

East African Organic Policy Barriers Report

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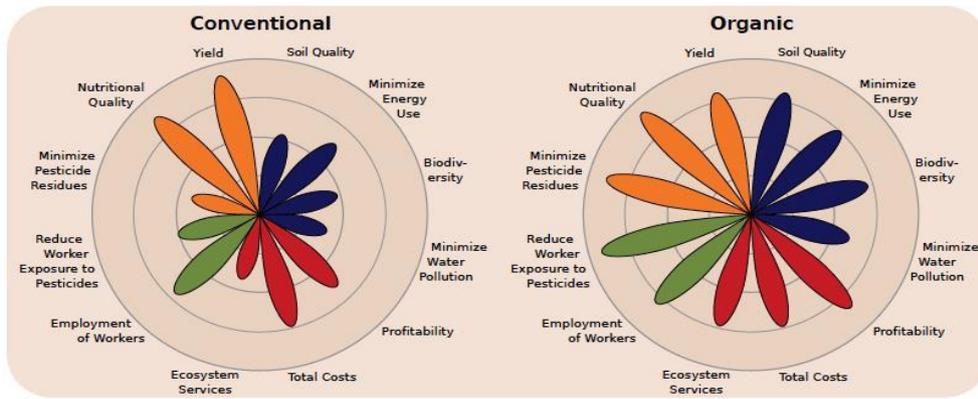
1.1 EXECUTIVE SUMMARY

This is a result of the policy analysis undertaken by the African Organic Network. This report has been produced through the analysis various agricultural policies and strategies affecting organic agriculture in the East African Community Common Market. It provides an overview of the gaps and opportunities in respect to organic agriculture. It articulates a wide range of benefits (environmental, social, economic) of organic farming which can significantly contribute to sustainable development challenges and in addition, provides a blueprint for policy formulation and advocacy at national level, thereby highlighting key areas for policy inclusion. The overall objective of this is that policy dialogue is undertaken, followed up, advocacy for policy change is conducted and that ultimately, organic agriculture is mainstreamed in the current agricultural policies and procedures.

This report is made up of several sections. The first part of this report provides an introduction and background of organic agriculture in East Africa and the sector dynamics. The second part of this report provides a brief overview of the OTEA project and the planned activities aligned with this policy dialogue and advocacy. Part three will provide a thorough understanding of organic agriculture sector in the context of East Africa, providing an overview of national policy development in EAC member countries and will provide a brief summary of the East African Community policies and strategies in relation to organic agriculture. Part four will highlight the benefits associated with the uptake of organic farming and part five will more specifically focus on how organic agriculture can contribute to the attainment of the global Sustainable Development Goals, the continental agricultural program Comprehensive African Agricultural Development Program (CAADP) and regional EAC polies. Part six will expound on the major constraints in the organic sector in East Africa, the East African Community agricultural policy and strategy. Part seven will present policy recommendations for both national and regional policy development. Part 8 will provide an overview of the priority areas to the EAC and national government should be focused and the way forward for organic sector development in

Organic agriculture is a truly sustainable system. It has numerous economic, environmental and social benefits. However, it has not been adopted by the national level partners and East African Community. Research has already demonstrated that organic agriculture can contribute positively to 10 out of the 17 Sustainable Development Goals (Farrelly, 2016), the four pillars of the Comprehensive Agricultural African Agricultural Development Programs, East Africa Community Vision 2050 and East African Community agricultural policies and strategies. The report will articulate to what extent Organic agriculture contributes to all these.

The Sustainability Flower communicates the key benefits of organic farming, which will be explained in detailed in this report.



Recommendations to the East African Community and to national level partners have been well articulated. They all call for a supportive policy environment, in regards to the economic, social and environmental benefits that organic agriculture offers, the number of smallholder farmers and the wider community who stands to benefit from it.

ACRONYMS

AfrONet	African Organic Network
EAC	East African Community
EAOM	East African Organic Mark
EAOPS	East African Organic Products Standard
IFOAM	International Federation of Organic Agriculture Movements
OSEA	Organic Standards in East Africa
TOAM	Tanzania Organic Agriculture Movement

2.0 Background

The African Organic Network (AfrONet) was founded on April 2008 in Dar es salaam, Tanzania during the meeting of three East African National Organic Agriculture Movement (NOAMS). The significance for the NOAMs to establish AfrONet was due to the fact that Africa continues to face the biggest challenge of feeding its citizens and populations. With a rapidly growing population, worsening effects of climate change, effects of globalization, rising food prices, and increasing domestic and international demand for organic products NOAMs decided to establish AfrONet in order to support organic agriculture.

AfrONet is one of the Organic Trade and Value Chain in East Africa (OTEA) project partners and just like other partners, it is responsible for implementing the policy component of the OTEA project specifically through review of gaps and opportunities at regional level, articulating and documenting policy recommendations, identification of policy makers at regional level and creating momentum through interface, exchange, information dissemination with the policy makers and advocacy at regional and continental levels. The ultimate outcome of the policy component is approval of favourable policies for the organic sector. The policy symposium acts as a stepping stone, through which policy makers can be identified and lobbied. Gradually with follow up and interface, favourable policies can be discussed and approved. The policy symposium therefore acts as a launch pad.

2.1 Planned Activity

AfrONet shall organise the Regional Policy Symposium policy in conjunction with the regional NOAMs. The objective of the policy symposium will be to present organic agriculture constraints and opportunities at East African Community level and argue the case for Organic agriculture as a basis for including of Organic agriculture in the regional policies, strategies and plans. The results of this analysis will therefore form the backbone of the discussions during the policy symposium.

3.0 INTRODUCTION

Organic Agriculture (OA) is a rapidly growing sector in Africa, with strong links to economic and sociocultural development in the continent (Willer and Kilcher, 2012; Auerbach, 2013). OA presents itself as a unique opportunity for economic growth and a viable sustainable development option for Africa. A number of African nations have experienced significant growth and the uptake of organic farming principles. Organic agriculture is more than a system of production which includes and excludes certain inputs and adopting organic agriculture does not mean a return to some form of low technology, backward or traditional

agriculture – but involves pursuing a blend of innovations originating from a participatory intervention involving scientists and farmers (Parrott et al, 2006). Organic agriculture works with what farmers already have, rather than a production system which makes farmers highly dependent on external costly inputs which has many negative implications on the environment, public health system, food security and food sovereignty of nations.

The International Federation for Organic Agriculture defines organic agriculture as the following:

“ Organic agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than inputs with adverse effects,” (IFOAM, 2009).

Organic agriculture is an inherently sustainable system as it seeks to best use environmental goods and services without harming the environment. Organic agriculture is seen not just as modification of existing conventional practices, but is essentially a restructuring of whole farming systems. “It 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 key characteristics of organic agriculture include:

- Relies primarily on local, renewable resources;
 - Makes efficient use of solar energy and the production potential of biological systems;
 - Maintains and improves the fertility of the soil;
 - Maximizes recirculation of plant nutrients and organic matter;
 - Does not use organisms or substances foreign to nature (e.g. GMOs, chemical fertilizers or pesticides)
 - Maintains diversity in the production system as well as the agricultural landscape;
- and
- Gives farm animals life conditions that correspond to their ecological role and allow them a natural behaviour. (UNCTAD, 3)

OA acknowledges the experiences of the farming communities and can build on and integrate indigenous or traditional knowledge, it recognizes farmers as having agency and as shapers of their future, rather than implementers of an agriculture production system imposed from above or from the outside (UNCTAD, 3). Organic farming in Africa must be viewed beyond the perspective of providing commodities for a domestic and global market. While often recognized as a means of generating foreign exchange and increasing incomes ,

its broader benefits shouldn't be ignored. OA should be viewed as an agricultural system that "enhances" and "manages" the complexity of the ecosystem rather than reducing and simplifying the biophysical interactions on which agricultural production depends. Organic farming in Africa must be seen as a process of learning and adaptation, which results in meeting household objectives, for sustainable and adequate food production, increasing environmental resilience and social capacity (Parrot et al, 2006).

