTN Foundation (a mobile telecommunications giant), Nigeria now has integrated organic fertiliser processing plants at strategic places in Oyo and Ondo states. With the intervention of the Nigeria Network for Awareness and Action for Environment (NINAFFE), a local non-governmental organisation, the products are being distributed to small scale farmers to 'create wealth from waste'. The products are now in high demand among farmers in Ondo State, Nigeria's largest cocoa producing state. Presently, certified agricultural products in Nigeria are: ginger, turmeric and lemon grass tea. In the case of livestock production, the standards for certification are being developed, while a few farms are transitioning to organic production" (p.3).

National Organic Agriculture Movement (NOAM)

Olaito (2014) reports on NOAN as follows:

> "NOAN is an NGO created to serve as an umbrella body for all stakeholders involved in organic agriculture in Nigeria with secretariat … located at the Department of Agronomy, University of Ibadan, Nigeria. Membership is drawn from scientists, farmers, processors, exporters, individuals, Institutions, NGOs …. NOAN also serves as a link body between organic agriculture stakeholders in Nigeria and international bodies interested in organic agriculture. The activities of NOAN are hinged on these four key thematic areas: Advocacy, Capacity building, Standards and Certification, and Marketing. …The mission of NOAN is to co-ordinate and facilitate the development of sustainable organic agriculture related activities in Nigeria. The vision of NOAN is to improve the quality of urban and rural livelihoods through the adoption of organic agriculture in Nigeria."

As well as problems like lack of awareness and support, on p.7, Olaito (2014) cites lack of policy as a major problem:

> "Promotion of organic agriculture both for export and domestic consumption, the requirements of food security for millions of the poor, national self-sufficiency in food production, product and input supplies".

Olaito draws broadly on the 2013 research review of Kutama AS, Abdullahi MA, Umar S Binta UB and Ahmad MK (Organic farming in Nigeria: problems and future prospects). At the end of the report, Olaito (2014, p.13), remarks under the heading "Cooperation":

> "The East African countries were able to increase their organic agricultural activities through co-operation among organic practitioners and this led to export of organic products which contributed to the domestic product of the countries involved. Co-operation and integration brings about sharing of ideas, technology and strategy to develop individual countries involved in it. Nigeria, as a front runner in regional, continental and international affairs should integrate with those countries that are developed in organic agriculture so that the nascent organic agriculture can develop to full capacity for sustainable development".

Including EOA in school and university curricula

Agozie (2019) reports in the AfrOnet newsletter on a recent conference held in Abuja, which examined ways of including EOA in both school and university training: Dr Adamu Kazaure, Executive Secretary of the National Board for Tertiary Education (NBTE), represented by Dr Jauro Kubura, said the board would continue to encourage the practice of organic agriculture.

"We are happy to partner with EOA in promoting organic agriculture and will introduce organic agriculture into the curricula of all polytechnics and colleges of education in Nigeria," he said. Prof. Victor Olowe, President of the Association of Organic Agriculture Practitioners in Nigeria, called for constructive contributions from participants. "We want ideas that will move organic agriculture forward. Other countries are already running with the template that we developed and we, for our part, are trying to make in-roads through the NUC," he said, adding: "We want to see people obtain degrees and even PhDs in organic agriculture. Food security is beyond just filling your stomach but making sure it is with the healthy kind of food".

Overview of certification landscape in the country and extent to which this links to national policy.

As of 2014, Olaito reported:

> "Government Regulations: The Federal Ministry of Agriculture is in the process of providing accreditation that authorizes private or government certifying agents. Certification and Control: There is no government approved certifying body yet to regulate and ensure compliance with Organic Production system. Though 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" (p.13).

Preliminary EOA typology

Type 3; Country has a developing domestic and export market, some NGO activity, some guidelines and exports, but little government support.

Agozie E, 2019. Nigeria lads in efforts to mainstream organic agriculture in school curriculum – ECOWAS. Afronet News, p.2. Issue 0002, January to June 2019. Afronet, Dar es Salaam, Tanzania.

Atoma CN and Atoma JO, 2015. Analysis of Organic Farming practices among crop farmers in Delta State, Nigeria. Journal of Information and Knowledge Management. Vol 6(3), p.213-220.

Huber S, Davis K and Lion K, 2017. Nigeria: In-depth assessment of extension and advisory services: Developing Local Extension Capacity (DLEC) project. USAID, Washington DC.

Kutama AS, Abdullahi MA, Umar S Binta UB and Ahmad MK , 2013. Organic farming in Nigeria: problems and future prospects. Global Advanced Journal of Agricultural Scence, Vol. 2(10) p.256-262.

Olaito P, 2014. Organic Agriculture in Nigeria. Report for USAID. Global Agricultural Information Network, USDA Foreign Agricultural Service, Washington DC.

Willer H, Lernoud J and Kemper L, 2019. The World of Organic Agriculture. Statistics and Emerging Trends 2019. IFOAM, Bonn, Germany.

RWANDA

1.2M
POPULATION

24K
AREA SQKM

The Rwandan economy remains for the foreseeable future, heavily dependent on the agricultural sector employing as it does around 90% of the population, providing 91% of the food consumed in the country, contributing 36% of GDP and accounting for 70% of revenue from exports. Rwanda has elaborate policies, strategies, and development frameworks on agriculture and rural development which focuses on food security, nutrition security, and poverty reduction. Since 2000, the food security policy has been guided by international, regional, and national commitments towards ensuring food security and poverty reduction among the rural population. As the policy formulation process in Rwanda is unusually progressive and participatory, much of the detail on the Rwandan agriculture policy formulation process from Kareko-Munene (2020) is presented here. World Bank and FAO projects have helped Rwanda to develop infrastructure, and two reports are summarised below to introduce the general situation of agriculture in Rwanda, and show the levels of transformation.

World Bank (2019) shows how half a million women have benefited from projects which help with building terraces on the very steep hillsides which are typical of Rwandan agriculture. Several projects have trained local people in terrace-building, and have helped to develop irrigation infrastructure. The World Bank funded projects—the Rural Sector Support Project (RSSP) and the Land Husbandry, Water Harvesting and Hillside Irrigation (LWH) Project—helped the government of Rwanda increase productivity and commercialisation of marshland and hillside agriculture in targeted areas. They also allowed for investment in rural infrastructure, which have been put in place to link productive areas to markets. Many of the World Bank projects are also encouraging the use of compost, as shown in the video in the World Bank article of 2019.

We quote, almost verbatim, the FAO (2020) overview of Rwandan agriculture:

> Rwanda is a landlocked country in the Great Lakes region of East Africa. Its 26,338 km2 are dominated by highlands, giving it the name "Land of A Thousand Hills". The lowest altitude in the country is 950 m above the sea level and it is estimated that 90% of domestic cropland is on slopes ranging from 5% to 55%. Rwanda's climate is conditioned by its landscape: the lower the altitude, the warmer the temperature. The country experiences a long dry season from June to August with heavy rainfall between March and May. With 441 inhabitants/km2, Rwanda had the second highest population density in Africa as of 2015. In the last 10 years the population grew at a rate of 2.6%, and reached an estimated 11.61 million inhabitants in 2015.

- Land degradation and soil erosion are among the main challenges faced by agriculturalists. Around 90% of Rwandan territory lies on slopes with the consequent effect of soil loss, erosion and decreasing fertility. It is estimated that 1.4 m t/yr of soil is lost…. The pressure of a growing population also has a negative effect on land availability. As a result, land holdings are becoming more and more fragmented…In Rwanda, land categorized as rural is nearly 98% of the total land area, with around 49% classified as arable…[Poor] use of water resources for irrigation makes agricultural production unpredictable from one season to another.

- Low levels of productivity for both crops and livestock due to low input use, poor production techniques and inefficient farming practices. The use of chemical fertilizers in Rwanda saw a steady rise in 2007 when the Government of Rwanda (GoR) started the Crop Intensification Program (CIP). Under the program, subsidized fertilizers are provided to farmers for the cultivation of six priority crops. Despite this, famers' adoption of fertilizers remains quite low when compared to other countries in the region.
- Weak processing capacity and higher value-added products placed on the market. Between 1999 and 2008 the share of food crops processed never exceeded 6.5%.... Due to shortage in land availability, the Government of Rwanda is promoting intensification as a strategy to increase production and farmers' incomes… "In the long term, the goal is to move Rwandan agriculture from a largely subsistence sector to a more knowledge-intensive, market-oriented sector, sustaining growth and adding value to products." To do so … GoR considers agriculture a catalyst sector and will promote … value chains with stronger private sector links. Crops of interest include coffee, dairy, horticulture and cereals.

Ecological Organic Agriculture (EOA) in Rwanda

The increase of agricultural productivity and production increases, in both crops and livestock, have been the main driver of agricultural growth in the past decades.

Organic Certification

In 2005, the Rwandan government's increasing interest in organic agriculture led it to join as an observer the first meeting of the Regional Standard Technical Working Group (RSTWG) for the development of a voluntary regional East African organic standard. As an official member of the EAC and alongside Kenya, Uganda, Tanzania and Burundi, Rwanda ratified the first regional voluntary organic standard in Africa, and the only regional organic standard in the world alongside the EU's, the "East African Organic Products Standard" (EAOPS). The EAOPS is the first standard in the world to have been developed in cooperation between voluntary organic movements and governmental National Standards Bodies. The EAOPS is also the first voluntary organic standard to be used in Rwanda.

Organic products in Rwanda include: apple banana, pineapple, coffee, tea, honey, gooseberry, avocado, passion fruit, mountain papaya, tree tomato, chilies, essential oils.

Even before the Maputo Declaration, Rwanda had already embraced the spirit of the Comprehensive Africa Agriculture Development Program (CAADP) through the development of a clear strategic vision, and complementary detailed implementation plans and performance accountability systems for achieving food security. CAADP ties its principles with East Africa Community (EAC) strategies for agriculture development. However, as of October 2020, Rwanda does not have an explicit national organic agriculture policy (NOAP) document. The Rwandan Organic Agriculture Movement (ROAM) was established in 2007, and started operating as an NGO in 2014. It has about one thousand members, and is currently working on an organic strategy for Rwanda.

The GoR is fairly positive about organic production and MINAGRI has involved itself in:

- Awareness raising and practical terracing
- Capacity building among farmers organisations and creating decentralised structures
- Support to the certification process.
- Seeds/Seedlings distribution.
- Working with ADF and National University of Rwanda to train local certifiers in order to reduce cost of certification.
- Aggressive afforestation, agro-forestry and reforestation programme to increase biomass for organic production.

RHODA is the Rwandan Horticulture Development Authority, a department of the Ministry of Agriculture. It is the lead department responsible for developing an organic strategy for Rwanda, as well as for promoting it and coordinating the activities in support of organic farming across the various Ministries responsible for different portions of the programme (e.g. land use planning and certification) from central government through to implementation via the 30 Administrative Districts throughout Rwanda although there are as yet no policy targets for organic area coverage.

According to Duke and Bizoza (2012), "the Integrated Development Program Steering Committee functions in parallel to the Sector Working Groups …. The governors of five provinces also serve on the committee. This provides the necessary platform for coordination and more importantly the opportunity for local authorities to take ownership of the process and ensure that they are on board with the programmes and targets and they are responsible to implement."

Institutional responsibilities are clearly defined and consistently applied. MINAGRI drafted its first Strategic Plan for Agricultural Transformation (PSTA) in 2004 with collaboration from key stake-holders in the agriculture sector. It began the process of bringing all stakeholders on board to support the national strategy. This plan is the country-led strategy for agricultural development, as called for by CAADP. Stakeholders support PSTA implementation through participation platforms at the national level, including the Agriculture Sector Working Group, Sector Wide Approach, and regular Joint Sector Reviews. The PSTA II (2009-2012) was formulated on the basis of Vision 2020 (the national strategic vision document) goals, namely to achieve 8–9% growth between 2009 and 2020 and to reach the Sustainability Development Goals (SDGs). This is the socio-economic policy document on which all national and sector policies and strategies are based, and determines how resources are allocated across sectors. Support for organic farmers through government research and extension has been non-existent to date. An important development over the past five years is the establishment of Quality Management training and procedures.

MINAGRI revised and updated their NAP in 2017. The updated NAP includes technological advances, private sector development involvement, regional integration and the threat of climate change. The NAP 2017-2030 also responds to the changes facing agriculture and the food system nationally, regionally and globally. Under this policy, government's role in agriculture will shift from making direct interventions in the sector – especially with a focus on production only – to a market enabler, thereby promoting enhanced farmer cooperation and private-sector-led development of the agro-economy.

The policy builds on Rwanda's growing reputation as supplier of high-quality, sustainably produced agri-food products, especially for the increasingly discerning consumers in Africa's growing urban centres. It emphasizes resilience to changes in climate and markets, and makes use of advances in ICT, also for vocational skills development and for more effective sector administration, while promoting inclusion through preferential treatment of women and youth in agriculture programmes and development.

The vision of NAP is for Rwanda to become "a nation that enjoys food security, nutritional health and sustainable agricultural growth from a productive, green and market-led agricultural sector." The mission is to ensure food and nutrition security, modern agribusiness technologies professionalising farmers in terms of production, commercialisation of the outputs and the creation of a competitive agriculture sector. The policy objectives are formulated according to the Malabo Declaration under the CAADP framework of the AU: 1) Increased contribution to wealth creation, 2) economic opportunities and prosperity, 3) improved food security and nutrition, and 4) increased resilience and sustainability.

Rwanda is on a transformation path from a low-income to a middle-income country. For example, between 2000 and 2016, Rwanda's economy grew by 7.9% per year on average, so that by 2016 it was more than 3.5 times larger than in 2000. In the same period, GDP per capita increased, the poverty rate fell, life expectancy at birth increased, and youth literacy increased. The agricultural sector constitutes just over a third of the economy, but it accounts for just under half of exports and provides employment for over two thirds of the working population. Hence, it remains the backbone for sustained economic growth, providing quality livelihoods and high living standards.

The sector has been growing by over 5% per year since the turn of the century. However, after a growth spurt between 2008-2012, growth has decelerated in recent years. The main cause for this is stagnating crop yield gains. Livestock numbers have grown over the past few years, but not sufficiently to accelerate the overall agricultural growth. Climate change and soil erosion are degrading agricultural land. Meanwhile, the domestic, regional and international markets are growing rapidly. This opens opportunities for exports and selling higher value products. However, there will be an increasing pressure for products to be commercially viable with increasing competition domestically and abroad.

All these factors call for a decisive policy agenda to mitigate current and future strains on agriculture and position Rwanda to be food and nutrition secure, as well as a supplier of high-quality agriculture products. The NAP formulates a policy agenda of specific policy actions to achieve the stated objectives.

The PSTA 4 emphasizes a stronger role of the private sector, including farmers, with the government becoming a market enabler rather than a market actor. For example, direct government involvement in production, processing and marketing will be reduced. Besides creating an enabling environment, the government will provide public goods, otherwise undersupplied by the private sector, including infrastructure, research, social protection and emergency response. Rwanda's main limiting production factor is land. Agriculture growth requires an increase in profits per hectare and capture of productivity gains along the value chain. Raising productivity means increasing agricultural yields and switching to higher value agricultural commodities, such as horticulture, vegetable, poultry, pork and fisheries. PSTA 4 focuses on facilitating private sector investment in fruit and vegetable production though upgrading provision of quality standards and demonstrating better technologies (green houses, hydroponics, small-scale irrigation solutions). As changes in weather and climate patterns are becoming more acute, PSTA 4 seeks to build resilience through on-farm measures and enable actions to increase productivity and alternative land management, to complement terracing with comprehensive climate smart soil and integrated watershed management. PSTA 4 also introduces better weather and climate information and early warning, and seeks to ensure all investments are climate smart and ecologically appropriate.

The PSTA 4 is designed to achieve four strategic impact areas in accordance with the CAADP framework. Namely, A) Increased wealth contribution; B) Increased Economic Opportunity; C) Improved Food Security; D) Increased Resilience. It is the implementation plan of the NAP, and represents the agriculture sector's strategic document under Rwanda's National Strategy for Transformation.

Preliminary EOA typology

Type 3; Country has a developing domestic and export market, some NGO activity, some guidelines and exports, but little tangible government support as yet.

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SÃO TOMÉ & PRINCIPE

222K
POPULATION

964
AREA SQKM

EOA TYPE

SÃO TOMÉ & PRINCIPE

The island state of São Tomé and Principe (STP) has 18% (2017) of its territory under organic management, making it the African territory with the highest percentage of land under organic. In 2015, the country's cacao exports represented 94% of the country's global exports (3,000 tons exported in 2016). [106] In the same vein, cacao exports (and coffee) are the leading organic export crops in the country.

The "Fome Zero" (Zero Hunger) and the National Investment Plan for Food and Nutrition Security (PNSAN) (2013-2023) (Sao Tomé e Principe, 2013) are the only policies that guide the agricultural direction of the country. The PNSAN extensively refers to the successful development of the organic cocoa value chain but the first component of the plan (i.e. sustainable intensification), is set to be achieved using conventional farming practices [" (with the) scientific use of modern inputs"] and no mention is made of supporting the growth of EOA from an institutional perspective.

However, in early 2019, the EU-funded Sustainable Agrifood Policy Programme (EU, 2019) planned for STP was launched; it includes among its core activities support for the development of national legislation and regulations protecting organic agriculture, to be submitted to the Government and Parliament for approval (Tavares and Mendes, 2019).

Subsequent to IFAD's involvement and support in rescuing the country's cacao industry after the global collapse of cacao prices in the late 1990s, government took over the management of this successful programme, called the Participatory Smallholder Agriculture and Artisanal Fisheries Development Programme (PAPAFPA). Officials from the ministry of agriculture are involved in the reflection around the emergence of a national EOA movement.

STP's growing EOA sector, which is essentially geared towards the export of high value crops (especially cocoa), is very much the product of international donor support and private investments.

Among the key international actors who have played and still play an important role in the sector are IFAD and its partners, who have since the early 2000s supported nearly 2,200 farmers with growing cocoa certified as organic or FairTrade for the international chocolate industry through their Participatory Smallholder Agriculture and Artisanal Fisheries Development Programme (PAPAFPA) (2003-2015). The organic cocoa programme is now a dynamic multi-stakeholder partnership led by the government and supported by IFAD under PAPAFPA (IFAD, n.d.). PAPAFPA also supported the development of the organic vanilla and organic pepper sectors, as well as coffee.

Its sequel, the Support Project to Small Commercial Agriculture (PAPAC) (currently underway) follows a similar approach and aims to support small scale farmers with producing for and accessing niche export markets. The PAPAC's first phase was funded by IFAD (IFAD, 2014).

Among the private sector actors who played a pivotal role in the emergence of the organic cocoa sector are the leading organic chocolate producer, the French Kaoka [107], which purchased all the organic cocoa produced in the early days, as well as the UK firm Café Direct (IFAD, n.d.). In 2018, the FairTrade chocolate company Divine (44% owned by Ghanaian cocoa farmers) announced it would be purchasing a large chunk of São Tomé's cocoa for a new range of organic, high-quality dark chocolate bars. [108]

As a result of these interventions driven by IFAD, four national organic co-operatives were established in the early 2000s key crops the Organic Coffee Export Co-operative (CECAFEB), the Organic Cocoa Export Co-operative (CECAB) and the Pepper and Vanilla Export Co-operative (CEPIBA) (IFAD, 2014).

An important initiative underway in STP is the "Organic Market for Development" (OM4D) supported by IFOAM OI and which seeks to support the emergence of a national organic movement (a process which has included the participation of the ministry of agriculture) as a means to bolster the emergence of domestic and export organic markets. As a result of OM4D stakeholder engagement process, an organic movement for STP was just set up in July 2019. The board was constituted and going forward, agreements will be drawn up with all key organisations (Tavares and Mendes, 2019).

The following NGOs are involved in promoting EOA: the Association for the Agricultural Development and Protection of the Environment (ADAPPA), Zatona-Adil Support to local Development initiatives. INGOs supporting EOA in STP include: the Portuguse NGO Marques de Valle Flôr Insitute (IMVF) and ACTUAR. Jointly with the local NGO ADAPPA, they co-implement the EU funded Sustainable Agrifood Policy Programme.

Research capacity on EOA is provided by the French CIAT and the STP University.

Certification landscape in the country and extent to which this links to national policy.

Standards and certification STP has formulated – under the impulse of the IFAD projects – production standards for the organic export crops (coffee, cocoa and pepper); these are aligned to Ecocert. Work is underway (through OM4D) to elaborate national standards. There is no Participatory Guarantee System (PGS), but this is an aspect that the OM4D programme is currently supporting. Seven PGS groups have been identified and farm visits have started taking place.

Markets and trade

The 2019 IFOAM report indicates that with a total surface area of 8,780 ha (against 6,706 ha in 2016) under organic management in 2017, Sao Tome was the African country with the highest portion of its territory under organic (i.e. 18% of its territory). That same year, the country counted 3,664 producers, four processors and five exporters, which is indicative that these few companies work through outgrower schemes, something that producers are reported to prefer as they get a better price for their crop than with the small networks of buyers. About 24% of the country's organic surface area is devoted to cocoa and 38% to coffee (Willer et al., 2019).

Overview of gaps and challenges within existing policy & institutional framework

- STP might be locked into an exclusive export market, which is proving beneficial and life changing for the producers involved. Critically important will be support geared towards supporting the growth of the domestic market, which government should also support.
- Currently there is no organic movement federating all initiatives so the establishment of a legitimate movement to drive the sector going forward is key.

Opportunities for leverage within existing policy & institutional frameworks

- The EU-funded Sustainable Agrifood Policy Programme (EU, 2019), which seeks to support the development of national legislation and regulations protecting organic agriculture, constitutes the most salient opportunity for the EOA sector.
- The National Investment Plan for Food and Nutrition Security (PNSAN) (2013-2023) (Sao Tomé e Principe, 2013) comprises a component focused on strengthening the capacity of support structures, which focused on developing the capacity of small-scale farmers. The actions listed as part of concretising this include the "elaboration of strong legal texts and support measures". This is where strong advocacy – as part of the OM4D initiative perhaps - could be directed, so that government is asked to create an enabling environment for EOA to grow beyond the export of niche cash crops.
- The provisions made for strengthening the capacity of professional agricultural organisations (OPAs) and improving access of producers to finance could also be influenced to respectively include capacity building on organic production and certification (for other crops than cocoa) and support for transitioning to EOA practices

Preliminary EOA typology

Type 2; Country has some government support, there is a policy underway, a strong NOAM, a domestic market and strong NGO farmer support.

106 https://www.tresor.economie.gouv.fr/Pays/ST/le-secteur-agricole-a-sao-tome-principe
107 Kaoka assessed STP's cacao sector at the request of IFAd and found that "the assessment concluded that the rich genetic origin of Sao Tome cocoa varieties could produce superior aromatic cocoa beans that would fetch higher and more stable prices than ordinary cocoa." Since then the country's cacao industry has become highly coveted worldwide.
108 https://geographical.co.uk/people/development/item/2889-sao-tome

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SENEGAL

16.8M
POPULATION

196K
AREA SQKM

EOA TYPE

Senegal is one of the West African countries where EOA is being piloted (FAO and AUC, 2018). The 4th African Organic Conference was held in Dakar in November 2018. In early 2019, the Senegalese President, Macky de Sall, who was elected for a second mandate, reiterated his support for an agroecological transition for the country. The "green" orientations of the country are to be carried forth in a Green Development Plan ("PSE Vert") (FAAPA, 2019).

There is no national regulation on organic agriculture in Senegal (Seck, 2019). The current agricultural framework includes provisions for sustainable agriculture, although no explicit mention of EOA features in these. The 2004 agro-sylvo-pastoral legislation [109] makes provision for the diversification of agricultural production, greater integration of value chains, market regulation and sustainable management of environmental resources as well as improving production quality. This law also seeks, as one of its main objectives, to formalise the agricultural sector. According to the National Federation for Organic Agriculture (FENAB) (discussed below), these all constitute pillars in which EOA could play a part.

Generally speaking, there is no direct support from Government to EOA (Seck, 2019). An initiative worth noting and which received the backing of the Ministry of Agriculture (unspecified) is the promotion of Healthy and Sustainable Agriculture initiative [Agriculture saine et durable (ASD)], which was partly financed in the context of the EU-Senegal cooperation framework (2013-2017) in certain agro-ecological zones. This initiative sought to implement "sound agricultural practices: in communal perimeters earmarked for the programme" and to "reduce dependence on chemical pesticide usage" in cultural systems (Rep. du Sénégal and FAO, 2014).

There is strong national capacity in EOA in Senegal. The first generation of organic farmers received AE training organised by the Carrefour International d'Echanges et de Pratiques Appliquées au Développement (CIEPAD) and the Baujeu School, France. Farmer schools were developed in several parts of the country, and a training centre (Ndiémane) was set up, and became a key driver of the EOA movement. The movement has grown since with farmer movements following (FAO, n.d.).

The national organic movement, – FENAB, [110] was born in 2008. The federation regroups six support organisations, including ENDA PRONAT, Agrécol afrique, Green Sénégal, the Senegalese Association for the Promotion of Organic Agriculture (Association Sénégalaise pour la promotion de agriculture biologique - ASPAB), the GIT and the CEAS, as well 18 producer organisations. Members are present across seven regions, namely: Dakar, Thiès, St-Louis, Kaffrine, Tambacounda, Djourbel and Fatick.

FENAB developed a 2016-2018 and then a 2017-2037 EOA strategic plan which articulates a strategy (backed by a logframe) for the sector, and in which government support is called for (FENAB, 2016).

International donors who play an active part in supporting EOA include:
- Senegal is one of the countries which forms part of the Ecowas Agroecological Transition Support Programme (PATAE), funded by the French Development Agency.
- HEKS/EPER Switzerland.
- Under the decentralised cooperation agreements entered into between France and Senegal, some focus on AE. Such is the case of the Midi-Pyrenees region for instance, which supports the Senegalese NGO ACTSOL with developing agroecological farms in Casamance (CCFD Terre solidaire, 2018).

The certification landscape and linkages to national policy

In 2016, FENAB drove a participatory process to develop "basic standards" for organic agriculture in Senegal, known as the "Cahier de Charges de l'Agriculture Biologique au Sénégal" (CCAB). These standards are derived from IFOAM and are used as standards against which the country's PGS has operated since 2016. These standards do not yet meet IFOAM's Common Objectives and Requirements of Organic Standards (COROS), but input was received to improve the standard; this is work in progress (Seck, 2019). The main certification agency active in the country is Ecocert.

There is currently one Participatory Guarantee System (PGS) operational in Senegal, guaranteeing a total of 500 producers (Willer et al., 2019). The PGS uses the CCAB as its standard

Markets and trade

Senegal is one of the rare West African countries where a domestic organic market has developed and grown spontaneously. It is through the work of ENDA that a collective initiative carried by producers and consumers was born that saw the organisation of a weekly organic market in Dakar in the early 2000s. At the time, there was no PGS in place to endorse the production and the system purely relied on trust; thanks to the quality of the produce and the positive response from the consumers, more frequent markets were thus organised in Dakar and such markets thus emerged in other towns (Ziguinchor, Saint-Louis, Thiès).

International trade: In 2017, the country had 7,309 ha under organic cultivation, a surface area that has remained more or less constant since 2014. The certified area for wild collection was 26,607 ha, meaning that the total surface area under organic is close to 34,000 ha. That same year, the sector consisted of over 18,900 producers, 21 processors and 18 exporters of certified producers.

Currently organic certified commodities from Senegal include cereals, citrus, dry pulses, tropical and sub-tropical fruit, oilseeds, vegetables and cotton (277 cotton producers) (Willer et al., 2019).

Overall, the lack of a regulatory environment for EOA is limiting the growth and evolution of the Senegalese organic movement. FENAB's 2016-2018 strategy details the wide spectrum of challenges to the emergence and formalisation of EOA in the country among which:
- The dismantling of the seed system through the progressive taking over by breeders of local seed systems and the introduction of GMOS is flagged by FENAB.
- Lack of training and support to improve agricultural production though EOA.
- The high number of intermediary actors between producers and consumers.
- Limited support from the government in setting up quality markets (as the main place of retail between producers and buyers).
- The abusive usage of agro-chemical inputs, especially in the peanut production basin.
- Lack of information on the presence of pesticide residues in food, which in turn hinders any awareness raising on the part of consumers.
- The fraudulent commercialisation of pesticides, the abusive use of which goes unhampered.

Opportunities for leverage within existing policy & institutional frameworks

- The dynamism of the non-governmental sector, which is highly capacitated and present in many territories of the country, combined with the experience of producer organisations, indicate that there is solid technical capacity.
- There is a strong domestic market receptive and supportive to organically grown food.
- The forthcoming "PSE vert" should be leveraged to embed EOA into legislation and development planning.
- The fact that the African chapter of the "Pesticide Action Network" is based in Senegal also represents an asset (the awareness raising driven by PAN in the early days seems to have been a trigger contributing to the emergence of EOA in Senegal [111]), although PAN's current work in Senegal could not be established.

Preliminary EOA typology

Type 2; Country has some government support, there is a policy underway, a strong NOAM, a domestic market and strong NGO farmer support.

109 Loi N°2004-16, LOI portant loi d'orientation agro-sylvo-pastorale. Available from: http://www.assemblee-nationale.sn/loi-portant-loi-d-orientation-agro-sylvo-pastorale.-l186.xml
110 http://fenab.org/index.php/presentation-de-la-feneb/
111 AO. Undated. L'agriculture biologique au Sénégal. Available form: http://www.fao.org/3/x6915f/x6915f03.htm | http://fenab.org/index.php/presentation-de-la-feneb/v

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Seck I, 2019. Pers. Com held on 23 July 2019. Ibrahima Seck is the Coordinator of the FENAB.

Willer H, Lernoud J and Kemper L (eds.), 2019. The world of organic agriculture. Statistics & Emerging trends 2019. IFOAM, Germany, Bonn. ISBN 978-3- 03736-067-5 (p.140).

SEYCHELLES

96K
POPULATION

451
AREA SQKM

2
EOA TYPE

SEYCHELLES

The Seychelles National Agricultural Investment Plan (SNAIP) (Seychelles, 2015) is a framework that seeks to "harmonise, consolidate and accelerate the implementation of the country's agriculture and food security and nutrition related policies and strategies in the period 2015 to 2020." Food security is at the forefront of its preoccupations as the country imports 70% of its food. The plan recognises "the potential agricultural production and market niches for Seychelles (…) e.g. organic, bio and fresh vegetable products" (2015:27), and several dimensions of the plan make provision for actions that are strong leverages for EOA (see the opportunity section).

The Seychelles Sustainable Development Action Plan (Seychelles, 2012) is a nationwide cross-sectoral document analysing 13 interlinked thematic areas identified to implement the Strategy. Under its Strategic Objective 1, which seeks to increase the production of locally grown food (through the "strengthening of the Seychelles Agricultural Agency, 2012-2017), the promotion of organic farming with set targets to increase the number of organic farmers and amounts of organic food grown is featured (2012: 66). Under its Strategic Objective 2, which is the establishment of a programme against non-communicable diseases, the strategy sets out to "Improve (the) diets of the population and increase consumption of locally grown organic food" (2012:18).

Conducive policy framework for EOA in the Seychelles

The legislative and policy framework regulating the country's development planning, agriculture and nutrition recognises EOA. Despite these policy provisions and plans, there is currently no national regulation on organic agriculture in The Seychelles. Work was just initiated to start acting on the provisions made in the SNAIP.

A committee was recently formed including staff members from the Ministry of Agriculture, the Seychelles Agricultural Agency and the National Biosecurity Agency, to manage preparatory ground work before meetings are held with farmers and then later on with the market stakeholders. This process is to lead to the formulation of a policy paper, or even legislation to be submitted to the Cabinet of Ministers for endorsement.

The intended outcome of this policy effort is also to come up with a National label and an incentive mechanism, which are to be incorporated into the Comprehensive Agricultural Plan currently being formulated by the Ministry of agriculture (Naiken, 2019).

There is no direct support from Government to EOA. The Government's intention is to develop a mechanism to incentivise farmers to join EOA so that they can compete with cheaply imported products that are flooding local markets and rendering locally grown - and more expensive - products less sought after (Naiken, 2019).

Limited national capacity

There seems to be limited national capacity in EOA in the Seychelles. The NGO sector does not appear to be engaged in the sector and there is no existing EOA movement. At a producer level, it would appear that although there is interest in these practices, there is not an extensive knowledge of what EOA entails: "they have their own concept of it and have been doing some component of it, but on very small scales for their own consumption" (Naiken, 2019). The international NGOs which operate in the country are predominantly in the environmental sector and there is little information available on EOA initiatives.

The certification landscape and linkages to national policy

Seychelles doesn't have a national standard. Discussions are underway wither regards to a "nature" brand and even an "organic" label or a an "eco" label. The National Biosecurity Agency chairs the policy process, and has been given the mandate to come up with the organic "label" that will pave the way forward for marketing EOA in the Seychelles (Naiken, 2019). There is currently no Participatory Guarantee Systems (PGS) operational.

The Seychelles does not feature in the IFOAM World of Organics report (Willer and Lernoud, 2019). However, a few producers are managing to export organic produce (i.e. coconuts and cinnamon), but there is no detailed information available (Naiken, 2019).

Gaps and challenges within existing policy & institutional framework

The provisions to support EOA in the SNAIP are counterbalanced by some policy scope that may challenge and threaten EOA in the country such as Action 2.1. "Promote and develop good animal husbandry practices including use of biotechnologies". It will be important that the current policy and certification process is inclusive of civil society and the farming community.

The Government team tasked with elaborating the EOA policy frameworks repots lacking needed information and even successful models that proved successful in other countries.

Opportunities within existing policy & institutional framework

The Draft Organic Policy, which currently sits with the Ministry of Environment, could be updated to the current context and resubmitted for policy approval, after sectoral consultations and workshops are organised to this end (Moustache, 2019). The list of registered pesticides is also currently under revision, with Government intending on putting a greater emphasis on biological control and the inclusion of bio-pesticides to be used in the EOA (Naiken, 2019).

Many policy opportunities can be harnessed in the SNAIP:

- As part of its Sub-programme 1.2 which focuses on reducing degradation of agricultural land through effective land and water management, provision is made to develop and promote SLM techniques and practices (including conservation agriculture, soil cover, mulching, composting, manure) (1.2.2.) and to train trainers and set-up trial and demonstration plots (1.2.3) which could reach their full potential under the auspices of EOA-orientated training.
- Under Component 2 of the SNAIP, with is about "productivity, commercialisation and diversification of crops and livestock", the plan sets the target of having 60% of farmers adopting IPM, ICM and GAP technology/practice on the 2020 horizon, as opposed to a baseline of 10%, with 225 ha under such management by 2020.
- As part of its Sub-programme 2.1 which focuses on the "Development of livestock commodities and value chains", the SNAIP calls for (Action 2.1.14) "Review and update existing policies, laws and regulations pertaining to Animal Production and Health, including certification of food quality according to HACCP standards"; this give scope for calling for organic standards (which touch on animal production).
- As part of its Sub-programme 2.2 which focuses on the "Development of crop & horticultural commodities and value chains (root crops, fruit and vegetables)" a Specific Action (2.2.12) is dedicated to supporting EOA; "Study the required conditions for setting-up an organic food/production label, including possible certification and labelling framework".

To conclude, the Ministry informed us that there is an emerging awareness on EOA and rising interest from the local population, and that the government requires support and expertise to drive this further. The need for a national workshop to appraise the situation was expressed (Moustache, 2019), or to support the process with experience from elsewhere in Africa (Naiken, 2019). In any event, there is an open call for support and collaboration.

Preliminary EOA typology

Type 2; Country has some government support, there is a policy underway, a strong NOAM, a domestic market and strong NGO farmer support.

