



ORGANIC AGRICULTURE IN UGANDA

THE NEED FOR A COHERENT POLICY FRAMEWORK



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ACODE Policy Research Series No. 11, 2005

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List of Acronyms

ACODE	Advocates Coalition for Development and Environment
AGOA	African Growth and Opportunity Act
BIOEARN	East African Regional Program and Research Network for Biotechnology, Biosafety and Biotechnology Policy Development.
GEF	Global Environment Fund
GMO	Genetically Modified Organism
IFOAM	International Federation of Organic Agriculture Movements
MAAIF	Ministry Agriculture, Animal Industry and Fisheries
NAADS	National Agricultural Advisory Services
NARO	National Agricultural Research Organization
NOGAMU	National Organic Agriculture Movement of Uganda
OA	Organic Agriculture
PHC	Population and Housing Census
PMA	Plan for Modernization of Agriculture
SSA	sub-Saharan Africa
TRIPs	Trade Related aspects of Intellectual Property Rights
UNEP	United Nations Environment Programme

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1.0 Introduction

At the moment, there are two main factors defining the nature and focus of agricultural policy reforms in many sub-Saharan Africa (SSA) countries. First, the continuing shrinking of public investments in the agriculture sector is making it absolutely necessary to enlist the full-scale involvement of the private sector in agricultural related activities including agricultural research, seed production and distribution, agricultural advisory services and agricultural marketing. Secondly, the growing emphasis on biotechnology in general and GMOs in particular largely driven by an ever-expanding investment portfolio from key donors and big multinational companies is shifting the policy focus of many countries from other forms of agricultural production and putting a lot of emphasis on modern biotechnology. More than ever before, modern biotechnology is being trotted as the immediate solution to problems facing African agriculture. As a result, organic farming as a form of agriculture production is slowly being pushed off the agenda losing the policy debate to the aggressive public campaigns to promote modern biotechnology. In this paper, we argue that the continuing narrowing of the agriculture policy debate to GMOs is a potential threat to national food security, and a potential threat to food security and livelihoods of many smallholder-farming communities, especially in developing countries.

Consequently, as the search for practical and workable solutions to the problem of food insecurity and poverty eradication in Africa continues to preoccupy policy makers, the need to bring back to the policy arena the growing but often neglected importance of organic farming becomes very compelling. This study therefore is aimed at achieving three specific objectives. First, it is aimed to demonstrate that in countries where supporting scientific, institutional and regulatory infrastructure is in its infancy, the growing policy emphasis on biotechnology and in particular GMOs could undermine food security and threaten agricultural driven poverty eradication. Second, the study is aimed at providing compelling evidence to policy makers that organic agriculture provides the most immediate opportunities for increasing agricultural productivity and enhancing food security of small holder farmers in many Sub-Saharan African countries. Thirdly, the study is intended to act as an advocacy instrument for ensuring that organic agriculture is put back at the centre of the national and international agriculture policy debate and poverty eradication.

2.0 Background to the Agricultural Sector

The Agricultural sector remains the backbone of the Ugandan economy. The share of agriculture to GDP has been fluctuating between 40% and 50% in the last 10 years (see Table 1). The latest data so far shows that the share of agriculture to the overall GDP stood at 39.2% by the fiscal year 2002/2003¹.

Out of the 25 million Ugandans², 80% live in rural areas and 88% of these depend on agriculture for household income and food security. It is also estimated that there are 5.2 million households and out of these, 73.9% or 3.8 million are engaged in agricultural activities³. A big population of these farmers and or farming households is largely subsistent in nature. Most agricultural holdings in Uganda are characterized by small land holdings with a few who have isolated commercial holdings. Recent policy trends have emphasized shifting from the traditional subsistence agriculture to a commercially oriented farming⁴. In the last decade or so, farmers had concentrated on food production for household consumption and very little, if any, for sale. Despite the policy shift or emphasis to commercialization of agriculture, the sector has diminishing opportunities to generate wealth as a result of declining world prices for the major cash crops such as coffee, cotton, tobacco, tea, and food crops such as maize and beans.