African agriculture is characterised by a low level of external input use and a low take up of Green Revolution technologies. The majority of farms within Eastern Africa are small scale family farmers, who can rarely afford to purchase synthetic inputs. Owing to their nature, traditional systems do not use synthetic agricultural inputs but apply ecological approaches to enhance agricultural production. Many of these traditional systems may not fully meet the production standards for organic agriculture but can be considered near-organic. Although not necessarily fully organic, they provide a basis for organic agriculture to become a viable development option for the continent (Parrot et al, 2006). In Africa, at least 730 000 households farming about 700 000 hectares had adopted near-organic agriculture practices in 2001, including integrated and low external input systems (Wynen and Vincetti, 2002). Recent evidence shows that this has increased to at least 1.9 millions farmers on nearly 2 million hectares (Pretty et al, 2005)

Organic agriculture presents a unique opportunity for East African states to not only witness economic benefits, through increased employment and income from the development of organic agriculture, but as well as environmental, social and health benefits.

3.1 Ecological Organic Agriculture

ProEcoOrganicAfrica intends to generate scientific evidence and knowledge on the productivity, profitability and sustainability of Ecological Organic Agriculture Initiative [EOA](#) (link is external) in Ghana and Kenya. Sound conclusions and recommendations will be drawn on the potential of EOA, to help farmers, especially women, to be economically successful and resilient to the adverse impacts of climate change and socio-economic challenges. Capacity building, networking and a conducive policy environment will be promoted for effective and efficient sharing and exchange of knowledge/experiences to enhance agronomic and scientific know-how.

Sustainable agricultural development, requires that agriculture meet the needs of the present without compromising the ability of future generations to meet their own needs. Current agriculture fails in achieving this goal on numerous ends: Agriculture today is not only a leading driver of environmental degradation (Parrott et al. 2006; Rockström et al. 2009) - it also does not feed people adequately, as currently still one in six people in developing countries are undernourished due to lack of sufficient access to nutritious food (FAO 2010).

There is a drastic need for changes our food system. From an agricultural perspective, we need to produce more food in the right locations at affordable prices, ensuring livelihoods to farmers and reducing the environmental cost of agriculture (Seufert, 2012). As set out by the FiBL Research Institute “The concept of organic agriculture builds on the efficient use of locally available resources and adapted technologies and in industrialised countries has proved itself as a valid alternative to conventional farming” (FiBL, 2016).

The organic concept could, therefore, prove to be a promising option for sustainable agricultural intensification in the global south and particularly in East Africa. However, solid data on the benefits and drawbacks of organic agriculture in the tropics are still missing. Specific on-station and on-farm experiments are required to provide solid agronomic and socio-economic data by comparing major organic and conventional agriculture production systems in selected project regions (FiBL, 2016). To fill this gap, trials assessing the effects of conventional and organic farming have been established in three different countries in the tropics (Kenya, India, Bolivia) by FiBL and its partners under the “Systems Comparison Project” , to provide a scientific basis for discussions.

4.0 OA RELEVANCE TO GLOBAL, CONTINENTAL AND REGIONAL POLICIES AND PROGRAMS

The world faces a multitude of problems related to agriculture and food, while millions go hungry everyday even more are obese and overweight. Industrial agriculture has multiple effects both on and off the farm; the pollution of water sources, greenhouse gas emissions, the degradation of soil and policies which marginalize small scale farmers. It is becoming more and more evident that the system is not only unsustainable but it is broken. A complete transformation of our agriculture and food systems is needed.

4.1 Organic agriculture’s contribution to the Sustainable Development Goals

Farmers represent one third of the world population. Small-scale farmers, many of whom are women, produce about 70% of our planet’s food. As the earth’s primary ecosystem’s managers farmers are best placed to ensure sustainable development (IFOAM, 2014) Organic agriculture has a significant contribution to make in relation to sustainable development and the newly established Sustainable Development Goals.

Starting in 2013 The Alliance for Food Sovereignty in Africa (AFSA) and partners collected 50 case studies on agroecology from 22 African countries with the aim of strengthening the case of agroecology as the future of farming in Africa (Farrelly, 2016). AFSA member organisation, Tanzania Organic Agriculture Movement (TOAM), recently developed a simple tool to establish how these case studies contribute to the SDGs. Three project officers examined the

50 case studies, using the tool to record positive and negative impacts against the SDG goals and targets. It was established that organic agriculture has the potential to contribute to achieving 10 of the 17 SDGs.

Sustainable Development Goals	Positive impact recorded	
	No. of cases	% of cases
No Poverty	27	54 %
Zero Hunger	50	100 %
Good Health & Well Being	11	22 %
Quality Education	31	62 %
Gender Equality	17	34 %
Clean Water & Sanitation	14	28 %
Decent Work & Economic Growth	27	54 %
Responsible Consumption & Production	33	66 %
Climate Action	21	42 %
Life on Land	33	66 %

1.No Poverty - Studies have shown that in the long term organic farming methods can increase farmer’s yields. In some cases, organic methods have actually doubled crop yields per hectare for the involved farmers (Scialabba & Hattam, 2002)

Farrelly, 2016

thus further reducing poverty and hunger pressures. Higher yields from organic agriculture not only bring higher incomes, also less investment in input on the farm which adds to the economic return to the farm.

2.Zero Hunger -Organic farming can play a significant role in reducing food insecurity. Organic agriculture relies on five capital assets for success (natural, social, human, physical and financial) and so contributes to and builds up stocks of these natural, social and economic resources over time thus reducing many of the factors that lead to food insecurity (UNCTAD, 2008). For subsistence farms, non-certified organic farming can play a major role introducing a larger variety of crops, leading to a more stable and diversified outcome and a better diet, where surplus can benefit local access to quality food.

3.Good Health and Well-being - The interaction effects of various agrochemicals in soils that are subsequently ingested by farmers and consumers have yet to be fully understood (Asian Development Bank, 2015) . Organic agriculture directly contributes to an improved health owing to less chemical exposure and minimizes GHG emissions. Organic agriculture can enhance the availability of and consumption of nutritious food would can help avert the incidence of undernourishment and diet related diseases.

4.Quality Education- Families use increased incomes from higher premium prices of organic produce to send their children to school, farmers learning vocational skills through agroecology schools, and communities gaining knowledge and skills to bring about their own sustainable development.

5. Gender Equality - Organic agriculture supports gender equality as its low-start up and production costs and stabilized yields facilitate the entry of women as it's less risky and more affordable while providing them the opportunity to increase their income. Conventional agriculture can have barriers to entry for women due to high initial investments and also the use of pesticides are particularly damaging to women's reproductive system (IFOAM, 2007). Women in organic agriculture typically have more diversified roles in the household economy.

6. Clean Water and Sanitation - Throughout the world water contamination is a result of conventional agricultural practices in which synthetic fertilizers and pesticides contaminate our water systems(IFOAM, . Conventional agriculture is prone to soil erosion, water exhaustion and increases water waste pollution. Organic agriculture uses farm produced manure and compost that encourage biological processes and prevent health problems arising from water contamination.

8. Inclusive, Sustainable Economic Growth, Employment and Decent Work for all - Agroecology is at the very heart of inclusive, sustainable growth, providing farmers sovereignty over their crops as they don't rely on large agricultural manufacturers for pesticides and seeds. Responsible investment is needed in sustainable agriculture and food systems, both in on and off-farm related activities, including agrifood chains which can contribute to inclusive growth and greener job creation.