Moustache AM, Pers. Com. August 2019. General Secretary: Agricultural directorate, Ministry of Fisheries and Agriculture.

Naiken Marc, Pers. Comm. August 2019. (Chief Executive Officer - National Biosecurity Agency).

Seychelles, 2015. Seychelles National Agricultural Investment Plan (SNAIP) 2015-2020.

Seychelles. 2012. Sustainable Development Strategy of Seychelles Action Plan 2012-2020 (Volume 2).
Seychelles National Agricultural Investment Plan (SNAIP) http://www.mofa.gov.sc/downloads/seychelles-national-agricultral-investment-plan.pdf.

Willer H, Lernoud J and Kemper L (eds.), 2019. The world of organic agriculture. Statistics & Emerging trends 2019. IFOAM, Bonn, Germany. ISBN 978-3- 03736-067-5. Available from: https://www.ifoam-eu.org/en/news/2019/03/27/world-organic-agriculture-2019 (p.165).

7.7M
POPULATION

71K
AREA SQKM

EOA TYPE

SIERRA LEONE

Until the outbreak of Ebola in May 2014, Sierra Leone, a country of 7 million people on the West African seaboard, had one of the highest economic growth rates in the world. After emerging from an 11-year civil war in 2002, the country was rebuilding its governance and economy with the help of international donors. Despite increasing its stature as a key player in international peacekeeping operations and a practicing democratic state, Sierra Leone has a lot of challenges to rebuild its democracy. These challenges include limited accountability and transparency, participatory governance and commitment to uphold the rule of law.

Agriculture (including forestry and fisheries) is the mainstay of the Sierra Leonean economy employing 62% of the labour force mostly at the subsistence level. Rice and cassava are staple foods of the country, while cocoa, coffee, oil palm, and cashew nuts are the major cash crops. The agricultural sector is constrained by several factors including lack of improved inputs, labour shortages, and post-harvest losses. Land degradation and deforestation have resulted in declining soil fertility, which in turn has undermined sustainable agricultural development in the country. Improving agriculture is the priority for reducing poverty. It contributed 59% of GDP in 2015. Farmers need better access to land, credit, inputs and technologies. The absence of modern processing equipment limits opportunities for adding value and inadequate roads hinder farmers' access to markets.

Organic agriculture development in Sierra Leone

The total organic area, including wild harvest, has grown over the past years, from 15,347 ha in 2015, to 69,686 in 2016 to 101,184 ha in 2017. However, recent statistics for Sierra Leone are difficult to find, mostly due to the outbreak of Ebola.

A large proportion of organic land is dedicated to cocoa production. A search for "organic cocoa Sierra Leone" will yield results from a number of websites, some from NGOs and development organisations and some from the private sector. All push the concept of organic cocoa production. For example, Welthungerhilfe [112] has supported smallholder cocoa farmers during the transition and familiarised them with the rules of ecological agriculture. As such the sector is predominantly driven by donor, NGO and private sector organisations. We did find some evidence of partnership, where a donor worked together with the Ministry of Agriculture.

How EOA is included in agricultural and trade policies

Government has stated that agricultural development and food security are the key foundations for economic growth and poverty reduction in Sierra Leone. The latest Poverty Reduction Strategy Paper (PRSP) outlines a number of measures to address challenges to the sector. These include establishing supply chains for fertilisers, pesticides and high-yielding seed varieties, increasing post-harvest storage facilities and access to rural credit, improving agricultural research and extension services, and improving rural infrastructure to encourage trade. The Government of Sierra Leone's National Sustainable Agriculture Development Plan (NSADP) 2010-2030 recommends the gradual eradication of shifting cultivation practices and the active promotion of vertically integrated processing and marketing chains for selected staples (mainly rice and cassava) and export crops (cocoa and coffee).

NSADP highlights the opportunities of developing organic/sustainable value chains, and proposes as an activity to: "Formulate policy on Organic and Fair Trade tree crops production". We found evidence of donor and ministerial collaboration: the FAO and agricultural ministry have supported farmer field schools focussing on organic cocoa production, producing a guide for FFSs in Sierra Leone. Beyond this, we did not encounter an explicit mention or strategy toward organic production in government policy.

Government support and key institutions

The Ministry of Agriculture and Forestry is the central government institution responsible for promoting the development of agriculture in Sierra Leone, particularly through implementing policies, development programmes and investment schemes in support of the sector's objectives as specified in the PRSP. The Sierra Leone Agricultural Research Institute (SLARI) was established in 2007 through an Act of Parliament as the sole government agricultural research and agricultural technology generating body, for the benefit of the farming, fishing and forestry sectors in Sierra Leone. Sierra Leone adopted the CAADP in 2009.

With the country still emerging from the effects of a decade-long civil war, and the Ebola crisis, support is mainly focused on human and institutional capacity building to achieve food and nutrition security, sustainable natural resource management, and resilience to crises and disasters. A large number of donor organisations and funders operate in Sierra Leone, for example: FAO's assistance in Sierra Leone focuses on three priority areas: Support to the Smallholder Commercialisation Programme (SCP); Natural resource management and development; Disaster risk reduction and management.

International Fund for Agricultural Development (IFAD) supported the government in its fight against the Ebola outbreak and during the aftermath. Now that the epidemic is over, IFAD continues to contribute to the country's recovery, particularly to establish food security, which is vital to health. Key activities include: supporting agriculture, by improving smallholder farmers' access to irrigation, technical skills and markets; supporting rural finance, so providing poor rural people with access to reliable and sustainable financial services for savings, credit, transfers and remittances; and supporting local development, by increasing participation by rural people in management of local decentralised institutions. World Bank shows considerable presence and support in Sierra Leone.

Other key actors in the OA sector in Sierra Leone

We found an interesting development in Sierra Leone – that a large investment in the country by a Thai company which produces biofertilisers: "discussed a 5-year US$125 million Credit Fund proposal so that government could phase out chemical agriculture altogether and replace it with 100% organic farming[113]…"

Overview of the certification landscape

Certification of organic products is undertaken by international organisations for different sustainability standards (e.g. UTZ) and for organics (e.g. Ecocert). No Participatory Guarantee Systems (PGS) were recorded in Sierra Leone.

The development of the EOA sector in Sierra Leone is clearly driven by the private sector, donors and NGOs, with a focus on exports and, for some, promoting food security. Government policy has a strong focus on agricultural development and there is evidence of interest in developing policy to support organic and FairTrade certification as well as to support capacity development (in the long-term sustainable agriculture development plan).

Preliminary EOA typology

Type 4; Country has some NGO capacity, no guidelines, no support from government and is not exporting.

112 https://www.welthungerhilfe.org/our-work/countries/sierra-leone/
113 https://allafrica.com/stories/201906030360.html

IFAD (International Fund for Agricultural Development), 2019. Sierra Leone. https://www.ifad.org/en/web/operations/country/id/sierra_leone [Accessed 12 August 2019].

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Sierra Leone National Sustainable Agriculture Development Plan 2010-2030.

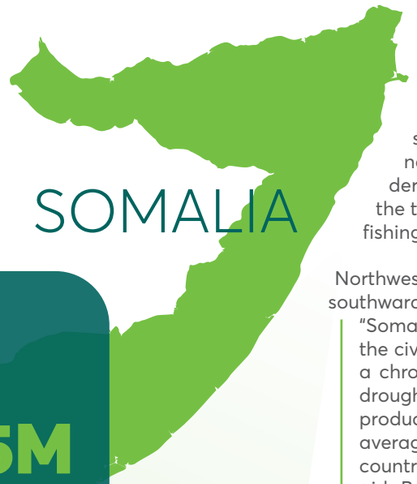
USAID, 2019. Sierra Leone Country Profile. https://www.usaid.gov/sierra-leone/ [Accessed 11 August 2019].

Willer H and Lernoud J, 2015. The world of organic agriculture. Statistics and emerging trends 2015. IFOAM, Bonn, Germany.

Willer H, Lernoud J and Kemper L, 2019. The World of Organic Agriculture. Statistics and Emerging Trends 2019. IFOAM, Bonn, Germany.

World Bank. 2009. Sierra Leone - Joint IDA-IMF staff advisory note and the second poverty reduction strategy paper (English). Washington, DC: World Bank. http://documents.worldbank.org/curated/en/391911468104651284/Sierra-Leone-Joint-IDA-IMF-staff-advisory-note-and-the-second-poverty-reduction-strategy-paper.

SOMALIA



15M
POPULATION

627K
AREA SQKM

Over the past 30 years, Somalia has suffered from conflict and weak governance, but since 2012 the Federal Government of Somalia has been able to build some infrastructure and to provide some telecommunications, air transport, urban water & electricity and social services. There is still conflict in the south, but informal trade with neighbouring countries is booming. About half of the rural population derive their livelihood directly from nomadic pastoralism (less than 30% of the total), while just over 20% of the total population live from crops and/or fishing (World Bank/ FAO 2018).

Northwestern Somalia suffered a severe drought in 2015, which then moved southward in 2016/17.

> "Somalia was almost self-sufficient in cereals in the late 1980s; since the civil war reached southern Somalia in 1990, however, it has become a chronic food crop deficit country. In recent years (before the latest drought), food aid and food imports were larger than domestic production of grains, which covered only about 22% of cereal needs on average…. In early 2015, before the most recent drought…, 17% of the country's population was undernourished and in urgent need of food aid. By the end of October 2017, after various failed rainfall seasons, about half the country's population (some 6.2 million people) were in need of humanitarian assistance, with about 3.1 million severely food insecure" (World Bank & FAO 2018).

According to Abdi-Soojeede (2018, p.1041):

> "Major constraints include unstable weather, water scarcity, pests damaging crops, poor transportation, problems relating land tenure, and ownership, fear of conflict between rebels and government and also there are some people who are looting crops when harvested. The study also found minor constraints such as inability to access, use of seeds and fertilizers, and lack of capital thus inadequate investment in irrigation which makes farmers very vulnerable to drought; there is less knowledge and skills for all farmers, result, high post-harvest crop losses caused by poor storage structures and inadequate access to pesticides, inadequate market access for both crops and vegetable products and unavailability of crop chemicals, etc."

According to Willer & Lernoud (2020) the only data available on organic production in Somalia is that 807,000 ha of wild collection is registered. Low levels of fertiliser and agro-chemical use.

Overview of certification landscape in the country and extent to which this links to national policy

No regulations, organic standards or Participatory Guarantee Systems were found. As government pushes forward with some development activities, there is major potential for nutrition education and capacity building in organic agricultural production.

Preliminary EOA typology

Type 5; Country has very little institutional capacity, no government support and is not exporting.

Abdi-Soojeede MI 2018 Crop Production Challenges Faced by Farmers in Somalia: A Case Study of Afgoye District Farmers. Agric. Sciences, 9, 1032-1046. doi.org/10.4236/as.2018.98071

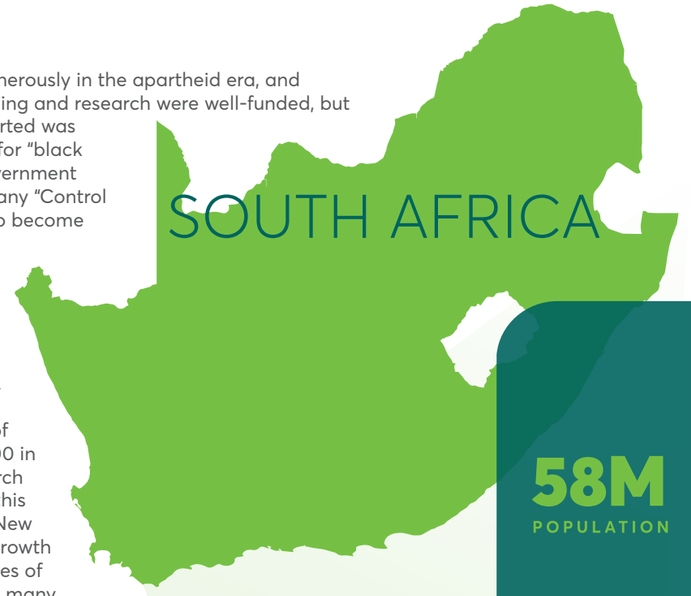
FAO. 2020. Nutrition-sensitive cash in Somalia. At: www.fao.org/3/ca9824en/ca9824en.pdf .

USAID (United States Agency for International Development). 2020. Agriculture and Food Security. Available at: https://www.usaid.gov/somalia/agriculture-and-food-security.

Willer H & Lernoud J, 2020. The World of Organic Agriculture: Statistics and Emerging Trends (IFOAM & FiBL).

World Bank & FAO 2018. Rebuilding resilient and sustainable agriculture in Somalia (Volume 1, Eco. Memo.)

SOUTH AFRICA



58M
POPULATION

1.2M
AREA SQKM

South Africa supported commercial farmers very generously in the apartheid era, and extension, soil conservation, animal husbandry, training and research were well-funded, but mainly for white commercial farmers. Limited supported was given to black farmers on the 13% of land set aside for "black homelands" or bantustans. Already in the 1980s, government started removing farmer support policies and the many "Control Boards" for various commodities, and farmers had to become more independent (Auerbach, 2020, p.156). This led to a marked increase in productivity (about 4.4% per year) until anti-apartheid sanctions were implemented, when productivity increases slowed sharply to about 1.2%; this in spite of population increases of about 1.9% per year. Food imports increased steadily over the past thirty years. Since the democratic elections of 1994, support to commercial farmers has declined, and the number of commercial farmers fell from 61,000 in 1990 to 23,000 in 2015 (Auerbach, 2020, p.157). The Agricultural Research Council (ARC) lost many agricultural scientists over this period, and although international support for the "New South Africa" has seen removal of sanctions and a growth in exports of high-value products, government policies of land expropriation without compensation have seen many large-scale farmers investing in various off-shore operations. The land reform process has been mired in corruption and inefficiency, with 90% of land reform projects failing within the first ten years, according to Minister Nkwinti (Department of Rural Development and Land Reform).

South Africa has a strong emphasis on Farmer Input Subsidy Programmes (FISP), with ZAR 46 billion out of the combined total provincial agricultural budgets for 2010 to 2020 of ZAR 104 billion (44%) going to FISP, according to Greenberg et al., 2018:

> "Production input supply (seed, fertiliser and pesticides) is only a small part of total farmer support programmes, but fits into the broader commercial orientation. Production input supply is specifically identified as an intervention for maize, soya, wheat and horticulture (fruit and vegetables)"p.4. One of the main conclusions from a University of Pretoria study cited in this work is: "In almost all the provinces, the indicators of food security suggest that the food security situation of the farmers and their households has not improved since their participation in the [Agricultural Support Programme]" p.34

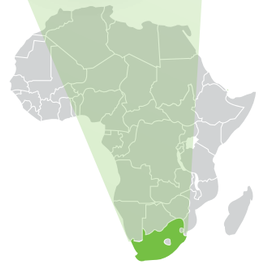
Agricultural Extension System

Koch and Terblanche (2013) point out:

> "Because of the challenges facing agriculture (particularly in the emerging farming sector), it is envisaged that the number of serving extensionists in the governmental sector would have to grow from the present 2,210 to an estimated 5,500. The private and semi-private sectors have similarly become increasingly involved in developmental (extension) services to the emerging farming sector. The emerging sector is often represented at the highest levels in the decision-making structures of these bodies".

Clearly private sector extension services are oriented towards selling products to farmers, and even government agricultural extension officers have usually been trained to recommend chemical fertilisers, crop chemicals and GMO seeds (SA broadly adopted GMO technology for maize, canola, soya bean and cotton).

Davis and Terblanche (2016) state that among other new capacities, Extension Officers will need to be trained in: "Sustainable natural resource management, including water use management, soil and land use management and integrated pest management"; as well as "Climate change and other areas of risk". Neither EOA nor AE are mentioned in either of these extension planning papers, but they are given prominence in the sector plan for organics (Auerbach and Purkis in Auerbach 2020, p.346-355), which calls for the initial training of 50 AE specialist Extension Officers, and integration of EOA training into the agricultural extension curriculum in universities and training colleges.



A recent Master of Agricultural Extension study at Pretoria University found the following (Extract from Abstract):

> "Results of the survey revealed that although the ratio of Extension Practitioner to farmer is still low in South Africa, particularly for smallholder producers, there has been an increase in the number of Extension Practitioners since the implementation of the Extension Reform Programme in 2008. Recruitment of additional Extension Practitioners increased human capacity on the ground. More than 70% of current extension personnel complied with the minimum norms and standards of having at least a four-year degree, which is a [good] indicator of the quality of extension service rendered".

The study concluded:

> "The cost of implementing the newly developed national policy on extension and advisory services was found to be far higher than the current budget allocation. It is recommended that government allocates more funds to public extension service provision" (Lukhalo, 2017).

Farmers in the Eastern Cape "are being locked into an agro-chemical production approach, with only GM seeds being offered to them, when they want open pollinated varieties, because it is just much more convenient to support with high tech crops, so that follow up support is minimised" according to Sasha Mentz (Pers. comm., August 2019).

How is EOA integrated in agricultural and trade policies?

The agricultural sector is supported by a national, and nine provincial agricultural departments, and by the Agricultural Research Council (ARC) with 13 commodity-based research institutes. Historically, there has been active opposition to EOA from government and from the ARC, but more recently there appears to be a new open-ness to EOA. The country has a long tradition of EOA, dating back a hundred years to the work of Field Marshall (and Prime Minister) Jan Smuts on holistic approaches to understanding. Pioneers such as Robert Mazibuko (Africa Tree Centre), Marie Roux (Grow – "Don't feed your dustbin, feed your soil") and Dr Halley Stott (Valley Trust) advocated a holistic approach integrated with ecological considerations, and Pauline Raphaely of the Soil Association of South Africa (of which Raymond Auerbach was a member at the time) attended the launch of IFOAM in Versailles in 1972 (Raymond Auerbach comments: "She was the only one who could afford a ticket, so we sent her off with our blessing").

South Africa has a well-developed commercial agricultural sector, but has thus far not integrated EOA into agricultural or trade policies. There has recently been a move to promote Conservation Agriculture (Draft Conservation Agriculture [CA] Policy, May 2017), but moves towards Organic Conservation Agriculture have been labelled as "unrealistic": "It is worthwhile to note that CA and its principles should be tailored and adapted to suit any specific farming situation. Although Organic Conservation Agriculture is portrayed to be the most ideal sustainable agricultural production system this policy focuses on CA with low external inputs as proven realistic goal" (p.7, Draft CA Policy, May 2017).

The powerful agribusiness lobby has campaigned actively against EOA for the past thirty years (UNCTAD, 2008). CA is only acceptable to this lobby if it advocates the use of synthetic fertilisers, herbicides and GMO seeds. The South African national and provincial departments of agriculture are among the strongest supporters internationally of genetic engineering (GE). More recently there has been strong pressure on government from progressive NGOs to finalise the draft Organic Policy and the draft Agro-ecology Policy, and include them in official agricultural policies, especially in view of the climate emergency unfolding in Africa.

National Organic Agriculture Movement

There is a strong NOAM called the SA Organic Sector Organisation (SAOSO), which lobbies government, organises training, has developed organic standards (see www.saoso.org), and is active in research, training, marketing and sector development. Although there has been good communication between SAOSO and the Department of Trade and Industry (which sees the potential of the growing organic market), the Department of Agriculture, Forestry and Fisheries (DAFF) was on the whole reluctant to support EOA. There are some signs that the new government under President Cyril Ramaphosa, and the new Department of Agriculture, Land Reform and Rural Development under Minister Thoko Didiza, will be more supportive of EOA in the future. SAOSO works closely with PGS-SA (see below).

Overview of certification landscape in the country and extent to which this links to national policy.

Two certification bodies were set up in SA (Afrisco and the BioDynamic and Organic Certification Authority); by 2015, both had ceased to function, as exporters were using European certifiers (Ecocert, Soil Association, Ceres, BCS, SGS). Most international certifiers operate in South Africa.

Due to the negative lobbying of vested interests, it took twenty years of struggle to get SA organic standards in place. For 14 years SAOSO worked with DAFF developing organic standards, which were approved by cabinet, cleared at the World Trade Organisation (WTO), and then blocked by an official at DAFF, who claimed that they had been developed under the wrong Act, and ordered that the process should start at the beginning again. SAOSO then went to the SA Bureau of Standards to develop a private organic standard, and after four years this standard was opened for public comment. The standard satisfied the local and international certification bodies and included PGS, ensuring smallholder farmers could participate in the organic market. Audrey Wainwright (2018) tells the story, quoting Konrad Hauptfleisch, who was on both standards committees: 'In 2015, on the cusp of publication, the standards were for the second time blocked by the South African Bureau of Standards (SABS) desk dealing with queries from the WTO. The standard was deemed a TBT (Technical Barrier to Trade). The South African Standard, well-constructed, in accordance with the best practice recommendations of standards experts worldwide, was to be re-written at the eleventh hour,' wrote Hauptfleisch, 'All references to equivalence based on the IFOAM family of Standards, logos belonging to the sector body SAOSO and imports allowed on the basis of their international accredited certification, were to be removed.' It was the turning point. SAOSO decided to develop its own standard based on the IFOAM standard (Colleen Anderson, Pers. comm., August 2019), and so in 2016 the sector was galvanised into action and again began consultations on a new standard, but this time without government involvement. With help from IFOAM, the committee members from SAOSO, PGS South Africa (PGSSA) and the experienced sector professionals who had been working on various forms of the standard for twenty plus years, used the IFOAM Standards as their base and developed the SAOSO Standard for Organic Production and Processing.

Participatory Guarantee Systems: There is a strong movement (PGSSA) aligned with the NOAM (SAOSO), and seven active PGS groups are operating around the country (about 450 farmers involved), with several more in the planning stage (Sasha Mentz, Pers. comm., August 2019). PGS is being used by several NGOs as a platform to assist emerging small-scale farmers to enter the market with value added through organic processing and quality management. With assistance from GIZ, several training workshops have been held around the country in 2017 and 2018. IFOAM has assisted with many training resources.

According to UNCTAD (2008)

> "An action plan for the organic sector should be developed based on analysis of the state of the sector, participatory consultations, a needs assessment and proper sequencing of actions. The action plan should state measurable targets for the organic sector to help agencies and stakeholders focus their efforts".

Auerbach and Purkis (2020, p.342-3) state:

> "For this to happen, both the SAOSO and PGS-SA need to develop into credible, well-resourced national organisations, with a strong grass-roots presence in the nine provinces, each with a training centre, and with marketing arms. All three SAOSO and PGS-SA consultative workshops in 2018 were told by farmers that a soil and food analysis facility is needed, which can give objective, research-based advice to farmers and consumers on soil, environmental, animal and human health issues. This proposed structure for the organic sector needs to meet the four areas of transformation identified above:
> 1. Diversifying the farmer base;
> 2. Developing climate smart EOA;
> 3. Food education for young people and consumers; and
> 4. Agricultural education, especially for farm women.

Auerbach RMB (editor), 2020. Organic Food Systems: Meeting the needs of Southern Africa. CABI, Wallingford, England.

Auerbach RMB & Purkiss M, 2020. A future strategy for organic development in Southern Africa. In Auerbach, 2020.

DAFF (Department of Agriculture, Forestry and Fisheries), 2017. Draft Agricultural Conservation Policy. DAFF, Pretoria.

Greenberg S, Swanepoel S and Lewis L, 2018. A tale of apartheid plans, dodgy dealings and corporate capture. African Centre for Biodiversity (www.acbio.org.za).

Koch BH and Terblanché SE, 2013. An overview of agricultural extension in South Africa. S Afr. Jnl. Agric. Ext. 41.1 Pretoria.

Lukhalo T, 2017. An expenditure review of the agricultural extension system in South Africa. M Inst. Agrar., Univ Pretoria.

Purkiss M, 2020. Development of an Inclusive Value Chain for Peri-urban Micro-farmers. In: Auerbach, 2020.

Trooster W, Auerbach RMB and Haysom G, 2020. Strengthening Participation in the Organic Value Chain for Small-scale Farmers in Southern KwaZulu-Natal, South Africa. In: Auerbach, 2020. Organic Food Systems.

Wainwright A, 2018. IFOAM PGS Newsletter No 1 of 2018, quoting Konrad Hauptfleisch in The Organic Standard of 2016.

> However, they need to be based on a sound market analysis, and ongoing marketing development. The Biological Systems Laboratory has arisen directly out of the research described in this book, and the consultations with the organic sector in 2018". [Quote ends].

Unless and until the SA government is able to put the needs of small-scale farmers and the health of consumers above the interests of agri-business, progress of the sector will be in spite of, not because of government activities. When government announced support for co-operatives in 2008, none of the organic co-ops which approached government was supported. Rainman Landcare Foundation, which had helped small scale farmers to set up the primary producer co-ops, as well as a secondary processing co-op, tried to assist these co-ops, but was met with a wall of indifference. It appears that more recently there is a new willingness to assist the ground-swell of small scale EOA farmers.

Overview of opportunities for leverage within existing policy frameworks

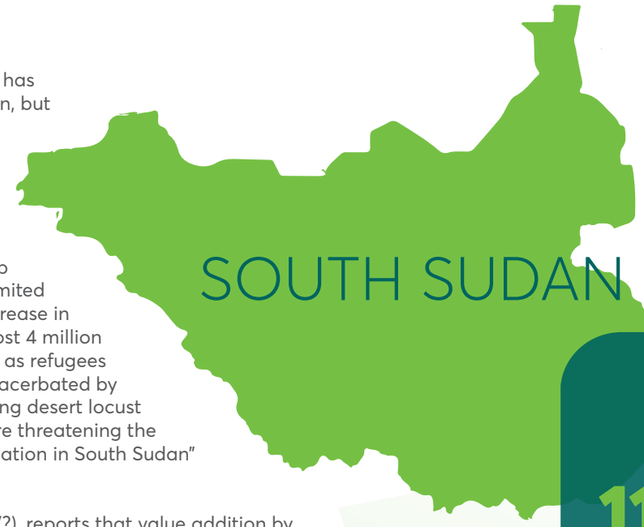
The CA Draft Policy at least recognises the importance of minimum tillage, crop rotation and soil cover, and tacitly acknowledges that the preferred route is towards Organic CA. The publication of research-based recommendations for closing the yield gap between organic and conventional farming systems now shows those who are prepared to examine the evidence that EOA is viable, provided that a scientific approach to soil fertility is adopted. EOA stakeholders need to lobby government to ensure that there is transparency with regard to policy development and research support. Given the climate emergency, this is a very propitious time to do this. SAOSO has been involved with the development of three mobile phone "apps"; the first helps farmers to access markets, the second helps with traceability of produce, and the third allows for farmer support. These apps can feed into a highly efficient support system which would be appealing to young farmers with their skills in using mobile phones and IT.

Development of the PGS system and of short value chains and sustainable community investment programmes have helped farmer groups to realise better prices, and to build solidarity with local consumers (Troosters et al. in Auerbach, 2020). Although co-operatives have not been very successful in SA recently, the experience of Afrikaans farmers a hundred years ago in resisting colonial monopolies have many lessons for modern-day SA. Co-operatives, PGS, soil analysis tailored to the needs of EOA, marketing assistance and effective training will all contribute to EOA sector development. Consumer education and political lobbying, however, will also be vital.

Preliminary EOA typology

Type 3; Country has a developing domestic and export market, some NGO activity, some guidelines and exports, but little government support. SA has developed private standards which are approved by IFOAM, and have been passed as compliant with COROS

SOUTH SUDAN



On-going conflict over the past twenty years has seen this oil-rich country separate from Sudan, but reduced oil-revenues, drought and violence have taken their toll, and since September 2018, more than 6.5 million people are experiencing acute food insecurity at crisis levels or worse across the country. "This is due to the cumulative effects of years of conflict and asset depletion, low crop production, climatic and economic shocks, limited access to basic services and the resultant increase in vulnerability and reduction in resilience. Almost 4 million people remain displaced, both internally and as refugees in neighbouring countries. This situation is exacerbated by COVID-19, as well as the surging and re-surging desert locust outbreak in the Horn of Africa, all of which are threatening the already fragile food security and utrition situation in South Sudan" (FAO, 2020, p.1).

"South Sudan: An infrastructure action plan" (?), reports that value addition by agriculture, forestry and fisheries accounted for 36% of non-oil GDP in 2010; sorghum is the main grain and groundnuts are the main cash-crop. According to Tizikara and Lugor (2012), the oil sector currently contributes 95% of South Sudan's budget, while the value of agricultural production was US$808 million in 2009, with 75% accruing from the crop sector. Development effort is focused on "building credible, functioning and accountable government structures; establishing more appropriate and credible approaches to the transition from relief to development and building core service delivery capacities."

Analysis of the current policy structure governing EOA in the country

(Tizikara and Lugor, p.161) report that

> "Much of the rural sector activity is currently focused on low-input low-output subsistence agriculture instead of production for markets. Among the signifi cant reasons for this are: (i) the need for improved agricultural inputs and techniques such as seeds and fertilizers, storage facilities and advisor services, and irrigation development; (ii) the difficulties faced by farmers in accessing markets due to the poor road network, lack of other transport modes and nuisance taxes and charges, including bribes; (iii) the lack of a critical mass of farmer and rural producer associations as a means of entering the market place with the aim of minimizing the cost of inputs, accessing loan fi nance at aff ordable rates and infl uencing farm-gate prices; and (iv) uncertainties pertaining to property rights and access to land. Two and a half decades ago, the country was net exporter of agricultural product to regional markets; due to war-related destruction, poor infrastructure and lack of investment in the agriculture sector, South Sudan is now a net importer of food. It currently imports as much as 50% of its needs, including 40% of its cereals from neighboring countries, particularly Uganda and Kenya." There is little awareness of EOA in South Sudan, but the very low levels of external inputs mean that the country would easily be able to convert to organic farming, and, with good management, would experience immediate doubling or trebling of yields, and major improvements in food security. The country would be able to cut back significantly on food imports.

About one million ha of land is cultivated annually, a very small fraction of the total arable land. Nearly 80% of this land is planted to cereals. Mean annual rainfall ranges from less than 500 mm/year in the semi-arid lands of Eastern Equatoria to about 1,800 mm/year in the Green Belt zone. Development plans call for an increase of 250% in permanently cultivated land, and a tenfold increase in irrigated land, to nearly half a million ha.

There is very little government extension (GoSS) in most parts of the country, but the GoSS, FAO and NGO-based extension agents make efforts to promote animal traction on a small-scale in several provinces. World Bank, USAID and FAO have assisted the government of South Sudan to develop plans for long-term development, and these include strengthening the agricultural extension system. About 80% of the farming is done by women, and there is high potential to train women as extension officers, and to promote ecological intensification with high value horticultural crops.

11M
POPULATION

619K
AREA SQKM

EOA TYPE

How is EOA integrated in agricultural and trade policies?

Production in South Sudan is constrained by lack of access to inputs, lack of skilled trainers and lack of road infrastructure to transport any surplus produced. Costs are high because of high cost of labour, high labour requirements to clear land, lower yields and high input prices. Purchased inputs are often used inefficiently. There is great potential for low external input systems, although marketing assistance would be needed, and development of the market would be important (Tizikara and Lugor 2012). A nutrition education programme should emphasize the importance of good quality fruit, grains and vegetables, organically produced and not excessively processed.

Overview of certification landscape in the country and extent to which this links to national policy.

No regulations, organic standards or Participatory Guarantee Systems were found.

Overview of opportunities for leverage within existing policy frameworks and how these opportunities can be explored

In spite of having 50% of its arable land mass as prime agricultural land only 4% of this area is cultivated continuously or periodically. This compares with 28% in Kenya and 8% in Uganda. Most of this land use in South Sudan is accounted for by subsistence farmers. Using low external input traditional methods, they practice various forms of shifting cultivation. The potential for increasing agricultural production and for developing EOA on this prime, unpolluted land is enormous!

Preliminary EOA typology

Type 5; Country has very little institutional capacity, no government support and is not exporting.

African Development Bank Group 2013 Development of Agriculture in South Sudan. In South Sudan: An Infrastructure Action Plan. A Program for Sustained Strong Economic Growth. Tunisia, African Development Bank Group. At: www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/South%20Sudan%20Infrastructure%20Action%20Plan%20-%20%20A%20Program%20for%20Sustained%20Strong%20Economic%20Growth%20-%20Chapter%206%20-%20Development%20of%20Agriculture%20in%20South%20Sudan.pdf

Bello ARS 2014 Agricultural Extension in the Sudan: Background Development and Present. Wulfenia.

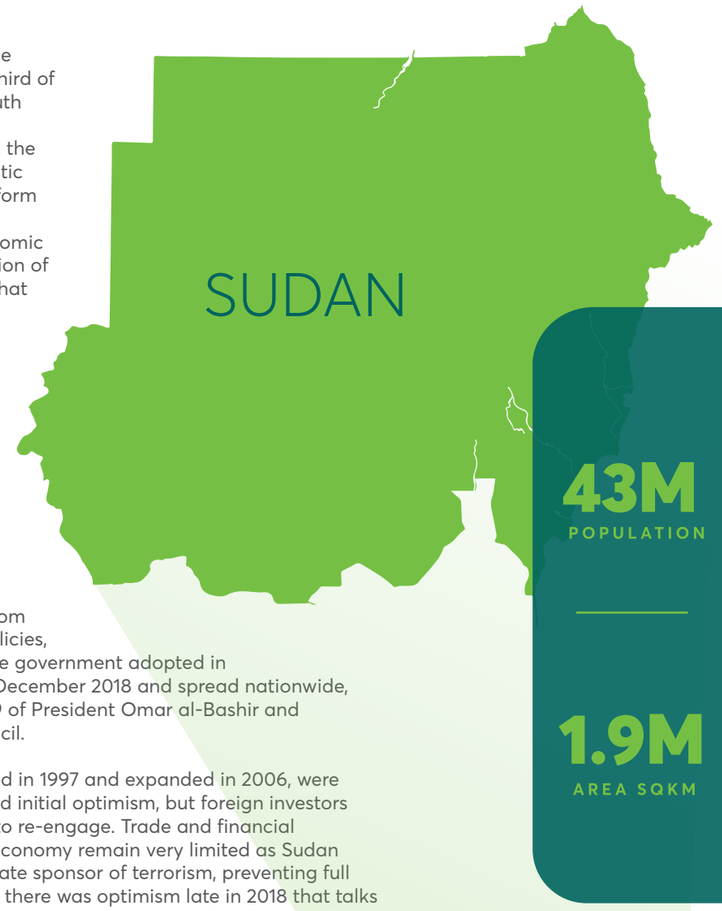
FAO (Food and Agricultural Organization of the United Nations). 2020. South Sudan - Revised humanitarian response (May–December 2020): Coronavirus disease 2019 (COVID-19). Rome. doi.org/10.4060/cb0208en

Tizikara C & Lugor LGL 2016 Post-conflict Development of Agriculture in South Sudan: Perspective on Approaches to Capacity Strengthening. South Sudan, Ministry of Agriculture, Forestry, Cooperatives and Rural Development, Directorate of Research, Extension and Training.

Willer H & Lernoud J 2020 The World of Organic Agriculture: Statistics and Emerging Trends 2019 (IFOAM & FiBL).

SUDAN

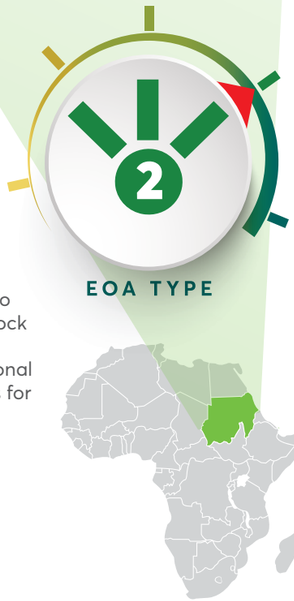
Sudan has been beleaguered by conflict since independence in 1956. In 2011, Sudan lost a third of its territory and 75% of its oil fields when South Sudan became independent, an outcome of Africa's longest civil war (1983-2005). In 2016, the United States (US) began intensified diplomatic engagement to help facilitate meaningful reform in Sudan, including expanding humanitarian access. As a result, the US lifted certain economic sanctions in October 2017, followed by initiation of a second phase of diplomatic engagement that requires improving human rights protection and practices.