Table 1: Agriculture in the Economy 1990-2002

Year	Total GDP Ug.shs Billion	Agricultural GDP	Agr. Share of GDP
1990	1,985	1,061	53%
1991	2,088	1,086	52%
1992	2,182	1,116	51%
1993	2,320	1,170	50%
1994	2,555	1,246	49%
1995	2,768	1,291	47%
1996	2,906	1,299	45%
1997	6,594	2,727	41%
1998	7,186	3,005	42%
1999	7,666	3,184	42%
2000	8,038	3,302	41%
2001	8,528	3,461	41%
2002	8,977	3,571	40%

Source: MAAIF Development Strategy and Investment Plan (2004/05-2006/07)

The key issues within the agricultural sector are research, technology development, extension and marketing. Extension services have been largely provided through the public sector. In 1992, MAAIF adopted a unified extension system through the Agricultural Extension Program (AEP). However, this system did not provide satisfactory extension services. The ratio between extension and farmers was 850 to 1,500 per

¹ Republic of Uganda, 2004. An Overview of the National Economy. Ministry of Finance, Planning and Economic Development. February 2004. Kampala.

² 2004 projected estimates.

³ UBOS (2004), Report o the Agricultural Module, Piggy Backed, onto the Population and Housing Census (PHC), 2002.

⁴ Uganda's Plan for Modernization of Agriculture (2000).

extension staff. There was infrastructure break down and uncoordinated delivery of services. Since then government has shifted from publicly delivered extension advisory services to privately delivered-publicly funded service delivery system as articulated under the Plan for Modernization of Agriculture and National Agricultural Advisory Services (NAADS).

Before 1992, agricultural research in Uganda was characterized by the absence of mechanisms that were to enable the national research system respond to the demands of the farmers. In 1992, the National Agricultural Research Organization (NARO) was established with the objective of prioritizing, promoting and coordinating all aspects of crops, livestock, fisheries, agricultural engineering and forestry research. A number of high yielding varieties of coffee, cotton, cassava, maize, beans and oil crops have since then been released⁵.

The Agricultural sector in Uganda is dominated by a number of crops and animals some targeting food and cash. In the crop sub-sector, the dominant cash crops are coffee, cotton, tea and tobacco while the dominant food crops are bananas, maize, rice, cassava, etc. The production of these staple food crops has been slowly increasing over the years (see table 2).

Table 2: Output of Uganda's Stable Crops 1995 -2002 ('000 metric tonnes)

Crop	Year							
	1995	1996	1997	1998	1999	2000	2001	2002
Banana	9,012	9,143	9,303	9,318	8,949	9,429	9,732	9,888
Maize	913	908	939	924	1,053	1,096	1,175	1,218
Finger Millet	632	540	502	642	606	534	584	590
Sorghum	379	348	394	420	423	361	423	427
Rice	77	82	80	90	95	72	76	80
Cassava	2,224	2,245	2,291	3,204	4,875	4,966	5,265	5,372
Sweet Potatoes	2,223	1,541	1,894	2,176	2,354	2,398	2,518	2,592
Beans	380	400	408	387	402	420	511	535
Ground nuts	134	129	137	140	137	131	138	139

Source: An Assessment of Food and Nutrition status in Uganda.

3.0 Organic Agriculture as a System of Farming

Organic agriculture (OA) includes all agricultural systems that promote environmentally, socially and economically sound production of food and fibres. Recycling nutrients and strengthening natural processes helps to maintain soil fertility and ensure successful production. Pests and diseases are controlled using naturally occurring means and substances according to both traditional as well as modern scientific knowledge. Organic agriculture excludes synthetic fertilizers and pesticides, and genetically modified organisms. Organic farming works with nature and not against it. It is a sustainable form of production. It promotes and enhances biodiversity and biological cycles. It is based on minimal use of off-farm inputs and on methods that restore, maintain and enhance ecological harmony⁶.

⁵ Ministry of Agriculture, Animal Industry and Fisheries 2000; The Plan for Modernisation of Agriculture.

⁶ Frank Eyhora et al (2002), IFOAM training manual for organic agriculture in the tropics: Theory, Transparency and Didactic approach.