12. Responsible Consumption and Production - The current development path is unsustainable , not only environmentally but also economically and socially. Every year the world loses a third of the food it produces while close to 800 million people are chronically hungry (FAO, 2016). With a growing global population, increased urbanization and deteriorating natural resource base, shifting to a more sustainable system of food production and consumption is necessary in order to satisfy expected food, water and energy needs.

13. Climate Action - Climate change is being felt by every country in the world. The industrial agricultural system is the largest emitter of Greenhouse gases (Groundswell,2016). A widespread global shift away from industrial production modes, and towards agroecology is key to mitigating the effects of land degradation and global climate change. Implementing agroecological practices can improve soil quality, reduce greenhouse gas emissions, and teach farmers to adapt their crops to be climate smart and resilient.

15. Life on Land - Organic farming contributes to better soil stability with an average of 30% higher soil organic matter and 14% higher soil organic carbon, making organic farming more resilient to drought, more resistant to soil erosion, and more efficient at water infiltration (USC Canada, 2009)

4.2 Organic Agriculture at the Continental Level

In 2010, the African Heads of States and Government introduced a landmark decision, EX.CL. Dec 621(XVII) on organic farming. This decision requested the African Union Commission and its New Partnership for Africa's Development (NEPAD) Planning and Coordinating Agency (NPCA) to initiate and provide guidance for an African Union 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 improve seed quality.

The Ecological Organic Agriculture Initiative was established in response to the African heads of states and governance decision. It is a landmark in Africa that is motivated by challenges brought by this renewed interest and commitment by the African leaders to support organic agriculture (EOA, 2015). The overall goal is to mainstream Ecological Organic Agriculture into national agricultural production systems by 2025 in order to improve quality of life for African citizens. This continental initiative holds significant opportunity to increase productivity of smallholder farmers throughout Africa, with subsequent positive impacts on food security. The initiative in Africa since 2012 has been implemented in four (4) countries in Eastern Africa (Tanzania, Uganda, Ethiopia and Kenya) and four (4) in West Africa (Benin, Mali, Nigeria, Senegal). The main challenge so far in realising the full potential of EOA is the absence of enabling national policies on EOA which is the biggest obstacle hindering African governments to develop sustainable, resilient and productive farming systems (EOA, 2015). This is the most pressing challenge EOA wants to address.

4.2.1 OA Contribution to CAADP

The Comprehensive Africa Agriculture Development Programme (CAADP) is the most ambitious and comprehensive agricultural reform effort ever undertaken in Africa. An initiative of the African Union (AU) and New Partnership for Africa's Development (NEPAD), it represents a fundamental shift toward development that is fully owned and led by African governments. CAADP targets include an average 6% annual increase in the agricultural sector and an allocation of 10% of the national budgets to agriculture.

CAADP's vision of agriculture as a driver of poverty and hunger alleviation is underpinned by four pillars.

Pillar 1: Extending the area under sustainable land management and reliable water control systems

Pillar 2: Improving rural infrastructure and trade-related capacities for market access

Pillar 3: Increasing food supply and reducing hunger

Pillar 4: Agricultural research, technology dissemination and adoption

Organic agriculture wholly contributes to pillar one, three and four, while substantially contributing to pillar two. Organic sector in Africa has for long been a market export oriented sector. Therefore, improving trade related capacities for market access.

Since Organic agriculture contributes to most of the CAADP pillars and indicators thereof, it's imperative that enough advocacy is undertaken to inform CAADP through NEPAD Secretariat about the potential of Organic agriculture and how Organic agriculture can be mainstreamed in CAADP for the attainment of the CAADP targets. Key allies should be identified and efficient and effective policy dialogue and advocacy undertaken.

4.3 OA Contribution at the Regional Level

All five members of the East African Community (EAC) - Kenya, Tanzania, Burundi, Rwanda and Uganda are highly dependent on agriculture with roughly 80% of the population in East African member states residing in rural areas and relying on agriculture for their livelihood (Organic Denmark, 2013). The agricultural sector accounts for about 44% of the GDP in Burundi and Tanzania, 30% in Uganda, 24% in Kenya and 38% in Rwanda (Ecomea, 2013). Since agriculture employs over 75 percent of the rural population, the majority of whom are poor, development of the agriculture sector presents a great opportunity for poverty reduction in a sustainable manner (Ecomea, 2013).

Africa's organic sector is most developed in the East, which leads the continent in production and exports of certified organic products, responding to demand from well-established organic markets in Europe, USA and Japan. Domestic markets are also growing rapidly, in part through the efforts of the Kenya Organic Agriculture Network (KOAN), the Tanzania Organic Agriculture Movement (TOAM) and the National Organic Agricultural Movement of Uganda (NOGAMU). Uganda and Tanzania are by far the most developed certified organic sectors in Africa. Roughly fifty percent of Africa's certified organic farmers are located in Uganda alone (Lyons and Burch, 2008). However, it is important to note that figures refer to the certified organic sector, while informal or de facto organic sector comprises a much larger component of the organic sector. In 2012, the number of certified organic farmers in the EAC was 290,000, with Uganda as the leading country and Tanzania as the second (Ecomea, 2013).

4.3.1 East African Community Level Policy Towards Organic Agriculture

The East African Community (EAC) Vision 2050 does not explicitly promote organic farming, however it does mention livestock keeping and how fuel and manure production support

organic farming and increase crop yield and soil conservation (Regional Vision for Socio-Economic Development and Transformation 2050, 2015, pp.71) 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.

EAC member states adopted the EAC Agricultural and Rural Development Policy (2005-2030), in 2005 with the overarching goal to ensure sustainable agricultural development and foster economic growth in the region. The specific objectives outlined include;

I. Achieve food security in the EAC and improve the standards of nutrition by increasing output, quality and availability of food.

li. Encourage rational agricultural production with a view to promoting complementarity and specialization;

lii. Improve standards of living in the rural areas through increased income generation from agricultural production, processing and marketing

Iv. increase foreign exchange earning by encouraging production and export of agricultural and fisheries products

v. support industrialisation

vi. encourage the development of new and appropriate technologies that improve the productivity of land and labour; and

vii. Promote sustainable use and management of natural resources (soil, water, fisheries and forest) in order to conserve the environment

The EAC harmonized Agricultural and Rural Development Strategy (2005-2030) , guided by the EAC Agriculture and Rural Development Policy (2005- 2030) articulates the major agricultural challenges affecting the region and its objectives which include, achieving food security in the EAC, improving living standards in rural areas, improving the productivity of land and increasing foreign exchange earnings by encouraging production and exportation of agricultural products(East African Community Agriculture and Rural Development Policy, 2005). Despite the importance of the contribution of organic agriculture to these objectives, both policy and strategy, do not directly mention organic agriculture's importance in achieving the outlined goals.

Organic agriculture has a direct role to play in achieving the aforementioned goals. As argued by the UNEP-UNCTAD Capacity Building Task Force on Trade, "organic agriculture can increase agricultural productivity and can raise incomes with low cost, locally available

and appropriate technologies, without causing environmental damage. Furthermore, evidence shows that organic agriculture can build up natural resources, strengthen communities and improve human capacity, thus improving food security by addressing many different causal factors simultaneously. Organic agricultural systems are making a significant contribution of food security and poverty in areas of Africa, and a significant improvement to rural livelihoods. There is the potential to the expand this impact with an enabling policy and institutional support.

5.0 OPPORTUNITIES AND CHALLENGES IN THE EAST AFRICAN ORGANIC SECTOR

5.1 The East African Organic Product Standards (EAOPS)

The EAOPS was adopted by the East African Community in April 2007 and thereby became an official standard for Burundi, Kenya, Rwanda, Tanzania and Uganda. Its official name is EAS 456:2007, East African Organic Products Standard (EAOPS). It is the second regional organic standard in the world, after that of the European Union, and the first in the developing country region.