The secession of South Sudan induced multiple economic shocks. The most important and immediate shock was the loss of the oil revenue that accounted for more than half of Sudan's government revenue and 95% of its exports. This has reduced economic growth, and resulted in double-digit consumer price inflation, which, together with increased fuel prices, triggered violent protests in September 2013. Economic crises resulting from mismanagement, corruption, inconsistent policies, and weak structural transformation which the government adopted in 2018, sparked citizen protests that began in December 2018 and spread nationwide, leading to the military's removal in April 2019 of President Omar al-Bashir and establishment of a Transitional Military Council.

Comprehensive US sanctions on Sudan, levied in 1997 and expanded in 2006, were partially lifted in October 2017. This generated initial optimism, but foreign investors and commercial banks have been reluctant to re-engage. Trade and financial transactions between Sudan and the world economy remain very limited as Sudan continues to be designated by the US as a state sponsor of terrorism, preventing full normalization of relations with the US. While there was optimism late in 2018 that talks to remove the designation are expected to begin soon, the protests that escalated in December 2018 might have hampered progress on the talks.

Sudan was suspended from the African Union in June 2019, amid an upsurge of violence. The suspension of all AU activities is until the effective establishment of a civilian-led transitional authority.



Sudanese agricultural context and general agricultural policy

As mentioned above, with the loss of oil revenue, growth has faltered and government revenues slumped, and poverty and undernourishment, already serious, have worsened. Agriculture generates approximately 35% of GDP and employs 70-80% of the labour force in rural areas. Enhancing the performance of agriculture, including crops, livestock, fisheries and forestry, is therefore considered vital for poverty reduction. However, general agricultural productivity is low and variable because of low rainfall and erratic climate conditions, degraded soils, poor technologies and lack of knowledge. Armed conflict has an effect on farming in some areas. The main constraints on rural livelihoods are access to markets, access to financial services, unpredictable water shortages, and barriers to livestock migration. In most regions of Sudan, conflict over access to natural resources between pastoralists, agro-pastoralists and settled farmers is endemic and also contributes to regional conflict, such as in the Sahel. Such conflict often leads to violence due to weak institutions for conflict management and especially weak natural resources management regimes.

Much of the Sudanese agriculture is reportedly carried out under "default" organic management which simply means the farmer has no access to chemical fertilisers, pesticides or other organically prohibited amendments for financial and other reasons. These farms rely exclusively on natural methods of building soil fertility and combating pests and diseases, but are not inspected or verified by any organic certification agency. Irrigated land is typically fertilised whilst rainfed land is not. Central Sudanese policies include the government of Sudan's Interim Poverty Reduction Strategy Paper (I-PRSP); The Sudan Country Programme Framework (2012-2016); the government of Sudan's Second National Five Years Strategic Development Plan (2012-2016); the government of Sudan's Agricultural Revival Programme (ARP) (2008-2014); and The Darfur Regional Authority's (DRA's) "Developing Darfur: A Rehabilitation and Development"

Sudan's National Agriculture Investment Plan (SUDNAIP) 2016-2020 identifies that the agriculture sector suffers from structural problems such as low productivity and high marketing costs that reduce competitiveness and result in lower prices for farmers, and this is caused by volatile and poor economic and sectoral policies as well as by weak institutional capacities. SUDNAIP will translate the strategy into actions by: (i) increasing production and productivity through modernisation of the agriculture systems; (ii) enhancing production by support services and establishing knowledge and information networks; (iii) developing marketing infrastructure to increase competitiveness and increase value-addition through agro-industrialisation and value chain development; (iv) protecting and conserving natural resources with a priority of addressing the agriculture land issue as a key factor in the natural resource management; (v) mainstreaming food and nutrition security and safety; (vi) creating an enabling policy and a legal environment for sustained agriculture growth; and (vii) reforming the institutions and increasing capacities of staff and producers in the agricultural sector. SUDNAIP is a five-year investment plan, which maps the investments needed to achieve the Sudan Comprehensive Africa Agriculture Development Programme (CAADP) target of 6% annual growth in Agriculture Domestic Product (GDP).

The government of Sudan, with the support of FAO presented key milestones undertaken on the NAIP, and called for development partners to engage in the process at a meeting held on February 5th, 2015. The partners present at the meeting included the United States Agency for International Development (USAID), Japan International Cooperation Agency (JICA), the Arab Organization for Agricultural Development (AOAD), the International Fund for Agricultural Development (IFAD), the International Centre for Agricultural Research in the Dry Areas (ICARDA), Green Vision, and the Fund For Insurance Support. Seven Investment Programme Areas (IPAs) were identified (1) the creation of an enabling environment for agricultural production and development, (2) institutional reform enhancing farming management and capacity building for producers and workers in the agricultural sector (3) agricultural land and natural resources issues and wildlife, (4) better support services, information and knowledge management systems, (5) enhanced production and productivity and modernisation of the agriculture systems, (6) industrialisation, value chain development and exploitation of agricultural capacities, and (7) enhancing nutrition, food security, quality and safety measures.

Organic production

Sudan has had a constant area of 130,000 ha organic land over each of the past five years. Organic commodities include oilseed crops (mainly sesame and sunflower), natural gums, cotton, mango, sorghum, groundnuts and medicinal plants as well as livestock (Willer et al., 2019). Certified organic production in Sudan has reportedly been undertaken since the 1990s.

How EOA is integrated in agricultural and trade policies

According to Willer et al. (2019), Sudan is in the process of formulating organic legislation. A National Committee for Organic Food and Products was established in 2005. The Sudanese Standards and Metrology Organization (SSMO) is responsible for the development of organic standards. The committee has reportedly adopted the Codex Alimentarius guidelines to guide the standard development[114]. The Sudanese standards are officially endorsed by IFOAM, although the extent to which the standards are applied in Sudan is not clear.

Government support and key institutions

The Ministry of Agriculture, Animal Wealth and Irrigation, Khartoum State, has an organic unit (under the General Administration of Agricultural Services). It was founded in 2008 and the main activities of the organic unit are:

1. Inspection, extension, research and consulting;
2. Training for technicians and farmers; and
3. Marketing.

Research and extension

The Agricultural Research Authority is reportedly one of the oldest agricultural research institutions in Africa and the Middle East and one of the most important research and development centres in Sudan – it is under the Ministry of Food and Agriculture. In Sudan the Agricultural Research Corporation (ARC) in western Sudan established demonstration farms to disseminate advanced agricultural packages including water harvesting techniques in rainfed areas. The Ministerial organic unit established two organic demonstration farms in 2007 which are both certified by ECOCERT. The unit aims to promote organic farming culture among farmers. In 2013, the agricultural ministry became a member of IFOAM. The unit's future plans were to: construct an authorised body to register and certify organic projects as well as adopting the farmers and organising them within professional societies for production and marketing; and to train and provide consultations in all organic farming sectors. The Arab Regional Forum for Organic Farming recommended teaching organic agriculture in Arab universities (see[115]).

The Sudanese Centre for Sterilization of Horticultural Exports (SCHE) is specialised in sterilisation and exportation of horticultural products, applying advanced technological processes with a view to the growing international demand for the organic horticultural products. Agricultural Technology Transfer Society (ATTS) is non-governmental organisation accredited by the Ministry of Humanitarian Affairs in the Sudan according to the work permit No.2234 dated January 21st 2009. The members are scientists, professors and researchers with a common interest in the exploitation of research and modern agricultural technologies to uplift productivity of the agricultural sector of the Sudan. The NGO actively promotes organic agriculture among farmers' organisations and recruits graduate students to help mobilise farmers. ATTS is a member at FAO, FSL sector (natural resource management, animal production, crop production, nutrition). ATTS is a member of IFOAM

Overview of the certification landscape

Certification of Sudanese products as organic started at the beginning of the millennium – focus was on natural gums, sesame and mango. Whilst we do not have an overview of certifiers currently operating in Sudan, which may be affected by the current political situation, certification bodies operating in Sudan over the past decades have included ECOCERT, COAE and ECOA (Egypt).

Challenges, gaps and opportunities of existing policy framework

Whilst the outlook for Sudan is unclear due to the current political instability, the organic sector in the country has been developing over the past twenty ears. Research has identified the potential for the development of organic perennials (e.g. citrus) where suitable. Research also identifies that this requires the establishment of organising and certification bodies and development of national regulations for certified organic crop production, handling, processing and marketing. Recent policy documents recognise the opportunity of organic agriculture, and the challenges (Poor access to Good Agricultural Practices (GAP) and organic certification standards)

Preliminary EOA typology

Type 2; Country has some government support, there is a policy underway, a strong NOAM, a domestic market and strong NGO farmer support.

114 https://slideplayer.com/slide/4699422/
115 https://www.sudanakhbar.com/255444&prev=search

Alkhalifa B, Elkhatim A, Awouda E and Tawfig S, 2014. Organic farming in Khartoum.

IFAD 2018 Sudan Country Report. www.ifad.org/en/web/operations/country/id/sudan

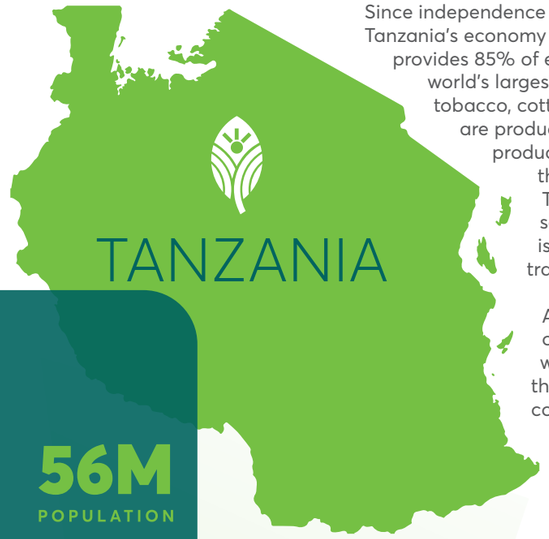
Elgilany A, 2011. Potential of Organic Perennial Crops Farms in River Nile State of Sudan. Journal of Science and Technology.

Willer H and Lernoud J, 2015. The world of organic agriculture. Statistics and emerging trends 2015. IFOAM, Bonn, Germany.

Willer H, Lernoud J and Kemper L, 2019. The World of Organic Agriculture. Statistics and Emerging Trends 2019. IFOAM.

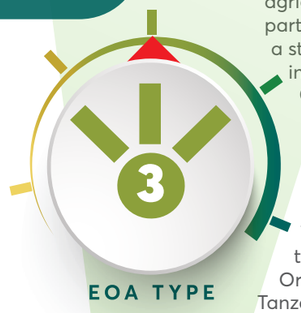
World Bank, 2013. Sudan - Interim strategy note for the period FY14-15 (English). Washington DC: www.documents.worldbank.org/curated/en/704041468311128609/Sudan-Interim-strategy-note-for-the-period-FY14-15

TANZANIA

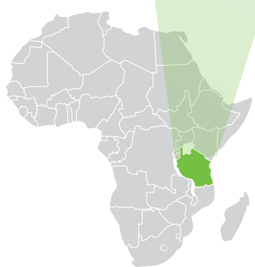


56M
POPULATION

885K
AREA SQKM



EOA TYPE



Since independence in 1961, mainland Tanzania has remained an agrarian economy. Tanzania's economy is heavily dependent on agriculture, which accounts for half of GDP, provides 85% of exports, and employs most of the work force. The country is one of the world's largest producers of sisal and cloves. Chief exported crops include cashews, tobacco, cotton, coffee, tea and wheat; export spices such as vanilla and cloves are produced on the island of Zanzibar, and some of these are organically produced, with a thriving agro-ecological tourism industry associated with them. However, the majority of agriculture is subsistence-oriented. Tanzania produces beef, cassava, maize, milk, rice, plantains, sorghum and sweet potatoes for domestic consumption. Agriculture is the backbone of the Tanzanian economy. Smallholder farms using traditional cultivation methods dominate the sector.

According to FAO, the agriculture sector—which contributes nearly one-third of Tanzania's GDP and employs 75% of country's population, with women constituting the majority of agricultural workers —has the potential to increase incomes and improve livelihoods, which would contribute to the economic growth of the country; currently, a large proportion of the agricultural budget is spent on input subsidies. The total agricultural area in Tanzania is 37.3 million ha, with 33 million people in rural areas.

EOA in Tanzania

According to data from IFOAM, the organic sector in Tanzania is still relatively underdeveloped. About 55,867 ha of land are under certified organic cultivation, which accounts for 0.14 % of the total agricultural area. Organic history goes back to 1898 when the first organic garden was founded at Peramiho in southern Tanzania. Since then, the garden has been fertilised by stable manure, compost, wood ash and latterly green manure, thereby creating a foundation for permanent soil fertility (Bertram, 1997). Several sustainable, organic and/or ecological farming initiatives, based on EOA practices and principles were launche by EGAJ, Inades Tanzania, Pelum, Sunnhemp Seed Bank, ADP-Mbozi and Kilimo Hai Tanzania (KIHATA). The projects included: SECAP-GTZ, Meatu Cotton Project, Hifadhi Mazingira (HIMA) and Babati Land Use Management Programme (LAMP).

The Tanzania Organic Agriculture Movement (TOAM) is the umbrella organisation for organic agriculture in Tanzania. KIHATA previously handled the organic sector but it didn't have participation from all stakeholders therefore TOAM was established. In 2005 TOAM developed a strategy plan with five pillars to guide its future activities. TOAM has recently been involved in media conferences and meetings with the Ministry of Agriculture, Food Security and Cooperatives to create a common understanding of organic agriculture. Other institutions involved in organic agriculture include: Sokoine University, Agricultural and Livestock Training Institutes, Neem Botanical Research Station and Tengeru.

Organic Certification

TanCert Organic Standard is used for certification of organic production in Tanzania, and this allows the produce to carry the "Kilimohai" logo for organic products. The TanCert Organic Standard takes into account the specific conditions for organic production in Tanzania and also the stage of development of organic production in the country. The TanCert Organic Standard 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 like TanCert 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.

Tanzania produces quite a range of organic products, mainly for the export market and in 2016 was ranked 6th in the world for the number of organically certified farmers (Willer and Lernoud, 2017). Production and marketing of organic products in Tanzania are not well-developed. Most of the current organic production initiatives are targeted at the export market; organic farming seems to be gaining momentum and attracts interest from local and international organisations. Organic products include cotton, coffee, black tea, cocoa, ginger, vanilla, sesame, pineapples, sunflower, green grams, beans, spices, honey, cashew nuts, essential oils (lemon grass, eucalyptus and sweet basil).

The status of EOA legislation and policy

At present, Tanzania does not have a policy clearly directed towards EOA, even though public interest and recognition of organic agriculture are both on the rise. The National Agriculture Policy (NAP) of 2013 has clauses on organic farming where it is described as a "window of opportunity" that has the capacity to enhance both "national and farm incomes". NAP has four main policy statements in relation to organic agriculture:

- Registration and availability of organic inputs to farmers shall be facilitated;
- The Government will help with certification to reduce certification costs;
- Initiatives for regulation and certification of organic products shall be promoted;
- In collaboration with the private sector, effective coordination among stakeholders shall be enhanced (Tanzania National Agriculture Policy, section 3.21.3 2013).

Despite these statements, there is limited availability of organic farm inputs (organic seeds, fertiliser, pesticides) even though there is increasing interest from the private sector to supply and produce organic inputs. While NAP states the intention for strong regulation and a certification body there is still no strong local certification body responsible for organic certification and while an Organic Desk exists in the Ministry, it is too small to offer effective coordination of a vast and fast growing organic sub-sector. The policy makes reference to constraints to organic agriculture including high certification costs and weak regulation. Little else is said about following up statements made in the policy to develop the organic sector, which currently contains thousands of certified farmers. However, as of October 2020, Tanzania does not have an obvious national organic agriculture policy (NOAP) document.

Political economists divide the timeline of the policy landscape for Tanzania into four distinct periods:
(i) before independence;
(ii) post-independence (1961 – 1967);
(iii) Post-Arusha Declaration or the socialist era (1967 – 1984);
(iv) Structural adjustment era (Post 1984). In recent times, most of the agricultural budget has been consumed by Farm Input Subsidy Programmes (FISP). According to Baltzer and Hansen (2011):

> Subsidy programmes are sustainable if they can be maintained over the long term without draining the public resources, or if the outcomes in terms of wider adoption of agricultural inputs and improved agricultural productivity persist after their termination. The universal input subsidy programmes pursued by many SSA countries during the 70's and 80's largely failed on both accounts.

Challenges Facing EOA in Tanzania

- Lack of clear policy to guide EOA development so little support from the government.
- Inputs such as organic pesticides and fertilisers that can be used to improve soil fertility and reduce pests and diseases are expensive and in very short supply.
- Unaffordable certifications and regulations. Government allows registration of botanical (organic) fertilisers and pesticides, but the procedures involved are expensive.
- Inadequate capacities in research, training and extension services. Due to the downsizing of the civil service since the mid-1980s, there are not enough extension workers who can help train farmers in the whole process of organic production preparation, packaging, labelling and marketing of organic products.

Participatory Guarantee Systems (PGS) in Tanzania

According to IFOAM, there are currently six PGS groups active in Tanzania (30 December 2020).

Lessons Learnt

- Although Government and policymakers use food and agricultural evidence-based information and request research data and statistics from available organisations, these organisations seem to be unable to hold the government accountable in implementing food and agricultural policies.
- Skilled people, physical and financial resources, and capacity are not very strong in Tanzania. The GoT should commit additional resources and focus efforts at the Community and District levels to develop understanding and appreciation of EOA and food security priorities. This effort should be in combination with skills training, hard and soft tools, and collaboration on monitoring and reporting key agriculture indicators.

Preliminary EOA typology

Type 3; Country has a developing domestic and export market, some NGO activity, some guidelines and exports, but little government support.

Baltzer, K. & Hansen, H. 2011. Agricultural input subsidies in Sub-Saharan Africa. Denmark, Ministry of Foreign Affairs of Denmark.

Benin, S., A. Nin Pratt, S. Wood and Z. Guo. 2011. Trends and Spatial Patterns in Agricultural Productivity in Africa, 1961–2010. ReSAKSS-Africa Wide Annual Trends and Outlook Report 2011. Washington, DC: International Food Policy Research Institute.

Economic and Social Research Foundation. 2004. The Role of ESRF in Policy Process in Tanzania. Dar es Salaam.

Agricultural Sector Development Strategy – II (2015/2016 – 2024/2025) Government Programme Document. Dar es Salaam.

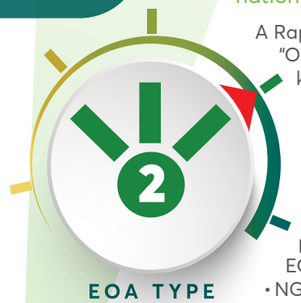
URT/MAFC 2001—United Republic of Tanzania, Ministry of Agriculture, Food Security and Cooperatives. 2001. Agricultural Sector Development Strategy. Dar es Salaam.

URT/MAFC 2009—United Republic of Tanzania, Ministry of Agriculture, Food Security and Cooperatives. November 2009. Agricultural Sector Review and Public Expenditures Review 2009/10. Draft report submitted by Unique Consortium of Consultancy Services Ltd.

Willer H and Lernoud J 2017. The world grows organic: Statistics for the global organic sector. FiBL and IFOAM, Bonn, Germany.

8.2M
POPULATION

56K
AREA SQKM



EOA TYPE

TOGO

The country does not have an overarching agricultural policy and there seems to be a lack of recognition of the sector in the existing legislation, despite the economic dynamism of the sector. Thus the National Strategy Document for Agricultural and Rural Training in Togo (SNFAR-TOGO) 2016-2020, which aims to contribute to the improvement of youth employment and agricultural growth in Togo (Rep. Togo, 2015) does not make any mention of EOA as a potential opportunity in the sector. The area of Togo is 5,678,500 ha with an agricultural area of 3,820,000 ha (FAO 2019).

Despite the absence of a structured organic movement, of standards or of legislation governing EOA, Togo's EOA national capacity is very strong, and it was in 2018 the leading West African exporter of organic produce to the EU. Government is planning a full conversion to organic by 2030.

Integration of EOA in agricultural and trade policies

There is no national regulation on organic agriculture in Togo but since the arrival of a new Minister of Agriculture in 2019, there has been momentum for creating an enabling environment for EOA.

In February 2019, the Togolese government issued a "concept note for the national conversion of the agricultural sector to organic", which outlines key elements of what would constitute a national organic conversion programme (Ministry of Agriculture, Animal Production and Fisheries, 2019). This concept note, driven by the plant division of the Ministry of Agriculture, Animal Production and Fisheries (MAPAH) shows a very strong political will on the part of the Government to genuinely support EOA, with the expressed vision of "an almost complete conversion of Togo's entire agricultural system (plant, animal and fisheries sectors) on the 2030 horizon" (Kodjogan, 2019).

The intention is to: 1) first understand the baseline scenario with regards to EOA in Togo; 2) identify and characterise the incentive and supportive mechanisms; 3) implement measures for a genuine conversion to organic (Kodjogan, 2019). There is no direct support from Government to EOA at this stage, but the indications are that the EOA landscape is set to change in the near future.

Strong national institutional capacity and imminent establishment of a national OA movement

A Rapid Appraisal of Agricultural Knowledge System (RAAKS) was done as part of the IFOAM "Organic Market for Development" (OM4D) initiative - in October 2018, to map and analyse key stakeholders of the organic sector (under the OM4D initiative) (Issifou and Bakirwena, 2018). This document gives a good overview of national actors and identifies priorities going forward. These include: developing a national policy and strategic plan for EOA; undertaking advocacy activities to promote EOA, establishing an organisation including all actors, setting up working groups and sharing knowledge.

There is strong national capacity in EOA in Togo. Civil society is well capacitated and has played an important part in lobbying government on the need to support the emergence of EOA.

- NGOs that are recognized as influential in EOA include Bio Dream[116], Mission des Volontaires Contre la Pauvreté (MVCP), Recherches Appuis et Formations aux Initiatives d'Auto développement (RAFIA) and many others.
- The country also has training and research capacity, with Real Action for the Environment, Childhood and the Youth (Action Réelle sur l'Environnement, l'Enfance et la Jeunesse – AREJ) and the International Centre for Agropastoral Development (CIDAP) cited as core institutions that offer training in organic agriculture and provide capacity building. The "Professionals of Organic Agriculture and Environment in Togo" (PABE-Togo) also features as an important technical partner.
- The agro-ecological movement gives EOA further traction, which is driven by the National Network of AE Actors in Togo (RéNAAT) and which was founded in 2015. Other actors involved in AE include the Togolese Co-ordination of Farmer Organisations and Agricultural Producers (CTOP), which in 2018 got involved in training over 18,000 producers in AE under the UN RED initiative[117]. A 2018 status update indicated that a total of 74 agro-ecological centres were established in the country (Ministry of Agriculture, Animal Production and Fisheries, 2019).
- There is also strong presence of consumer associations in the country. As a precursor to the establishment of a national organic movement, an "AB Togo" Whatsap Platform had been up and running, but seemingly insufficient to federate the movement. At the time of writing, a national organic movement was being constituted; the founding general assembly is scheduled for September 2019 (Essossolim, 2019).

Key international donors who play an active part in supporting EOA include:

- The GIZ, which is funding 2 programmes: the Programmes for Green Innovations in the Agro-food Sector (ProCIV) and the Programme for the Rural and Agricultural Development of Togo (ProDRA).
- The French Development (+EU), which funds the Ecowas Agro-ecological Transition Support Programme (PATAE), which is being implemented in Togo among other countries.
- The Dutch Government, which funds the OM4D initiative; this initiative specifically seeks to establish a national EOA movement (Tiyagouna, 2019).

The certification landscape and linkages to national policy.

Togo doesn't yet have a national standard. There are several third-party certification agencies active in the country, including Ecocert (France), Certysis (Belgium), Lacon Gmbh (Germany) and CERES. Currently, Togo is the leading West African exporter of organic produce to the EU. In 2018, the country exported 22,123 tons of organic produce to the EU, far ahead of Ghana, Ivory Coast and Burkina Faso (Commodafrica, 2019).

In 2017, the country had 39,390 ha under organic cultivation, which represents almost a 100% growth from the previous year. Also, 242 ha are certified for wild collection, meaning that the total surface area under organic is just below 40,000 ha. That same year, the sector counted over 36,645 producers, also a net increase compared to the previous year.

Among the numerous production/processing actors of organics feature leading names such as Label D'Or, Pronatura West Africa, Tropic Bio, CEFAPE Togo, Espace Kadoma. Soycain is the leading exporting business (organic soya) (Issifou and Bakirwena, 2018). Currently the most important organic certified commodities from Togo include cocoa beans and oilseeds, vegetables and cotton (277 cotton producers) (Willer et al., 2019).

There is currently no PGS operational in Togo (Willer et al., 2019). The OM4D-driven rapid assessment report conveys how stakeholders' views diverge in terms of the requirements that should be in place before "launching" a PGS. It would appear that stakeholders are holding back until an organic movement is in place to provide some leadership, as well as standards (Issifou and Bakirwena, 2018). The OM4D project specifically seeks to help set up PGS in Togo (Tiyagouna, 2019).

Overall, the lack of a regulatory environment for EOA is limiting the growth and evolution of the Togolese organic movement. The challenges listed below are taken from the OM4D initiative report:

- The lack of a policy framework supporting EOA.
- The lack of modules focused on EOA at a tertiary level and within training centres.
- The lack of organisation within the organic sector (fragmentation, no national movement) and the related confusion around the "AB Togo" Whatsap Platform.
- The lack of national standards.
- The lack of more restrictive regulations on the importation of pesticides.
- The lack of awareness, knowledge and expertise on EOA and the limited domestic market for EOA.
- The lack of a laboratory for analyses, and certified organic inputs.
- For exports: the high cost of certification, high costs of exports due to infrastructure limitations, lack of national capacity, lack of government support.

Opportunities for leverage within existing policy & institutional frameworks

- Countering the legislative constraints outlined above is the fact that Togo has in 2016 developed a Pesticide and Pesticide Management Plan (PMPP), conceived as a national instrument to minimise the potential negative effects of pesticides on human, animal and environmental health by promoting the use of biological control methods. and integrated pest management. It explicitly seeks to promote biological control, alternatives to pesticides and the rational and safe management of pests and pesticides and even costs such specific measures (Rep. Togo, 2016). This insightful piece of legislation is a real opportunity to unlock the potential of EOA for Togo.
- The dynamism of the non-governmental sector, which is highly capacitated, combined with the experience of producer organisations, indicate that there is solid technical capacity.
- Finally, the stated government intention to convert the country to organic constitutes tremendous momentum for EOA in Togo.

Preliminary EOA typology

Type 2; Country has some government support, there is a policy underway, a strong NOAM, a domestic market and strong NGO farmer support.

116 The NGO is said to have developed a draft regulation on organic, and submitted it to IFOAM for review. However, it appears this document did not get further traction from national stakeholders (source: Gnebi Essossolim).

117 http://www.ctoptogo.org/articlesSuite.php?id_art=282

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TUNISIA

12M
POPULATION

200K
AREA SQKM

EOA TYPE

Organic agriculture in Tunisia started in the 1980s with private initiatives. Over the years, the sector has been characterised by a high increase in area, number of farmers, and crop diversification. Tunisia is a standout example of a trajectory of state supported OA in Africa. The sector development has been the result of supportive policies, outlined in a clear national strategy and driven by an action plan already several decades ago. Luttikholt (2019) suggests that there are three main factors which contributed to this healthy development: Government supported the sector early on. They also provided an enabling and supportive environment. In addition, they assited the sector in gaining political and economic credibility through interacting with the European Union; this resulted in Tunisia being given equivalent status, as the EU countries had confidence in the thoroughness of Tunisian quality management.

Coupled with a favourable policy and institutional environment, the development of the EOA sector is underpinned by conducive AE and climatic factors and a prevalent traditional farming systems approach. In 2018, Tunisia was the country in Africa with the largest organic area, with 3% of agricultural land, totalling 306,500 ha, of which 32,500 ha was wild collection and with 274,000 ha of crops and pastures, mainly olive production (Willer et al., 2019). Traditionally, organic olive oil and dates are the most popular Tunisian organic exports, although diversification of organic production and exports has been strongly encouraged and the range of exported products has become quite broad, consisting of more than 60 different products, including other fresh fruits and vegetables. The EOA sector in Tunisia has experienced significant growth over the past ten years – which may be collectively attributed to interventions on the level of research, advice, legislation, and market development.

How EOA is integrated in agricultural and trade policies

In 1999, Tunisia developed a National Strategy to reform agriculture and maximise the benefits of organic farming by adopting legislation on organic agriculture which was based on internationally recognised standards. These included basic standards of IFOAM-OI, and legislation from the EU and France on organic agriculture. In this way, the Tunisian Government increased credibility and international recognition of Tunisian products for export and maintained and increased access to international markets. The national regulation was issued on April 5, 1999 [118]. Since then, several additional laws, decrees, and orders governing EOA have been issued.

The complete national organic regulatory framework was ready by the end of the year 2005. A comprehensive strategy and action plan for the development of organic agriculture in Tunisia was promulgated in law by the Tunisian Ministry of Agriculture and Fisheries in 2005, based on an FAO funded project FAO.

In 2009, the EU Commission approved Tunisia on the Third country list. To achieve this, Tunisia had to develop and put in place organic farming legislation and a fully implemented system of inspection and monitoring. The organic legislation of Tunisia is equivalent to the EU requirements and the Codex Alimentarius, which means organic imports from Tunisia are now subject to simpler procedures for approval.

The new "Bio Tunisia" label allows the value and benefits of all organic products from Tunisia to be communicated to consumers both nationally and abroad. The launch of this label is part of the strategy for developing organic agriculture in Tunisia, as decided by the government of Tunisia in 2010, which aims to promote organic agriculture within the agricultural system of Tunisia and give its preference due to the environmental and health benefits.

The institutionalisation of the EOA sector in Tunisia arose from the creation of specialised central and regional level administrative government a gencies and technical institutions, as well as effective private sector organisations. Government has played a central role in the development of the sector. Following the issue of the organic law in 1999, in 2001 the Tunisian government established a central office for EOA at the Ministry of Agriculture and Water Resources, and in 2004, its first national plan for organic agriculture was issued. There have been two national strategies and action plans for EOA in Tunisia, the first for 2010-2014, the second 2016-2020.

Government agencies and technical institutions operating to support the sector in Tunisia include two central bodies that guide the development and co-ordination of the sector nationally:

- Direction Générale de l'Agriculture Biologique (General Directorate of Organic Agriculture);
- Nationale de l'Agriculture Biologique (National Commission for Organic Agriculture).

Another institution, APIA, the Promotion Agency of Agricultural Investments promotes the organic sector through participation at international trade fairs and supporting investments for all new projects up to 30 percent of the value. The structure of the General Directorate of Organic Agriculture is presented in ***Figure 7***.

A number of technical support institutions have been established to support sector development:

> The **Technical Centre for Organic Agriculture (CTAB)**[119] was created under Law No. 96-04 of 19 January 1996 on technical centres in the agricultural sector and the Order of the Ministry of Agriculture of 2 October 1999 on the establishment of the CTAB and the approval of its status. Its mission is to promote and develop organic agriculture in Tunisia by undertaking various activities in the fields of applied research, training, information, technical publications, and international cooperation.

> **Horticulture and Organic Regional Research Centre (CRRHAB)** was opened in 2006, with a specific mission on organic horticulture research: breeding, developing organic horticulture production systems and methods, studying processing and conservation methods, socio-economic research, monitoring the national organic research laboratory, disseminating horticultural research results (advice, trainings, technical education, national and international co-operation and partnerships).

Other training and university services related to organic farming research, advice, and training are: activities of regional advisors; farmer field schools (since 2004); training advisors; masters theses at universities (Institut National Agronomique de Tunis, Ecole Supérieure d'Agriculture Mograne, Ecole Supérieure d'Agriculture du Kef, Institut Supérieur Agronomique de Chott Meriem). There is also a Diploma for organic agriculture, since 2010, offered by APIA, and the Agricultural Training and Extension Agency (see below), which targets organic sector stakeholders (producers, processors, traders, etc.). In academic training, some modules on organic agriculture are offered to students in all agronomic institutes and two Master of Science degrees are offered in Sustainable Agriculture

The various government EOA establishments are tasked with well-defined and structured responsibilities aimed at promoting and advancing the development of the country's EOA sector. Their activity areas span the design and provision of extension services, the organisation of capacity building trainings and the conduct of research covering different aspects of organic operations. They are also responsible for providing a sense of direction for the development of the country's organic sector. This is usually done by working with other stakeholders to develop and implement sector development plans and programmes that can help advance the growth of Tunisia's organic sector. Furthermore, they are engaged in sector co-ordinating and regulating activities.

Figure 7:
Organogram of the General Directorate of Organic Agriculture in Tunisia

118 Orders and decrees, based on revisions to the regulation have been undertaken since 1999 as refinements – see http://www.ctab.nat.tn/index.php/fr-fr/reglementation/cahiers-de-charge
119 www.ctab.nat.tn

Government and Non-government agencies

Agence de Promotion des Investissements Agricoles (Agricultural Investment Promotion Agency (APIA): established to promote and create an enabling environment for private investments in the country's agriculture sector. Institution de la Recherche et de l'Enseignement Supérieur Agricoles (Institute of Research and Higher Agricultural Education (IRESA)). IRESA is an institution responsible for co-ordinating almost all agricultural academic and research institutes in the country as well as their research activities and they have had focus on EOA. For example IRESA created a body known as the National Commission for Planning and Evaluation of Organic Agriculture Research.

Include: Union Tunisienne de l'Agriculture et de la Pêche (Tunisian Union of Agriculture and Fisheries (UTAP) and the National Federation of Organic Agriculture (FNAB). Tunisia does not have a national organic umbrella organization like NOGAMU, UTAP in conjunction with FNAB act as the national coordinating bodies. We note that NGOs play an important role in networking, awareness, technical training, etc., as well as in supporting group certification.

Overview of the certification landscape

The Tunisian organic regulations set forth general and specific requirements that guide organic production operations, post-harvest handling, processing and marketing. They also specify the criteria for setting up control systems and certification bodies and the procedure for carrying out organic inspection and certification in the country. This law has enabled Tunisia to develop its own organic inspection and certification systems. The IFOAM Basic Standards, EU organic regulations and Codex Alimentarius were referenced to develop the Tunisian organic regulation. In 2009, the Tunisian national organic system was recognized as EU equivalent – the first African country to achieve this, and they remain on the third country list. Noteworthy from our review is that: "the decision to include Tunisia on EU's third country list was also informed by the quality of the local certification and inspection systems and further, by the thoroughness of the organic certification audit mechanism in the Tunisian organic regulation".

Besides putting in place national organic legislation and action plans, the Tunisian government also created a conducive environment within which organic certification bodies can operate. To do this, in the country's national organic legislation, explicitly defined guidelines to be followed to carry out organic certification and inspection activities are defined. Also, the national organic legislation details specific provisions spelling out the process and conditions guiding the accreditation of the inspection and certification agencies in the country. To certify a product as being from organic farming, any operator must be checked by a control and certification body approved by the Ministry of Agriculture in the field of organic farming since 2012 [120]. Accredited control bodies in Tunisia include: ECOCERT, CCPB Srl (Italy), KIWA BCS (German), CERES (German) and INNORPI (Tunisian). With the exception of INNORPI, the certification and inspection bodies are wholly foreign-owned, and conduct their inspection and certification activities using the Tunisian organic regulations.