Organic trade is growing very fast. Organic farms or farms in conversion are increasing. There are about 10,000 organic farmers in Germany and more than 20,000 in Austria. Similar developments are taking place in several African countries including Uganda where 12,000 farmers are cultivating organic cotton⁷.

The major force influencing organic agriculture growth among others (see table 3) is the increased demand for organic products by consumers in industrialized countries. There is increased consciousness in Europe, America and other industrialized countries about their health, the environment and social issues, thus the rising demands for organic products. The certified organic food market comprises a growing share of the total food market and a growth as high as 30 percent per annum. In Europe in particular, this growth has been enhanced on the supply side, by production subsidies to organic farmers and on the demand side by adverse perceptions concerning the safety of conventional food spurred by crises of diseases like mad cow. However growth in organic markets has also been strong in Australia, Japan and the United States, and some developing countries⁸.

Table 3: Major Forces influencing Organic Agriculture growth

Incentives Disincentives	Market Dynamics
Entry of large food industry and retailers (e.g. Unilever, Tesco, Sainsbury) into the organic sector)	Pressure of the agrochemical industry on farmers and policy makers decisions and competition from other green products such as chemical free or free range
Environmental, health and food safety concerns of industrial agriculture that increase demand for organic food e.g. GMOs	Agricultural epidemics that divert resources from organic agriculture e.g. foot and mouth disease
Decreasing food prices for conventional commodities and erosion of preferential trade agreements in world trade that favour diversification into organic agriculture	Economic efficiency will depend on the extent of support to agricultural production, real production costs and food prices
Policies	
Further harmonization and mutual recognition of organic agriculture standards and enforcement of the organic guarantee system	Fragmentation of standards that may raise costs to exporters serving several markets. Dilution of standards that may lead to consumer cynicism and abandonment. Unpunished fraud that will result in loss of confidence in organic claim
Agriculture policies and food security strategies that include action plans specific to organic agriculture with development targets, training and advisory services to farmers and Market development	Food supply policies that decrease public expenditure in agriculture knowledge building and allow only for price competition at world commodity levels
Agri-environmental measures increased regulation of synthetic agricultural inputs and implementation of global environmental agreements i.e. convention on biological diversity	Potential trade barriers to organic foods and unfavorable WTO measures to integrate environmental considerations into agricultural policies

⁷ Bernard Geier An overview and facts on Worldwide Organic Agriculture available at <http://www.org/orgagi/over&factsoa.html>.

⁸ Environment and Natural Resource series No. 4 available at <http://www.fao.org/DOCREP/005Y4137E/y413e03b.htm>.

Technology development	
Public and private investment in organic agriculture research and organic knowledge development	Agricultural research and extension programmes that promote intensive use of external inputs. Potential scientific innovations with assurance of safety and quality such as new biotechnology products

3.1 Linkages between Organic Farming, Food Security, Household Income and Poverty reduction

3.2 Organic Agriculture and Food Security

Food security exists when 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 life⁹. The reasons for lack of food security are mainly found in the socio-economic-political arena. Most prominent are: poverty, war or civil unrest, lack of a developed food market that gives farmers incentive to produce, poor infrastructure and government policies that discourage food production. However there are a number of production related constraints that have limited increase in food production: unsustainable production methods, loss of biodiversity on the farm, and natural disasters. With this in perspective, the question is whether organic agriculture can produce sufficient food and whether it is the best option for farmers in Uganda and other developing countries.

The central issues are how farmers can improve food production with cheap-low cost, locally available technologies and inputs and whether they can do this without causing further environmental damage. A number of constraints are impairing the ability of conventional agriculture to deliver food security. Some of these constraints include decreasing soil fertility, damage to biodiversity and environment, degradation or destruction of water sources and build up of pest populations and resistance. Organic agriculture on the other hand favors a system that promotes the continuing integrity of biodiversity ecosystems, recycling of nutrients as well as regeneration and conservation of resources.