The East African Standard provides requirements for organic production. It covers plant production, animal husbandry, bee keeping, the collection of wild products, and the processing and labelling of the products therefrom. It does not cover procedures for verification such as inspection or certification of products. Usage of the EAOPS enables one to obtain and use the East African Organic Mark, on products. EAOPS covers ; Crop production, livestock production, beekeeping, wild collection, processing and allowed organic inputs and labelling.

5.2 The East African Organic Mark (EAOM)

In 2007 the East African Organic Products Standards, referred to locally as the Kilimohai Mark, was launched. The establishment of the Kilimohai Mark, the only set of regional standards to be developed after the EU standards, has been a ground breaking achievement for the region. The mark works as a combination of a promotion and as a guarantee to consumers and traders that produce was grown and processed following organic principals and is adapted to be appropriate in an East African context.



5.3 Organic Development in Uganda

The driving force behind the organic agricultural movement in Uganda is the export market. As early as 1994 a few commercial companies began engaging in organic agriculture, with an eye on the export market (TOAM, 2016). At the same time in Uganda, there was a general

movement in the agricultural sector aimed at developing sustainable agriculture as a means of improving people's' livelihoods.

The National Organic Agricultural Movement of Uganda (NOGAMU) was established in 2001. It brings together all Ugandan organic farming actors (producers, traders, exporters, consumers, NGOs and public authorities) and provides operators with the services and resources needed for growth. NOGAMU's work has been the principal factor in the growth and development of Uganda's organic sector. The work has included capacity building, PGS development, and consumer awareness. But also NOGAMU has assumed a very pro-active marketing role, acting as a supply chain facilitator, and creating the first specific organic market outlets and basket home-delivery scheme (IFOAM, 2016).

In Uganda there has been an increase in the number of organic farmers over the last 15 years. Between 2002 and 2007, the number of certified organic farmers increased by over 300 percent and the acreage converted to organic farming increased by 60 percent (Nogamu, n.d). Certified organic exports increased from US\$3.7 million in 2003 to US\$22.8 million in 2007(Nogamu, n.d). Uganda has made remarkable efforts to set up a certified organic farming sector to help reduce poverty, as well as promoting sustainable development in the region. Today, Uganda is the number one African country for organic farms (about 88,000) and second when considering land under organic farming (with 90,000 hectares) (IFOAM, 2008) .This portrays a promising future for organic agriculture in Uganda. In comparison to its regional neighbours, Uganda has made progress in gaining government support however, to improve regional and international trade of Uganda's organic products, there are a number of policy gaps and other constraints that have to be addressed.

Uganda has no organic agriculture policy to guide policy-makers, farmers and development stakeholders. Organic agriculture is not mentioned anywhere in the National Agricultural Plan of 2013 or the National Agricultural Research Policy. Policy places a focus on input-intensive agriculture. Despite this, some progress has been made. NOGAMU , together with its member organizations has advocated and lobbied the government for the development of a national organic policy.

In July 2009, the government released a Draft Uganda Organic Agriculture Policy which was developed through active private stakeholder participation. In 2012, the Technical Planning Committee (TPM) approved the draft policy and recommended the development of an implementation strategy. It was envisioned that the Organic Agriculture policy would be mainstreamed in Uganda's Development Strategy and Investment Plan, however this did not come to fruition (TOAM, 2016)

Currently, there is still limited research into organic agriculture in Uganda, this is primarily due to the lack of government policy for the sector. In terms of export, certification costs remain a primary challenge for exporters and severely impact the sector. Without explicit

organic policy government resources cannot be invested in education, research and extension in support of organic agriculture development.

5.4 Organic Development in Tanzania

This history of organic farming in Tanzania dates back to 1898 when the first organic garden was founded at Peramiho in Southern Tanzania. Tanzania is ranked 4th in the world for the number of organically certified farmers (Fibl and IFOAM, 2015). Tanzania has a comparative advantage in organic agriculture in bananas, sunflower, green gram and beans among East African countries, however, these crops do not get premium price for organic crops due to lack of certification as organic crops are more often traded through unregistered trade due to presence of various trade barriers.

The Tanzania Organic Agriculture Movement (TOAM) was founded in 2005 to act as the umbrella organization that coordinates and promotes the development of organic farming among farmers, distributors and consumers through networking and information dissemination. Tancert is a local certification institution for organic agricultural production that was registered in 2004, whose standards are harmonized to the East African Organic Product Standard.

While the organic sector is growing in the country, a lack of strong institutional support through policy prevents the country from exploiting its advantages in organic agriculture. The National Agriculture Policy of 2013 has clauses on organic farming and 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:

- i) Registration and availability of organic inputs to farmers shall be facilitated;*
- ii) The Government shall facilitate accreditation of organic products in order to reduce certification costs*
- iii) Initiatives for regulation and certification of organic products shall be promoted*
- iv) 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, fertilizer, pesticides) regardless of the fact that there is increasing interest from the private sector to supply and produce organic inputs. While NAP states the intention for strong regulation and certification body there is still no strong local certification body responsible for organic certification and while there exists an Organic Desk exists in the Ministry, it is too small to offer effective coordination of a vast and fast growing organic sub-sector.

According to a market study conducted by the Belgian Technical Cooperation Agency (BTC), the growth in the number of organic certified farmers in Tanzania is hampered by the cost of certification, which is not attainable for individual farmers (BTC, 2012). Taking the case of the Tanzanian spice sector, the study concluded that it is the lack of availability of organically certified spices rather than the readiness of producers and exporters, which is restricting growth in the organic spice sector (BTC, 2012). Support provided to individual growers of spices to achieve accreditation would create more opportunities for producers as well as exporters. The high costs of certification mean that poor farmers in Tanzania can only benefit from organic agriculture if they enter into contracts with processing / exporting companies. This often provides access to premium prices but a loss of control over trade. These farmers are restricted from selling their organic produce independently.

Little progress has been made to address these barriers and to change policy in order for the country to exploit the opportunity organic agriculture presents as there continues to be no separate policy nor mainstreaming of organic agriculture into existing agricultural policies and strategies in the countries.

5.5 Organic Development in Kenya

Kenya's organic agriculture sector is predominantly export oriented. Over the years, exports have developed beyond vegetables and fruits to include other products such as essential oils, dried herbs and spices, as well as products for the cosmetic and pharmaceutical industries which are more often produced or collected by smallholders.

The Kenyan Organic Agriculture Network was formed in 2005 as the umbrella body representing all organic agriculture organizations in Kenya, to coordinate, facilitate and provide leadership and professional services to all members and other stakeholders in the organic agriculture industry in Kenya. KOAN was mandated to help develop an organic market which would have an effect on other sectors such as training, advocacy and lobbying and standards development (Kimemia and Oyare, 2006).

The organic sector is relatively small but fast growing and led mainly by civil society organizations (CSOs) and the private sector. Organic demand in the country is high but largely going unmet. Despite the increasing demand and public recognition of organic agriculture, there still remains no official policies for organic agriculture in Kenya. The sector has developed to date without any explicit official government policy support. The Ministry of Agriculture has established 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 both a policy for organic agriculture as well as to incorporate it into other policies relating to agriculture, food security and the environment. Organic agriculture has been incorporated in the Food Security Policy Draft as well as the Soil Fertility Policy Draft (Kledal, P et al, 2009).