The Tunisian organic legislation has been considered a success and one of the defining factors that undergird the development of the country's organic sector. It enabled the creation of functional, specialised institutions that served as the drivers of the sector, and the legislation provided clearly defined roles for each of the specialised EOA institutions. In concert, this led to the creation of internationally acknowledged certification and inspection systems. A key step taken by the Tunisian government to stimulate and guide the development of the organic sector was to facilitate the formulation of comprehensive EOA national development strategy and action plans [121]. There is opportunity for further development of the local organic market through awareness raising and promotion of organics. The development of the local organic markets has been commented on as lacking policy backing, and the local organic sector lags behind an export driven one.

Preliminary EOA typology

Type 1; Country has a NOAM, a policy and standards, and government is supporting the sector

120 http://www.ctab.nat.tn/index.php/fr-fr/situation-du-secteur/tunisie/controle-et-certification
121 "Dabbert et al. (2004) reported that clearly structured action plans backed up with an enduring commitment, particularly, by policymakers, have proven to be a vital mechanism through which the integrated development of organic sectors is realized."

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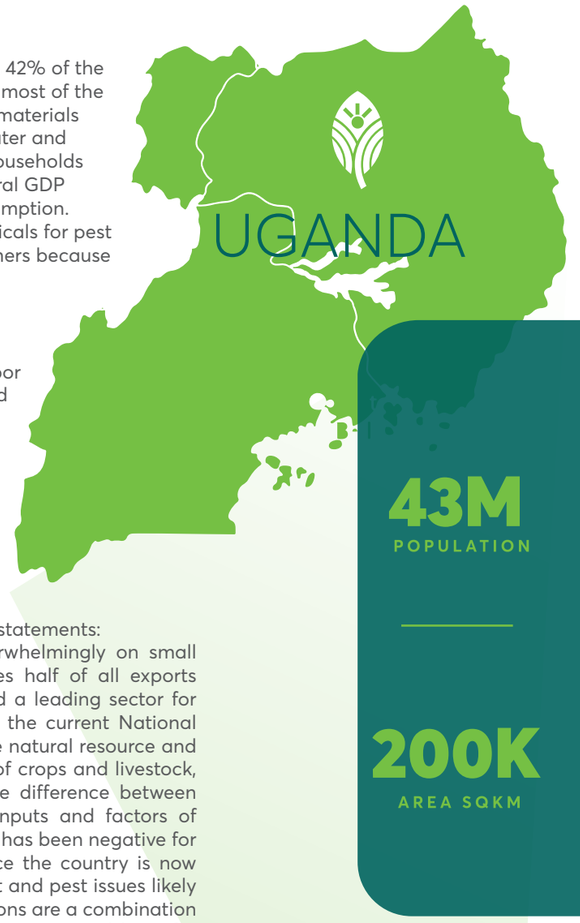
UGANDA

Agriculture is the backbone of Uganda's economy. It contributes 42% of the GDP and 85% of export earnings, and provides employment for most of the mainly rural-based population. 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 cultivating less than 2.5 ha each. Over half of the total agricultural GDP in Uganda is subsistence production mainly for household consumption. Inorganic fertilisers for soil fertility improvement and agro-chemicals for pest and disease control are rarely employed by the smallholder farmers because they are generally unavailable and/or unaffordable.



According to a major report on Ugandan agriculture from the World Bank (2018, p.10):

> 51. Farmers in Uganda largely use small-scale, labor intensive technologies, dependent 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 rain-fed agriculture without adequate water management … especially concerning in light of increasing climate variability and soil degradation that lowers the water retention of fields.

The Executive Summary from World Bank (2018) starts with two statements:

1. Agriculture accounts for 70% of employment, overwhelmingly on small farms; occupies half of all land area, and provides half of all exports and one-quarter of GDP in Uganda. It is considered a leading sector for future economic growth and economic inclusion in the current National Development Plan. Yet despite having very favorable natural resource and climate conditions for production of a wide variety of crops and livestock, 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 on balance the country is now getting less for equal or greater effort. 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 agricultural public expenditures, inadequate agricultural regulation and policies, and a lack of collateralizable farm assets. 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.
2. 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.
3. One-shot stimuli to growth in the last decade have helped Ugandan agriculture and promoted significant poverty alleviation, but likely will not be able to provide the same level of continued stimulus for new growth.
4. Under these circumstances, it is reasonable to worry whether agriculture under present trends can continue to drive future overall growth. Yet Uganda currently has relatively few alternatives at comparable scale to agriculture for providing jobs, widespread growth in domestic consumer incomes capable of stimulating growth in local services and manufactures, and foreign exchange.

The three main themes requiring action are identified in the Executive Summary (p.v) as:

1. promoting stronger institutions and policies for agriculture transformation;
2. choosing market-led and inclusive commercialization through actions that permit benefiting from growing opportunities in
3. value-addition and trade; and (3) increasing resilience in agroecosystems and rural livelihoods.

Analysis of the current policy structure governing EOA in the country

The initial efforts to promote organic agriculture in Uganda were made by rural development NGOs after the liberation war when farmers were experiencing serious agricultural production problems, high poverty levels and food insecurity. NGOs such as the Uganda Rural Development and Training Programme, the Mirembe Self Help Project and the Africa 2000 Network sought to help farmers in areas where natural resources had been severely degraded to adopt technologies suited to local conditions. At that time the term "sustainable agriculture" was used to describe these practices, and NGO staff were being trained in sustainable agriculture and participatory methodologies, mainly at the Kenya Institute of Organic Farming (KIOF) in Kenya, with support from the Dutch government. Farmers found most organic agriculture technologies affordable. 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 2014 Uganda was ranked first in the world for the number of organically certified farmers (Willer and Lernoud, 2017).

Organic farming is practiced on smallholder farms, where the majority of work is carried out by women, supported by other family members. Direct land ownership is usually held by a man. This is especially the case if a farm is organically certified. Most of Ugandan agriculture closely aligns with organic methods because the traditional farming practices still largely followed by the majority of the smallholder farmers emphasize organic farming methods such as soil erosion control, crop rotation, use of natural fertilisers and manures, and mulching.

Organic certification is slow and relatively expensive for most smallholders, and can thus act as a barrier to smallholders' accessing lucrative foreign markets. Group certification is needed, but imported organic inputs such as fertilisers and pesticides are very expensive. In October 2019, sixteen years after its inception, the National Organic Agriculture Policy (NOAP) was accepted by the cabinet, along with the action plan/implementation plan for the NOAP.

National Organic Agriculture Policy (NOAP) Formulation Process

In the year 2003, stakeholders approached NOGAMU demanding a policy. After several meetings with the Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF), an organic policy development committee was constituted. At the moment, there are at least four key ministries whose policy development and policy monitoring mandate relate to the development and function of the organic agriculture sub-sector. These are: MAAIF, the Ministry of Trade, Tourism, and Industry (MTTI), the Ministry of Water, Lands, and Environment (MWLE) and the Ministry of Finance, Planning, and Economic Development. MAAIF is currently taking the lead on the development of a national policy on organic agriculture. In this regard, they have been responsible for initiating the process and convening specialised policy working group meetings and stakeholder workshops. MAAIF has worked closely with other actors, especially the Advocates Coalition for Development and Environment (ACODE), NOGAMU, and PELUM (Uganda). However, beyond the enthusiasm demonstrated by the MAAIF staff, regarding commitment to the policy development process, by the end of 2018, the Ministry had not demonstrated clear commitment to the process by way of allocating funding towards the completion of the policy. It is hoped that this will change now that the Ugandan Government has accepted the NOAP.

The driving force behind EOA in Uganda is still the export market. As early as 1993, a few commercial companies began engaging in organic agriculture, with an eye on the export market. The table highlights some of the organic produce that is available in the country.

How is EOA integrated in agricultural and trade policies?

Among the governments of countries in Eastern Africa, the Government of Uganda has been the most active supporter of the organic sector. Certain government agencies, such as the Uganda Export Promotion Board (UEPB) and the Uganda National Bureau of Standards, are particularly interested in promoting organic exports and developing organic standards. MAAIF, in partnership with NGOs and the private sector, has been engaged in the process of developing an organic policy since 2003, spearheaded by a committee of stakeholders in the sector. Organic agriculture is not mentioned anywhere in the National Agricultural Plan of 2013 or the National Agricultural Research Policy.

However, when looking at overall agriculture policy formulation, the World Bank report (2018) states:

> 10. The free distribution of subsidized inputs has undermined quality seed production by agribusinesses and led to the crowding out of the private sector from distribution. Providing inputs alone without knowledge transfer can further create unintended consequences such as the depletion of soils and biodiversity. More generally, subsidies and other policy distortions tend to alter the output mix of agriculture away from what the free flow of inputs and outputs would have produced at market prices, and thus have the potential for creating allocative inefficiencies that are manifested in lower TFP growth (Executive Summary, p.vii).

Although the World Bank report analyses Ugandan agriculture and policy at length, it does not even mention organic agriculture! So, while calling for a move away from FISP approaches, admitting that they are inefficient, the World Bank cannot bring itself to consider EOA, even in a country such as Uganda where soil fertility is naturally high, and where EOA has a history of improving the terms of trade of small-scale farmers (EPOPA, 2008)! The closest World Bank comes is towards the end of the Executive Summary, where they state:

> 20. Capitalizing on demand-driven opportunities for Ugandan food and agriculture will require good connectivity between suppliers and integrators for passing market and technical information in both directions in near real time, as well as for building trust amongst different supply chain actors.

> Branding is the preferred market tool for quality assurance, aligning incentives along supply chains, and for helping producers be remunerated for extra efforts resulting in quality. Uganda, however, is confronted with a multitude of diverse smallholders as primary suppliers. Branding of smallholder products in Uganda requires vertical coordination with aggregating processors or other industrial entities that can vouch for the quality of the final product and be held accountable by consumers when they fall short. Several private business models along different agriculture value chains in Uganda are shown to successfully link smallholders to growing domestic and international market opportunities for value-added products, to improve their incomes, capacities, and productivity; and to foster their resilience to climate and market-related fluctuations and shocks (World Bank 2018, p.xi).

The World Bank report (2018, p.8) goes on to warn that food production increases are not keeping up with population growth and this is made worse by urban migration of youth:

> 45. Nonetheless, the agricultural production share of overall employment increased from 69 to 72% over the last two decades. Major factors were rapid rural population growth and limited employment opportunities outside agriculture. Population density of 173 persons/km2 in 2014 had grown from half that in 1991 (85 persons per km2) In consequence, land has been (further) fragmented, particularly in highland areas. In lowland areas, the land-to-labor ratio is often reversed due to relatively abundant land leading to lower population pressure. Both areas, however, are gradually experiencing rising labor shortages due to youth migration to urban areas.

and:

> Uganda is thought to be losing on the order of 4 to 12% of GDP annually due to soil erosion, compaction and nutrient loss (Ibid. p.xii).

Agricultural Extension

Spending on agricultural extension increased from 25% of sector spending in 2005/6 to 43% in 2009/10, according to study by Sebaggala and Matovu (2020); they state on p.1 that "There is a strong belief in Uganda that if all 40 million hectares of arable land is worked to its full potential, every Ugandan will be able get out of poverty". However, they state that the performance of Ugandan agriculture (in spite of considerable investment over the past twenty years is "dismal", and the Abstract of their study states:
we found that access to extension services does not significantly improve the crop productivity of farmers.

> we found that access to extension services does not significantly improve the crop productivity of farmers. The finding is consistent with similar studies that control for selection and endogenous bias when estimating treatment effects. We argue that [this lack of impact] on productivity when selection and endogenous effects are addressed may reflect the inefficiency of the current extension services in improving farmers' productivity. In conclusion, the study shows that increasing extension impact on farm productivity will require efforts to improve the quality of extension services that directly translate into productivity effects.

Although there have been attempts to make extension more responsive to famers, and to focus on "farmer pull" rather than "science push", and even though many farmers have become part of farmer groups and claim to be benefitting from these, Sebaggala and Matovu (2020) maintain that much of the positive reporting is due to selection bias.

The World Bank report (2018) states that: "The extension system has steadily moved away from its core function in terms of knowledge transfer and has increasingly taken the role of distributing free or highly subsidized agricultural inputs, sometimes of low quality" (p.23)

Agricultural Policy Process and Its Implementation in Uganda

Traditionally, policies in Uganda were made by a few government officials, with little to no input from other stakeholders. From the colonial era until the early 1980s, the government set the agenda and dominated policy formulation in the agricultural sector, while forcibly implementing the resulting procedures without articulating why they were necessary or desirable. Acknowledging that the policy had failed principally because it was imposed in a top-down manner, the present government has made a point of involving all stakeholders in policy formulation from the mid-1980s onwards (Tumushabe et al. 2006). The policymaking process has become more consultative in recent years, as the current government has opened up the policy debate since coming to power in 1986. It is increasingly soliciting the views of stakeholders, particularly in the context of decentralization, while interest groups such as NGOs and private sector associations are also exerting a growing influence on the policy process.

The Uganda Government policy development process comprises several phases that include: policy initiation or identification, policy analysis, decision making, implementation, and monitoring and evaluation. Policy initiation involves accurate identification and comprehension of the social, economic, and/or political issue. The process of policy identification helps stakeholders to distinguish symptoms from the problem itself. In all cases, it involves defining the problem and the evaluation criteria, identifying all alternatives, evaluating them, and recommending the best policy agenda for adoption. Decision-making is conducted in the context of a set of needs, preferences an individual or organisation has and values they seek. The involvement of the actors in the policy process varies in Uganda according to the policy process phases, agricultural sectoral mandate, auxiliary or complementary roles, and function of the actor in question.

The policy formulation process is a continuous process. It is considered rational when one systematically applies knowledge, skills, and evidence to arrive at a logical conclusion. In government settings, this involves balancing political realities without adversely affecting would-be stakeholders. The current process is as shown in Figure 8.

MAAIF's 2010 Development Strategy and Investment Plan covers the period 2010/2011 to 2014/2015, and is an outcome of the revised 2005/2006–2007/2008 plan, which consolidates all existing parallel policy frameworks in the agricultural sector into one coherent plan.

Table 4:
Uganda's organic products, NOGAMU

CATEGORY	TYPE	REGION
Fresh vegetables	Avocado, Matooke	Central Uganda Highlands
Fresh fruit	Pineapple, Passion fruit Banana, Pawpaw	Central Uganda Highlands
Dried fruit	Pineapple, Banana Mango, Pawpaw	Central Uganda Highlands
Dried spices	Ginger, Vanilla	Central Uganda Highlands Bundibudgyo
Coffee	Arabica, Robusta	Highlands Central Uganda
Cocoa	Cocoa	Central Uganda Bundibudgyo
Cotton lint	Cotton	Northern Uganda Kasese
Sesame	African mixed and white	Northern Uganda West Nile
Chillies	Bird's eye	Northern Uganda Cotton areas

Figure 8:
Steps To EOA Policy Formulation, Kareko-Munene 2018

1. Mobilise Resources
2. Establish an organic agriculture policy working group to steer the development process
3. Recruit a short-term consultant to prepare an issue paper
4. Hold a stakeholders' workshop on the issues identified and reach a consensus on priorities
5. Prepare a draft national organic agriculture policy
6. Circulate the draft to all national stakeholders and district and urban authorities for review and reaction
7. Hold regional consultative workshops ensuring that each district or urban authority is adequately represented
8. Revise the draft policy document
9. Hold a national workshop to review the revised draft, finalize the National Organic Agricultural Policy Document

Forward the final draft to the relevant Minister for transmission for Cabinet approval

The development of this plan was a participatory and inclusive process, involving consultation with key stakeholders in the agricultural sector, including the private sector, national and local government officials, development partners, and civil society representatives. Four thematic working groups were formed, which identified issues and ideas, and then discussed, analysed, and agreed on them for incorporation into the plan. Stakeholders were also involved in the review of various drafts of the plan document.

Uganda has launched several programmes to modernise agriculture over the past 20 years, and there have been several plans to make the Ministry of Agriculture more efficient, but none of the plans have been implemented to date. Although Uganda has joined the EOA-I, there has been little practical change in the actual services provided to small-scale farmers. Given the changes in policy throughout Africa (see Section 6). Hopefully, given the reality of climate change, African governments will now re-assess their development options.

With over 80% of Uganda's surface area prone to erosion (World Bank, 2018, p.52),

> "Uganda has been described as one of the world's most vulnerable countries to climate change, with increasingly unreliable rainfall, drought, seasonal fires, precarious water supply, and endemic poverty characterizing major climate-related hazards. Since 1960, temperatures have increased by 1.3°C. In the next 50 years, nearsurface temperatures are expected to increase by 2-2.5°C, and by up to 4.5° until 2100."

The combination of the climate crisis, the COVID-19 crisis and the potential of another food price crisis may see the Ugandan government taking its new Organic Agriculture Policy more seriously. There have been many calls for support for "Climate Smart Agriculture"; this is often simply a greenwash term for conventional agriculture with a little more carefulness about the environment; potentially, a process of Ecological Intensification could lead much closer to EOA, if organisations such as the World Bank could get over their prejudices and examine the evidence on EOA.

The World Bank (2018) states in the Executive Summary of their report (p.vi):

> 7. While the record of written agricultural strategies and policies is impressive, there has been a weakening of the institutional base for agriculture in Uganda over the last decade, and also disconnects between policy formulation and actual implementation. Institutional weaknesses and a lack of coordination among agriculture related ministries and agencies have been important bottlenecks for translating policy plans into effective action.

Opportunities and challenges developing and implementing policies in EOA

- Mainstreaming EOA in Uganda's agriculture development agenda will only be possible if public-private partnerships are involved in creating a critical mass of practitioners to advance the sub-sector initiatives (Kwikiriza et al. 2015). This will only be possible if new knowledge and skills are generated through evidence-based research to reinforce organic agriculture capacity in Uganda to answer a variety of questions on production, farm systems, product quality, and marketing of organic products.
- Sharing knowledge through a network of partners and platforms will ensure that the findings are communicated effectively, not only to the researchers, policymakers and practitioner communities, but also to a broader public, thus improving their policy understanding and awareness.
- Small farmers often do not receive the technical information needed to enable them to improve their livelihoods. Connecting them to knowledge networks, particularly those that allow them to learn from each other, is essential for the development of EOA in Uganda.
- EOA in Uganda has the potential to fulfil certain expectations and policy formulation demands from national and regional conventions and protocols.
- A strong national organisation for stakeholders like NOGAMU needs to be well structured and strengthened as it is crucial for building strategies, lobbying, and participating in important development such as the UgoCert, Uganda's certifying body.
- The process for policy development might take more time, but it certainly needs to be more participatory and concerted.
- Most interested actors usually have participated in the processes and are therefore willing to defend and back EOA in Uganda. In some instances, non–government stakeholders express concern at the idea of heavy government involvement, fearing that the original orientation and goals of an EOA policy will likely be lost. However, from the case study review, the policy development process in Uganda indicates that this does not necessarily have to be the case, as long as the right alliances can be fostered between the public and private sector actors, and the policy development process is given enough time to facilitate a transparent and wide stakeholder participatory approach.

Preliminary EOA typology

Type 1; Country has a NOAM, a policy and standards, and government is supporting the vibrant sector.

EPOPA (Export Programme for Organic Poducts from Africa) 2008. Organic Exports; A way to a better life?

GRU (Government of the Republic of Uganda) 2010. National Development Plan (2010/11–2014/15). Kampala: National Planning Authority.

Kwikiriza N, Mugisha J, Kledal R, Karatininis PK and Namuwooza C 2015 Actors in the global value chain of organic pineapples from Uganda. Africa Crop Science Journal. Under review.

MAAIF (Ministry of Agriculture, Animal Industry and Fisheries) 2010 Agriculture Sector Development Strategy and Investment Plan: 2010/11–2014–15. Entebbe.

MAAIF and MFPED (Ministry of Agriculture, Animal Industry and Fisheries and Ministry of Finance, Planning and Economic Development). n.d. Plan for Modernization of Agriculture: Eradicating Poverty in Uganda. Kampala.

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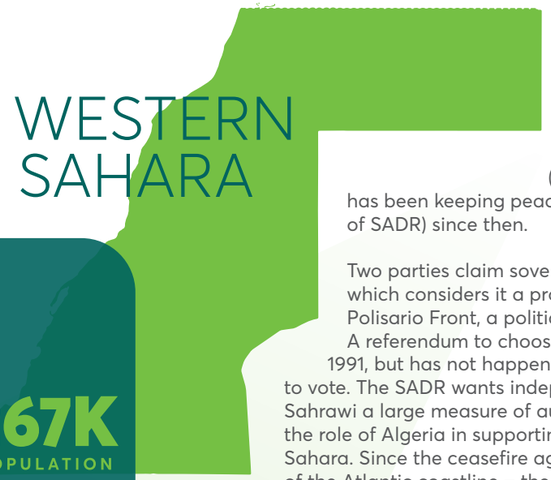
Sebaggala R and Matovu F 2020 Effects of Agricultural Extension Services on Farm Productivity in Uganda. AERC Research Paper 379. African Economic Research Consortium, Nairobi.

UNEP-UNCTAD 2010 Organic Agriculture. Opportunities for Promoting Trade, Protecting The Environment and
Reducing Poverty. United Nations, New York and Geneva.

Willer H and Lernoud J 2017. The world of organic agriculture: Statistics and emerging trends. FiBL and IFOAM, Bonn, Germany.

World Bank 2018 Closing the Potential-Performance Divide in Ugandan Agriculture. World Bank

WESTERN SAHARA



267K
POPULATION

266K
AREA SQKM

EOA TYPE

Western Sahara is a disputed territory on the northwest coast and in the Maghreb region of North and West Africa, partially controlled by the self-proclaimed Sahrawi Arab Democratic Republic (SADR) and partially occupied by neighbouring Morocco. Western Sahara has been on the UN list of non-self-governing territories since 1963 after a Moroccan demand. Since 1991, the UN Mission for the Referendum in Western Sahara (MINURSO), has been monitoring the cease fire. MINURSO has been keeping peace between Morocco and the Polisario Front (political arm of SADR) since then.

Two parties claim sovereignty of the territory. One is the Moroccan government, which considers it a province with certain autonomous rights. The other is the Polisario Front, a political and military organisation naming the territory SADR. A referendum to choose between the two options was proposed as far back as 1991, but has not happened mainly because of disputes over who would be eligible to vote. The SADR wants independence and Morocco stands firm on its offer to give the Sahrawi a large measure of autonomy under the Moroccan flag. Morocco also wants the role of Algeria in supporting the SADR taken into account in any talks about Western Sahara. Since the ceasefire agreement in 1991, two thirds of the territory (including most of the Atlantic coastline – the only part of the coast outside the Moroccan Western Sahara Wall in the extreme south, including the Ras Nouadhibou peninsula) has been administered by the Moroccan government, with tacit support from France and the United States, and the remainder by the SADR, backed by Algeria.

Western Sahara has a small market-based economy with the main industries being fishing, phosphate mining, tourism, and pastoral nomadism. The territory's arid desert climate makes sedentary agriculture difficult, and much of its food is imported. The Moroccan government heavily subsidises the Saharan provinces under its control with cut-rate fuel and related subsidies, to appease nationalist dissent and attract immigrants from Sahrawis and other communities in Morocco proper. Key agricultural products from Western Sahara include fruits and vegetables (grown in the few oases) as well as livestock kept by nomads. The livestock sector is dominated by dromedaries totalling 140,000 head. The other animals are also represented in the region with some 380,000 head of goats, 300,000 head of sheep and 1,100 head of cattle. The region also has 30 poultry units. Fishing and oil exploration contracts (Western Sahara) are sources of political tension.

The Sahara Development website [122] outlines how infrastructure has been established and human and material resources developed to provide the necessary services to agricultural development in this area of (claimed) national territory. Western Sahara's unresolved legal status is a considerable limitation to any development of EOA. Furthermore, the country currently has limited sedentary agriculture, although evidence from similar countries indicates that government support and investment in irrigation infrastructure can enable the growth of the sector. The last paragraph above indicates some openness to "preserving natural resources", but there is no mention of EOA in any documents we were able to locate.

Preliminary EOA typology

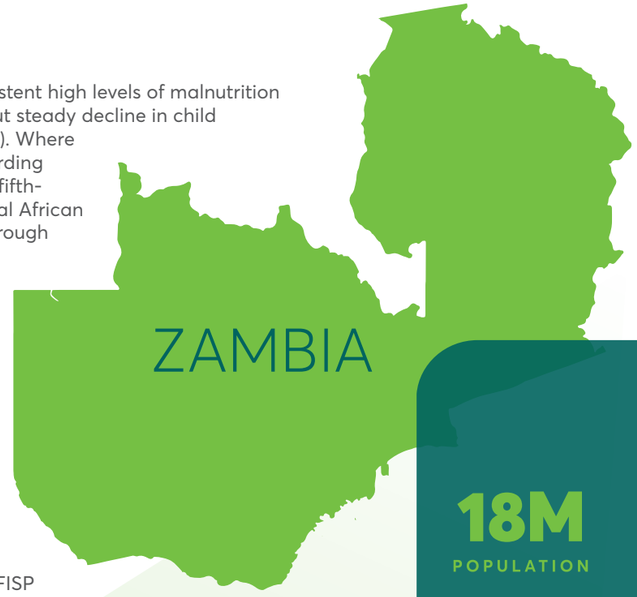
Type 5; Country has very little institutional capacity, no government support and is not exporting.

122 http://www.sahara-developpement.com/Western-Sahara/AgricultureEtElevage--117.aspx

Sahara Development: Agriculture and Farming. Accessed 7 August 2019. Available from: http://www.sahara-developpement.com/Western-Sahara/AgricultureEtElevage--117.aspx

ZAMBIA

Zambia has taken a zero-hunger approach to tackle persistent high levels of malnutrition and stunting. From 2010 to 2018 there has been a small but steady decline in child stunting and under-5 mortality levels (Chapoto et al., 2018). Where Zambia was the third-hungriest country in the world according to the Global Hunger Index, this has now improved to the fifth-hungriest, ahead of Madagascar, Yemen, Chad and Central African Republic (Chapoto et al., 2018). This has been achieved through significant purchases of maize by the Food Reserve Agency (FRA), and through a massive Farm Input Subsisdy Programme (FISP).



18M
POPULATION

752K
AREA SQKM

EOA TYPE

The six most widely grown crops in Zambia are: maize, groundnuts, sweet potatoes, cassava, rice and mixed beans (Chapoto et al., 2018). A well-developed research and extension system exists in Zambia, but research and extension have suffered from stagnant spending over the past decade, partly as a result of increased spending on FRA and FISP, leaving less resources for personnel and infrastructure. EOA grew in the 1990's but then stagnated and has declined over the past ten years.

Since 2015, the combined spending on food reserves and FISP has made up more than half of the agricultural budget (Chapoto et al., 2018). The agricultural budget declined from 8% in 2016/17 to 6% of the national budget last year, due largely to the burden of debt-financing (Chapoto et al., 2018). While a good rainfall year was experienced in 2016/17 (due largely to the influence of a La Nina effect), 2017/18 was experienced as a bad year (drought in south, excessive rain in north). The high yields of 2016/17, saw low prices for many commodities. The more recent poor yields (e.g. soya beans 56% total yield reduction), resulted in very high prices; maize, sorghum, wheat and potatoes followed this trend. There has been a downward trend in yields per ha for many commodities over the past six years. "We've increased investment in FISP and the number of beneficiaries," said Agriculture Minister Dora Siliya in January 2018. "But it is not paying off in terms of seeing the beneficiaries graduating into commercial farmers." [123]

EOA in Zambia: The demise of the Organic Producers and promotors Association of Zambia (OPPAZ)

The poor communication between OPPAZ and its members has resulted in disadoption of certified organic agriculture by many farmers. OPPAZ has not been active for some years and all supporting staff were laid off. The former CEO from 2007 still interacts with bodies such as AU and Afronet.

More recently (2010), the Zambia Alliance for Agro-ecology and Biodiversity (ZAAB) was formed "as a united network of concerned citizens, civil society groups and farmer-based organisations. ZAAB advocates for citizens' rights to food sovereignty, embedded within an ecologically and socially just Zambia. ZAAB supports the adoption of agro-ecology … to sustainably build Zambia's food and farming systems and strengthen resilience against climate change" (ZAAB, 2019).

During 2017, "a sensitisation workshop on sustainable organic agriculture for Ministry of Agriculture (MOA) staffs was conducted in Choma in Southern province. Twenty-four MOA staff attended the sensitisation workshop conducted by Kasisi Agricultural Training Centre (KATC). During the training, there was an interesting interaction between the participants and facilitators on various issues in the area of sustainable agriculture" [124].

123 https://www.africanfarming.com/zambias-smallholder-farmers-complexities-government-support/
124 https://www.oneplanetnetwork.org/initiative/sustainable-organic-agriculture-zambia

Bridget O'Connor, an experienced agronomist and Organic Inspector, formerly with OPPAZ, but since 2008 with KATC (O'C., pers. comm., August 2019) comments on developments:

> "During 2018 this initiative with the MOA was taken further by KATC and six Government provincial training centres or institutes were selected. Officers and staff were trained at KATC who then helped in the setting up of EOA demos at the institutes. The 2018/19 season was very poor in most parts of Zambia and interestingly at the open days held in 2019, only the Sustainable Organic Agriculture demos which used OPVs and traditional intercrops such as pigeon pea, cowpea, groundnuts, pumpkin had something significant to show, contrary to the Seed Company demos which all failed because of the drought. In addition, the KATC-assisted demos with their diversity of different traditional staples and nutritious intercrops had much higher nutrition density than the Seed Company hybrid maize monocrops. Visitors to the open days were very interested in the KATC demos" (O'C, 2019).

Since the demise of OPPAZ, other organisations have developed to assist farmers in Zambia, and to transform the existing approach to FISP:

> "The Zambia Alliance for Agro-ecology and Biodiversity (ZAAB) was started in 2010 when it was realised that there was a new push to bring GMOs into Zambia. Late President Levy Mwanawasa advised by Zambian scientists such as Dr Mwananyanda Lewanika, rejected GMO food aid from USA during a devastating 2001/2 drought. This action reverberated around the world and even the Pope was urged to tell his Zambian Jesuits to stop starving the people of Zambia. Needless to say there was no starvation and alternative maize relief was found when needed. In addition to raising awareness about proposed efforts of the NBA and Department of Science and Technology to revise our strict Biosafety policy of 2003 and Act of 2007, ZAAB has also been involved with supporting farmers' rights to save their own seed. ZAAB urges for the implementation of the International Treaty for Plant Genetic Resources for Food and Agriculture (ITPGRFA) which was ratified by Zambia in 2004. Zambia has had a draft Seed Policy since 1999 and has a WTO compliant sui generis Plant Breeders Rights Act of 2007. However, there is a strong push in our region through ARIPO for countries to sign up to UPOV 91" (ZAAB, 2019).

ZAAB has taken the stance that FISP per se is not always negative, but that rather than advocating free or cheap industrial agricultural inputs, FISP should build the capacity of ordinary Zambians to produce and access good, nourishing food:

> "The main argument from the corporate food regime is that food availability (how much food is produced) and feeding a growing (poor) global population is the central development concern. The solutions are thus presented within the conceptual boundaries of solving hunger through increased intensive global production. This argument is often used as the basis for increasing the corporate market share in the food system and embedding Green Revolution technologies and associated chemicals, as well as promoting the use of modern biotechnology [to produce genetically modified organisms (GMOs)]" (ZAAB, 2019, p.6).

ZAAB argues further that this approach has many negative results for human well-being: Farmers are supported to produce monoculture commodity crops to sell for cash, in order to be able to purchase food from the commercial retail sector. The result is reduced, rather than increased, local farmer and consumer agency, and their collective power and sovereignty over food and farming choices. This means that decisions related to food production and consumption increasingly lie outside the control of those responsible and accountable for food and nutrition security at both household and national level. This impacts women especially; mothers and carers who are the traditional food and nutrition custodians in households and communities; as well as the state that must carry the responsibility for food security and the negative long-term costs of poor nutrition, non-communicable diseases (NCDs), and increasing poverty (ZAAB, 2019, p.7).

ZAAB (2019, p.12) reports that 93% of poverty reduction resources is spent on FISP and food reserve purchases, and that these funds are mainly sourced from donors, and these donors have a major influence on "foreign, top-down and private-sector-oriented goals. Domestic institutions able to meet foreign government and donor objectives grow in capacity and influence. Meanwhile, public sector institutions that support public benefit in goods and services, which are not necessarily related to private-sector interests, remain underfunded". They point out that current approaches to FISP undermine biodiversity:

> "Zambia's FISP is entrenching the uptake of a very limited range of commercial seeds and the associated agrochemicals, whilst directly displacing local agricultural biodiversity and challenging the rights of farmers to freely, and without hindrance, reuse, share or sell farmer saved seed" (ZAAB, 2019, p.18).

A further important consideration is that Southern Africa, like Zambia, has (in general) low nutrient, low organic matter, acidic soils (Auerbach, 2020). As shown in the Mandela Trials (Swanepoel et al., 2020), such soils have low levels of available phosphate. In order to boost yields so that the genetic potential of good seed can be realised, it is essential to boost soil organic matter (SOM), rather than simply adding water-soluble synthetic fertilisers which often leach into rivers and groundwater. Additions of rock phosphate and SOM are acceptable in EOA, and have a more sustainable impact on soil fertility and therefore on yields than a FISP approach emphasising synthetic fertiliser and hybrid or genetically engineered seeds. As aerobic conditions in the soil are improved (Sibiya et al., 2020), soil microbiology changes, with the decline of pathogenic facultative anaerobes, and the dominance of beneficial aerobic bacteria and fungi.

FISP and gender

Unlike Ghana, where education and empowerment of women became a national priority, leading to decreases in hunger and poverty, Zambia has tended to embed patriarchy in the implementation of FISPs: "Gender dynamics are often an invisible element within the food system. Viewing the food system through a gender lens, however, exposes the interconnectedness and the central role the food system plays in determining other development objectives. The commercialisation of farming systems through the introduction of external inputs, and its financing, enables the monetisation of local diverse socio-ecological systems that are fundamentally gendered. Food and farming systems have inherent gendered roles. Changing local dynamics has obvious diverse effects on different groups of people with different levels of power and agency. Very narrow forms of farmer support – like that of [synthetic] input and maize output subsidies – may include "gender sensitive" targeting mechanisms, however, gender targets do not address the underlying systemic causes of disempowerment. Failing to take into consideration the local scale gender complexities, can result in long term unintended negative outcomes. Women in Mumbwa explain that they still have their own seed to grow food for household food security, but it is difficult to find land for these diverse crops now. The best land is claimed by the men, for planting cash crops. Men control cash cropping systems and women are required to produce food for nutritional purposes" (ZAAB, 2019, p.20).

The ZAAB report concludes with a call for a change in the approach to FISP: "Farmer support needs to be re-conceptualised to encompass systematic long term enabling of smallholder farming systems in their entirety – aimed at building local resilience rather than undermining it. This is a foundational principle of farmer and peasant organisations around the world in their calls for systematic support to agro-ecology and the fulfilment of people's demands for food sovereignty" (ZAAB, 2019, p.23).

If the implications of ZAAB's work in Zambia, and the work of the African Centre for Biodiversity (ACB) there and in other countries, is taken seriously, transformation of FISP could make this a strategy for empowering farmers, and strengthening the ability of women to produce nourishing food and to enter the agricultural marketplace. Chapter Four will highlight how Malawi and Mauritius have also considered these possibilities.