Box 1: Cuba's Organic Success Story

Cuba's successful switch from thirty years of chemical pesticide and fertilizer intensive farming to organic agriculture carried the island nation back from the brink of a national food crisis brought on by the 1990 collapse of trade relations with the former socialist bloc and a thirty year economic embargo. This put the lie to oft-repeated myth that "organic farming could never feed the world". In the early 1990's a strong urban agriculture was born in which thousands of people produced food using organic methods. Cuba was able to change farming techniques in order to survive. (Gro Link 2004)

The question as to whether organic agriculture can increase farm productivity sustainably is more complex and requires further investigation. Transitions to organic farming have in some cases shown a decline in productivity in the initial years when soil fertility needs to be built up and the farmer has to learn new management strategies. Thus arguments have been advanced that countries with pressing food

⁹ World Food Summit Background papers, 1996. Available at <<http://www.fao.org/docrep>.

problems would be ill advised to contemplate a shift to organic agriculture. However, it is tenable to argue that this belief is largely misplaced and underpinned by the erroneous assumption that farmers in developing countries will be converting from intensive systems, which in the majority of the incidents is not the case. Therefore organic agriculture provides farmers with the option to improve food production with cheap, low cost, locally available technologies and inputs to boost productivity. By increasing the productivity of small farms, not only will there be more food produced by those who need it most, but small holders and rural communities can be lifted out of poverty.

3.3 Organic Agriculture and Income

The potential for organic agriculture to increase incomes lies with removing or reducing the need for purchased inputs; by diversification and optimizing productivity; maintenance or improvement of on-farm and off-farm bio-diversity and sales on a premium market. Costs of farm inputs are a major expense for farmers and are mainly financed by high interest credit. On the other hand organic agriculture is based mainly on local resources and recycling of nutrients. Therefore organic farmers will use less inputs than conventional farmers. Secondly by protecting or improving on-farm and off-farm diversity and the biological diversity of surrounding areas, organic farmers are able to utilize the non-cultivated crops, insects, and animals such as medicinal herbs as another source of income. It is also important to recognize that farmers will only increase production if there is a market for their products¹⁰. Indeed, as will be discussed later in this paper there is a growing premium market for organic products around the world and organic farming could provide an opportunity for developing country products to penetrate these markets as a result of competitiveness of organic agriculture products. The ability to tap into premium exports market in niche markets is a key link to poverty reduction.

4.0 Major Uganda Government policy trends and their relevancy to organic agriculture

This section analyses government of Uganda policies and strategies on agricultural production, advisory services, agro-processing, agro-marketing and agricultural research with specific emphasis to organic farming. It is important to note that the general agricultural policy is contained in the overall agricultural sector policy framework, the Plan for Modernization of Agriculture (PMA). The PMA has got seven pillars that address the key issues in the agriculture sector.

4.1. Agricultural Production

Until the year 2000, the agricultural sector in Uganda had no guiding policy or explicit policy guiding agricultural production. The coming into force of the PMA, which is considered to be the principle agricultural sector policy framework, was put in place after the issue of modernizing agriculture appeared in President Museveni's election

¹⁰ Sen, Amartya K. 1994d. "Population and Reasoned Agency: Food, Fertility, and Economic Development." In Lindahl-Kiesling, K. and H. Landberg, Eds. *Population, Economic Development, and the Environment*. Oxford: Oxford University Press

manifesto in 1996¹¹. At the time, what was envisaged was a coherent roadmap, in form of a strategy or plan, for increasing the agricultural production targeting food security and household income as primary components for poverty reduction. It was envisaged in the Manifesto that transforming agriculture from the smallholder and subsistence led agriculture to a commercially-driven agriculture would not only guarantee food for the farming households but would also provide enough for sale thereby increasing farm household income and reducing the incidence of poverty. However, after over three years of deliberations among the various stakeholders, the final version of the PMA was published in August 2000 with a significantly modified focus¹². The 2000 PMA only outlines government priorities, now pillars, as means of transforming the lives of poor farm households. The seven pillars are: agricultural research and technology development, agricultural advisory services, agricultural education, access to rural finance, agro-processing and marketing, natural resource utilization and management, and physical infrastructure.