The development on national organic development policy in Kenya is taking longer than was expected. In addition, in line with restructuring of the agricultural level at national level, where the Kenyan Constitution devolved the agricultural sector has a country government that has brought a new dimension on the policy front, that of spearheading policy development at county level. Counties are smaller, manageable, semi-autonomous administrative units. Many county governments are looking into new innovations to supporting viable value chains in their counties. Among the emerging interest is the development of organic agriculture at county level. In the appreciation of this emerging interest and that the agriculture sector is now a function of devolved Government in Kenya, KOAN has deliberately decided to partner with the counties to develop policies that promote and support the adoption of organic agriculture among the farming communities. Four of the counties have had organic agriculture policies and action plans discussed and approved at county level. One of the counties will be analysed in regard to the potential of setting up an organic agriculture fertiliser plant.

A ProGroV study conducted within the Nairobi region found that the main challenges facing the sector are a lack of adequate supply of products, lack of information for market players as well as lack of organic assurance through certification and labelling, limited organic inputs and the introduction of GMO crops in the country (Murimi et al, 2016). The high cost of certification is also a major constraint to the sector, the high cost of certification charged by foreign certifiers discriminates against small scale farmers who aspire to convert into organic agriculture

The main source of demand are tourists and urban consumers, especially the expatriate community and Kenyans in a higher income bracket. There is a potential to expand this market by increasing awareness to health and environmental problems. This also needs to be accompanied by a legislative recognition of organic agriculture in order for organic stakeholders to create more efficient and necessary market institutions and trade networks which can contribute to wealth creation, nutritional and environmental improvements in Kenyan society.

5.6 Organic Development in Rwanda

Agriculture employs more than 90% of the population and accounts for about 48% of Rwanda's GDP, derived virtually entirely from small-scale producers (ISEAL, 2008). Since 90% of Rwanda's farmers are poor small-scale producers organic agriculture offers them many advantages (ISEAL, 2008). Organic agriculture can help poor farmers be less dependent on external resources and costly inputs and experience higher and more stable yields and incomes, therefore enhancing their own food security. Given the important contribution of agriculture to the national economy, increasing the export potential of agricultural products is considered a high priority. Agriculture represents the primary engine for economic growth in Rwanda and organic agriculture is seen as a key way to add value to Rwandan agricultural exports, and to gain access to new markets regionally and

internationally. There is growing demand for organic products worldwide and especially in the European Union (EU), a major trading partner with countries in East Africa, and increasingly Rwanda. Current organic exports include: chilli, mangoes, bananas, avocado, passion fruit, tomatoes, papaya, carrots, corn, peas and geranium oil (ISEAL, 2008)

The Rwandan Organic Agriculture Movement was founded in 2007 as the national umbrella for coordinating and promoting organic farming in Rwanda. There is no single policy for organic agriculture in Rwanda. However, different elements of support to organic farming are delivered through a range of sectoral policies (e.g. land management, fertilisation planning, and export competition) which acknowledge that organic agriculture can play an important role, side-by-side with conventional agriculture.

The Strategic Action Plan for the Transformation of Agriculture in Rwanda includes a line of action in regard to organic farming “Develop regulations for organic agriculture, pesticide and limestone use. These should protect high-value organic activities, soil and water quality and micro-nutrient availability (SP 4.3.2. Strategic Action Plan for Agriculture, 2008)

The Fertilizer Policy (April 2007) is largely about the increased use of chemical fertilisers. However, it does recognize the negative impacts that in-organic fertilizers can have and the policy does contain recommendations and actions targeting the better use of organic fertilisers: To improve extension system to create farmers’ awareness on the importance of organic fertilizer and to popularise the use of organic and bio-fertilisers along with inorganic fertilisers (Rwanda Fertilizer Policy, 2014).

A target for organic fertilizer use is included in the Rwanda Agricultural Sector Performance – First Semester 2008: “Proportion of farming households using improved farm methods: Chemical Fertilizer from 15% in 2008 to more than 18% in 2009, Organic Fertilizer from 10% to 13%” in line with the overarching strategy to render more efficient and productive Rwanda’s agricultural sector” (Rwanda and the East African Product Standards, 2008). Annually, a budget is set and made available to support organic farming related activities. This is managed by the Ministry of Agriculture through the Rwanda Horticulture Development Authority (RHODA) which is a department in the Ministry of Agriculture. However, Government has not approved a stand alone organic policy in support of the organic sector and neither mainstreamed organic agriculture in the current national agricultural policy. Recently, there were signs that the Rwandan Government could mainstream organic agriculture in the existing national agricultural policy. This would mean support to organic agriculture in terms of funding and extension.

Main challenges which have been cited for exports are lack of capacity among exporters to deal with certification requirements; lack of market knowledge and market exposure. Currently the local organic market in Rwanda is more or less non-existent and will take some time to establish. It is also essential for consumer awareness and recognition to be established. The government can facilitate the development of the domestic market

through trade shows, stimulate public procurement and through public awareness campaigns.

Currently NGOs are driving the organic capacity building and training of farmers. Government services are very limited in this extent, gradually public extension services should be built up to include organic training. Finally, there is no indication that there is any special organic research conducted in Rwanda. It is also not clear what the major research needs are, to initiate cooperation a student exchange programme with organic oriented research institutes in East Africa will contribute to capacity building of research institutions (Rundgren, 2008).

5.7 Organic Development in Burundi

BOAM is the national umbrella for organizations involved in organic agriculture in Burundi. BOAM working in different fields including advocacy, production, processing, capacity building, training and information sensitization. Burundi has no organic policy and the current agricultural policy of Burundi Government doesn't mention organic agriculture anywhere.

Burundi's Vision 2025 sets out policies and strategies for sustainable development. In terms of agriculture it proposes to make modernization and diversification of agriculture one of the priorities. One of the main agricultural priorities is access to inputs. The Vision does not mention organic agriculture as a method of achieving sustainable development, which is conflicting to its recognition of the destruction of the environment and need to implement an agricultural policy which will ensure the sustainable management of natural resources.

Burundi's Plan National d'Investissement d'Agricole 2012- 2017 ,constitutes the strategic prioritization and investment planning of the agriculture sector. The end goal set out is the transformation of agriculture from subsistence farming to commercial agriculture through the promotion of high technical qualifications of farmers. While it does not mention the importance of organic agriculture it does mention organic fertilizer as a way of improving productivity (Plan National d'Investissement d'Agricole,2011, pp 20)

To this end, Burundi Organic Agricultural Movement has tried to convince the policy makers (Government and Parliament) to include organic agriculture in the Burundi policy. BOAM has exchanged some advocacy documents on OA as a strategic choice to the Minister of Agriculture. BOAM has already got an appointment with the minister to explain it to him and to discuss with him about the topics, the contribution of organic agriculture to social-economic development .

The position of the Ministry of Agriculture is to include as soon as possible OA in the Agriculture National Strategy and to plan for an organic pilot zones while thinking about a more detailed document or strategy. The meeting has also involved members of parliament and advisors in both the ministry of environment and agriculture

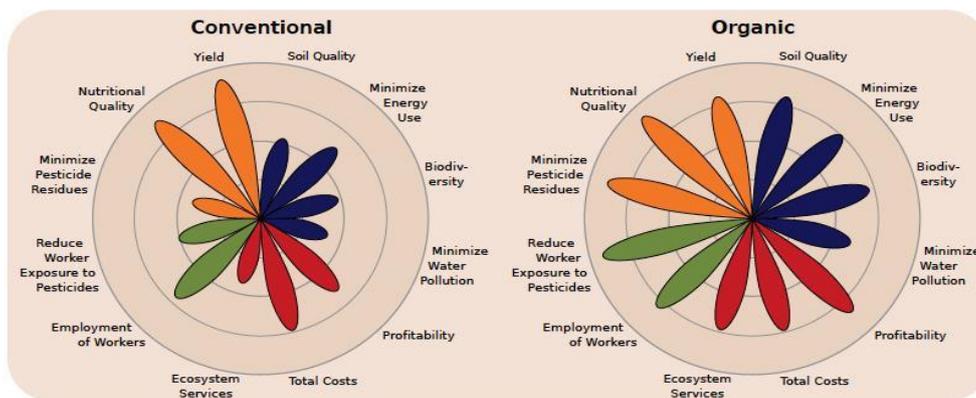
6.0 IMPACTS ASSOCIATED WITH THE UPTAKE OF ORGANIC AGRICULTURE

Agriculture is unique in that it directly affects many of the very assets on which it relies for success. Agricultural systems at all levels rely on five main types of assets; natural, social, human, physical and financial capital, are now recognised as being important (Hine and Pretty, 2006). As agricultural systems shape the very assets on which they rely for inputs, a vital feedback loop occurs from outcomes to inputs (Worster 1993, Pretty and Hine 2001). The basic premise is that sustainable agricultural systems accumulate stocks of these five assets, thereby increasing the per capita endowments of all forms of capital over time. Sustainable agricultural systems tend to have a particularly positive effect on natural, social and human capital, whilst unsustainable systems feed back to deplete these assets, leaving less for future generations.