How is EOA integrated in agricultural and trade policies?

There is potential for the inclusion of EOA in MOA activities, and KATC has training capacity. "Initiatives by KATC such as making 12.5ha (quarter of a Centre Pivot) available to farmers living within walking distance of KATC have proved successful. KATC supplied the compost and water, the farmers paid a rental to Kasisi, who had some donor support to train the farmers and attach a mentor to the project and some market linkage. In addition to supermarket interest, many trucks came to purchase direct from the farmers" (O'Connor, pers. comm., August 2019).

The generally poor condition of agricultural research and extension is mirrored in the decline of the EOA sector (Munthali et al., 2019). While leaders of the Organic Producers and Processors Association of Zambia (OPPAZ) claimed that Zambia has nearly six million ha of wild collection (mainly bee-hives) and nearly 8,000 ha of organic crop production (Willer et al., 2019, p.185) and claims over 10,000 certified organic producers (Ibid. p.67), when researchers approached OPPAZ to carry out a study on factors aiding EOA in Zambia, OPPAZ could only supply details of 250 certified organic producers (Munthali et al. 2020).

Munthali et al. (2020, p.215) state

> "It was not easy to determine the actual numbers of certified farmers ... Previously, all the organisations engaged in organic production in the country were affiliated to OPPAZ. This is no longer the case. Instead there are a number of organic organisations operating autonomously, mostly in the traditional organic areas. Previously, OPPAZ gave certification advice and facilitated local certification for local markets for all its members. Unfortunately, this local OPPAZ service ended in 2008 and today local organic certification remains a problem."

KATC has long provided training in EOA, and Ecocert (among others) has been active with organic certification. In 2013, KATC received training in Participatory Guarantee Systems (PGS) for organic grower groups. Organic farmers belonging to farmer co-operatives under the umbrella of the Chongwe Organic Producers and Processors Association (CHOPPA) were trained at KATC, who worked with CHOPPA to support implementation. However, CHOPPA has unfortunately not been fully active with the PGS groups this year (O'Connor, 2019).

Reasons for disadoption of certified organic agriculture

As this is one of the few countries where the decline of EOA has been noted and researched, and as OPPAZ continues to claim large numbers of certified organic farmers in Zambia (Willer et al., 2019) it is worth reproducing the reasons given for disadoption by Zambian farmers in some detail. According to Munthali et al., 2020, p.213:

> "In 1999 there were only three organically certified producers for the export market in Zambia, and by 2006 the membership base had increased to a record high of 19,000 operators (OPPAZ, 2006). At some point it was assumed the number escalated to between 40,000 and 60,000 certified organic farmers; apparently, these figures included certified bee forage farmers. In contrast the situation significantly changed such that by 2016 the number of certified organic farmers plunged to as low as 4,000 farmers. In response to questions asked in the questionnaire, respondents brought forward a number of reasons why they decided to abandon [certified] organic production systems. Our study showed that some critical reasons leading to increased number of disadopters include the following: Making compost from manure in organic farming is both labour intensive and expensive when compared with using synthetic fertilisers. Consumers are unwilling to pay premium prices for organic products... There is a perception that conventional farming systems are less labour intensive than organic farming. Because of the conversion period required when converting to conventional farming, farmers cannot commence production straight away. Agrochemicals are more rapidly effective in controlling insect pests and diseases, and weeds. Weeds are easily controlled using herbicides. This is much cheaper and easier than mechanical weeding. In organic farming, stakeholders only perceive a benefit when there is a donor-funded project supporting organic production. Immediately the project comes to an end, farmers are forced to look for other support and resources… conventional yields are higher than in organic farming, therefore translating into higher profits per unit area planted. Organic farming takes a long time to build soil fertility, and to realise the benefits; farmers have to persevere for some time without immediate returns. In contrast the proponents of organic farming systems equally have different views and perceptions as to why they have kept supporting this type of farming system".

The certification landscape in the country

Certification is generally carried out by outside certification bodies such as Eocert and Soil Association. OPPAZ initiated the development of organic standards together with other stakeholders under the guidance of the Zambia Standards Association (ZABS). These were finalised and published in 2009 and are available for sale at ZABS. These have been used to as a guide in developing standards for the PGS group participants (O'Connor, pers. comm., 2019). The suggestions of ZAAB for making FISP a sustainable intervention should be taken seriously, and the gender dimensions of farmer support should be incorporated in future FISP planning. Incentives for farmers to build soil fertility and conserve plant and animal genetic diversity should be encouraged.

Government (MOA), trainers (KATC) and EOA farmers need to re-visit the lack of effective NGO structures; since OPPAZ has ceased to function, a new NOAM should be established, with an improved communication system between organic farmers and their organisations. Munthali makes the following suggestions for EOA in Zambia (pers. comm., August, 2019):

1. Government needs to develop policy on EOA in order to strengthen the sector;
2. Provide support towards EOA similar to that given to conventional farmers;
3. EOA must be incorporated into mainstream agriculture programmes;
4. Inputs for EOA must be readily available to farmers;
5. Provision of government extension services should be extended to EOA;
6. Improve the price for EOA products to include premium;
7. Conduct awareness meetings with the public to sensitise them on EOA;
8. Show farmers the benefits of EOA products;
9. Show the public the long-term environmental benefits of EOA;
10. Develop policies that will help grow local and international markets for EOA products.

Preliminary EOA typology

Type 3; Country has a developing domestic and export market, some NGO activity, some guidelines and exports, but little government support.

Auerbach RMB (ed) 2020 Organic Food Systems: Meeting the Needs of Southern Africa. CABI, Wallingford, UK.

Chapoto A, Chisanga B and Kabisa M 2018 Zambia Agricultural Status Report. Indaba Agricultural Policy Research Institute, Lusaka, Zambia.

Munthali R, Auerbach RMB and Mataa M 2020 Factors contributing to Adoption or Disadoption of Organic Agriculture in Zambia. In: Organic Food Systems: Meeting the Needs of Southern Africa (Ed. RMB Auerbach), CABI, Wallingford, UK.

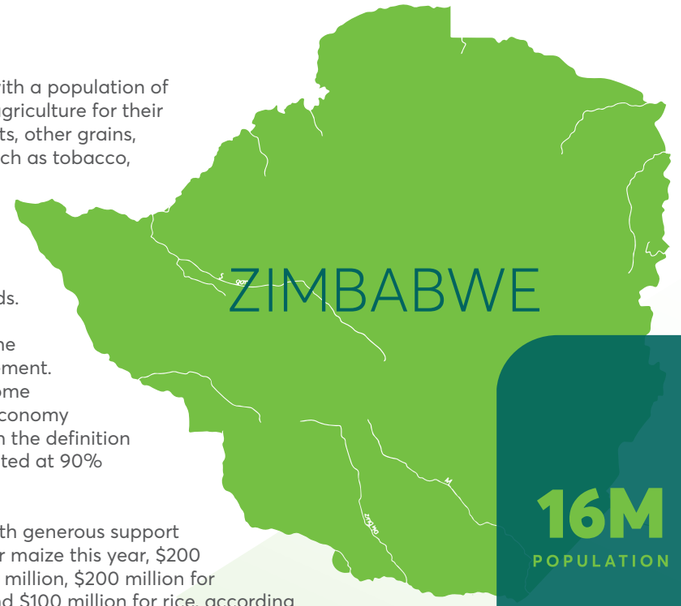
O'C (O'Connor B) 2019 Personal Communication. Bridget O'Connor worked for OPPAZ until 2008, and helped develop Zambian certification, also working with Afrisco; since 2008 she has been with Kasisi Agicultural Training Centre.

Sibiya M, Habig J, Storey S and Labuschagne N 2020 Initial assessment of Selected Biological Soil Health Indicators in Organic Versus Conventional Cropping Systems in Field Trials in South Africa. In: Auerbach, 2020.

Swanepoel M, Auerbach RMB and Mashele N 2020 Soil Fertility Changes and Crop Yields from the First 4 Years of the Mandela Trials. In: Organic Food Systems: Meeting the Needs of Southern Africa (Auerbach), CABI, Wallingford, UK.

ZAAB (Zambia Alliance for Agro-ecology and Biodiversity) 2019 Securing equitable farmer support, and the transition from the Farm Input Subsidy Programme in Zambia. Africn Centre for Biodiversity (Johannesburg, South Africa) and ZAAB.

ZIMBABWE



Zimbabwe is a small country in southern Africa with a population of 13 million, of which 7.1 million are dependent on agriculture for their livelihood. They mainly produce maize, groundnuts, other grains, beans, vegetables, meat, and milk. Cash crops such as tobacco, cotton, and cut flowers are grown by the few large commercial farmers with the better land for agriculture, although in recent years a number of smallholders have taken on tobacco as a commercial crop, with mixed success and some negative impacts on the miombo woodlands. Zimbabwe's extensive grasslands and savannahs are a vital part of the ecosystem health, and of the impact of these areas on water resource management. Agriculture provides 70% of the population's income and accounts for 40% of exports. Recently, the economy crashed with all sectors in disarray. Depending on the definition of employment, the unemployment rate is estimated at 90% (Kuhudzayi and Mattos, 2018).

The "Command System" of import substitution with generous support for producers has reportedly used $334 million for maize this year, $200 million for soya beans, wildlife and fisheries $300 million, $200 million for wheat production, $120 million for horticulture and $100 million for rice, according to reports by Tawanda Musarurwa in the Zimbabwe Herald of 8 June 2018. Minister Shiri indicated that over the coming years the programme will be extended to the tobacco and cotton sectors, but will eventually be withdrawn, once farmers have built up collateral. Repayments of the Farm Input loans have been around 40%, with over half of the loans having no repayments at all in 2017.

A 2016 FAO report states that Zimbabwe does not have a functional long-term agricultural policy as the one that was crafted in 1995 to cover the period up to 2020 was rendered non-operational by the changes brought about by the land reform programme. The report states that a draft agricultural policy, developed with FAO assistance, is currently going through the approval processes. [125]

Zimbabwe's Comprehensive Agricultural Policy Framework 2012-2032 is the main long-term policy document of Zimbabwe's agriculture sector. The main vision is to achieve "a prosperous, diverse and competitive agriculture sector, ensuring food and nutrition security significantly contributing to national development". [126]

The Comprehensive Agricultural Policy Framework document analyses the agricultural sector, highlights the vision, goals, objectives and detailed policy statements and strategies for the development of the Zimbabwean agricultural sector during the period 2012–2032. The policy framework includes promoting "sustainable agricultural systems."[127]

Since 2000, the land reform programme the creation of small to medium-sized land holdings have emerged from what were formerly large-scale commercial farms. According to the FAO, Zimbabwean agriculture is now dominated by small scale farmers, characterised by low productivity and uncompetitive production systems. [128]

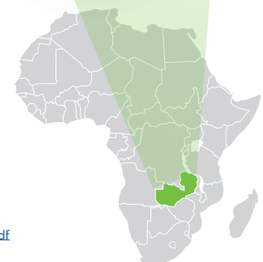
The creation of small- to medium-sized land holdings from what were previously large-scale commercial farms, has expanded the need for public extension services; although these still exist, problems with low pay have affected the motivation of extension officers. NGOs, farmer organisations, and commodity associations provide some extension services to the agricultural sector. However, the FAO states these organisations function at limited capacity, and extension services must be strengthened.

The government personnel working in extension programmes lack training in organic agriculture. There is also a lack of organic agriculture curriculum in schools and colleges which means there is little extension support for farmers. [129]

16M
POPULATION

390K
AREA SQKM

EOA TYPE



125 http://www.fao.org/3/i9842en/I9842EN.pdf
126 Comprehensive Agricultural Framework (2012-2032) Executive Summary; www.extwprlegs1.fao.org/docs/pdf/zim149663.pdf
127 Comprehensive Agricultural Framework (2012-2032) Executive Summary; www.extwprlegs1.fao.org/docs/pdf/zim149663.pdf
128 www.fao.org/3/a-bp607e.pdf%22&gt
129 Organic Agriculture – Zimbabwe's Future; www.impacthubharare.net/wp-content/uploads/2017/10/Zimbabwe-Organic-Sector-Strategy-2016.pdf

Analysis of the current policy structure governing EOA in the country

Zimbabwean agriculture after independence saw the coming together of the old commercial and small-scale agricultural departments, and initially production of smallholder farmers increased radically. John Wilson comments:

> "This approach was a full-on green revolution approach promoting hybrid maize seed all over the country along with much increased soluble/chemical fertiliser use, with very successful spread of green revolution practices throughout the country in the 80s through an effective extension system that basically passed on the 'messages' of research. They were relatively well paid in those days and so motivated" (Pers. comm., John Wilson, August 2019).

Once farmers were supported with agronomic and animal health advice, their production increased exponentially, as soil mineral deficiencies were initially addressed. After the first few years of support, although many smallholder farmers benefitted from land reform, some land (especially in the higher potential Natural Region 2) was given to political cronies rather than people who wished to farm, national production dropped, and many foreign governments withdrew their support. For the past 20 years, agriculture has suffered with the general difficulties of the Zimbabwean economy, but more recently there has been some government assistance to smallholder farmers.

The Zimbabwe Organic Producers and Promotors Association (ZOPPA), standards and PGS

According to Willer and Lernoud (2019), Zimbabwe's certified organic farming areas grew from 474 ha in 2014 to 3,246 ha in 2017 (cereals, pulses and vegetables). Zimbabwe also claimed 343,090 ha of wild collection, being 65,000 ha of medicinal plants, and 270,000 ha with no details. Organic producers numbered 2,007, with 22 processors and six exporters.

ZOPPA is the national movement for organic agriculture in Zimbabwe that promotes organic as an alternative mode of production. ZOPPA coordinates agricultural activities for the growth of the organic industry and brings organic practitioners, promoters and processors together with market leaders through 'Forum Meetings', to facilitate market linkages. These Forum Meetings focus on collaborative, solution driven discussions about issues faced by the organic sector. Several certification bodies operate in Zimbabwe, notably Ecocert. A ZOPPA report states that the Standards Association of Zimbabwe has incorporated Zimbabwe's organic standards. The standards are based on the community-based, low-cost Participatory Guarantee Scheme (PGS). ZOPPA developed the standards and provides organic standards training and compliance monitoring to producers.[130] The Zim-Organic brand and trademark is now in place – with only certified farmers able to use the Zim-Organic label on their products.[131]

According to the FAO, Zimbabwean farmers are finding it difficult to market their produce both in domestic and foreign markets. This is largely because they cannot compete with commodities due to low productivity and quality of products. Smallholder farmers who are highly dependent on agriculture for their livelihoods are particularly affected by the lack of available markets.[132] The UN reports some progress. For example, the Makoni Organic Farmers Association, founded as a community development organisation in 2007, was certified as organic in 2012.[133]

Overview of certification landscape in the country and extent to which this links to national policy.

ZOPPA Trust has developed a strategic framework (2019-2029), which will lobby for the existing draft organic policy to be formalised as part of Zimbabwe's Agricultural Policy.

The following comments were received in September 2019, from Fortunate Nyakande of ZOPPA:

> "Zimbabwe has organic standards which were accepted into IFOAM Family of Standards in 2014. Zimbabwe drafted a new agriculture policy (at draft stage now) and for the first-time civil society was approached to make inputs into the draft policy where we managed to push for organic and related farming systems. So in that policy there is a pillar, pillar 8 (Resilience and sustainability) which speaks to these farming systems. Civil society has been mandated to design an implementation strategy for the National agriculture policy framework with regards to the pillar 8, which is a very great opportunity for civil society to push for resilience and sustainability agenda not only in pillar 8, but cutting across. Steering committee already met and this month [September 2019] wider civil society will be meeting for two days to deliberate on this. We are hoping that this work will form the basis for development of an organic agriculture policy. In 2018, after officiating on the national organic strategy, Ministry of Agriculture wrote a letter to our NOAM expressing interest to work with it in developing Organic agriculture policy".

ZOPPA has designed a local compliance system modelled on Participatory Guarantee Systems (PGS): stakeholders inspect each other and ZOPPA verifies the process before awarding the ZIM Organic label. [134] IFOAM reports one "self-declared" PGS in Zimbabwe, with 850 producers (Willer et al., 2019).

Overview of opportunities for leverage within existing policy frameworks

In February 2019, the FAO issued a special alert regarding severe food insecurity in Zimbabwe. [135] Rising food and fuel prices and a tightening maize market are contributing to worsening conditions. Public and private sector focus appears to be on alleviating the immediate crisis.

Preliminary EOA typology

Type 3; Country has a developing domestic and export market, some NGO activity, some guidelines and exports, but little government support.

130 www.static1.squarespace.com/static/52f220cbe4b0ee0635aa9aac/t/5356b182e4b0e10db1994008/1398190466339/Unlocking+Zimbabwe%27s+Organic+Potential+-+web+version.pdf
131 Unlocking Zimbabwe's Organic Potential; www.static1.squarespace.com/static/52f220cbe4b0ee0635aa9aac/t/5356b182e4b0e10db1994008/1398190466339/Unlocking+Zimbabwe%27s+Organic+Potential+-+web+version.pdf
132 http://www.fao.org/3/a-bp607e.pdf%22>
133 www.undp.org/content/undp/en/home/ourwork/ourstories/organic-farming-breaks-new-ground-in-zimbabwe.html
134 www.ileia.org/2013/06/22/locally-rooted-ideas-initiatives-field-16/
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3.2 TYPOLOGY SUMMARY

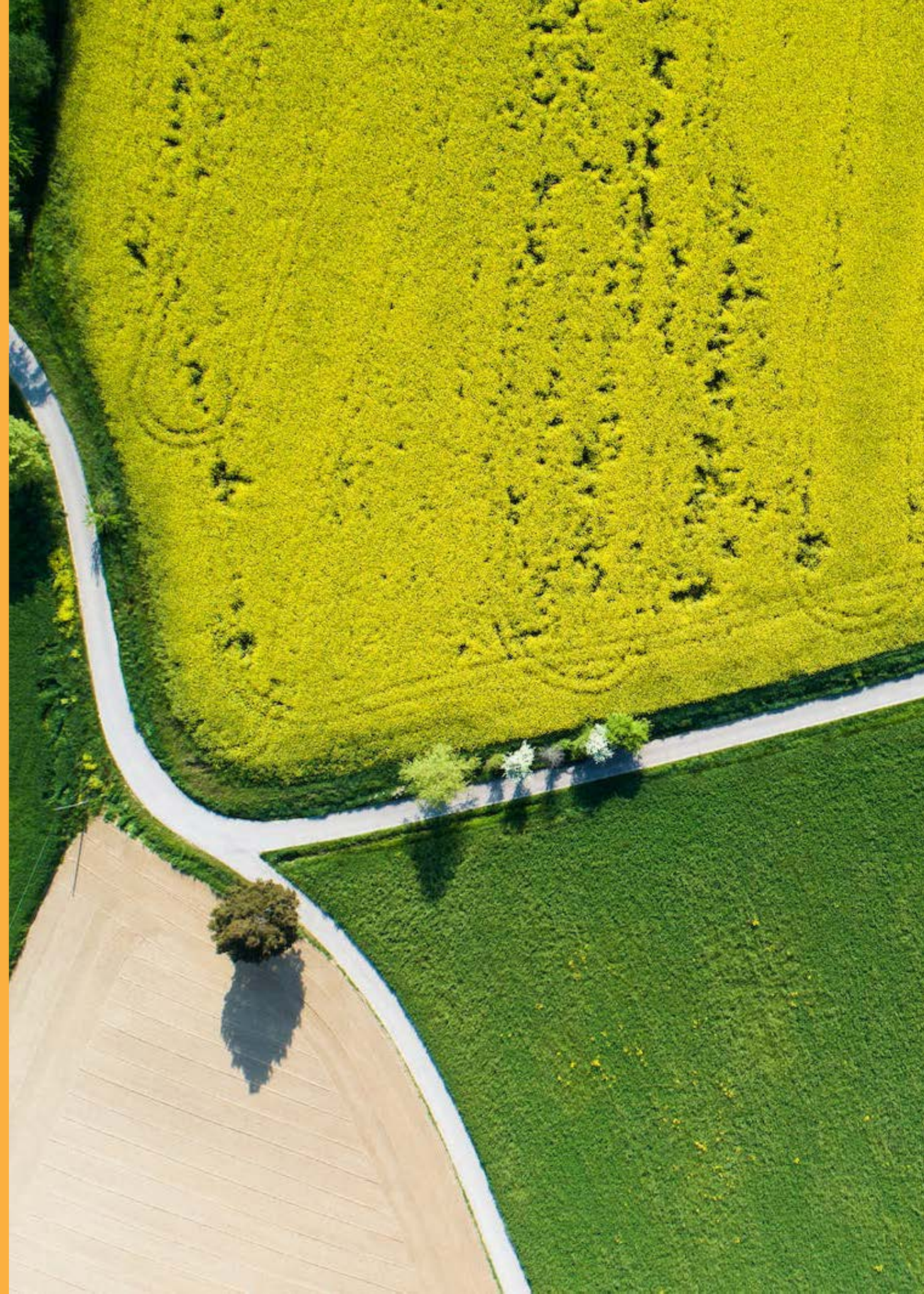
We had asked: Where would you classify this country in the following typology?

> 1 - Country has a NOAM, a policy and standards, and government is supporting the vibrant sector.
>
> 2 - Country has some government support, there is a policy underway, a strong NOAM, a domestic market and strong NGO farmer support.
>
> 3 - Country has a developing domestic and export market, some civil society activity, some guidelines and exports, but little government support.
>
> 4 - Country has some NGO capacity, no guidelines, little or no support from government but could have some commercial activity in EOA and could be exporting.
>
> 5 - Country has very little institutional capacity, no government support and is not exporting much.

In summary, of the 55 countries making up North, West, Central, East and Southern Africa, only four are strong EOA countries. Eleven are fairly strong (Type 2), twelve are developing (Type 3), ten are still in their infancy, and eighteen are awaiting inspiration (Type 5). The situation is summarised in Table 5.

Table 5:
Country Summaries: List of 55 countries classified by EOA type

COUNTRY	EOA TYPE	POPULATION	AREA (SQKM)	CAPITAL CITY
Angola	5	30 053 000	1 246 700	Luanda
Botswana	5	2 378 000	600 370	Gaborone
Burundi	5	11 175 374	25 680	Bujumbura
Central African Rep.	5	5 181 000	622 984	Bangui
Chad	5	12 802 000	1 284 000	N'Djamena
Comoros Islands	5	872 000	2 235	Moroni
Congo Rep.	5	4 500 000	342 000	Brazzaville
Djibouti	5	1 078 000	23 200	Djibouti
Equatorial Guinea	5	887 000	28 051	Malabo
Eritrea	5	6 159 000	117 600	Asmara
Eswatini (Swaziland)	5	1 177 000	17 364	Lobamba
Gabon	5	2 080 000	267 745	Libreville
Guinea-Bissau	5	1 776 000	36 544	Bissau
Lesotho	5	2 048 000	30 355	Maseru
Libya	5	6 578 000	1 759 541	Tripoli
Somalia	5	15 008 226	627 340	Mogadishu
South Sudan	5	10 975 927	619 745	Juba
Western Sahara	5	267 405	266 000	El Aaiun
Cape Verde	4	551 000	4 033	Praia
Dem. Rep. of Congo	4	91 931,000	2 344 858	Kinshasa
The Gambia	4	2 238 000	10 380	Banjul
Guinea Rep.	4	13 627 000	245 857	Conakry
Ivory Coast	4	26 275 000	322 460	Yamoussoukro
Malawi	4	20 289 000	118 484	Lilongwe
Mauritania	4	3 516 806	1 030 700	Nouakchott
Mozambique	4	31 157 000	801 590	Maputo
Niger	4	20 000 000	1 267 000	Niamey
Sierra Leone	4	7 737 000	71 740	Freetown
Algeria	3	43 088 000	2 381 741	Algiers
Benin	3	11 722 000	112 622	Porto-Novo
Cameroon	3	25 506 000	475 442	Yaoundé
Ethiopia	3	109 224 414	1 104 300	Addis Ababa
Kenya	3	51 392 565	569 140	Nairobi
Liberia	3	5 000 000	111 369	Monrovia
Namibia	3	2 408 000	825 418	Windhoek
Nigeria	3	199 206 000	923 768	Abuja
Rwanda	3	1 230 197	24 670	Kigali
South Africa	3	58 333 000	1 221 037	Pretoria
Tanzania	3	56 313 438	885 800	Dar es Salaam
Zambia	3	18 321 000	752 618	Lusaka
Zimbabwe	3	15 658 000	390 757	Harare
Burkina Faso	2	20 000 000	274 000	Ouagadougou
Egypt	2	99 211 000	1 002 450	Cairo
Ghana	2	29 742 000	238 535	Accra
Mali	2	20 161 000	1 240 192	Bamako
Mauritius	2	1 279 000	2 040	Port Louis
São Tomé and Príncipe	2	222 000	964	São Tomé
Senegal	2	16 793 000	196 723	Dakar
Seychelles	2	96 000	451	Victoria
Sudan	2	43 222 000	1 886 068	Khartoum
Togo	2	8 205 000	56 785	Lomé
Madagascar	1	27 055 000	587 041	Antananarivo
Morocco	1	35 587 000	446 550	Rabat
Tunisia	1	11 800 000	163 610	Tunis
Uganda	1	42 729 036	200 520	Kampala



AN EAR FOR SOUND
POLICY FORMULATION

4 Policy Formulation in Africa: Lessons from East Africa

The section is largely based on a study conducted in Kenya, Uganda, Ethiopia, Rwanda and Tanzania, supplemented by experiences from the other four regions of Africa. The study was coordinated by Dr Edith Kareko-Munene for Biovision Africa Trust (BvAT) in collaboration with PELUM Kenya on behalf of the Continental Steering Committee (CSC) of the Ecological Organic Agriculture Initiative, Swedish Society for Nature Conservation (SSNC), and Swiss Agency for Development and Cooperation (SDC); their support is gratefully acknowledged.

A multi-country EOA policy process assessment provided a framework for analysing a country's effort and commitment to develop an agriculture policy or strategy by identifying some EOA policy formulation related elements. The path and trajectory of policy formulation are complex, non-linear processes that are often unique to a particular country.

This assessment focused on how agricultural policies are formulated, developed and delivered in Africa and with the particular focus on EOA in order to stimulate discussion among African policymakers, farmers, practitioners and development partners on policy interventions and implementation and determine their value for improving the social, environmental and economic conditions of a range of stakeholders. It informs five Regional EOA Policy Briefs which have been developed to assist regional EOA development.

Assessment Criteria

The policy process differs from country to country and from time to time, depending on the nature of leadership and governance. The first step in this study maps out the key systems, processes, and relationships that influence the policy development process. This approach involves identifying and mapping the guiding policy frameworks, the key institutions that hold primary responsibility for implementation, inter-ministerial coordination mechanisms, private and civil society organisations, as well as think tanks and research organisations which impact and influence the policy formulation process. These factors are examined in the context of the broader economic and social dynamics that impact the policy-making environment.

The assessment considered policies and legislation in EOA, the environment and in the collaborating sectors at the national and district levels. The next step analysed the capacity to undertake transparent, inclusive, predictable, and evidence-based policy formulation.

4.1 BACKGROUND

Since the early 1990s, Africa has delivered certified organic products, mostly grown by smallholder organic farmers, to the international organic market with increasing volumes, diversity of products and value.

The EOA-I is an African Union-led continental undertaking started in 2011 and currently implemented in nine countries (Benin, Ethiopia, Kenya, Mali, Nigeria, Senegal, Tanzania, Uganda and Rwanda). It is implemented under the guidance and oversight of the AU-chaired Continental Steering Committee (CSC) to establish an African organic farming platform based on available best practices, and to develop sustainable organic farming systems and improve seed quality. Its mission is to promote ecologically sound strategies and practices among diverse stakeholders involved in production, processing, marketing, and policy-making in order to safeguard the environment, improve livelihoods, alleviate poverty, avoid child stunting and malnutrition and promote food security among farmers in Africa. The goal is to contribute to mainstreaming of EOA into national agricultural production systems by 2025 in order to improve agricultural productivity, food security, access to markets and sustainable development in Africa. In addition, these efforts are intended to reduce the exploitation of organic farmers in Africa in line with the AU decision (p.iv).

The EOA-I was started in response to this AU Heads of State call for the promotion of EOA in Africa. The AUC in collaboration with several civil society organisations, held an inception workshop in May 2011 in Thika (Kenya) with financial support from the SSNC to discuss how to implement the initiative. The workshop produced a roadmap, a concept note and an African Organic Action Plan to mainstream EOA into national agricultural production systems.

The action plan was supported by SSNC in a pilot in 2012 in six countries (Ethiopia, Kenya, Tanzania and Uganda in Eastern Africa; Zambia in Southern Africa; and Nigeria in Western Africa) while the SDC supported baseline studies in Benin, Mali, and Senegal in the third quarter of 2013. Further discussions led to the development of an 8-country project proposal supported by SDC (first phase: 2014-2018) while the SSNC (with funding from the Swedish International Development Cooperation (SIDA) supported the EOA-I in some Eastern African countries through civil society organisations from 2013 to date (Rwanda was added to the initial 8 countries in 2018 bringing the total number to 9). The AUC also supports the EOA-I through funds provided by the EU and other sources.

4.2 CONTEXT OF THE EAST AFRICAN STUDY

The East African study was part of the Global Advocacy Project (GAP) which is a part of the EOA-I supported by SSNC and SDC. The overall aim of GAP is to support increased food security, resilient production systems, and better incomes for small- and medium-scale farmers in Africa while at the same time safeguarding the environment for the future.

Policy Formulation Processes: Theories and Concepts

According to Hill (1993), policy can be defined as the product of political influence, determining and setting limitations on what the state needs. In general use, the phrase 'policy formulation process' refers to policymaking procedures and associated processes. Policies, for purposes of this study, are understood from the stance of the EOA legislation and formulation ground as the actions of actors and intentions that determine those actions (Cochran et al. 1999).

When analysing the process of policy formulation one can draw on the literature on path dependence (Pierson 2000). This model argues that it is generally difficult to formulate, implement or change policies because institutions are sticky, and actors protect the existing model (even if it is suboptimal). Path dependence means that 'once a region, country, institution or individual has started down a track, the costs of reversal are often high' (Levi 1997, p.27). As Pierson (2000) notes, public policies and formal institutions are usually designed to be difficult to change, so past decisions often ensure continuity. In addition, to introduce any major change, policy-makers have to wait for a critical juncture (Capoccia and Kelemen 2007) or a window of exceptional opportunity (Wilsford 1994).

As summarized by Sabatier (2007), several theories related to policy formulation processes have been unearthed in literature. Four of the most commonly mentioned are

1. institutional analysis and development, which is centred on the incentives and motivations for the selection of particular sources of action and on how institutional rules alter these motivations and the behaviour of rational individuals;
2. multiple-streams framework, which is based upon the "garbage can" model of organizational behaviour and distinguishes three streams of actors and processes: problem identification stream, policy solution stream, and politics stream consisting of voting and elected officials;
3. advocacy coalition framework (ACF) , which focuses on the interaction of advocacy coalitions, each consisting of actors from a variety of organizations who share a set of policy beliefs within a policy subsystem; and
4. policy or social networks, which are characterized by the predominance of informal, decentralized, and horizontal patterns of social relations between interdependent actors that take shape around policy problems and the policy programmes.

National policy formulation is a political and economic process. In a democratic system of government, people's representatives play a dominant role in the policy decision making. Sometimes, a policy proposal is implemented by the government through executive order; sometimes it is debated in the parliament (in case of national policy) or legislative assembly (in case of county policy), and after the debate and discussion, it is approved, modified, or referred back to the department/ministry concerned for further revision. Once the policy proposal is approved by the parliament or legislative assembly, it is implemented by the government; to achieve the intended policy goals, time-bound plans and programmes are prepared and implemented.

The types of institutions that cohere around a particular policy issue vary widely across geographic and socio-economic contexts, and include government, private organisations, civil society or non-governmental organisations (also referred to as community-based organisations), foreign agencies and academic institutions (Sutton, 1991; Keeley & Scoones, 2003). Government agencies would include those operating on all scales, from the local to the national level. The roles and responsibilities of each agency differ based on the policy exercise and the reach of the document in question.

Good policies are critical to progress in the economic and social spheres. Policy formulation is a central function of government and the quality of the policies therefore depends on the capacity of government to manage policymaking processes (Kibaara et al., 2009). At the outset, it should be emphasized that weaknesses in the policy formulation process are neither exclusive to Africa nor to the larger developing world (Angelucci et al., 2013). They can be found, to a greater or lesser extent, in all administrations around the globe. Cochran and Malone (1999) explain that policy formulation takes up the "what" questions: what is the plan for dealing with the problem? What are the goals and priorities, what options are available to achieve those goals? What are the costs and benefits of each option? What are the externalities, positive or negative, associated with each alternative? Bucardo and Maharjan (2004) indicate that each policy stage presents a series of opportunities and challenges for participation for both the public officials and external groups. Developing public policies is complicated: they are often the result of complex interactions between various actors, with different perceptions, values and resources, and varying levels of participation and influence, in a challenging administrative and legislative setting. Policymaking is never determined by once-off decisions, rather it is a process that extends over a period of time with many decisions passing through political processes where there is conflict, bargaining and negotiation among actors (Teisman, 2000).

Agriculture accounts for at least 25% of national GDP in 19 of 55 African countries (~35% of Africa), the largest proportion of any continent. It is also a sector under pressure from degradation of natural resources, long-term underinvestment and high levels of expectation. Global interest in agriculture including EOA has led governments, international agencies and donors to reassess the aims and instruments for agricultural development and associated fields of rural development, food and nutrition security, rural poverty and the management of renewable natural resources. Many development agencies have made statements on agricultural policy since 2008 (FAO, 2011b). EOA is currently the fastest growing food sector around the globe (Bhavsar, 2017).

Although rapid growth has been observed in absolute terms, the EOA sector in Eastern Africa is still quite small (FiBL, 2016).

The spread of EOA methods globally has brought about some debate, including discussions on whether large-scale adoption of the methods would increase or decrease global food security (Halberg et al., 2006). As global populations increase, land holdings decrease in size, thus many smallholder farmers have resorted to more frequent cropping, preventing traditional long fallow periods and other ways of harnessing ecological processes to restore soil nutrients lost with repeated harvests (Farrelly, 2016).

Agriculture in Africa exhibits a complete spectrum of approaches from collection of wild products through small traditional farms to commercial estates, from labour-intensive to highly automated systems, and from locally organised farm cooperatives to foreign-owned plantations (Bennett & Franzel, 2013). Some studies indicate that few farmers in Africa were found to practice a complete organic agriculture system as referred to above and defined by most organic standards. Many, however, practice component techniques such as contour planting, crop rotations, composting, etc., often combined with small amounts of fertiliser and pesticides.

Numerous adaptations of the guidelines have taken place, but the common understanding is that:

> "[EOA] is an agricultural production system that seeks to promote and enhance an ecosystem's health while minimizing adverse effects on natural resources" (UNCTAD, 2008).

Some writers on the subject argue that organic farming is the agricultural expression of what was finally recognized in Rio and predated it by about 50-60 years. Public support for organic agriculture can be validated in numerous ways (Holmen, 2005). Ultimately, it reflects a political choice that is influenced by many factors such as the overall political and economic situation of a country, the balance of political forces at a given moment, broader societal choices, and perceptions regarding food production, and the relative power of influence of civil society movements and professional lobbies (IFOAM, 2017).