The general policy on agriculture production therefore is outlined in the PMA and captured under its vision as "poverty eradication through a profitable, competitive, sustainable and dynamic agricultural and agro-industrial sector" and in its mission which targets eradicating poverty in Uganda by "transforming subsistence agriculture to commercial agriculture." The policy emphasizes increased agricultural production for increased food security and household income. The PMA (2000) outlines seven pillars for increased agricultural production as mentioned above. Among these pillars for increased agricultural production, there is, however, no mention or putting, or emphasizing on organic farming. Although the policy framework is silent about organic products, the general trend encourages general agricultural production including organic farming. Bearing in mind the potential organic farming is likely to create in increased food production and considering the fact that organic farming has been the most practiced form of farming by many agricultural households, specific mention or actions emphasizing the importance of organic farming to rural agricultural production could have enhanced the policy visibility of this production system.

Nevertheless, the PMA does emphasize that "increasing agricultural productivity and profitability and shifting from low-value staples to high-value commodities shall be the key elements of agricultural development efforts". Although the architects of the PMA did not specifically mention organic production in particular, the mention of increasing productivity in the high-value products could be seen as being sufficient enough to provide a general policy framework for organic farming in Uganda.

4.2 Advisory Services

Before coming into force of the PMA and the subsequent enactment of the National Agricultural Advisory Services (NAADS) strategy and legislation¹³, Uganda had no comprehensive and coherent policy to guide the development and delivery of on-

¹¹ See Museveni, Y.K., 1996. Tackling the Tasks Ahead. Election Manifesto. 1996. Kampala.

¹² What was envisaged was a set of concrete, prioritised, costed and phased action areas transforming the Agricultural sector from the subsistence nature to a commercially oriented one.

¹³ National Agricultural Advisory Services Act (2001), Acts Supplement No. 9.

agricultural extension services. The background studies to the PMA recognized that agriculture production was suffering from the breakdown of the extension services infrastructure and the hitherto disconnect between agriculture extension and technology development. Consequently, the PMA sought to respond to this disconnect by establishing an extension services system that addressed these problems in their entirety.

Like the PMA, NAADS was developed as a comprehensive strategy for increasing the delivery of agricultural advisory services. The strategy, therefore, does not specify areas of emphasis when providing advisory service. The NAADS policy or strategy however, provides a framework for organized farmers to demand for services in selected enterprises of their choice. Embedded within the NAADS approach is the opportunity by farmers to promote delivery of services in selected enterprises. Under NAADS arrangement, farmers organized in farming units select enterprises and demand from extension service providers to provide farming advisory services on cost recovery basis. Under NAADS, therefore, there is an increased potential by farmers to select organic products (based on the premium price incentives and niche markets) as enterprises where extension services delivery can be targeted. It is therefore important to note that although the NAADS strategy does not single out organic products per-se as the major emphasis for increased food production and poverty reduction, the NAADS principles and approach can be used to promote the production and trade of organic products.

4.3 Agro Processing and Agro-Marketing

Uganda does not have a comprehensive or explicit policy on processing and marketing of agricultural products. Policy provisions and policy direction on agricultural processing and marketing are, however, contained within the general policy framework for the agricultural sector, the PMA. The PMA provides the vision for improving market access as "...increased and sustainable supply of, and demand for, competitive, processed and non-processed agro-products on domestic, regional and international markets". The PMA further states the mission for improving market access as "... to implement measures that facilitate increased supply of requisite inputs in order to ensure increased and sustained supply of competitive processed and un processed Uganda agricultural products in domestic, regional and international markets consistent with the economic growth objectives of the country".

The PMA (2000) provides strategies to be used in improving market access for agricultural products. The strategies are emphasized under the areas of; road network, means of transport, market infrastructure, market information and international market access. The PMA further provides actions for government to improve agricultural processing. In general, the policy areas proposed under the PMA are general in nature and are not specific to agricultural enterprises and organic farming in particular. The absence of specific statements emphasizing processing and marketing of organic products demonstrates lack of policy guidance on organic farming. The policy on organic products can only address the issues and problems of policy nature in promoting,

processing and export of organic products while the PMA remains a general framework for addressing issues of agricultural production.