The dominant development view is that low food production is due to a lack of access by smallholder farmers to elite planting materials, inorganic fertilizers and synthetic pesticides. This view which has dominated the world agriculture debate, looks at food security in a very narrow perspective of crop yields per unit area, ignoring the multitude of other factors which affect food security: erosion of farmers control over productive resources, inadequate and/or inappropriate agriculture knowledge, poorly governed markets that marginalized smallholder farmers and changing climate conditions (Walaga, 2014).

Agro-chemical and fossil fuel intensive agricultural food systems not only destroys the environment but also ignore both the negative health implications (of the crops/food produced), and the socio-economic implications (for the people engaged in producing that food)(Varghese, 2016). Agroecological approaches, in contrast, see food production as one, but crucial, component in the larger web of life . They draw on science, but have traditional farmer knowledge at their foundation as they seek to enhance ecological integrity while attempting to address food sovereignty concerns. While industrial farming operations are dependent on outside (and often fossil fuel-based) inputs like herbicides, synthetic fertilizers, antibiotics and genetically modified crops, local food and farming systems minimise off-farm inputs by rotating crops, integrating livestock production, and following agroecological practices which enhances farmer's agency (Varghese, 2016).

The Sustainability Flower is a model used to manage, evaluate and communicate the achievements of organic growers and symbolises the concept of sustainable development. The Sustainability Flowers represents the benefits organic farming offers over conventional agriculture



Measuring the impact of conventional farming entails simply counting the crop yield per unit area. However, the real world is much more complicated. While conventional farming claims to have raised yields, it has done so at a great cost, with extensive soil damage, huge biodiversity loss, negative impacts on nutrition, food sovereignty and natural resources (Farrelly, 2016). By contrast, agroecology offers country's huge sustainable improvements. Where conventional agriculture seeks to simplify, agroecology embraces complexity. Where conventional agriculture eliminates biodiversity, agroecology depends on diversity, and builds upon it. Where conventional agriculture pollutes and degrades the environment, agroecology regenerates and restores, working with nature – not against her (Farrelly, 2016).

Organic agriculture is a sustainable and environmentally friendly production system that offers African countries a wide range of economic, environmental, social and cultural benefits. To fully recognize the role of organic agriculture and agroecology citizens and governments must rethink the way in which they evaluate progress and development. Conventional pesticides and fertilizers do not actually produce cheap food when we take into account the hidden negative environmental and public health implications. According to IFOAM, true cost accounting studies are starting to demonstrate, in monetary terms, that organic agriculture is cheaper, for the society overall, than conventional agriculture. The right policies would have the power to optimize public welfare by incentivizing farmers to produce positive externalities of high societal value (IFOAM, 2017).

By supporting the organic sector through the development of enabling policy and institutional support of the sector, governments in East Africa will contribute not only to the revitalising of rural economies but will also witness positive externalities to the environment, the health of its citizens and realising food sovereignty of those involved in food production and consumption.

6.1 Organic Agriculture and Food Security

Food security in any country entails more than simply producing enough food to meet demand. Food security can be defined as a condition where “all people, at all times, have

physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (FAO 1996).

Agriculture, by its inherent multifunctionality, can both shape and address the factors that contribute to food insecurity (Bragg and Pretty, 2006). Organic agriculture can improve the availability of food, particularly for those who are most food insecure. Organic Agriculture relies on five main capital assets for success (natural, social, human physical and financial capital). It contributes to and builds up these stocks of resources over time, thus improving food security in a long term sustainable manner (UNCTAD, 2008). As noted by Bragg and Pretty (2008), “An agricultural system that erodes soil whilst producing food, externalises costs that others must bear. But one that sequesters carbon in soils through organic matter accumulation helps to mediate climate change. Similarly, a diverse agricultural system that enhances on-farm wildlife for pest control contributes to wider stocks of biodiversity, whilst simplified modernised systems that eliminate wildlife do not.” (Bragg and Pretty, 2008)

The great technological advances in the last half-century have not brought major reductions in hunger and poverty in developing countries. There are still more than 800 million people in the world who are hungry and lacking adequate access to food, a quarter of which live in sub-Saharan Africa (UNCTAD, 2008) Organic agriculture is important for meeting local food requirements while providing protection and sustainable use of natural resources. Sustainable and organic farming makes it possible to save on production costs (no expenditure on synthetic inputs) and to promote economic viability and encourage food self-reliance. In areas where farmers have no access to modern inputs and technologies or in regions where natural resources are poor, sustainable agriculture can increase the productivity of traditional systems by making better use of locally-available natural resources (Hine and Pretty 2001, Altieri 2002, Pretty et al. 2005). Organic and sustainable agriculture is therefore particularly appropriate for rural communities that are currently most exposed to food shortages (IFOAM 2006).

Organic farming can lead to increased food production – in many cases a doubling of yields have been seen – which makes an important contribution to increasing the food security in a region. There is a growing body of evidence that yield increases are possible and indeed likely, with a switch to organic farming in a variety of different contexts, particularly in marginalized areas where traditional farming methods are used (UNCTAD, 2008) organic farming increases access to food on several levels. First, increased quantity of food produced per farm leads to household security which results in all members of the household having access to enough food. Second, the production and selling of food surpluses at local markets means that farmers benefit from higher incomes. Third, fresh organic produce becomes available to more people in the wider community. Finally organic farming enables new and different groups in a community to get involved in agricultural production and trade where previously they were excluded due to financial or cultural reasons. Farmers in East Africa are aware of the dangers of monocropping and so the

security offered by integrated organic farming is widely welcomed. Maintaining a wide variety of crops and livestock is vital not only for food security throughout the year but also leads to increased *nutritional* security for farmer households.

6.2 Organic Agriculture and Farmer Livelihoods

The economic implications of organic agriculture on farmers is significant by providing them economic independence and financial stability by reducing reliance on costly external inputs or off farm technologies. Organic agriculture promotes the use of home-grown fertilizers produced by livestock and other sources, which are less expensive than agrochemicals. Furthermore, because these are produced on-site, they do not require up front financing eliminating the need to rely on high-interest loans. Organic agriculture offers greater returns to poor farmers through premium prices.

6.3 Environmental Benefits of Organic Agriculture

According to a 2007 report of the Intergovernmental Panel on Climate Change (IPCC), the agriculture sector (after excluding emissions from the use of electricity and fuel) is responsible for 13.5 per cent of global greenhouse gas (GHG) emissions. According to one study, CO₂ emissions per hectare of organic agriculture systems are 64 per cent lower than in conventional systems (Scialabba and Hattam 2002). The potential of organic agriculture to reduce GHG emissions is the result of its increased carbon absorption and its minimal use of energy.