The East African Community (EAC) Vision 2050 does not unequivocally promote organic farming, however it does mention livestock keeping and how fuel and manure use can be used to support organic farming and increase crop yield and soil conservation. In addition, Vision 2050 sets out Green Growth/Green Economy as a priority in the context of achieving the 2030 Agenda for Sustainable Development (Regional Vision for Socio-Economic Development and Transformation 2050, 2015, pp.86). However, there is no mention of organic agriculture as a method of achieving green growth in the region. The same is true of both the Economic Community of West African States (ECOWAS) Regional Agricultural Investment Programme (RAIP), and of North and Central African regional plans. The 2014 Regional Agricultural Policy (RAP) of the Southern African Development Community (SADC) does include some clauses which advocate using approaches which increase biodiversity, water use efficiency and sustainable use of natural resources, but it too avoids specifically including EOA.

A lot has been written and said about the need for national agriculture policies, for something that goes beyond the focus on the production sector. The case for such an approach is clear, despite the stresses and strains it causes. There are problems, however, both in articulating what an agriculture policy involves, and in managing the political and policy formulation challenge which it presents. The distinguishing characteristic of an agriculture policy is that it covers the full range of activities from the consumption of food, through processing and distribution activities, production, and the supply of inputs among others. The articulation of such an inclusive policy is more difficult than a narrow emphasis on agriculture alone. A food systems approach means that consumer interests and the associated regulatory requirements become important policy issues.

Agriculture has gained prominence on the African policy agenda and one novel aspect in this respect is the increased importance attached to regional and continental levels to foster agricultural development. The AU has long recognised the challenges these factors and low agricultural productivity present to the long-term development of the continent. In the AU's Second Ordinary Assembly held in July of 2003 in Maputo, Mozambique, African heads of state ratified an initiative called the Comprehensive Africa Agriculture Development Programme (CAADP).

The programme, part of the New Partnership for Africa Development (NEPAD), was endorsed as a framework meant to create ambitious institutional and policy transformation in the agriculture sector. It was an agreed-upon process (the label "programme" is, in some respects, a misnomer) that embodies unique goals and principles. For example, CAADP implementers sought to address fundamental obstacles to African agricultural development, including the sector's reliance on external technical assistance, the lack of African political leadership and commitment, as well as poor planning and coordination between national and regional stakeholders (Bahiigwa and Benin 2013). Other agricultural programmes initiated at the same time focused predominately on issues of emergency relief, offering short-term solutions which were frequently implemented independent of national systems and protocols (Simmons and Howard, 2009). CAADP, initiated by AU and NEPAD, pinpoints the issue of evidence-based and inclusive policymaking.

To address African food- and agriculture-related challenges, the AU signed and endorsed various declarations and protocols. For example, the Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods (2014) recommitted member states to ending hunger in Africa by 2025 and enhancing resilience of livelihoods and production systems to climate variability. The AU also developed Guiding Principles on Large Scale Land Based Investments in Africa to regulate access of land by foreign investors. In tandem with the agreement of the 2030 Agenda on SDGs, the region also developed agreements and strategies to support these global efforts such as: the African Regional Nutrition Strategy (RNS) (2016-2025); Tripartite Free Trade Area Agreement (TFTA) (June 2015); The AU Agenda 2063 for long-term development, and the EOA Initiative (2015–2025). The AU Agenda 2063 embraces the principles of the 2030 Agenda on SDGs and sets the continent's development vision over the next 50 years towards a prosperous Africa "based on inclusive growth and sustainable development." As part of Agenda 2063, the AU also adopted the Declaration on Women Empowerment and Development in June 2015 to prioritise financial inclusion of women in agribusiness and enhancing women's rights to productive assets.

Since the 2000s, there has been a renewed interest among African governments, donor/ development agencies, civil society and the scientific community to promote agricultural development in Africa, as shown in CAADP, the Alliance for a Green Revolution in Africa (AGRA) and the New Alliance for Food Security and Nutrition initiatives. Agriculture remains the mainstay of most economies in Africa, accounting for more than 30% of Gross Domestic Product (AGRA, 2017).

The role of the state in driving agricultural transformation is widely acknowledged across the world. In Africa, this was best illustrated when leaders and governments committed themselves in 2003 in Maputo to drive agricultural transformation through CAADP. This commitment was renewed in 2014 in Malabo, Equatorial Guinea. Country frameworks have clarified what needs to be done across the continent and in individual countries to ensure agricultural transformation. However, except for a handful of countries, progress has generally been slow mainly because many countries, despite the willingness to do what is right, grapple with capacity challenges that hinder their ability to design and implement a transformative policy formulation and implementation agenda. In many cases, CAADP plans have relied heavily on external inputs provided by donor organisations, and there has been a reluctance to embrace EOA as a solution which empowers African countries and small-scale farmers, but does not enrich foreign input suppliers. Undeniably, Pan-African member states have taken notable steps to develop declarations, protocols, treaties and guidelines to address identified food insecurity challenges and support other member states' efforts to translate their global obligations into national policies and laws. However, spindly political will to support EOA and generally non-conclusive policies have had a negative impact on productivity growth for this agriculture sub-sector (Walaga, 2014).

In 2010, the African Heads of States and Government made a landmark decision, EX.CL. Dec 621(XVII) on organic farming (see p. iv). This decision requested that the AUC and NEPAD's Planning and Coordinating Agency (NPCA) initiate and provide guidance for an AU-led coalition of international partners on the establishment of an African organic farming platform and to provide guidance in support of the development of sustainable organic farming systems and improvement of seed quality. Africa's agricultural and food security initiatives through the 2003 CAADP seeks to achieve the goals of Agenda 2063 and contribute to the achievement of the SDGs.

The NPCA is the facilitating unit, ensuring that countries write up investment plans that are consistent with the CAADP objectives. In addition, the Regional Economic Communities (RECs), such as the Southern African Development Community (SADC) and the Common Market for Eastern and Southern Africa (COMESA), play a role to push for the implementation of CAADP in the countries themselves, while coordinating region wide investments through the regional CAADP compacts. The Regional Strategic Analysis and Knowledge Support System (ReSAKSS) is responsible for monitoring national and regional progress through the provision and analysis of key data, supported by the International Food Policy Research Institute (IFPRI). NEPAD estimated that 251 USD billion was needed to implement the CAADP for the period 2002-2015.

According to recent data from NEPAD, 42 out of (then) 54 AU member states had signed a CAADP compact by November 2015 (NEPAD, 2015). Regarding the regional organisations, ECOWAS, IGAD, ECCAS and COMESA signed regional compacts between 2010 and 2014, of which one was already under implementation by November 2015. However, the initiation and signing of country compacts has been a slow process. The first country compact was signed in 2007 by Rwanda, four years after the Maputo declaration. In 2009, more countries followed, mostly from West Africa. In 2007/2008 food riots following the global food price crisis spread across a number of African countries, re-igniting an interest in agricultural policy and leading to more active participation in CAADP (Poulton et al. 2014).

The Maputo Declaration emphasizes policies that benefit smallholders as a way to achieve inclusive growth and revitalise the agricultural sector in sub-Saharan Africa. Pan-African ambitions with respect to gender issues have made few strides since the signing of the Maputo Declaration. This is in spite of the fact that gender relations are a fundamental component in the organisation of farm work, as well as in decision-making pertaining to management of land, labour, seeds and machinery around the world. It is heartening to note that an early focus on smallholders in Rwanda and Tanzania especially, has been followed by recognition of the importance of the role of women and youth in achieving the SDGs. These developments have yielded positive results to the extent that more than 1 million ha of land in Africa are currently certified organic, mostly small-scale agriculture, and often with women making decisions.

The status of women is a key cross-cutting issue that needs to be integrated into every EOA approach, particularly when addressing policy formulation (and implementation) issues through a multi-sectoral lens. Interest in gender and agricultural development is longstanding, dating back at least as far as 1970 when Ester Boserup published 'Woman's Role in Economic Development'. Subsequently interest has grown, marked by a series of UN World Conferences on Women, starting in Mexico in 1975. Their role and the policy questions it raises have thus become increasingly important since women's wellbeing, earning potential, empowerment and education are key driving factors in reducing hunger, poverty and malnutrition (Smith and Haddad 2002). Gender relationships are a fundamental component in the way policies are articulated. The potential of sustainable approaches to farming to reshape our food systems, and the way humans interact with those systems, will not be realised unless there is a concerted effort to work towards gender equality (IFAD, 2008).

Since the gender gap in EOA policy formulation operates within the broader context of the bigger gender gap in society, it is important that policy makers, donors and development partners carefully consider their understanding of which key problems women face, why particular policies would work, and what operational challenges they may face when trying to actually implement policies (Farnworth and Hutchings, 2009). As gender inequity is deeply cultural and societal, policy makers should use a combination of economic and behavioural shifts to narrow the gender gap in policy formulation and in EOA. Achieving inclusive policy outcomes strongly depends on whether policies reflect and integrate perspectives of diverse stakeholders, including both men and women.

Sabatier and Weible (2007) categorised the crucial actors in the policymaking process into two, namely: official and unofficial policymakers.

Official Policymakers

According to Weible et al. (2012) the official policymakers are those who possess legal authority to engage in the formulation of public policy. Those involved in this category are the legislators, the executive, the administrators and the judiciary.

Unofficial Policymakers

Unofficial policymakers do not occupy formal public positions or political offices. The main actors in the agriculture-related policy formulation process in most countries can be identified as the Ministry of Agriculture, including Animal Industry and Fisheries, especially the Agriculture secretariats and the Agriculture Sector Working Groups, parliamentary subcommittees, development partners (bilateral, multilateral, and projects), the private sector, farmers (commercial, medium, and small scale), farmers' organisations, local governments (districts and sub-counties), CSOs, NGOs and other affiliated ministries, such as the Ministry of Finance Planning, Education, Health and Economic Development.

In the EOA sub-sector and in other subsequent agriculture-related policy formulation settings, the Ministry of Agriculture is the most powerful actor for all agricultural-related policies (Obi, 2016). In most of the countries, at least one general farming organizstion holds a fair amount of power in the agricultural policymaking process whereas historically, organic farming organisations have played a marginal role. The right policies have the power to optimise public welfare by incentivising farmers to produce positive externalities of high societal value (IFOAM, 2017).

While some actors argue that agricultural development requires strong government support, others criticise government-focused instruments and favour market-oriented strategies. Examples of such unresolved debates regarding the role of the government versus the private sector include controversies about issues like input subsidies, import taxes, price stabilisation, etc. (Rundgren, 2008). Summing up, many stakeholders and bystanders continue to ask: "How can people with seemingly the same end in mind disagree so much about means, and also how can the same objective reality be interpreted so differently?"

The role of the legislative branch involvement in drafting EOA policy was found to be limited in the country assessments. The centralisation of power within the executive branches (Ministries of Agriculture) was noted as a common constraint across practically every country assessed. In Ethiopia, for example, the executive branch was found to exert significant influence over the legislative branch, and parliamentary oversight was found to be limited.

Ethiopia

In regards to the Ethiopian agriculture policy formulation process, it was noted that the Ethiopian Ministry of Finance and Economic Development (MoFED) has a role in initiating country-level strategies, while the Ethiopian Ministry of Agriculture (MoA) plays a role in initiating sector-specific policies such as land policy, seed policy, and others. The Central Statistics Agency (CSA) is the major and the official source of data and information. Research centres and universities, on the other hand, are significant sources of rigorous research and policy analysis reports. The Parliament and the prime minister's office mainly ratify and follow implementation of policies, while donors play a key role by providing technical expert advice and funds.

According to some government officials and policy documents, such as Plan for Accelerated and Sustained Development to End Poverty (PASDEP) and Growth and Transformation Plan (GTP), the policy formulation process in Ethiopia follows a systematic and consultative process. However, key informants—mainly from non-government institutions and practitioners—indicated that the policy process in Ethiopia is less systematic, lacks wider consultations, and is often a top-down exercise. With regard to demand and supply of evidence-based information and/or policy analysis results, crucial information and research is not well organized and structured, and demand for policy analysis results is not explicit enough to encourage research centres and universities to engage in policy formulation and analysis hence share findings with major stakeholders.

Kenya

In the case of the Kenyan agriculture policy formulation process, it was noted that the policy process is meant to be participatory, involving the public from problem identification through implementation, monitoring and evaluation (M&E). There are various policies, acts, and session papers that guide food production in Kenya. Since 2003, there has been much activity in an attempt to revitalize Kenyan agriculture. There are a number of actors in decision making affecting agricultural policy. Their roles are related to their control of development resources. The Ministry of Agriculture, Livestock and Fisheries takes the lead on and involves public and stakeholder participation in a drafting policy.

A draft policy could take either of two directions, depending on the nature of the problem and the intention of the executive:

- Final policy → pronouncement → implementation
- Final policy → Cabinet memorandum → Cabinet approval
- If the draft policy is a bill in the process of formulating a law, the stages in the National Assembly seem to be more important than any other, as they decide the final outcome. The approved policy itself could take either of two paths:
- Pronouncement and implementation
- Sessional paper, which could be taken to Parliament for approval, followed by implementation, or developed into an act of Parliament, then to the implementation stage.

Uganda

With regard to the Ugandan agriculture policy formulation process, it was reported that the policy process is usually participatory and inclusive, involving consultation with key stakeholders in the agricultural sector, including the private sector, national and local government officials, development partners, and civil society representatives. The Uganda Government policy development process is comprised of five phases that include: policy initiation, policy analysis, decision making, implementation, and monitoring and evaluation. Policy initiation involves accurate identification and understanding what the social, economic, or political issue is. The process of policy identification helps stakeholders to distinguish symptoms from the problem. In all cases, it involves defining the problem and the evaluation criteria; identifying all alternatives; evaluating them; and recommending the best policy agenda for adoption. Decision-making is made in the context of a set of needs, preferences an individual or organization have, and the values they seek. The involvement of the actors in the policy process varies in Uganda according to the policy process phases, agricultural sectoral mandate, auxiliary or complementary roles, and function of the actor in question.

Rwanda

In Rwanda, policy formulation and implementation in the agriculture sector is led by the Ministry of Agriculture and Animal Resources (MINAGRI) and follows strategic and investment plans elaborated by Vision 2020, Economic Development and Poverty Reduction Strategy (EDPRS) and sector strategic plan. The Ministry has been designing and implementing different policies aimed at increasing animal production and diversifying both subsistence and commercial agricultural production. Different support line organisations are in place in addition to a number of development partners. MINAGRI has two implementing agencies namely the Rwanda Agriculture Board (RAB) and National Agricultural Export Board (NAEB) that also participate in policy design and complementary investment plans in the agriculture sector. Overall monitoring and evaluation remain the responsibility of MINAGRI in its Directorate General in charge of strategic planning and programme coordination and follows a systematic and consultative process.

Tanzania

Over the last three decades, the Government of Tanzania (GoT), with assistance and support from its major development partners, has undertaken economic and structural adjustments in an attempt to transform the economy. Certified organic agriculture emerged in Tanzania in the early 1990s. In 2003 the first local certification body, the Tanzanian Certification Association (TanCert) was established with support from the Swedish International Development Cooperation Agency (SIDA)-funded Export Promotion of Organic Products from Africa (EPOPA) programme and a number of civil society organizations. TanCert formulated and now applies two standards for the national market and the export market using a pool of 34 local inspectors. In 2005, a national network, the Tanzania Organic Agriculture Movement (TOAM) was formed with the mission to develop a sustainable organic sector through promotion, coordination, research and education. In the case of the Tanzanian agriculture policy formulation process, it was noted that the policy process is meant to be participatory, involving the public from problem identification through implementation, monitoring and evaluation (M&E).

4.3 FINDINGS FOR EAST AFRICAN COUNTRIES

- Uganda leads the way in terms of national government commitment to the ecological organic agriculture sector among the three countries. It has a robust organic agriculture network, substantial organic production support, market support, and some data. A national organic agriculture policy (NOAP) document has been drafted and reviewed, and is ready to be discussed at the cabinet level. Additionally, a corresponding action plan/implementation plan for the NOAP has been finalized. (Rating: Substantial).
- Kenya's findings indicated that there is poor intra-government coordination, especially between the lead Ministry (MoA) and other ministries, parastatals and stakeholders. A draft NOAP document exists but is yet to be discussed at the cabinet level. (Rating: Modest).
- Ethiopia lags behind in this regard as there is no standalone current organic policy or regulations document yet in the country. The document currently in use is titled "Rural Development Policy and Strategies." The organic sector lacks substantial government support. Where and when available, it has been inconsistent and limited to cash crops such as coffee. (Rating: Weak).
- In Tanzania, here is no specific policy, rather a few scattered policy statements in, for example, the Agriculture Policy 2013 (currently undergoing a review). However, in November 2019, a conference on EOA was conducted in Dodoma with a significant presence of Ministry of Agriculture officials and legislators. Tanzania's findings indicate that there exists an active organic agriculture network (TOAM) but no EOA policy in place. (Rating: Weak).
- Rwanda joined the EOA about one year ago in 2018. The initiative has not yet worked on many things but so far, there is a National Platform. Rwanda's findings indicate that there exists an active organic agriculture network (ROAM). There is no policy for ecological organic agriculture in Rwanda. Different elements of support to organic farming are delivered through a range of sectoral policies (e.g. land management, fertilizer planning, and export competition). ROAM is in talks with Rwanda Government on establishing National Organic Policy. (Rating: Weak).

Multi-country Lessons

Whereas line ministries have well-defined agriculture policies/strategies and functions, there is a considerable lack of EOA-related information in them. The role of the non-executive branch and other stakeholders in drafting the EOA policy is still very limited.

The absence of permanent technical and administrative capacity for policy is the greatest policy incoherence and constraint to policy formulation and consequent implementation.
One of the strongest positive takeaways from this study is that the five countries have agriculture policies/strategies. Kenya and Uganda scored modest and Ethiopia scored weak –the most acute score of any indicator in this respect. The policy challenges encountered include incoherence and limited material capacity (including human resource). All of the countries have an approved agriculture / food security policy or strategy with clearly defined objectives, a detailed results framework, and investment plans in various stages of completion which were required through the CAADP Compact. However, one issue highlighted across the two countries was a lack of policy coherence, mainstreaming or prioritisation of EOA initiatives within the agriculture strategies and associated investment plans.

A cross-sectoral policy coordination mechanism is central to effective legislation and policy formulation, but such a mechanism requires sufficient political will to wield enforcement power over line ministries.
The policy coordination indicator measures the existence and subsequent effectiveness of a dedicated coordination unit that meets regularly to discuss, develop, and coordinate EOA policy formulation, finalisation and cross-sector coordination. One of the key prerequisites of a high-level commitment to EOA is successful multi-sectoral coordination. This ensures the efficient and strategic delivery of EOA interventions. For the countries examined in this project, most stakeholders agreed that there are other sectors that should be more engaged in the planning processes and action plans for EOA agriculture. Many stakeholders perceived that EOA plans are led, by default, by the Ministry of Agriculture, which is a disadvantage for a truly coordinated response. Ministries such as those of Health, Education, Urban Development, Women, Children, Social Welfare and Local Development are seen as secondary.
None of the East African countries have standalone units for coordinating EOA policy formulation. Inadequate technical and administrative capacity to formulate policies and limited material capacity, including human resources posed a challenge in every country studied. As illustrated above, the use of EOA methods leads to increased soil fertility and many other features of resilient farming systems. The policy challenges encountered include incoherence and limited material capacity (including human resources). With so many individual projects and limited resources, the current staff in key ministries are too thinly spread to have significant impact. Human capacity is a limiting factor in achieving project targets related to EOA policy formulation processes.

Governments, private sectors and civil societies require considerable inclusivity, goodwill, and transparency to meaningfully engage in policy formulation and key advocacy efforts.
Beyond governments having the openness to include stakeholders in the policy development process, key stakeholders need to be able to collect and organize the viewpoints of their constituents, develop an informed policy position, and effectively communicate this position. The Ethiopian policy makers, for example, expressed an apprehension to work with advocacy organisations.

> "Given that the current system of policy formulation in Ethiopia has significant limitations with respect to stakeholder engagement, co-ordination, and data sources, it can be expected that these EOA policy formulation issues will only be compounded with larger hurdles to deal with, a challenge that holds a lot of concern for EOA stakeholders at all levels."
> - Practioner/Think Tank, Ethiopia

The assessment found considerable capacity needs across both the private sector and civil society. In Uganda and Kenya, for example, EOA stakeholders noted insufficient financial and human resources for agricultural associations to effectively articulate policy stances or provide evidence-based research to propose constructive solutions.

> "We have to do the best thing for our children. We are just farmers…but we need more support like training so that we can teach them organic techniques of farming to ensure they will be independent in the future."
> - Farmer, Kenya

For greater EOA uptake, public debates should be held and smallholder farmers, women and the youth should have greater participation in policy- and decision-making.

Beyond governments having the openness to include stakeholders in the policy development process, key stakeholders need to be able to collect and organize the viewpoints of their constituents, develop an informed policy position, and effectively communicate this position.

> "There is sometimes growing suspicion and sometimes secrecy towards science and scientists among the public, which will have an effect on policy formulation and implementation. There is inadequate information on issues related to EOA, including, production techniques, processing, labelling and marketing. This tends to deny farmers opportunity to utilize the market potentials."
> - Consumer, Tanzania

Inclusion of the private sector and civil society organisations in food security and agricultural policy reform is inconsistent and oftentimes does not provide sufficient advance notice or time for internal consultations. Stakeholders do not view themselves as equal partners in the EOA dialogue and would like to have greater access and play a larger role in policy formulation. For example, in Tanzania, the major weaknesses in the linkages among the leading agricultural ministries, NGOs, and CSOs include inadequate participation of the private sector and smallholder farmers in the policy process and various issues that require decision-making. Also, the lead ministries have been reported to have weak information-sharing systems, such as inadequate sharing of budget-and policy-related documents.

> "The present agricultural policy gives too much priority to conventional agriculture with high emphasis on the application of chemical inputs (fertilisers, pesticides, fungicides …) and yet, it does not offer a space to EOA as a sustainable alternative farming method.
> Following policy domains are missing: EOA, Biodiversity Conservation, Natural Resources Conservation, Social Responsibility (Occupational Health and Safety related to chemical inputs, the aspect of food safety within the food security component…), Organic Certification and organic market development …"
> - Practitioner/Think Tank, Rwanda

The assessment found considerable capacity needs across both the private sector and civil society.

> "NGOs, if possible should develop their own training centres for better learning and practical on EOA. Also, the Government must establish and develop the clear policy that will clearly demonstrate on how it will support the farmers doing Organic Farming. Lastly, all extension officers [need] knowledge on Organic farming techniques because currently it is not there."
> - Farmer, Tanzania

> "Implementation of EOA policy can be strengthened through involvement of all important actors in our Agricultural sector from highest levels to the lowest levels, it shouldn't end only to Ministries and institutions -it can be brought down to high school students. Let the policy state things which are practical basing it on our environment, seeds, market and knowledge. Actors who are hoping to implement this policy should have practical demonstrations so that everything written on the paper [is] done in the field. EOA can be a campaign tool in other cross cutting issues like gender."
> - Development Partner, Tanzania

Key informants were asked for their views on the critical success factors for the EOA legislation and policy formulation processes — for instance, how can EOA be strengthened?

Their general responses stipulated that to meet the strategic analysis and knowledge management objectives of the EOA policy formulation process, each country should have full representation of all potential institutions, such as agricultural sector lead ministries, development partners, think tanks and universities, government agencies, NGOs, and civil society organisations. These joint efforts will improve the overall quality and utility of organic agricultural policy analysis and implementation, M&E, and knowledge management. When asked to identify specific actors, individuals, or groups who should be engaged, respondents named both luminaries and "thought leaders" from within their own sectors and the research enterprise generally, but also supported the inclusion of some voices that are not often heard, such as those of average consumers.

> "I would like to be consulted and involved in the policy formulation processes in this country. As a consumer of organic products, I am not just concerned about the quality, safety and price of their food but also about the health, social, ethical, ecological, and animal welfare impacts occurring at different stages of the supply chain."
> - Consumer, Kenya

Vertical and forward distribution of power between the different tiers of government and the decentralization of resources and competencies need to be reassessed in order to better respond to the diverse opportunities and demands of the different countries and improve policy formulation and implementation efficiency.

> "AfrONet has not yet been able to unify the stakeholders of the African Organic Sector at continental level and one General Assembly in 3 years is not enough; it should be a continental meeting every year. In some countries, there is not yet a National Organic Agricultural Movement (NOAM); AfrONet has not yet initiate effectively a dialogue with regional organizations like EAC and also AU commission to engage them with the governments members towards EOA recognition. The intervention from AfrONet to support NOAMs is very low.
> - Practitioner/Think Tank, Rwanda

Many informants emphasized the need for national guidelines and improved coordination and collaboration between different levels, tiers and authorities of the agricultural sector to bridge the separate "silos" of EOA related efforts and subsequent policy formulation and implementation as well as the need for joint responsibility and accountability of outcomes.

Multi-country Lessons

- Despite greater government commitments, the private sector, civil society, and beneficiaries remain marginalized in the policy formulation processes. For instance, private sector, CSOs and beneficiaries need to strategically position themselves to actively participate in policy formulation process or rather promote public-private partnerships in policy formulation processes.
- The greatest private sector and civil society impact has been achieved through umbrella organizations that bring together all actors under a common voice.
- Several key informants voiced the need for better networking among organic agriculture practitioners and other stakeholders to improve the exchange of information and strengthen policy advocacy.
- There is still little consumer awareness in the two countries about the benefits of organic agriculture and how to get the products where they are available. This constrains the development of viable local organic markets and also means that although more farmers are adopting organic agriculture practices, their primary focus is on exporting to countries further north. More effort needs to be made to establish more local outlets and raise awareness in the two countries.

Although the offices of the president have agriculture advisors, key informants suggest only weak interaction between them and Ministry of Agriculture officers. The development community at large regards evidence-based analysis as a central pillar in policymaking. In June 2014, the AU signed the Malabo Declaration and reaffirmed its commitment to the principles and values of the CAADP process, which include the "application of principles of evidence-based planning, policy efficiency, dialogue, review, and accountability." The absence of quality data combined with limited independent analytical capacity has resulted in a policy formulation process that reacts based largely on broad economic data rather than informed analysis.

The use of evidence in policy formulation will only become a reality if it is a formalised part of the government's policy-making systems. Certainly, a systematic approach to EOA policy formulation and implementation may achieve this by helping ministries manage the complex and dynamic nature of EOA policy formulation in the two countries.

> '"In EOA policy making, balancing societal and consumer/market goals and balancing institutional and private stakeholder interests in the organic sector present particular challenges for policy-making.
> - Policy Maker, Tanzania

The multi-country EOA policy formulation process assessment shows promise as an in-country comparison tool over time.

There are a number of factors which make the ecological organic agriculture policy formulation process more challenging. These include the lack of performance management within many developing countries; the lack of indicators at the political level or that monitor the equality of service provision, the quality of service or the efficacy of service delivery; the lack of institutional mechanisms; and the fact that political research is not routinely carried out in both countries, just on demand, and therefore there is a lack of ongoing evaluation. Analysis of the multi-country EOA policy formulation process assessment demonstrates that the approach would be more useful as an in-country comparison tool to measure reforms over time.

Each assessment has set a benchmark of the state of a country's policy formulation and implementation process. Subsequent follow-up assessments would be able to build off the elements by identifying areas of progress. Since the mapping of key EOA actors in Eastern Africa has already been completed, time and cost savings in follow-up assessments would be expected. There is also less risk of subjectivity with in-country assessments, as opposed to multi-country comparisons. Even with a new consulting team, any changes to the scoring would warrant justification (i.e., as a result of an improved policy step), thus ensuring a measure of some data consistency. In the future, it will be useful to support time-series life cycle assessment studies to demonstrate the evolution of EOA, and resourced demands.

Challenges In Multi-Country Studies and Network Referrals

Due to lack of documentation in policy processes, network referral or "snowballing" was the main method of data collection employed in this study. Despite the fact that this method assisted in mapping out the interaction among stakeholders and their influence, it has a major drawback in the time it takes to complete the questionnaires. Many of the interviewees are extremely busy people with tight schedules and little patience for long interviews. Nevertheless, time was shortened by gathering as much information as possible before the interview.

Legislation on EOA has been identified as one important driving force for the development of an EOA sector in several countries. For example, it provides a legal definition of EOA through production rules and defined control and labelling requirements. This in turn provides a basis for protecting consumers and organic farmers against false and misleading organic claim. The performance and effectiveness of key policy formulation processes are often conditioned by organisational and individual incentives and capacity, which are greatly influenced by the organisational or institutional landscape, country context, and broader enabling environments. Inclusive legislative measures and policies are fundamental to progress, especially in the economic and social spheres of a country.

Table 6:
General Status of EOA in East Africa (after Munene 2020)

Ethiopia	Kenya	Rwanda	Tanzania	Uganda
In 1991, the new Ethiopian government began its own efforts at an Ethiopian Green Revolution. An Ethiopian organization addressing the promotion of organic agriculture in particular does not yet exist. Ethiopia, green coffee is the prevailing export commodity. Honey, sesame, pulses, teff, pineapples, and bananas are also available.	Organic farming started in the early 1980s with NGO training initiatives and later a few commercial companies. -KOAN began in 2005. Main products are cold-pressed oils, herbs, tropical fruits, and vegetables. 10 organic outlets; main supermarkets sell organic products.	The Government of Rwanda has developed a comprehensive Strategic Plan for Agricultural Transformation in Rwanda. Organic farming introduced 1999 by SEND-a-COW UK. First commercial organic production developed in late nineties organic fruit. Rwanda Organic Agriculture Movement (ROAM) was established as national umbrella in 2007 and has at least 1000 members. Products include apples, bananas, tea, pineapples, coffee, honey, avocado, passion fruit, mountain papaya, tree tomato, chilies, gooseberry and essential oils.	It was not until the 1990s that the Tanzanian government launched a campaign that aimed at promoting organic agriculture and related services. This campaign stimulated donors' support and encouraged various initiatives from NGOs and other organizations like the Export Promotion of Organic Products from Africa (EPOPA). - National representative organization of stakeholders in organic agriculture. Tanzania Organic Agriculture Movement (TOAM) - formed in 2005. Certified organic produce from Tanzania includes cotton, coffee, black tea, cocoa, ginger, vanilla, sesame, pineapples, spices, essential oils, honey, and cashew nuts.	From 1994 some commercial companies began exporting organic products. NGOs promote sustainable agriculture. NOGAMU (National Organic Agricultural Movement of Uganda) formed in 2001. Products include coffee, tropical fruits, cocoa, vanilla, etc. Some super-markets and shops sell organic products.

Table 7:
Organic Certification of EOA in East Africa (after Munene 2020)

Ethiopia	Kenya	Rwanda	Tanzania	Uganda
Most products are certified to the EU regulation, NOP (US), or JAS (Japan). -There are 4 internationally recognized certification bodies – BCS, Control Union, IMO and EcoCert – now carrying out certification in Ethiopia through locally based representatives. Utz and FLO-Cert are also involved in certification.	Most products are certified to the EU, NOP (US), or JAS. Created in 2005, EnCert offered organic certification in Kenya using guidelines from East African Organic Product Standards in line with the IFOAM's framework.	Certification in Rwanda has been supplied by Soil Association (UK) and EcoCert and Ceres -both German with close cooperation with UgoCert in Uganda, which acts as an inspection agent for Ceres. Partners supporting organic certification in Rwanda include BTC, ADF, PPPMER II, and RDB. • Some companies pay the certification costs themselves (e.g. SORWATHE - Tea factories	A standard for local markets was created by the Standards Committee (initiated by Pelum). An export standard was developed by TanCert in line with IFOAM Standards. TBS (Tanzania Bureau of Standards) also has a standard. TanCert is in the TBS Technical Committee. Certification bodies include TanCert, IMO, Bio-Inspecta	Most products are certified to EU, NOP (US), or JAS (Japan). Uganda Organic Standard (UOS) developed by NOGAMU and UgoCert in line with the IFOAM Basic Standard was adopted in 2004. UgoCert is the national certification body.

4.4 CONCLUSIONS & RECOMMENDATIONS

This report is a contribution towards understanding how the EOA policy formulation process in Africa is shaped by the policy makers and key stakeholders within it, how contextual factors influence policy, the attitudes and perceptions of actors involved in EOA related initiatives, the distribution of power and influence between them, and the ultimate consequences for EOA on the ground. The study approach aimed at the collation of views of a cross-section of key informants, allowing for a wider range of views to be captured and ultimately for opportunities and challenges in thought and practice to be identified. Based on the study findings and case studies, several recommendations have been offered.

Recommendations for Future Focus and Action in the various regions of Africa

The following recommendations are made with all the above in mind but do not necessarily express consensus between all stakeholders.

- Encouraging better use of evidence in policy formulation by increasing the pull for evidence and facilitating better evidence use.
- Encourage the publication of the evidence base for EOA related policy decisions
- Encourage departmental spending bids to provide a supporting evidence base
- Submit government analysis (such as forecasting models) to external expert scrutiny
- Provide open access to information – leading to more informed citizens and EOA initiatives
- Encourage better collaboration across internal analytical services (e.g. researchers, statisticians and agro-economists) and co-locate policymakers and internal analysts
- Integrate analytical staff at all stages of the policy development process
- Link R&D strategies to departmental business plans
- Cast external researchers more as partners than contractors/consultants
- Second more agriculture trained university staff into government
- Train stakeholders in evidence use. Institutional bridges need to be built which facilitate greater sustained interaction between researchers and research users.

Promoting Change at the Systems Level

To account for the differences in development stage of the organic farming sector in Rwanda and Tanzania institutional framework and social capital and to produce applicable policy innovation, bottom-up approaches to policy design are necessary. When addressing organic farming policy, the main objective must be to involve all national stakeholders and policy makers in identifying the parameters that could guide the further development of organic farming policy. The success of good policies depends as much on successfully formulating and implementing the change process as it also does on having a good technical solution. It is also about institutional change that is large scale and lasting.

In Eastern Africa, the technical, managerial, and intellectual leadership skills critical for the agricultural sector growth are either limited or lacking. As such, the proposed interventions and corresponding recommendations can be organized according to the following anticipated results:

- Market-driven expansion of the sector targeting domestic, regional and international markets. There is a dire need for improved capacity among key institutions to achieve their mandates in developing and managing national ecological organic agricultural programmes.
- Mobilizing the needed financial and technical resources and the development and promotion of the contributions of organic agriculture to the environment.
- Increasing awareness and capacity on all levels from production to consumption, including institutions, support organizations and research.
- Relevant government policies to support the development of the sector and ensuring enhanced capacity to manage policy formulation, implementation and reform nationally and across Africa. Focus on endogenous human, scientific and technological development.
- Strengthening coordination and communication among all actors in the sector. More inclusive development and implementation of EOA related policies and programmes through greater engagement of key actors in each country. For example, establish and develop gender sensitive EOA knowledge at the community and national levels.

Pricing and Creating Demand in EOA throughout Africa

Pricing should reflect the additional costs of an organic operational with a reasonable premium and should not take advantage of the infancy stage of the sector. Where a region can collaborate to develop a regional organic standard such as the East African Organic Products Standard" (EAOPS) and local certification bodies (CBs) take the lead by helping to set standards and also:

- Create an EOA brand and vibrant "Buy Ecological Organic Products" awareness, advocacy, and marketing campaigns as a way to promote the benefits of buying ecological organically grown foods.
- Expand and improve branding and labelling programmes and provide consumer education programmes to help consumers identify ecological organic products at the time of purchase.
- Encourage public institutions to purchase ecologically organically grown foods.
- Establish pilot programmes in training/capacity building institutions.
- Involve Faith based organizations (FBOs) and churches as they are known around the world to support and work together with promoters of EOA/OA. The positive human and social development that EOA/OA can contribute is recognized by many religious leaders to be in accordance with their religious faiths.

Production

Development projects in organic farming should promote the development of the local markets by working on both the supply and demand side of the market.