4.4 Agro-Research in Relation to Organic Farming

Uganda has a comprehensive and explicit agricultural research policy, the National Agricultural Research Policy (2003). The policy was put in place after realizing that low agricultural productivity of Uganda was as a result of poorly functioning farmer-extension-research-market linkages and the consequent failure of research and extension systems to respond to the real needs of the farming community (National Agricultural Research Policy, 2003). Until 2003, there was no consolidated and comprehensive agricultural research policy. The policy for guiding agricultural research was fragmented. The NARO Statute (1992) was only put in place to guide public research institutions within the Ministry of Agriculture, Animal Industry and Fisheries.

The National Agricultural Research Policy (2003) however is also seen to emphasize institutional transformation (within and outside MAAIF) in response to the above challenge rather than responding to research technologies and enterprises that meet the needs of the farming community. The policy, probably, assumes that the researchable areas and enterprises being undertaken within the national agricultural research centres already meet the needs of farming community and the issues pertaining to agricultural research to-date are of institutional and funding nature.

Box 2 : Agricultural Research Policy (2003) Areas

- Promoting delivery of quality and efficient agricultural research services,
- Empowering farmers,
- Formulation and rationalization of the agricultural research programs
- Utilizing the best of science for implementation of research programs
- Sustainable funding mechanisms
- Human resource management and development
- Infrastructure for agricultural research
- Institutional framework for National Agricultural Research System (NARS)

In the foreword statement to the Policy by the Minister of Agriculture and the justification for the new policy, it is evident that the prime drivers of change were to transform the institutional dispensation rather than emphasizing

generation and dissemination of market driven and poverty focused technologies. The policy may have assumed that the current research system and the research institutions are addressing those requirements and the issues were more institutional in nature. The elements of the policy outlined as policy strategies are reproduced in Box 1.

In conclusion, the major policy trends for agricultural production, agricultural extension, agricultural processing and marketing and agricultural research do not provide guidance on relevant policy actions or preferential treatment to organic agriculture production. The general policy trends are seen to have been emphasizing increasing production of agricultural products in general to respond to the needs of the market thereby reducing incidences of poverty amongst farming communities.

5.0 Status and trends in exports of organic products

The global demand and interest in organic products is rapidly increasing. Average market growth rate stands at 25% annually, but varies from 10-50% in different markets (countries). The total value of the organic world market is now estimated at above 19 billion Euros. The major markets include Europe (11 billion Euros) USA (7.7 billion Euros) and Japan among others¹⁴.

Table 4: An overview of EU organic food markets forecasted in 2003

Country	Retail sales (million Euros)
Total Europe	11,000
Germany	3,100
United Kingdom	1,750
Italy	1,400
France	1300
Switzerland	775
Netherlands	475
Sweden	400
Denmark	375
Austria	375
Belgium	250
Ireland	50
Other Europe	850

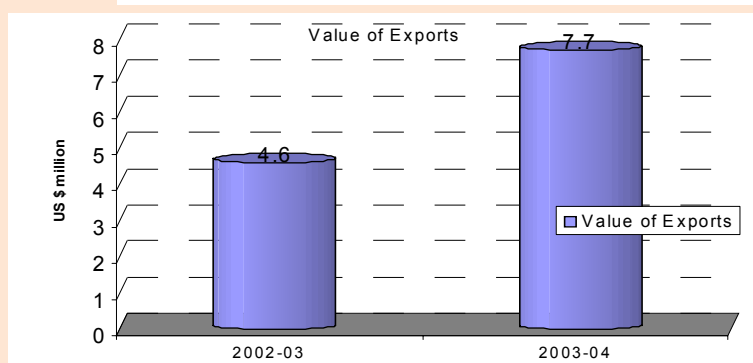
Source: GroUnk, EU market survey, 2003.

This growing interest has triggered rapid growth in international trade in organic products. At present, imports of organic products into various markets averages at 15%. According to a recent study carried out in Denmark, global trade in organic products is expected to be above 25 billion Euros by 2007¹⁵. This represents a global market growth of 31% in the period 2001-2007¹⁶.