The East African Community's 2050 Regional Vision for Socio-Economic Transformation recognizes the region as being the most vulnerable to the effects of climate change it stresses the importance of investing in appropriate mitigation actions and adaptation methods. In the context of climate change mitigation and adaptation, organic agriculture is more resilient than conventional farming in the face of drought, flooding and extreme temperatures because it results in increased water filtration and water retention capacity of soils, and augments their organic nutrient content (Scialabba and Hattam 2002; Wall and Smith 2005; Ho and Ching 2007). Furthermore, by eliminating dependence on a single crop, diversification increases the likelihood that one of the cultivated species will withstand the temperature and precipitation stresses associated with climate change (UNEP, 2009). Given the obvious benefits organic agriculture presents to the environment and its ability to cope and mitigate the effects of climate change, it must be insured that organic agriculture is integrated into regional strategies such as Vision 2050 and national policies and strategies.

6.4 Health and Nutritional Benefits of Organic Agriculture

There is now increasing evidence of direct links between the intensification of our agriculture and food systems and the rapid rise of diseases resulting in unaffordable treatment costs. These include diet-related illness such as obesity, cardiovascular diseases, allergies, some cancers and diseases of the immune system, many of which are being linked

with changes in our farming and food system practices (Holden, 2016). Organic agriculture helps reduce the overall amount of pesticide residues in food and therefore reduces the risk of chronic diseases such as cancer, Alzheimer's, Parkinson's and allergies.

In much of the world, water contamination results from conventional agricultural practices that leach synthetic fertilizers and pesticides into water systems. According to WHO, in the developing world, a minimum of 40,000 people die annually from ingesting pesticides, either on their food or in their water, and a further 3-4 million are severely poisoned in the developing world (Jimenez,2007). The estimation would be far greater if taking into account that many of the rural poor might not be treated in hospitals. Because organic agriculture does not allow the use of synthetics, it can prevent some health problems arising from water contamination. Organic agriculture avoids contamination of the general environment by toxic chemicals that have an adverse effect on public health and helps preserve the health of agricultural workers through the avoidance of pesticide exposure.

Organic farming concentrates on soil and soil health to produce healthy food. Organic farming methods maximize the nutrient density in soil through the use of natural fertilisers, crop rotation and limited use of pesticides, making food grown in an organic system higher in vitamin and mineral content. Conventional animal farms often use antibiotics as "growth promoters" which has greatly increased antibiotic resistance in humans. Overuse of antibiotics causes bacteria to become resistant to them making antibiotics as medicines ineffective (Benefits of Organic Agriculture). Organic agriculture reduces exposure to antibiotics and other animal drugs that are usually contained in conventional animal products[(Smith- Spangler, C. et al, 2012) It reduces the risk of antibiotics resistance in human pathogens - an increasingly serious public health issue.

6.5 Organic Agriculture and Social Benefits

The benefits of agroecology and organic agriculture go beyond improved productivity, land use and quality of food, but they can be the engine of social transformation, redefining power relations among countries and actors currently controlling the global food system. A core component of organic agriculture is the agency of farmers.

Organic agriculture is well adapted to local circumstances as it encourages the use of local and indigenous farmer knowledge and adaptive learning techniques. Organic agriculture reduces the financial risk of farm operations, since farmers are less dependent on external inputs like synthetic fertilizers, seeds, irrigation equipment etc. They do not have to borrow money to buy these inputs and are therefore financially less affected in case of crop failure and less dependent on large companies.

Throughout the world women play a key role in the production of food. They supply much of the agricultural production, and perform many activities key to the household economy. In Africa, women are estimated to supply 80% of labour (Jimenez, 2007) However, women

continue to facing many barriers which prevent them from accessing higher incomes, such as access to land and costly inputs which contribute to the problem of gender bias in conventional agricultural systems. Fortunately, many women throughout the continent are taking a leading role in the development of the organic sector. Organic agriculture does not present the same barriers compared to conventional agriculture.

The East African Community Agriculture and Rural Development Policy 2006, clearly states its goal to reduce gender based inequalities which constrain agricultural growth. Organic agriculture has the potential to create a situation of gender balanced agriculture development, since principles of fairness and social laws minimise the discrimination in agricultural production. Organic agriculture can play a key role reducing gender inequality in agriculture however for the full effects of this to be seen, a supportive policy environment is needed and thereby organic agriculture needs to be included into EAC regional agricultural policies and strategies.

At the production scale, practicing organic agriculture results in more diversified crops grown and different livestock species raised in a farm. The diversity calls for women to play a more diverse role in the household economy and to perform tasks of more responsibility. The added responsibility enhances their self esteem and decision making power, promoting their empowerment within their family and community (Subrahmanyeswari, 2011). Moreover, because organic agriculture demands more specific knowledge and specialised skills, women receive more educational and skills development opportunities like on farm and off-farm trainings.

Organic agriculture's ability to empower women has further beneficial impacts on food security. It has been shown that when women have responsibility over resources, such as land and other productive resources including livestock, they have greater capacity to optimise their use, increasing food production and enhancing the nutritional health of their families (Subrahmanyeswari, 2011).

7.0 CONSTRAINTS IN THE ORGANIC SECTOR DEVELOPMENT IN EAST AFRICA

- **Lack of knowledge and low sensitization as a constraint.** There is limited education and understanding of organic products business among stakeholders. Many farmers still lack an understanding of the alternative to conventional farming and its benefits. Moreover, what knowledge exists is poorly disseminated. Awareness creation is key for a more informed and engaged public, which will lead to greater demand for organic produce and subsequently greater pressure on policymakers and government to support the sector. Changes in policy also requires pressure from citizens. Gender norms can influence people's involvement in organic farming and produce as fruits and vegetables are typically regarded as something which women

are responsible for within the household and community in general, women predominantly sell vegetables in market places. These traditional gender norms affect people's perceptions and interest in the topic itself. In addition, fruits and vegetables still hold a perception as a “ poor person’s food”, such misconceptions must be targeted in any awareness campaign.

- **Weaknesses in capacity building.** Capacity building for organic agriculture tends to focus on agronomic practices for producers. Capacity in trade, marketing and especially EA trade is limited. There lacks sufficient knowledge about the business environment of organic farming among producers.
- **Low agricultural budget and financial support to the agriculture sector.** Despite the key role agriculture plays in each of the country’s economies, a lack of financial support affects the overall growth of the organic sector. For example in Uganda, government spending was estimated to be 4.3% of the total budget in 2009/2010 which is far below the 10% target set out in the Maputo Declaration (Mwesigwa, 2015). A similar trend in Tanzania shows an average annual allocation to agriculture between 6.5-6.8%
- **Research into production and social issues.** Detailed independent, academic or sector research on organic farming systems in the region is limited. Lack of available data is a major hurdle for the sector. Research into organic agriculture in the region remains minimal in comparison to conventional agriculture. Further research is needed on soil fertility, biodiversity conservation, seed improvement, productivity improvement and pest and disease control (UNEP, 2010). The increasing interest in the link between organic agriculture and HIV/AIDS management also needs to be investigated as does the social implications of promotion organic agriculture (Taylor, 2006). The dissemination of these findings are vital for the development of the sector.
- **Different national bureaux of standards.** It has been identified that the different regional bureaux of standards for Kenya, Tanzania and Uganda do not recognize each other’s compliance certificates for processed goods. This results in produce crossing borders being held up by multiple checks. This both delays trade and increases the cost of trade in the region.
- **Lack of explicit organic policy framework.** With no organic policy or organic agriculture plans in EAC countries there is a lack of a framework to support actors in

organic value chains. This restricts entry level and makes it difficult for organic exporters to operate.