Awareness campaigns of the conditions set by the organic outlets should be made and circulated among all potential suppliers to be discussed for collaborative action among the organic sector promoters to develop a programme, to strengthen farmer organizations on marketing aspects. The main organic supply outlets should also be invited to local trade fairs and meetings with farmers groups in an effort to:

- Increase production of ecological organically grown foods, improve agricultural infrastructure including agricultural shows/fairs, irrigation systems, and distribution systems/ facilities.
- Support an ecological organic agriculture programme/ scheme that provides public lands at reasonable cost and long-term tenure to farmers to do large-scale organic farming.
- Support funding scheme to repair and maintain irrigation systems in the country as these systems could provide water at low cost to EOA/OA farmers.
- Encourage a variety of distribution systems to move goods to the marketplace. Nationally, introduction of direct consumer sales, farmers' markets, community-supported agriculture organizations, and farm-to-school programmes is imperative.
- Support multi-functional food hub facilities or food incubator facilities to handle aggregation, processing, treatment, and distribution of ecological organic products.
- To build the agricultural workforce, introduce a national initiative which provides workforce development services for the agricultural and related industries.
- East African Community should adopt the 'Kilimohai' organic product standard, as the official standard for cross border trade.
- Turning to local and regional markets within Africa, the AU should take the institutional lead in promoting and developing continental strategies for EOA/OA.
- In particular, smallholder participation could be facilitated by formation of producer groups and adoption of participatory guarantee systems in place of more costly third-party certification.
- Develop official standards in Africa, taking account of international norms, notably the Codex Alimentarius Commission Guidelines for the production, processing, labelling and marketing of organically produced foods which serve as the international standard.
- Policy advisors need to be more familiar with not only the sector, but also the target group, their partners and opponents, as well as the incentives and disincentives for policy formulation.

Policy and Organisational Support

Aligning development with CAADP, without becoming paralysed through seeking consensus before any national action is taken, national organic agriculture policies should be comprehensive enough to ensure that the required political, technical and financial assistance needed to develop the subsector is made available. Progress made by the Continental Steering Committee (CSC) of the EOA-I should be used as the point of departure for policy making. The priority areas requiring support from key stakeholders including governments and donors/development partners should be articulated e.g.:

- Introduce an EOA staffed unit of the Ministry of Agriculture to track progress toward EOA initiatives and measures including policies in the country.
- There is a need for better networking among EOA practitioners and other stakeholders to improve the exchange of information and strengthen policy advocacy.
- Introduce legislation to establish a national Ecological Organic Agricultural Development and Food Security Programme. This proposed Agricultural Development and Food Security Programme would help to coordinate and direct efforts to address food self-sufficiency.
- Finalize EOA/OA policies in each country and address agricultural policies that could discourage organic agriculture, such as input subsidies for harmful chemical pesticides.
- Goals and strategies as expressed in the SDGs regarding potential contributions towards EOA as well as challenges should be targeted and tackled.
- The 2030 Agenda for Sustainable Development (SDGs) provides a supportive policy environment to promote EOA and sustainable food systems. Their adoption will mobilize efforts to end all forms of poverty, fight inequalities, and tackle climate change.
- A regional organic policy should also be developed and mainstreamed to ensure a harmonized approach in Africa. Regional policies or frameworks, if implemented with a greater EOA emphasis, can support the promotion of EOA farming systems. For example;
  1. The AU Guiding Principles on Large-Scale Land Based Investments places tenure rights of smallholder farmers at the centre.
  2. The African Regional Nutrition Strategy (2016-2025) promotes diverse diets.
  3. To fulfil the Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods objective to end hunger by 2025 and enhance resilience of livelihoods and production systems to climate variability, 10% or more of agricultural spending must be targeted towards addressing the holistic needs of smallholder farmers.
  4. The AU Agenda 2063 for long-term development embraces EOA as essential for development given the importance of agriculture in the region.
  5. The Tripartite Free Trade Area Agreement ensures policy coherence and protects local markets from unfair trade.

Conclusion

The performance and effectiveness of key policy formulation processes are often conditioned by organizational and individual incentives and capacity, which are greatly influenced by the organizational or institutional landscape, country context, and broader enabling environments.

As it is, EOA is very knowledge-intensive and capacity building is needed at all levels.
Capacity development is broadly defined here as the process through which individuals, organizations, and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time. Institutional capacity is characterized by management systems and procedures for coordination and communication, availability and adequacy of financial and physical resources, and the quantity and quality of human resources and social capital. Human or individual capacity, which is the summation of skills, knowledge, and competencies of individuals, is another crucial factor in achieving an organization's objectives and development goals. The structure of a nation's training systems also play a critical role in policy formulation capacity development.

Increased field extension capacity in Rwanda and Tanzania in the organic field to educate the farmers and certification support was an expressed need. Well-designed external support to the capacity development systems and to relevant organizations is important in embracing agricultural changes. For example, the use of Vocational or Farmer Field School-style trainings would give learners the chance to integrate their own indigenous knowledge into the EOA practices and develop context-specific solutions to the challenges they face. Incentives are inherent to individuals' preferences and needs and influenced by the nature of institutions at different levels (country, sector, systems, organization, or department level). Politically, incentives are a highly visible gesture to the populace, as well as potentially also being an instrument of patronage. Yet perhaps the greatest attraction lies in the apparent simplicity of a single measure, an EOA subsidy, to meet a wide range of economic, social and political objectives. There are many links and common interests between agriculture, health, food production, and environmental care, and these links should be collaborated. EOA success stories should be illumed for farmers, consumers, women, youth and Africans as a whole.

A variety of natural, environmental, medicinal, healthy/ organic products are available in Rwanda and Tanzania. However, ready supply is irregular, most packaging/ labelling requires improvement, very few products are certified, are heavily dependent on foreign inputs and only small quantities of products are available in the domestic markets. A deliberate promotional effort on the importance, use, and availability of organic products is required. In this way the organic market in Rwanda and Tanzania can be developed. This should be done before stimulating production. Actors such as the Government, promoting organizations and farmers' organizations should work together. Starting point is Information dissemination of what is currently available, e.g. in trade fairs, radio, television, etc. Consumers and major outlets who asked for samples should be informed about promotional efforts such as trade fair to give them an opportunity to meet farmer's representatives.

All EOA stakeholders should endeavour to
1. employ credible and inclusive policymaking and planning,
2. allocate adequate and predictable resources,
3. offer effective and demand-driven services and
4. establish enforceable regulations.

These collective functions of the sub-sector must also be guided by the strategic direction and measurable targets broadly shared among the key actors and organizations.

Gender balance at the policy making level, especially in public institutions, is critical to ensure that public decisions and policies affecting sociocultural conditions, access to resources and distribution of power in society take into consideration the different needs and realities faced by the full diversity of women and men. Gender impact assessments (GIAs) are one tool for gender mainstreaming that policymakers could use to assess the impact that EOA legislation or policies may have on women and men, according to set gender-relevant criteria.

Creating awareness and understanding among policy makers of the potentially different effects of policy choices on men and women is significant to inclusive legislation and policy formulation in various domains. External checks and balances in the form of stakeholder feedback and other related external pressures are likely to elicit demand-side accountability and are important structures in EOA influencing behaviour when grounded with a credible incentive system.

Increased government support for EOA will likely ameliorate many of the institutional barriers that limit EOA policy formulation processes. Indeed, a well-organized and highly motivated sector, with common goals and a common analysis of the current situation, obstacles, and opportunities, and policy formulating strategies with clear division of roles and functions, would be a strong positive force at all policy formulation levels. Stakeholder inclusivity and involvement is extremely crucial for the relevance of the decisions in EOA policy formulation, coordination, and planning initiatives. Some stakeholders acknowledge that, despite the public benefits of EOA, the lack of government support combined with the particularities of the EOA adoption process often suppress the diffusion of the EOA innovation in Eastern Africa. With a few exceptions, EOA has grown through the sector's own efforts, with governments playing very little or no role in the early development process.

In focusing more narrowly on one key process in the agriculture sector, namely, the EOA policy formulation process, it important to achieve positive impacts that include being inclusive, evidence-based, supported by implementation and monitoring capacity, and endorsement with strong political commitment. Within the framework of institutional analysis and development, the action area of focus is the national policymaking and planning process, as it involves multiple processes including creating knowledge to inform stakeholders. It is a vehicle for communicating and dialoguing based on evidence-based information; participating with various stakeholders; advocating and imploring for one's own preferences and interests; designing, writing, and communicating proposed changes to stakeholders; applying and enforcing the policy changes; and evaluating and monitoring the progress and impacts.

Policy formulation success in the EOA realm is hinged on the qualities of the policies themselves – for example, in the case of a national sustainability policy, efficient incentives, transparency of measures, and consistent sustainability goals in all policy fields, as well as proper regulatory systems, can all be seen as factors necessary for success. Effective leadership and a sense of shared responsibility with all stakeholders are critical. The issue of capacity links back to the previous recommendations as well, where in many cases state agencies that lack capacity would need to seek resources and support from the wider community and non-state actors. The culture of resource control and authority, reticence in sharing information, and conflicts of interest between state and non-state actors is a major impediment to the realization of cooperative EOA policy formulation efforts, and would need to be addressed.

More recently researchers have turned their attention to the role of organic farming in the rural economy and specifically, the potential for organic farming to contribute to rural development. Thus, any policy formulation and legislation measures which aim is to promote ecological organic agriculture development, would also promote sustainable development of Rwanda and Tanzania. It is frequently argued that organic farming can promote employment in rural areas1 and that it can also contribute to rural development, for instance, through the provision of environmental services that under-pin rural tourism.

Given the wide-ranging implications of these claims, it is not surprising that sometimes organic farming is presented as a panacea for the problems facing the food and farming sector. Equally, it is not surprising that it can stimulate just as vociferous 'anti-organic' feeling that sees in organics a rejection of the agricultural science that has led to such remarkable growths in yields and productivity in the last fifty years. Besides these, the wider context and social system needs to be conducive to formulating, receiving and implementing the policy – that is to say, the goals of policy should not surpass existing local capacity to fulfil them. For instance, even if policies were to operate efficiently, they cannot be considered user-friendly if they confer benefits on limited segments of society while marginalizing other constituencies.

The challenge is therefore one of striking a balance between effectiveness, efficiency, sustainability and equity considerations. Political goodwill, capacity development, research and public awareness is key to boosting adoption of ecological organic agriculture in Eastern Africa.

ANALYSE, SYNTHESIZE, DEVISE

5 Analysis of Typical Countries and Policy Implications

Having examined the agricultural resource characteristics of African countries, and having looked in depth at the process of agricultural policy formulation in East Africa, this section shows how the typology may be used to develop climate resilient farming systems throughout Africa, provided that governments are prepared to look carefully at the scientific evidence. Evidence-based policies will assist smallholder farmers to survive and thrive in the market-place, while promoting national food self-sufficiency, food sovereignty and household food security, as shown in Figure 5 in Section One. In order to do this, agricultural policy will need to consider the interaction between technology and participation on the one hand, and long-term and short-term planning objectives on the other.

5.1 ANALYSIS OF ACTIONS REQUIRED FOR EACH TYPE OF COUNTRY

The typology developed in Chapters One and Two is now used to examine five examples from Chapter Three, chosen to be representative of the five different stages of EOA development. One country of each type is selected to discuss the kinds of interventions that may be appropriate from a legal and regulatory point of view for similar countries of that same type. Clearly, each country will need to carry out their own analysis, and develop their own EOA development strategy and implementation plan in consultation with local farmers, and in accordance with the decisions of the EOA Initiative of the AU, and their own government policy (which may need to change if EOA is to become a useful part of a resilient, food sovereign, equitable food system).

A strategic consideration in developing organic sectors is whether it is better to develop separate structures for EOA, or to integrate EOA into mainstream agriculture. In the case of the Farming Systems Research and Extension (FSR/E) approach thirty years ago, it was found that initially there needed to be a separate FSR/E section in each department, otherwise it was not recognised as a legitimate area of expertise, with different parameters (Anandajayasekeram and Stilwell, 1998). Once FSR/E had been accepted as part of the research and extension set-up, however, there needed to be a transition integrating the approach into more conventional training of extension staff, and into operational procedures of departments, so that it became mainstream rather than an "add-on". While the idea of an "organic desk" which has been added on to several African ministries of agriculture, allows EOA to gain visibility, such a desk should have a limited life paving way for a functional unit (department or division), until there is mainstream capacity within the ministry.

We will start discussing strategies by considering one of the most advanced countries in terms of EOA (Tunisia, Type 1), then move to Egypt (Type 2), then Zambia (Type 3), followed by Ivory Coast (Type 4) and Angola (Type 5). In conclusion, we will revisit some of the key legal and regulatory requirements which are helpful to countries wishing to strengthen EOA. This synthesis is based on an analytical framework, examining the six areas which make up the typology:

1. Overall supportive organic policy
2. Organic regulations, certification and standards
3. EOA and research policy and government support
4. Organisation of civil society: consumers and food quality awareness
5. Development of a National Organic Agricultural Movement (NOAM) and farmer networks
6. Volume of trade (domestic and export) and health of the sector.

Successful implementation of EOA means that independent farmers are producing healthy food and selling it to discerning consumers at a fair price through short value-chains. To produce healthy food, farmers should be supported by effective research into sustainable farming systems and the impacts of farming systems on nutrition and health. Consumers should organise themselves to support EOA though Participatory Guarantee Systems (PGS), Community Supported Agriculture (CSA) and co-operatives (primary, secondary and consumer co-ops). Government should support these developments without attempting to dominate them, creating an enabling environment where innovation and community solidarity allow for resilience to emerge.

A reality of the agricultural development "territory" is that there are vested interests which will lobby in favour of the products which they are selling and against EOA. Lobbyists engaging primarily in self-serving strategies to sell products undermine the developmental initiatives supporting EOA if their tactics remain unchallenged. Dis-information from these quarters has been a powerful lever discouraging many scientists from advocating for EOA strategies, as they have on occasions been vilified as "unscientific" in spite of the large volumes of peer-reviewed science (see especially www.orgprints.org).

We will now examine five examples of the different types of EOA development, in order to derive five typical work programmes. As the UN Commission on Trade and Development (UNCTAD) has carried out extensive work on policy to support EOA in Africa, our approach is to compare what each of these countries is doing with what UNCTAD (2008, 2016) recommends countries should do in order to support developing organic sectors. An extensive discussion of the impact of research on policy and on the growth of organic sectors is given in Auerbach (2018). The abstract from this work is reproduced below, based on research by Andreasen et al., 2015:

> "Evidence-based policy development is promoted by organic research, according to studies in ten countries (in Africa, America and Europe). A seven country study by the United Nations Conference on Trade and Development (UNCTAD, 2008) on how governments can assist organic sectors, gave guidelines about regulation, special support for small scale farmers and under-pinning the emergence of a market for organic produce without distorting this market. Eight years later, UNCTAD published a further report on financing Organic Agriculture (OA) in Africa, which concluded that lack of finance hinders the development of OA in Africa. These reports emphasize the need for OA research; research into broccoli seed-breeding had a positive impact on the perceptions of commercial seed producers, and may help to improve regulatory frameworks. Three long-term research projects are then analysed. The Swiss research trials showed many benefits of organic farming, but also limitations; they cite many researchers around the world who show the benefits of OA, and argue for the establishment of a global platform for organic farming research, innovation and technology transfer. Long-term research has had a major impact on production, processing, marketing and consumption of organic produce world-wide, as shown by Danish research through four research programmes at Aarhus University (which contributed to Danish sales of organic produce increasing from €67 million in 1996 to €821 million in 2010), and this helped Danish farmers to expand production and understand the needs of the market. In the United States, the Rodale Institute carried out long-term research trials to show that OA can be economically competitive, while benefiting the environment and the health of consumers. All three studies had close links with agricultural policy, but the Danish and Swiss studies were more sympathetically received and resulted directly in positive changes to agricultural policies in those countries".

Impacts such as those in Denmark, where the organic sector grew twelve-fold in fourteen years, are based on well-developed organic policies and research which targets the building of capacity (training) and institutions (farmer organisations, NOAMs).

EOA TYPE 1:

TUNISIA

Introduction

Tunisia's organic sector is currently supported by government-facilitated institutions, programmes and market development activities, and effective national policies. As the main driver of the country's organic sector, the Tunisian government has engaged in multiple collaborative relationships between specialised organic institutions and other public and non-government establishments. The government has also provided financial support for the organic sector and established institutional structures to conduct research and provide training. Tunisia's success in implementing EOA through these measures is attributed to government plans and activities that clearly link all aspects of the organic sector (governmental and non-governmental) and by fostering stakeholder cooperation from multiple sectors (Adebiyi, 2014). These measures are in line with UNCTAD recommendations.

Tunisia's National Policy Supports EOA

Tunisia presents a model case for how the UNCTAD recommendations can mainstream organic agriculture in a developing country. UNCTAD recommends that a country's general and organic policies should support each other and that a clear national plan for organic food and farming should include measurable targets. In 2004, Tunisia's first national plan for organic agriculture was issued. Two national strategies and action plans for EOA in Tunisia have followed: the first for 2010-2014, the second 2016-2020. UNCTAD suggests that including stakeholders from multiple sectors is more likely to lead to successful organic policy implementation. Tunisia's action plans were developed through consultation and collaboration with non-governmental stakeholders. The Tunisian government actively sought input from local, regional and international stakeholders in devising the action plans. Additionally, the government laid out specific courses of action to increase the global visibility of Tunisia's organic markets. The plans set yearly targets for land area and volume of certain organic produce that were backed by specific governmental interventions (Adebiyi, 2014). UNCTAD notes that including specific targets increases the likelihood that action plan objectives will actually be implemented.

Standards Development

Not only has development of national policy aligned with UNCTAD recommendations, the development of Tunisia's mandatory organic regulations is also consistent with UNCTAD recommendations. UNCTAD notes that mandatory regulations can, but do not necessarily give organic agriculture a credible image, access to export markets, and the development of the local market. Tunisia's regulations have thus far given credibility to and promoted development of the organic sector. UNCTAD advises that if the standards are intended to apply to exports, they should reference Codex Alimentarius and IFOAM standards as a basis for acceptance. Tunisia's reference to IFOAM Basic Standards, EU organic regulations, and Codex Alimentarius in the organic regulations has promoted trade and opened Tunisia's organic products to international markets.

In 2009, the EU recognised the equivalence of Tunisia's organic regulation in part due to the quality of local certification systems and thoroughness of audit procedures outlined in the regulations. Tunisia's legislation and policies are also consistent with UNCTAD recommendations that the role of certification agencies be clearly defined and that governments should facilitate access to certification services to support the export sector. Tunisia's national organic legislation details specific provisions by which certification agencies are accredited. Export market access is dependent upon competent and qualified certification organisations operating within the country. UNCTAD notes that public recognition of a country's organic label can contribute to the growth of the country's organic market, particularly the domestic market. Tunisia's organic policy is predominately export focused. As a result, the organic market in Tunisia is underdeveloped. However, consumer recognition of the "Bio Tunisia" label can help promote growth of the domestic market, as well as the international market.

Implementation of Policies through Inter-Agency Co-operation and Stakeholder Input

UNCTAD recommends that an action plan assign a government ministry or agency to play a leading role. Additionally, organic divisions "or desks" should be established in other relevant ministries and agencies. This accords with the discussion of how FSR/E initially required separate space, and then developed into a part of the mainstream departments, allowing for the institutionalisation of the EOA sector in Tunisia, which arose from the creation of specialised central and regional level administrative government agencies and technical institutions.

Consistent with UNCTAD recommendations, the various government EOA establishments are tasked with well-defined and structured responsibilities aimed at promoting the country's EOA sector. Government agencies and technical institutions operating to support the sector in Tunisia include two central bodies that guide the development and co-ordination of the sector nationally: C. Nationale de l'Agriculture Biologique (National Commission for Organic Agriculture) and Direction Générale de l'Agriculture Biologique (General Directorate of Organic Agriculture). The National Commission for Organic Agriculture (CNAB) was established in 1999 as a consultative body to orchestrate the development of the organic sector. The CNAB is chaired by the Ministry of Agriculture, Water Resources and Fisheries (MAHRF) and comprises non-government stakeholders and members from other government agencies. Representatives from the ministries of commerce, environment, and public health are included, as are organic farmers, certification bodies and consumer protection organisations (Adebiyi, 2014).

The General Directorate of Organic Agriculture (DGAB) prepares, develops, and implements plans for the country's organic sector. DGAB also supervises the activities of the CNAB and has a representative on the CNAB. The DGAB is also the main organic agriculture co-ordinating body within MAHRF. The CNAB keeps and updates data on certified organic production and producers in the country. DGAB helps CNAB manage the database. UNCTAD has noted the importance of data collection in mainstreaming organic agriculture in developing countries, an objective Tunisia seems to be accomplishing. At least one scholar has opined that "it seems reasonable to conclude that the delineation of CNAB's role as advisory and DGAB's as supervisory may have made it easy for the two establishments to effectively co-ordinate organic sector development activities in Tunisia", because "the law specifying the activity areas of the DGAB in relation to those of the CNAB is clearly defined . . . and seems to have contributed to the high level of coordination between DGAB and CNAB" (Adebiyi, 2014).

The Agence de Promotion des Investissements Agricoles (Agricultural Investment Promotion Agency - APIA) is a non-administrative government agency established to promote an enabling environment for private investments in the country's agriculture sector. It also collaborates with other government institutions and non-governmental bodies. APIA also coordinates government investments in the organic sector to help secure government funding for organic agriculture projects. The Institution de la Recherche et de l'Enseignement Supérieur Agricoles (Institute of Research and Higher Agricultural Education - IRESA) is responsible for co-ordinating most agricultural academic and research institutes and created the National Commission for Planning and Evaluation of Organic Agriculture Research.

Involving and Organising Stakeholders

UNCTAD concluded that countries that have developed their organic sector the most have had a "participatory policy development with close interaction between government and the sector." In cases where the government does not involve the sector in policy formation and implementation, the policies often fail. The Tunisian government has worked with other stakeholders to develop and implement sector development plans and programmes that can help advance the growth of Tunisia's organic sector.

Furthermore, they are engaged in sector co-ordinating and regulating activities. The development of Tunisia's organic sector has benefitted from the efforts and contributions of non-government establishments and public agencies other than specialised organic institutions. Non-government agencies include the Union Tunisienne de l'Agriculture et de la Pêche (Tunisian Union of Agriculture and Fisheries - UTAP) and the National Federation of Organic Agriculture (FNAB).

Certification and Training Assistance

A key UNCTAD recommendation is that government support producers, especially smallholders, in complying with standards, certification procedures, and regulations. Training programmes for farmer groups should be set up and supported. Tunisia action plans include government support for marketing certification, and producer information initiatives (research, training and advice). UNCTAD also recommends that organic agriculture be integrated into the curriculum for primary and secondary schools. Specialised institutions involved in training for organic agriculture should be supported and higher education in organic agriculture should be developed. DGAB provides extension and support services to organic operators, and spearheaded studies for the development of organic crops. DGAB also facilitates market development by connecting traders with producers and providing market information and direction on organic produce exports. The Technical Centre for Organic Agriculture (CTAB) is an institution created by the Tunisian government. It plays a key role in the fields of applied research, training, information, technical publications and international co-operation. CTAB organises local, regional and national training sessions on various aspects of organic agriculture production. These trainings are often conducted with other Tunisian partners and international organisations. The Horticulture and Organic Regional Research Centre (CRRHAB) was opened in 2006, with a specific organic horticulture research mission. CRRHAB houses the Tunisian national organic agriculture research laboratory and is responsible for conducting research on organic horticultural production systems in designated regions. Further activities related to organic farming research, advice, and training are: activities of regional advisors; farmer field schools, and academic training in organic agriculture.

2

EOA TYPE 2:

EGYPT

Introduction

Egypt has strong potential to achieve EOA initiatives as evidenced by legislation that is currently under consideration. Strong NGO farmer support is also favourable for continued development of organic agriculture in Egypt. Conditions in Egypt are also suitable for more diversified production and markets for high value crops like tropical fruits. Growing fruit and vegetables results in much higher economic returns than growing most other crops, including cereals. However, challenges to Egypt's EOA implementation remain. According to the FAO, Egypt's shortcomings in achieving sustainable agriculture can be attributed to "weak infrastructure, unclear direction in agricultural development with frequently changing priorities, as well as deficiencies in the design of specific intervention policies such as the long-standing universal food consumption subsidies" (Tellioglu and Konandreas, 2017).

These shortcomings also apply to the implementation of EOA initiatives. Egypt's weak institutional structures, despite having been liberalised, have not evolved significantly beyond the prevailing structures that existed during the era of government-controlled agricultural economy (Siam and Adelhakim, 2019).

General Agricultural Policies

In 2009, the government of Egypt launched its Sustainable Agriculture Development Strategy 2030 (SADS 2030), which focuses on (a) the sustainable use of natural agricultural resources, (b) increasing land and water-use productivity, (c) increasing food security in strategic commodity groups, (d) strengthening agricultural products' competitiveness, (e) improving the climate for agricultural investment and (f) poverty alleviation in rural areas.

UNCTAD advises that unbalanced policies favouring conventional production systems often undermine policies designed to promote organic agriculture, as can happen when government hands out free poisons, fertilisers and/or seed. SADS 2030 and its 2009 predecessor have been criticised for further entrenching conventional, monoculture in Egypt's agricultural sector. Both strategies encourage increased wheat and maize production, which also hinder EOA initiatives. The five-year 2012–2017 strategic development plan aimed to increase wheat production to reach a self-sufficiency level of 74% by 2017. In the revised plan for 2015–2030, this target level of wheat self-sufficiency is maintained for 2017 and set at 81% for 2030. FAO reports that for the government's 2030 target wheat self-sufficiency ratio to be met, wheat production needs to increase by 50% from its projected level in 2025 (Tellioglu and Konandreas, 2017). The Egyptian government has also set prospective self-sufficiency ratios for maize at 78% and 92%, for 2017 and 2030, respectively. In addition to targeted increases in maize productivity, the area harvested was projected to double in size from 2007 to 2017.

The FAO reports that subsidy schemes have been largely unsuccessful in eliminating poverty and related food insecurity, yet budget allocations to the food subsidy schemes have more than doubled from 2009/10 to 2013/14 (Tellioglu and Konandreas, 2017).

According to the FAO, targeted reforms in the subsidy system would promote a sustainable agricultural sector as agriculture would benefit from policies facilitating farmer incentives to focus on food products like fruits and vegetables, instead of wheat and maize.

The food subsidy system suffers from corruption, waste and ineffective targeting. At the same time, due to lack of targeting, food subsidies fail to reach the most vulnerable, especially in rural areas. At all stages of the subsidised commodity supply chain a serious amount of waste and leakages occur (Tellioglu and Konandreas, 2017).

Land reclamation in Egypt also poses problems.

> "The soils in the new lands were mainly sandy and calcareous, assigning a more significant role to the management of soil characteristics such as moisture-holding capacity, soil conditioning and agro-chemical applications such as fertilisers in order to obtain economic yields. […]Converting desert areas to agricultural land was achieved mainly by introducing water to those areas through irrigation, which makes less water available elsewhere. The new areas were also farther from traditional markets, and the quality and availability of public services (such as education and sanitation) were limited" (Tellioglu and Konandreas, 2017).

According to UNCTAD recommendations, general and organic agriculture policies should support each other to promote effective policy coherence. Additionally, co-ordination among the different sectors and government support from institutions are critical in promoting organic agriculture.

Organic agriculture in Egypt has been described as an "infant sector" which is, thus, very much in need of public support. The agricultural sector as whole is marginalised in terms of public investments (Siam and Adelhakim, 2019). Where laws have been enacted, many are either insufficient and or have not been properly implemented. Examples of such legislation include regulations related to contracting agriculture, agricultural insurance, Water Users Associations, and desert land (Tellioglu and Konandreas, 2017). UNCTAD cautions that ineffective implementation of legislation can present significant setbacks in accomplishing policy objectives, and can be more detrimental than proceeding without an action plan.

UNCTAD recommends that organic action plans and policies give special attention to disadvantaged groups. In Egypt, a lack of strong organisations representing smallholders, together with their low level of political participation explains why development strategies and policies tend to be biased in favour of the urban sector and large farms.

UNCTAD notes that mandatory organic regulations are not necessary for the development of organic agriculture, but can facilitate international trade. Currently, Egypt has no organic legislation, but has national production standards. These standards provide a national definition of organic products. The organic legislation under consideration largely follows the EU legislation, establishes common objectives and principles for all stages of production and regulates labelling and advertising (Tellioglu and Konandreas, 2017).

Certification Schemes and Markets

There are two levels of organic production in Egypt: certified organic production and non-certified agro-ecological farming. Certified production is mostly geared to products destined for exports. Organic certification in Egypt is mainly provided by two local organisations: ECOA and COAE. Both companies are members of IFOAM and have been accredited. Neither is accredited according to NOP-USDA and JAS yet, but they co-operate with accredited certification bodies to certify their customers upon request according to NOP and JAS. UNCTAD notes that third-party certification schemes are not necessary for the development of organic agriculture, but when they are adopted these regulations should clearly define requirements. Only a few certifiers perform certification work in Egypt. This could be attributed to the lack of organic legislation providing a legal framework in which to operate.

UNCTAD recommends that governments should initially support domestic markets and avoid focusing solely on global markets. There is a small domestic market for organic agriculture in Egypt. Small-scale farmers face difficulties accessing domestic as well as global markets.

Lack of education and insufficient infrastructure have resulted in pre-harvest and post-harvest losses of fresh fruit and vegetables. Local markets in agricultural products also suffer from instability, as market signals are not communicated to producers, leading to inappropriate production decisions. Strengthening institutions and mechanisms that support the linkages between farmers and markets, including contract marketing as well as establishing specific commodity boards and associations, along with farmers' cooperatives, are recognized in SADS 2030 as steps that could improve matters.
UNCTAD's analysis shows that NGOs can play a significant role in the development of organic agriculture. In Egypt, NGOs and sectoral support bodies have played, and continue to play a significant role in the support of organic agriculture in Egypt. This is highlighted by the number and type of organisations operating in the country, including: The Egyptian Biodynamic Association (EBDA) and The Centre of Organic Agriculture in Egypt (COAE).

Additionally, several organisations work under the umbrella of the Exporters' Union, to assist with quality issues, and meeting certifier requirements: The Union of Growers and Exporters of Organic and Biodynamic Agriculture (UGEOBA) (est. 1998); Fayoum Agro-Organic Agriculture Development Association (FAODAS) (2003); Tomorrow's Youth for Organic Agriculture (TYOG); Ecological Agriculture Protection Association (EAPA); Egyptian Centre of Organic Agriculture Society (ECOAS); Wafaa Society for Organic Agriculture Development (WSOAD) and the Council of Organic Agriculture within Egyptian Agribusiness Association (EAGA).

In 2016, the Egyptian Government implemented a working plan called Egypt's Vision 2030, also known as Sustainable Agricultural Development Strategy (SADS 2030), which addresses the economic, social and environmental dimensions of development. SADS 2030 is a ten-pillar roadmap for achieving the UN's Sustainable Development Goals. [136]

The plan provides programmes, policies and measurable indicators in order to put Egypt on the right path toward sustainable development. By 2030, Egypt aims to transform the country into one of the 30 largest economies in the world, one of the top 30 countries in the fight against corruption, one of the top 30 countries in the Global Competitiveness Index and the Human Development Index, and one of the top 10 countries in economic reforms. [137]
The inclusivity and transformability aspects of the 2030 Agenda and its national counterpart necessitate active contribution of the private sector and civil society in the achievement of all the goals. [138] It does not appear that Egypt has specifically included EOA initiatives in addressing environmental sustainability. Instead, the government has articulated general goals to "encourage sustainable consumption patterns of water and natural resources." [139]

"Despite institutional measures implemented to achieve the aims of Vision 2030, Egypt is currently facing severe challenges to its progress in the Sustainable Development Goals. The most significant problem Egypt is facing is due to its population growth obstructing the progress of Vision 2030 and placing additional pressure on the country's economy and environment and threatening the overall health and well-being of Egyptians.

136 H. Amin-Salem, Sustainable Development Goal Diagnostics: Case of the Arab Republic of Egypt, The World Bank (June 2018); http://documents.worldbank.org/curated/en/532831528165791465/pdf/WPS8463.pdf
137 Brussels Research Group, https://brusselsresearchgroup.org/index.php/2019/02/03/sustainable-development-strategy-egypt-vision-2030/
138 https://sustainabledevelopment.un.org/memberstates/egypt
139 http://arabdevelopmentportal.com/sites/default/files/publication/sds_egypt_vision_2030.pdf

3

EOA TYPE 3

ZAMBIA

Introduction

Governmental entities play an important role in the development of organic agriculture. The laws and policies governments promote can either accelerate or hinder the implementation of EOA initiatives.

The United Nations Conference on Trade and Development report (UNCTAD) analysed what developing-country policymakers can do to provide a foundation for ecological organic agriculture (EOA) to grow. [140] UNCTAD cautions against governments playing a controlling role, but instead encourages that governments act as facilitators.

Acting as facilitators, UNCTAD recommends governments promote EOA in a number of ways, including (1) ensuring general agricultural policies promote organic agriculture; (2) supporting small-scale farmers' access to local and regional markets; and (3) supporting education, extension, and research that is directly related to organic agriculture.

These UNCTAD recommendations provide a framework for assessing if the laws and policies in a particular country are furthering EOA through relevant programmes or undermining the wide-scale adoption of organic agriculture.

Zambia - Generally

A recent report by the World Bank (2018) notes that Zambia is one of the most politically stable countries in Africa. However, a weak legal framework and weak capacity to implement policy programmes are pervasive problems that have yet to be rectified.[141] The World Bank notes that many policy decisions are never implemented, even though the laws and policies are modelled after those adopted in developed countries. Even if the government's policies did promote organic agriculture, questions remain as to whether the goals are currently attainable.

A review of Zambia's current agricultural policies indicate they are working against widespread adoption of organic agriculture and are contrary to UNCTAD recommendations. In addition, lack of government support for, and lack of accountability in, the Zambian NOAM seems to have led to the collapse of this organisation (Munthali et al., 2019).

Zambia's General Agricultural Policies Undermine EOA

To promote large-scale adoption of organic agriculture, UNCTAD advises that the general agriculture policies of a country need to be assessed to determine whether they are neutral or are biased against organic agriculture. A government cannot effectively promote organic agriculture if its general agriculture policy undermines or neutralises those efforts. Currently, Zambia's general agriculture policies are working against initiatives that promote organic agriculture in the following ways:

- The implementation of EOA has been hindered by the Zambian government, primarily through subsidies provided to farmers for conventional inputs.
- Conventional inputs are supported by Zambia's two main spending programmes in agriculture, the Farmer's Input Support Programme (FISP) and the Food Reserve Agency (FRA). Between 2008 and 2016, FISP and FRA comprised approximately four-fifths of Zambia's spending on agriculture.6
- FISP's maize-centric policies are inconsistent with many of the factors UNCTAD has determined to be critical to promote organic agriculture in developing countries. UNCTAD recommends that governments should give special attention to disadvantaged groups, particularly small-scale organic farmers located in rural areas. Rather than providing direct support to organic farmers, Zambia's maize-centric policies benefit a few commercial producers resulting in lower productivity on small farms.
- According to the World Bank (2018), fifty percent of "marketed maize" in Zambia is sold by three to five percent of larger land holding farmers. Because organic farms in Zambia are primarily small-scale subsistence farms or serving local markets, it follows that Zambia's maize-centric policies have a disproportionately negative impact on organic farmers and EOA implementation.
- FISP and FRA also work against implementation of EOA by subsidising fertilisers. Fertiliser subsidies encourage the use of inputs that are prohibited in organic agriculture and therefore inconsistent with EOA initiatives. The World Bank reports that FISP recipients receive a "prescriptive fertiliser recommendation" regardless of locality. These blanket recommendations regarding fertiliser application, which are not tailored for local conditions, exacerbate environmental hazards. The World Bank concluded that in addition to the environmental costs, the monetary costs of maize subsidies simply exceed the "value of incremental maize output."6
- Biodiversity is also compromised by FISP in that it promotes monoculture and use of a limited range of commercial seed.