Uganda's market share of global trade in organic products

Uganda is now recognized as a major player in the global organic trade. This recognition is evidenced by the increase in the number of inquiries on possible imports of organic products from Uganda. This growing interest is attributed to two main factors. First, Uganda's climatic conditions are suitable for organic production. This has resulted into increasing excellent

Figure 1: Value of Organic Exports 2002-03 to 2003-04



¹⁴ GroUnk, 2001;CBI, 2003.

¹⁵ GroUnk, 2001.

¹⁶ GroUnk manual.

performance of Uganda's unique products at international trade exhibitions. Second, Uganda has probably the lowest agro-chemical use in Africa of less than 2%. This means that Uganda's products are considered healthy by consumers compared to those produced with use of chemicals and fertilizers. Currently Uganda has 39,600 certified organic farmers, an increase of 38% from 2002 figure of 28,000 farmers¹⁷. Uganda also has the biggest amount of organically certified acreage (122,000 ha) in Africa and the 4th largest in the world¹⁸.

Due to increased demand for organic products in the global market, exports from Uganda have been steadily increasing in both quantity and quality. Although the volumes and value are still small and far below the increasing demand, the sector is rapidly growing. For example, between 2001 and 2003, the number of companies exporting organic products grew from 5 to 15 while the value of organic exports increased from US dollars 4,600,000 to US dollars 7,700,000¹⁹. This represents a growth in value of organic exports of about 67% as highlighted in Figure 1.

It is therefore apparent that there is growing potential for Uganda to increase its export earnings through export of organic agriculture products. First, the current demand for Uganda's organic products is far unmatched by the supply. In February 2004, NOGAMU facilitated 5 Organic export companies to participate in the BIOFACH, the biggest World Trade Fair in Organic products. Sixty-five (65) business contacts were secured, all interested in importing organic products from Uganda. Similar contacts were secured from an exhibition organized under the Africa Growth Opportunities Act (AGOA) in USA. Second, Uganda's agricultural production capacity is still unexhausted. Of the 17million hectares of Arable land, only about 5 million hectares (30%) are currently under cultivation. Thirdly, Uganda has a comparative advantage for production of organic products more than any country in Africa, and this gives the country a competitive advantage in the market compared to other countries including the developed countries like the USA where use of large amounts of chemicals and fertilizers in the past has reduced their ability to grow organic products. Organic exports from Uganda, demonstrate the potential for Uganda to dominate the international market for organic products and presenting the opportunity for many smallholder farmers to come out of poverty by participating in this growing niche market. The majority of farmers are subsistence farmers who grow crops for domestic consumption. Therefore, the transformation of subsistence farmers into market-oriented farmers coupled with increase in acreage can increase production to take advantage of niche markets for organic agricultural products.

5.1 Premium prices and farm incomes in organic agriculture

Organic products offer higher price premiums to exporters and farmers. In export markets, especially the European Union, organic products offer price premiums varying between 18-42% in comparison with conventional products²⁰. In Germany alone, where

¹⁷ NOGAMU 2003.

¹⁸ Bernard Geier (2002): An overview and facts on Worldwide Organic Agriculture available at <http://ww.org/orgagi/over&factsoa.html> visited 12/09/2004.

¹⁹ NOGAMU, 2003.

²⁰ Gunnar Rundgren, ed (2004) Organic Agriculture Development Published by Grolink.

the average price premiums are above the European average, the former varies between 60-70%²¹. This means that farmers and traders involved in organic production and marketing are guaranteed a higher price than their counterparts engaged in conventional agriculture.

Organic agriculture markets do not only offer higher prices but also more sustainable and reasonable incomes to the smallholder farmers. This guarantee is intrinsic in the features that characterize organic agriculture markets, namely, better and stable farm gate prices, stable market, and long term relationships between producers and traders. The reason for this possibility is that the organic product handling chain right from the producer (the farmer) to the final consumer is well regulated and aims at protecting whoever is involved in the chain. For example a consignment of organic products exported to Europe will not be accepted if the signature of the farmer from whom it was obtained is not appended. This protects not only the consumer but also the farmer since he could not sign if he was not paid according to the agreement. Thus the organic agriculture system looks not only to the products but also the social lives of those involved (especially the farmers), and environmental aspects to ensure a sustainable living. These features act as insurance to participating small farmers for improved quality and sustainability of livelihoods.