- **No clear messages from member state governments on GMOs.**
- **Lack of access to organic inputs/ technologies.** A lack of National Organic Agriculture Policies with government seed and fertiliser policies means that farmers in East Africa struggle to access imported organic fertilisers at affordable prices. A lack of access to these organic technologies leads to higher diseases, lower yields and pest burden and farmers cannot afford inputs which comply with certification. When the structure of the subsidy program is such that only commercial chemical fertilizers are subsidized and organic commercial fertilizers and on-farm produced fertilizers are not, the policy environment works against organic agriculture. Support to organic inputs can come under the broader policy goal of reduction of chemical use in agriculture. A big part of the environmental damage caused by conventional agriculture originates from the use of chemical inputs (pesticides and over-application of chemical fertilizers). Hence supporting the development and use of alternative inputs such as organic inputs is one of the most direct policy interventions to address sustainability in agriculture.
- **Low volumes produced do not attract external market.** Producers require extension support and access to organic inputs which are major hurdles for producers to supply a consistent high volume.
- **Bureaucracy at borders and increasing cost of doing business.** The disproportionate level of checks, quality assessments cause long delays and increases the cost of doing business for traders.

8.0 POLICY RECOMMENDATIONS

8.1 Policy recommendations for member states

Uganda

1. The Ugandan national organic policy, which will provide direction to the sector is the final stages. The ultimate need now is for NOGAMU and its stakeholders to continue dialogue with Government the current draft organic policy, which is before cabinet is passed is approved.

2. Further lobby Government of Uganda and development partners for a potential project on organic agriculture. The project would allow for implementation of organic practices. Based on that it would be scaled up

Kenya

1. No policy exists that is explicitly organic at the moment. Follow up on national development so that Kenya has a national policy approved. This will be achieved through continuous policy dialogue with the Government of Kenya on Organic agriculture.

2. Produce fact sheets and advocacy materials. Identify like minded organisations and together, undertake policy dialogue with Government. Develop an advocacy plan together stakeholders

3. Continuously engage more counties on the benefits of organic agriculture and ensure that they prioritize the sector into their policies, strategies and plans. This will lead to greater support in terms of extension funding, market facilitation and inclusion of organic agriculture in agricultural training institutions.

4. Increase research both at public, community and private institutions.

5. Develop local organic markets and consumer education

Tanzania

1. Tanzania's policies acknowledge that agriculture is the backbone of the country's economy. The Tanzania National Agriculture Policy (NAP) has statements on organic agriculture, but in the absence of an organic agriculture strategy plan, no further action is being taken to translate statements into concerted policy changes. Policy needs to accommodate the fact that organic farming requires investment and assistance in not only certification service, but also technical skills to ensure high productivity.

2. Organic farming is still export oriented. There is still a small percentage of informed citizens who understand the value of organic agriculture and how it is beneficial for increasing incomes of farmers and the nation. Policy must reflect this opportunity.

3. Facilitate accreditation of local certification bodies and regulation for all certification bodies operating in Tanzania.

4. EAOPS requires organic farmers to use organic certified seeds for production. However, there is no mechanism in place to approve organic seeds. A mechanism must be developed to regulate organic seed approval and certification.

Rwanda

1. Continuous dialogue so that organic agriculture is mainstreamed into national policies, programmes and strategies.
2. The Ministry of Agriculture should ensure that there are not biases against organic agriculture in government policies, such as subsidisation of chemical fertilisers, and if so amend them.
3. General low knowledge of organic agriculture in research institutions and extension services constitutes a barrier for the sector. The Ministry of Agriculture should ensure that all staff are informed of organic agriculture and that extension officers are provided with thorough training.
4. The government can facilitate the development of the domestic market through trade shows, stimulate public procurement and through public awareness campaigns.

Burundi

1. Certification processes remain expensive as there is no local certification agency. Facilitate the establishment of local certification bodies.
2. No policy exists that is explicitly organic at the moment. Follow up on national development so that Burundi has a national organic policy approved.

8.2 Recommendations for the East African Community

Policy

1. Develop an organic agriculture policy in each East African nation.
2. Review and integrate organic agriculture into national and sectoral strategic plans and policies and set targets for the development of the sector in view of its contribution to many of the Sustainable development goals, climate change adaptation and mitigation and livelihoods of the people
3. Regional East African Organic Policy should be developed to ensure a harmonized approach to the sector.
4. Assess policies that discourage organic agriculture. Effective policy measures for organic agriculture requires the removal of obstacles and biases against organic agriculture such as chemical input subsidies and extension services that focus only on non-organic agriculture.

Trade

1.The East African Community should adopt the Kilimo Hai mark, the regional organic product standard, as the official standard for cross border organic trade. As only the second regional standard developed worldwide, the mark should make regional trade smoother as the stamp will ensure quality and traceability and will cut tests done at border posts.

Support

1.Governments in the East African community need to fund and support research in the costs of agricultural externalities, specifically on public health and the environment and to put monetary values on these impacts.

2. It's the responsibility of national government to sensitize their citizens of the importance of organic agriculture. EAC member states need to engage in raising awareness of the environmental and health benefits of organic agriculture and recognize it's importance in achieving the Sustainable Development Goals.

3.Much greater support is needed in support of research of organic farming in East Africa. A needs assessment is needed in each country to ensure research is relevant to the needs of organic farmers (IFOAM 2013).

4.Organic inputs should be subsidised and investment in environmentally friendly input production should be supported.

5.Organic agriculture curriculum should be introduced at all educational levels including extension training.

9.0 CONCLUSION

The United Nations Conference on Trade and Development has set out that a fundamental transformation of agriculture may well turn out to be one of the greatest challenges, including for international security, of the 21st century (UNCTD, 2013). The world needs a paradigm shift from conventional, monoculture-based and high external input dependent agriculture to a sustainable regenerative production system, which is holistic and recognizes that farmers are more than just producers, but are also managers of an agro-ecological system which provides a number of public goods including water, energy, soil and biodiversity (UNCTD 2013).This transformation has organic agriculture at its core.

Organic agriculture presents enormous opportunities for East Africa. Higher yields and higher profits for organic farmers, in comparison to conventional farmers are contributing to improved livelihoods for farmers and communities. The benefits of organic farming go well beyond economic, organic agriculture has the ability to create a sustainable development path including achieving goals outlined by the Sustainable Development Goals and the Comprehensive Africa Agriculture Development Programme. From a social perspective, organic agriculture has demonstrated the ability to empower women due to low entry barriers and enables them to acquire more specialized skills and agroecological knowledge. Organic agriculture can also play an important role in achieving food security, due to increased yields and a more diversified diet. In addition to mitigating the effects of global climate change, organic agriculture also directly ensures environmental sustainability. The environmental benefits of organic agriculture has been widely documented and include the provision of ecosystem services, preservation of biodiversity, lower resource use, environmental protection, landscape values, and reduced energy use (Jimenez, 2007).

While governments are slowly, but increasingly recognizing the benefits of organic agriculture, comprehensive government policies to support the sector have not been fully realized. If organic agriculture and its associated positive side-effects are to be scaled up, an enabling policy environment is critical. This remains the primary barrier to regional trade in the sector which results in poor coordination and lack of support for the sector's stakeholders. Effective organic policies require the removal of obstacles and biases against organic agriculture such as chemical input subsidies. An organic agriculture policy in each member state is needed as well as a regional organic policy in order to ensure harmonization. Policy development needs to go hand in hand with awareness creation. Along with policy development, promotion and greater awareness of the organic sector and its ability to achieve sustainable development is needed by both government and other actors in the organic sector. Greater awareness will lead to even greater demand and consumption by consumers regionally and internationally. With a supportive policy from national and regional bodies the full benefits of organic agriculture can be realized.

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