Ultimately, FISP is compromising the growth and diversity of Zambia's agricultural sector in its entirety. The World Bank (2018) characterises FISP and FRA policies as ineffective in accomplishing stated goals and generally misdirected. These programmes have failed to enhance productivity, ensure food security, or to sustainably reduce poverty – all objectives EOA can effectively address.

Based on this assessment, Zambia's general agriculture policy is not aligned with UNCTAD's recommendation that a country's general agriculture policy embrace, and certainly not work against, the adoption of organic agriculture.

Local and Regional Market Development

UNCTAD recommends that organic market development and export facilitation be included in overall agricultural policies and strategies. Zambia's current agricultural policies present significant challenges to the development of local and regional organic markets. Zambia's high allocation of funds for FRA and FISP leaves little room for public investment in the development of organic markets, nor for consumer education about wise nutrition.

Countries with more robust organic markets have directed funding to infrastructure to link small-scale farmers to wider markets. Zambian farmers in rural areas struggle to integrate into regional markets due to poor roads, inadequate transportation, and unreliable communication services. Poor infrastructure increases transaction costs for buyers and sellers, which suppresses market growth in the organic sector.

Most cross-border trade in Zambia is conducted informally to avoid protracted clearance processes and weak government oversight. These are areas where increased governmental involvement could promote trade generally, including export of organic food when there is sufficient market demand. The high cost of exporting agricultural products from Zambia continues, in part due to its landlocked status, coupled with poor infrastructure. These hurdles have a disproportionate impact on small-scale farmers, including organic farmers, and are disincentives to increased organic production. Overall, the ineffective, maize-centric policies combined with insufficient investments that directly support organic agriculture are hindering EOA initiatives in Zambia. Government support for the emergence of an accountable, efficient NOAM could also help the sector to develop.

Education, Extension, and Research

UNCTAD's reports make recommendations about governmental support of education, extension services, and research related to organic agriculture. Government investment in agricultural research and farmer education have been shown to improve productivity, aid connectivity in rural areas, and modernise extension systems. The Zambia Alliance for Agro-ecology and Biodiversity (ZAAB) reports that research and extension have suffered from stagnant spending over the past decade, partly as a result of increased spending on FRA and FISP, leaving less resources for personnel and infrastructure. Unreliable statistics about organic production in Zambia make it difficult to identify specific areas to focus research and direct funding. UNCTAD notes that "the demand for data about the organic sector is high for marketers, researchers, extension services and ultimately governments." Zambia faces specific data gaps particularly in areas of the newly endorsed Sustainable Development Goals.6
Following the dissolution of OPPAZ, it has been difficult to determine the number of certified farms. Because all of the organisations engaged in organic production are no longer affiliated with just one organisation, OPPAZ, there is little accurate data. There is also currently a lack of leadership for the organic sector. If ZAAB is to become the National Organic Agriculture Movement (NOAM), it needs to build credibility through a national consultative process. The current gap in support for certification needs to be filled, first with more support for Participatory Guarantee Systems (PGS), and then also with organic certification assistance.

UNCTAD advises "any government that wants to develop the sector needs to assure baseline data and a system to monitor the development of the sector." The Zambian government should support data collection efforts in line with the UNCTAD recommendation. Although data collection remains problematic, Zambia has recently supported training of government staff, an action consistent with UNCTAD recommendations. For example, in 2017 and 2018, Ministry of Agriculture officials and staff were trained at Kasisi Agricultural Training Centre (KATC).

Opportunities to Promote Organic Agriculture

UNCTAD recommends that governments look for ways to include organic agriculture initiatives in other government strategies. In March 2017, Zambia launched the National Climate Change Policy and is implementing programmes that aim to build climate resilience into sectors such as infrastructure and agriculture.

The National Climate Change Policy could be an avenue to advance implementation of organic production systems. In its report, the World Bank emphasized the critical nature of Zambia's approach to climate change: "Climate impacts are already being felt most on renewable natural resources and agrarian-dependent production and may have significant effects on GDP, if action is not taken to build more resilient systems. Under UNCTAD recommendations, Zambia's policies addressing crises like climate change and food shortages would prioritise EOA as part of a holistic solution and not as an isolated government initiative.

140 Best Practices for Organic Policy: What developing country governments can do to promote the organic agriculture sector (UNCTAD, 2008).
141 Republic of Zambia: Systematic Country Diagnostic, Document of the World Bank, Report No. 124032-ZM (March 15, 2018), available at: www.documents.worldbank.org/curated/en/290011522954283481/pdf/Zambia-SCD-March-29-Final-04022018.pdf

EOA TYPE 4

IVORY COAST

Introduction

Following the presidential crisis in 2010-11, the Ivory Coast has returned to relative stability. The country is experiencing persistent and rapid growth, projected to continue at least through 2022. The USDA's Foreign Agricultural Service describes the country as one of the "most dynamic" economies in the world. "While concerns remain over the country's long-term political stability, and whether impressive economic gains will benefit the broader domestic consumer base, the Ivorian market is young, vibrant, and potentially rewarding for a range of food and agricultural products."[142]

However, amidst the country's economic growth, it has not implemented EOA initiatives, at least thus far. UNCTAD states that "a viable organic sector will not necessarily emerge because the environment is the right one, but good policies will provide a good foundation for the organic sector to grow." Even though certain conditions may be improving for the implementation of EOA, progress in policy development has been limited.

Action Plans and National Policies

The country's 2016-2020 National Development Plan broadly seeks to place it on a path towards becoming an industrialised emerging market. This includes increasing agricultural output, but also expanding the industrial base particularly with regard to agro-processing. Improving regional and international commercial engagement is also a stated priority. The second-generation National Programme for Agricultural Investment (2017-2025) (PNIA II) spells out the orientation of public and private investments in the country to 2025. PNIA II includes provisions for promoting biological control, financial incentives for organic input producers, integrating "techniques that promote green agriculture, organic agriculture and agro-ecology in the training of producers" and "developing and promoting a social marketing strategy for organic produce."

PNIA II's provisions referencing organic agriculture present opportunities, but challenges still remain. Government funded initiatives systematically subsidise agro-chemical inputs. UNCTAD cautions that governments that subsidise conventional inputs work against the promotion of organic agriculture. UNCTAD recommends that the objectives for government involvement in the development of the organic sector need to be clarified before actions are undertaken.

Moreover, a country trying to develop its organic sector needs to perform an in-depth assessment of its general agriculture policies to understand how they will affect the competitiveness of the organic sector. It does not appear that Ivory Coast has undertaken these preliminary activities. Nor does the country have an established national organic movement advocating for EOA implementation.

Ivory Coast does not have its own certification standards. However, the recent emergence of the "eco responsible" movement and its reference to the importance of certified organic production indicates that the country could be ready for PGS.

UNCTAD advises that certification is likely to remain a very important mechanism for the development of the organic market, but other approaches like PGS should not be overlooked. In fact, it might be counterproductive to make PGS initiatives unlawful by legislation. Governments should not inhibit this development, as formal certification may not be what is demanded in the domestic market.

Non Government Organisations (NGOs) and Civil Society Organisations (CSOs)

The EOA sector has been growing essentially as a result of the work of NGOs backed by international donors. NGOs are currently engaged in numerous training initiatives and capacity building programmes that encourage EOA practices. UNCTAD notes that groups of CSOs, farmers' associations, and public sector representatives, with the support of international co-operation, can formulate action plans that drive government policy. These groups, often through public-private alliances, encourage policy development. According to UNCTAD, this type of policy development might take more time, but is often more participatory and concerted. Such was the case in Costa Rica. It should be noted that private sector and donor support in Ivory Coast is strongly focused on cacao production. The country is the world's leading producer of cacao. The emergence of organic cacao certification is growing rapidly and driving the organic production landscape. Some capacity is being developed to support traceability in cacao supply chains. It is unclear whether Ivory Coast's focus on cacao could provide a platform to consider comprehensive action plans that specifically include EOA.

142 Dan Archibald, "U.S. Exports Remain Peripheral to Cote d'Ivoire's Flourishing Ag Trade" USDA Foreign Agricultural Service (Nov. 11, 2018).

Markets

Organic production is geared towards export markets, and the domestic market remains marginal and driven by the expatriate community, with a few markets running in Abidjan. However, according to the FAO, new infrastructure projects favour agriculture markets. "Large infrastructure projects abound in the country and region, and are in and of themselves significant contributors to current growth. In addition to improving transport infrastructure, particularly around the economic centre of Abidjan, the ability to move agricultural goods in and out of port is also a high priority. The Port of Abidjan is undoubtedly the centre of the country's economy, and it is among the regional economic centres often cited as a current or potential 'hub' of commerce and trade."

If the political will to support EOA existed, measures already underway like improving infrastructure would facilitate development of domestic and global markets for the country's organic products.

5

EOA TYPE 5

ANGOLA

Introduction

Currently, agriculture production in Angola relies on "environmentally unsound practices." Agricultural products are often produced in low volumes and are of poor quality. Farmers are ineffectively organised to market their produce and therefore incur high production and marketing costs (Chiambo et al., 2019).

Inadequate rural roads, irrigation systems, and an unreliable electricity supply are impediments to the agricultural sector as a whole. Weak research and extension services for support to farmers coupled with inefficient land management systems result in low agricultural productivity.[143]

Only 5% of the arable land is under cultivation. Angola depends on imports to satisfy approximately 90% of its food needs. It is only self-sufficient in production of cassava and banana (Chiambo et al., 2019). Because Angola has taken limited actions to implement EOA, UNCTAD recommendations could guide initial policy development and progressively thereafter.

UNCTAD recommends governments in developing countries undertake a thorough review of what the country intends to accomplish through EOA initiatives. The goals should be measurable. It does not appear Angola has conducted such a review, and therefore falls within the most preliminary state in the development of organic agriculture. In fact, there are very few policies and laws that address matters affecting EOA. Angola's Medium-Term Development Plan for the Agrarian Sector (PDMPSA) 2013-2017 does not make much mention of EOA.

Where policies relating to agriculture do exist in Angola, some run counter to EOA principles. UNCTAD concludes that governmental policies that favour conventional production systems can be particularly problematic in developing countries that intend to implement organic agriculture on a wide-scale rather than as a niche market.

In Angola, the large-scale commercial sector is heavily reliant on imported agro-chemicals, and produces mostly for the domestic market with some exports (World Bank, 2018). Policy is also geared around an emphasis on aggregate production numbers (as in the National Development Plan), and a discourse of modernisation (República de Angola, 2018a). Plans for a fertiliser factory are at an advanced stage, as reported for Angola. These policies are inconsistent with EOA.

While Angola's Strategy and National Plan of Action for Biodiversity do include some EOA-related language, Angola's latest 5th report on biodiversity acknowledges little progress made with regard to agriculture in "Area D: Sustainable use of Biodiversity components" (Républica de Angola, 2014a, Appendix 3). When a country's general agriculture policies support conventional sytems, UNCTAD recommends governments consider how general policies and organic policies can co-exist without undermining organic agriculture development goals.

Angola does not have its own legally registered organic standards, nor does it appear that Angola has any Participatory Guarantee Systems. According to UNCTAD, mandatory regulations are not necessary for the development of organic agriculture. If regulations are misdirected or implemented prematurely, the government's actions will impede development. UNCTAD encourages PGS in domestic markets for which it is suited.

UNCTAD's analysis shows that NGOs can play a significant role in the development of organic agriculture. The Angolan NGO ADRA – Action for Rural Development and Environment (Acção para o Desenvolvimento Rural e Ambiente) has decades of experience, and is the main NGO operating in the rural areas, and often includes EOA-related components in its work (ADRA, 2014, Appendix 3).

There is some NGO extension work that incorporates EOA-related issues. However, the extension service is effective in some areas but also struggles even with conventional support to farmers. UNCTAD's analysis suggests that implementation of organic agriculture has often been successful where NGOs collaborate with public and private stakeholders. In sum, it appears Angola's implementation of EOA is virtually non-existent. UNCTAD recommendations could provide guidance should conducive political and institutional conditions exist for EOA development.

143 Chiambo PJ, et al. "Angola: Rice Crop Grow and Food Security Reinforcement," J Rice Res (March 15, 2019); DOI: 10.417/2375-4338.1000205.

5.2 POLICY IMPLICATIONS OF THE FIVE TYPICAL COUNTRY ANALYSES

Evidence based policy requires scientific evidence. The evidence provided in this assessment shows how each country in Africa faces problems unique to its environment, its political situation, the socio-economic situation of the various types of farmers and consumers, the state of the National Agricultural Research System (NARS) and even the state of the world economy, as Covid-19 has shown us very dramatically in 2020. If the EOA sector wishes to influence policy in a morally acceptable and socially developmental way, then it needs to carry out research into the needs of producers and consumers, find out how organic farmers can produce efficiently, and make the results of this work visible. This is difficult, but not impossible! The Danish research programmes carried out over the past 30 years have had a dramatic impact. Auerbach (2020b, p.32) reports:

> "Long-term research has had a major impact on production, processing, marketing and consumption of organic produce worldwide, as shown by Danish research 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 to expand production and understand the needs of the market. Danish policy makers took note and formulated more supportive organic farming policies. In the USA, the Rodale Institute carried out long-term research trials to show that EOA can be economically competitive, while benefiting the environment and the health of consumers; they showed that in dry years, organic crops out-yield conventional crops".

In Chapters 18-22 of this book (Auerbach 2020), we reported on the long-term organic farming systems research trials at Nelson Mandela University (the Mandela Trials) which showed how a combination of EOA techniques (compost, mulch, careful tillage, crop rotation, integrated pest and disease management) and good soil science (soil chemistry, soil biology and soil physics) can close the yield gap, so that under rainfed conditions, organic crop yields are similar to (or exceed) conventional crop yields, especially in drier years. This requires that research should be carried out by trained scientists who understand organic farming. Peer-reviewed studies on all aspects of EOA have been carried out over the past thirty years, and can be accessed at www.orgprints.org (Organic E-prints is an international open access archive for papers and projects related to research in organic food and farming. The archive contains full-text papers in electronic form together with bibliographic information, abstracts and other metadata. It also offers information on organisations, projects and facilities in the context of organic farming research).

It is not easy to put scientific research results (written carefully in scientifically precise language with few emotional sales pitches) into the language of politicians and policy makers, but again, it is possible with care and understanding, to give the facts in a straightforward way, backing up assertions with peer-reviewed evidence. This is essential if EOA is to be of service to African smallholders. The recommendations of UNCTAD are outlined in Auerbach (2020b), showing how African governments can take the high road of sustainable development by supporting EOA, and giving their people nutritious food and a vibrant rural economy.

However, it is also important not to lose sight of the spiritual, the sacred and in particular the Divine Feminine which has been so absent from human science over the past hundred years. While it is important not to mix physical and biological science with spirituality, and is also important not to load the baggage of particular belief systems from one culture onto people from other cultures, we should not lose sight of spiritual reality, which is a reality for most of Africa. Spiritual phenomena cannot be measured with physical tools, but they can be measured objectively, and their effects can certainly be perceived. Respect for gender issues in agriculture starts with respect for the feminine, and this has the form of Mother Earth (who nourishes humanity, also called "Gaia" by James Lovelock) and also the form of the many women (who nourish their families and build networks of care and influence, both locally and globally). In the process of policy formulation, so often it is only the men who participate, who are consulted, who are thought important, and yet the mothers are the ones who do much of the work and who use the food to nourish people. They understand food systems because they see the while picture.

An organically advanced country such as Tunisia (Type 1) has largely implemented the recommendations of UNCTAD (2008), and the result is a thriving organic sector, contributing significantly to food security, health, food sovereignty and GDP (mainly through export). Already in the year 2000, Nadia Scialabba reported to the IFOAM Organic World Congress:

> "Tunisia. The proximity of a privileged organic market (EU) has triggered a relatively quick policy response from the Tunisian Government. Measures are being taken to encourage farmers' conversion to organic production while remaining competitive. In 1999, presidential measures were taken to comply with EU Regulation and a National Commission for Organic Agriculture was established to encourage and stimulate the organic sector. A budget was allocated by the Ministry of Agriculture, including subsidies to cover 30% of investments of organic farmers and to cover 70% of certification costs over five years. A certification authority (BIOCERT Tunisia) was created under the Institut National de la Normalisation et de la Propriété Industrielle. As there is a lack of organised sources for organic fertiliser supply, the Tunisian Institute of Appropriate Technologies is engaged in studies for composting organic waste of food industries and techniques to recycle olive water residues. A Technical Centre for Organic Agriculture is being created for professional training and to support research" (Scialabba, 2000, p.6)

Later she comments on Egypt's development (organically active, Type 2), where the UNCTAD recommendations have not been applied systematically, but where there has been some government support for the regulation and development EOA, especially in the cotton sector:

> "Egypt. The organic agriculture movement was born in Egypt some 20 years ago, chiefly to alleviate the increasing threat of pesticide poisoning to Egyptian farmers. Cotton cultivation is one of the most pesticide intensive crops. World-wide, 18% of chemical plant protection active ingredients are used in cotton fields which represent only 0.8% of cultivated areas. In the last two decades, the Egyptian average yield of raw cotton remained stable despite a continued increase of pesticides. In the early 1990s, SEKEM starting applying biodynamic methods (already in use for herbs, cereals, and vegetables) to cotton. The success in cotton pest control (by pheromones) raised authorities' interest in biological control: today, nearly 80% of Egypt's cotton cultivation applies biological pest control and the Ministry of Agriculture has forbidden aerial sprays of pesticides on cotton, with a view to promoting biological control. In 1995, pesticide use in cotton dropped from 1 800 t to 320 t and average yield grew from 900 to 1 220 kg/acre. Organic cotton cultivation (using organic fertilisation – compost, wood ash, rock phosphate, clover/onions rotations) is based on intensive co-operation between farmers and scientists. The Centre for Organic Agriculture in Egypt operates an inspection and certification scheme according to the EU Regulation 2092/91" (Scialabba, 2000, p.8).

These two examples of a Type 1 (Advanced) and a Type 2 (Active) country show that the benefits of support for EOA translate into health, economic and food security benefits. Less organically advanced countries, such as Zambia (Infant EOA, Type 3), Ivory Coast (Nascent EOA, Type 4) or Angola (Awaiting inspiration, Type 5), all have problems with food security, malnutrition, high levels of stunting and weak agricultural economies.

CHANGE, LIKE GROWTH,
IS INEVTIBALE

6 Work Programme for Transforming African Agriculture

6.1 Typical work programmes

In discussing pragmatic work programmes, the following should be remembered:

> Each country will have its own procedures and policies, and while the AU's EOA-i can offer advice and contribute resources, until countries are convinced that the health of their citizens, of their agricultural sector and of their food system, will benefit from wide-spread adoption of EOA, progress will be slow and inconsistent. The development of local champions for EOA and for transformation of food systems will be the major driver within each country. Developing from marginal to mainstream requires conscious attention to scaling up.

Difficulties associated with scaling up: "The Levers of Change"

Woltering et al. (2019) present a highly insightful study of the scaling up process. With permission, we present the abstract of their recent paper below:

> "Countless development projects have piloted solutions that could make a difference if only applied at scale. The reality is that these pilot projects hardly ever reach the intended scale to contribute significantly to achieving the UN Sustainable Development Goals (SDGs). In this paper, we argue that two major problems undermine efforts to achieve scale in development projects. First, pilot projects are usually set up and managed in very controlled environments that make it very difficult to transition to the real world at scale. Second, poor conceptual and methodological clarity on what scaling is and how it can be pursued often results in a narrow focus on reaching numbers. Counting household adoption at the end of a grant project is a poor metric of whether these people can and will sustain adoption after the project closes, let alone if adoption will reach others and actually contribute to improved livelihoods. We advocate for a broader view on scaling that more accurately reflects the transformational change agenda of the SDGs: from reaching many to a process aiming to achieve sustainable systems change at scale. Sustainable systems change alters a sufficient number of key drivers (incentives, rules, etc.) such that the system that once perpetuated a "problem" now instead perpetuates a "solution." This has implications on the way projects are designed and implemented. Rather than focusing on changing conditions within the project context, projects should serve as vehicles for societal change. This means that projects make most sense if designed as part of a multisector, long-term programmatic approach. Treating scaling as a transformation process helps deal with the necessary coevolution of organizational and institutional arrangements, along with the innovations in a technology or practice. To help address scaling, we present a number of frameworks that guide users to assess the scalability of innovations, design for scale from the onset of projects, and systematically think through key elements, ingredients, or success factors. We conclude that scaling requires different skills, approaches, and ways of collaborating than those required for successful implementation of pilot projects. It calls for development actors to have a mindset that allows them to creatively navigate multiple overlapping systems; likewise, they must develop a clear vision about which elements in the system the actors can and cannot address, and about where they need to collaborate strategically to exert influence. Although it is tempting to hope for the silver bullet solution that changes the world, we argue for an approach that takes scaling seriously in its own right and recognizes the complexities involved in facilitating a transition to a new 'normal'" [End of Abstract].

Some ideas on scaling up are presented in IFOAM's 2017 report "guidelines to Public Support for Organic Agriculture"; the Executive Summary commences (p.8):

> "It makes political sense to support organic agriculture, as it contributes in many ways to the welfare of society and to achieving the Sustainable Development Goals. It is also an infant economic sector with strong consumer demand and market potential. Recognizing this, governments in all parts of the world have initiated public policies and programs to support the organic sector. Such political support may be a result of different political strategies and goals, such as tapping into export markets, or addressing the issue of externalities in agriculture. Designing organic support policies that will most effectively address those political goals and be adapted to the situation of each country is a complex undertaking".

The IFOAM report (2017, p.9) recommends that governments should partner with private and community organisations: "The core of the guidelines consists of a compilation of facts, arguments, best practices and tips on the full panel of policy measures that have been identified to support organic agriculture. They have been categorized into 'Push measures', 'Pull measures' and 'Enabling measures'.

'Push measures' are those that encourage the supply of organic products, i.e. measures supporting:

- Organic research and extension
- Organic input development and use
- Organic certification
- Organic vocational training and academic programmes
- Conversion and maintenance of areas under organic production
- Agri-environmental practices compatible with organic production
- Organic operators through general tax breaks
- Organic farm investment
- Farm income diversification and agro-tourism
- Organic processing, product development and marketing
- Supply chain development projects
- Organic management in public areas and publicly-owned land
- Prohibition of chemical use in naturally sensitive areas.

'Pull measures' are those that encourage the demand for organic products, i.e. measures supporting:

- Consumer education and promotion campaigns
- Public procurement
- Domestic trade and retail uptake
- A common logo for organic products
- School organic gardening and curricula
- Export support
- Organic trade agreements and equivalence.

'Enabling measures' are those that have overarching effect on supply and demand, i.e. measures supporting:

- National data production and dissemination
- Institutional development of organic associations
- Building organic expertise within the public sector
- Development of Participatory Guarantee Systems
- Urban and collective gardening.

Finally, in an effort to ensure policy coherence, one should look beyond the above measures and analyse general agricultural and food policies that can have negative impacts on organic development. The guidelines present a few such policies and how they can be amended to avoid negative impacts. The policies identified are:

- Subsidies on chemical fertilisers or synthetic pesticides
- Approval of pesticides imports and pesticide use
- Support for energy crops (biogas and biofuel plants)
- Competing environmental schemes
- Unfavourable regulations on … organic fertilisers, plant protection products and farmers seeds
- Unfavourable agricultural risk management programmes (crop compensation schemes, etc.)
- Allowance of GMO crops
- Food safety and other health requirements
- Laws related to farmland access".

These suggestions draw from the "IFOAM Policy Tool" available on-line with sets of factors (push, pull, enabling and negative factors) to assist governments in making decisions about what interventions could be supportive of the development of the organic sector at each stage. The guidelines make the cornerstone of this toolkit and present a compilation of facts, arguments and tips on the full panel of policy measures that have been identified to support organic agriculture".

It is not possible to list all the activities which should be carried out in each country at various stages, but the toolkit and the above factors allow policy-makers in each country to assess which actions are appropriate at each stage.

Vitally important is a participatory planning process which involves stakeholders, and which sets out a developmental path for the sector, using "SMART" indicators – that is, indicators which are "Simple, Measurable, Appropriate, Reliable and Time-bound". Such an approach will feed into a well-designed monitoring and evaluation process, such as is described in outline in Section 6.2.

6.2 Indicators for monitoring and reporting EOA developmental status

The objective of the development of indicators is to provide the AUC's Department of Rural Economy and Agriculture (DREA) with a regular overview of the status of EOA in the different countries in Africa. The EOA-initiative already has a logical framework which outlines the goals, objectives, outcomes, outputs and activities for each of the nine strategic objectives of the initiative, and as the logframe identifies indicators for each of the result levels, and defines benchmarks and means of verification. Therefore the indicators proposed below are viewed as complementary to the existing framework, in particular to Key Priority Area 5 (Policy and Programme Development).

The index proposes two types of indicators for monitoring:
- Process indicators of EOA policy development and implementation of the generic development framework. Process monitoring can be used to create a periodic snapshot of progress towards growing EOA across Africa.
- Outcome indicators at the country level. This is about understanding the effect of the activities and outputs at the outcome level, for example increase in EOA land area.

The indicator framework is built based on the five typologies developed for this study, utilizing the six criteria:
1. The extent to which a national policy is in place for EOA and supported by a budgetary allocation.
2. The extent to which organic regulations have been promulgated and implemented.
3. The extent to which national standards and certification are in place.
4. The extent of government support to the organic sector.
5. The degree to which civil society is involved in the development of the EOA sector in country.
6. The performance of the domestic and export EOA markets, respectively.

Below we propose a framework which can be used firstly, to locate and track a country's development along the five-typology trajectory, and secondly, to assess and report upon the multiple components of a country's development pathway. The indicator framework is designed using a benchmark outcome of a Type 1 country ('Advanced EOA country').

Implementation of the Indicator Index and reporting

Given the variety of approaches and objectives that are assumed to promote development of the EOA sector in different countries, a framework of this nature requires flexibility in terms of what is monitored. The five criteria provide a framework for the development of an overall status/benchmark of the current situation of EOA in a specific country. The five criteria can be updated on an annual basis to monitor the overall development of EOA in country. We expect that some indicators may require adjustment to align to in-country conditions. The overall assessment of the five criteria can also be aggregated to the five typologies developed for the purpose of this report – this will allow for multiple country monitoring at a less granular scale.

Processes and Outcomes need to be monitored systematically in order to support the transition towards sustainable food production as part of sustainable development in Africa.

The process of scaling up requires a shift from the FISP approach towards African policies which encourage independence and creativity among African farmers, small and large. Transforming the levers of change will require support for capacity building, monitoring of environmental pollution and poison use (and setting targets for their reduction); incentives for good environmental management and penalties for pollution and poison use, an integration of tourism promotion and agro-ecology, so that visitors and local urban dwellers alike become aware of the need for organic food production and of the benefits to the environment, to health and to the economy.

Monitoring and evaluation Indicators should be linked to government and AU budgets, so that there are financial incentives associated with environmentally responsible production.

The M&E criteria are presented in ***Table 8***

Table 8:
Organic Certification of EOA in East Africa (after Munene 2020)

NO.	CRITERION	OUTCOME/INDICATORS
1	DEVELOPMENT OF NATIONAL EOA POLICY AND REGULATIONS	DESIRED OUTCOME: Initiation of a development process of the EOA sector and development of national EOA policy and legislation
		PROCESS INDICATORS:
		a An in-depth integrated assessment has been performed of general agriculture policies, programmes and plans, to understand how they affect the competitiveness and the production of the organic sector.
		b Objectives for government involvement in the development of the EOA sector are clarified and formulated, and all relevant stakeholders are involved in policy development and development of plans and programmes for the sector. Objectives can include: Increased income, Environmental protection, Biodiversity enhancement, Smallholder competitiveness, Human health, Increased exports, Domestic growth.
		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.
		d A national organic action plan or strategy is formulated and implemented. Plan typically would include aspects of standards, regulations, market development, production issues, capacity-building and research. The plan is correctly sequenced (logic) and should state measurable targets for the organic sector to help agencies and stakeholders focus their efforts.
		e Country has formulated a national EOA policy based on participatory policy development with close interaction between the government and the sector. Government has actively supported the sector's organisation and its participation in the policy formulation process.
		f Country has formulated and promulgated EOA regulations
		g Country has formulated implementation decrees and action plans for EOA Policy.
		h EOA is recognised and integrated in the main policies of the country, e.g. agricultural policy, food, health policies, environmental, poverty eradication policies.
		Development of mandatory regulations is considered to be the right policy response to develop organic sector: • They give organic agriculture a more respectable and credible image; • Improved access to export markets; and • Development of the local market
		Mandatory regulations should only be considered when the need is clearly established and other simpler options have been ruled out. In the early stage of development, a mandatory organic regulation is not likely to be a priority. Regulations for domestic markets should be based on local conditions, and not mainly on the conditions in export markets. Governments regulating the sector should develop the regulations in close consultation with the sector and ensure that the regulation is enabling rather than controlling in nature.
2	NATIONAL EOA STANDARDS AND CERTIFICATION	DESIRED OUTCOME : A national or regional standard for organic production is developed, in close co-operation between the private sector and Government. It is well adapted to the conditions in the country and mainly focuses on the domestic market.
		PROCESS INDICATORS:
		a A national/regional standard for organic production is formulated and implemented based on close co-operation between the private sector and government. Standards development should not be in isolation from market realities. A standard not demanded in the marketplace has no value and can even create confusion and be an impediment to development. Whether through mandatory regulation, voluntary public programmes or the private sector, one organic standard that is applied by all organic producers, certified or not, helps to build energy and joint activities in the sector, and gives information to producers and consumers.
		b Governments facilitate access to certification services, either by stimulating foreign certification bodies to open local offices or by supporting the development of local service providers. In some countries, especially where the private sector is weak, the Government could consider establishing a governmental certification service. Indicator: Measure of government support to certification, proxy may be the ease of access of farmers to certification (Are certification requirements excluding some farmers?).
		c A Participatory Guarantee System (PGS) is operational in the country.

Table 8:
Organic Certification of EOA in East Africa (after Munene 2020) (CONT'D)

3	**GOVERNMENT SUPPORT TO THE EOA SECTOR**	DESIRED OUTCOME : National governments develop and implement enabling policies and programmes in support of EOA. National institutions are equipped with skills and competencies required to promote EOA in Africa. Scientific research outcomes, indigenous knowledge, technologies and innovations in EOA are increased. Consumer education and awareness should be actively promoted.	
		PROCESS INDICATORS:	
		a	One government ministry or agency has assumed a leading role and organic desks have been established in other relevant ministries and agencies.
		b	A national Organic Action Plan is implemented and regularly monitored
		c	A permanent body is established for consultations between the Government and the private sector.
		d	Evidence of support measures to farmers or EOA supply chain actors (e.g. subsidies, tax breaks).
		e	EOA is mainstreamed and considered in government's main programmes and in budget allocations. [# of programmes; % budget allocation to EOA].
		f	Budgetary spent on EOA research, or number of research projects funded.
		g	Budgetary spent on consumer education or support to consumer awareness of EOA.
		h	Data about organic production and markets collected and analysed on an annual basis and report made available to all sector stakeholders.
		i	Specifically focused organic extension services established and the staff trained.
		j	Evidence of government support mechanisms in place to support accessibility of quality inputs (e.g. organic fertiliser, seeds).
		k	Evidence of integration of EOA into the curriculum for primary and secondary schools; support to specialised institutions involved in training for organic agriculture; and the development of higher education in EOA.
		l	Evidence of the establishment of special research programmes for organic research, and participatory Research & Development in EOA.
4	**CIVIL SECTOR STRENGTH**	DESIRED OUTCOME **:** A unified and organized EOA sector or movement enabling the sector's own ability to work towards joint objectives. Development of organic farming in countries has typically been initiated by either NGOs or private companies, sometimes both. In many developing countries, organic agriculture has been promoted by NGOs. Countries with well-developed organic sectors have had a participatory policy development with close interaction between the government and the EOA sector (including NGOs, associations and organised agriculture). A unified organic sector or movement improves the sector's own ability to work towards joint objectives, and it makes for easier private sector consultation. OUTCOME INDICATOR: A federation or National Organic Agricultural Movement has been established and is actively working to improve the sector (growth in membership numbers and activities monitored).	
		PROCESS INDICATORS :	
		a	A mapping of civil society organizations has been performed and an assessment of their capacity undertaken.
		b	Evidence of government support to the development of a well-organized sector through various mechanisms (e.g. support to the coordination of a federation).
5	**EOA SECTORAL PERFORMANCE**	LONG TERM OUTCOME: The EOA sector in the country has developed in a positive direction towards the goals formulated in the national action plans and national policy.	
		IMPACT INDICATORS :	
		a	Annual growth in organic agricultural area (ha).
		b	Change in number of EOA producers (number).
		c	Annual growth in EOA earnings through export and domestically (currency).
		d	The private sector is developing actively, and investing in market development.

6.3 CONCLUSIONS AND RECOMMENDATIONS

The typology provides a simple instrument for monitoring progress of countries towards EOA. With time and progress, it may need to evolve, and the descriptors may need to change. Though it is an imperfect instrument, EOA stakeholders have welcomed it as a lobbying tool which will enable them to appeal to politicians to implement key actions which will lead to the development of the sector.

The Monitoring and Evaluation Framework is a broad guideline, and each country will need to develop detailed guidelines based on the actual factors influencing agricultural development, food security, climate change and food sovereignty. The criteria, desired outcomes and process indicators should help both governments and EOA stakeholders to keep track of progress within the sector. The EOA Overall Country Performance Indicators and the process of updating each country's status should allow the AU and the EOA-I Continental Steering Committee to evaluate continental progress towards sustainable development.

Tunisia and Morocco (and also now Uganda and Madagascar) exhibit some of the critical factors which are essential pre-requisites for EOA development. Many other countries have made significant progress. However, many countries are stuck in the "FISP" model of agricultural development.

If the AU wishes to support EOA in line with the 2011 African Heads of State & Government Declaration (see the AU decision at the start of this document), this assessment, together with the East African assessments completed in 2018 and 2020, give technical, educational, research and policy guidelines which can be applied directly to agricultural development programmes. Policy formulation happens in diverse ways, with lobbying of interested parties, vested interests and conflicting priorities often vying for attention. As pointed out in Figure 1.5, there is a tension between short- and long-term objectives, and while technology is important, a purely technology-centred approach will not benefit communities in the long run. In order to build institutional capacity and foster sustainable, climate resilient agriculture as part of a sustainable approach to development, only that technology should be adopted which meets the demands of the triple bottom line: it must be viable economically, socially and environmentally.

Exploitation of organic farmers must come to an end, and unsustainable degradation of soil, biodiversity, human institutions and the African economy must cease, and a post-Covid economy must build back better. Hopefully, we will not wait until Dar es Salaam, Johannesburg, Accra and Cairo are as dangerous to human health as the air in Delhi has been in November 2017 and 2019. The climate emergency, the health emergency and the biodiversity emergency can all be addressed by Ecological Organic Agriculture, provided that science-based evidence is taken into account, rather than the vested interests of those with products to sell which promote short-term increases in production at the expense of ordinary people, causing long-term soil degradation and damage to our planet. Caring for the soil produces healthy food, and this will produce healthy people in a prosperous Africa Rising.

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NOTES

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Prepared for
The African Union Commission (AUC)
Addis Ababa, Ethiopia