An example is Lango Organic Farming Promotion, a cooperative group of over 12,000 small holder farmers in Northern Uganda growing organic cotton and sesame, which has commanded a stable export market in Europe since 1994, a stable relationship and higher price.

Box 3: Lango Organic Farmers.

One project, the Lango Co-operative, in the north of the country, has more than 12,000 farmers in 266 villages involved in growing organic cotton and sesame over more than 100,000 acres. This project was initiated in 1994 by EPOPA but is now continuing without their support. Northern Uganda is particularly well suited to organic cotton production - enjoying fertile soils and a species of black ant, which predated many pests. Yields are consistently among the highest for all cotton projects in sub-Saharan Africa (720kg/ha) and in the last two years (2000-01) premia have been 30% or more.

It has been observed that in Uganda it is mainly organic farmers that retained a working relationship with the same exporters for over a period of 2 years. This is because of the mutual benefit and responsibility that is visible in the organic produce chain, which the small farmers find as an insurance and conducive to their development.

The table 5 below shows a comparison in income of the organic and conventional farmers by products. The prices indicated are the current farm gate prices that the conventional and organic farmers are respectively getting by product.

²¹ Gunner Rundgren, ed (2004) Organic Agriculture Development Published by Grolink.

Table 5: Comparison of income earnings of Organic and Conventional Farmers of Selected Products in Uganda.

Product	Average yield per acre	Price Per kg/piece		Gross Income per acre (Shillings)		% Income earned in Organic above the conventional
		Conventional	Organic	Conventional	Organic	
Fresh pineapples	15 tonnes (1000 pineapples)	Shs100-500 (average Shs800/piece)	Shs300-700 (average Shs500/piece)	3,000,000	5,000,000	66%
Fresh Apple	8 tonnes	Shs 75/kg	Shs250/kg	680,000	2,125,000	212%
bananas						
Passion fruits	6.5 tonnes	Shs 500/kg	Shs1000/kg	3,250,000	6,500,000	100%
Ginger	9 tonnes	Shs400/kg	Shs 900/kg	3,200,000	7,200,000	125%
Sesame	0.25	Shs1200/kg	Shs1,300/kg	300,000	325,000	8.3%
Cotton	0.3 tonnes	Shs 600/kg	Shs700/kg	180,000	210,000	16.3%
Vanilla ²²	0.7 tonnes	100,000	Shs 120,000/kg	70,000,000	84,000,000	20% ¹
Dried A/bananas	0.9 tonnes	Shs 3000/kg	Shs 5400/kg	2,700,000	4,860,000	80%
Dried pineapples	1 ton	Shs4000/kg	Shs 7200	4,000,000	7,200,000	80%
Dried mangoes	0.8 tonnes	Shs4500/kg	Shs 9000/kg	3,600,000	7,200,000	100%

Source : Amfri farms Ltd, Lango Organic farming Promotion and Uganda Marketing Services (all Organic export companies in Uganda), April 2004.

5.2 Harnessing the competitive advantage

The competitive advantage of the agricultural dependant economies in Sub-Saharan Africa (SSA) lies in marketing organic agricultural products. This is because as more and more consumers in Europe, America and Japan become aware of the health risks posed by pesticides, synthetic fertilizers and animal growth hormones, consumer preferences are shifting to organic and natural products. In addition, consumers are equating organic foods with purity, healthy living and naturalness. The intensive use of chemicals and fertilizers and more recently the adoption of GMO crops have rendered most of the farmers in North America and Europe incapable of organic production. On the contrary, much of the agriculture land in rural SSA is still unadulterated and suitable for organic production. Harnessing this growing market with the high prices it offers constitutes what has been termed "an alternative to begging" ²³.

The vulnerability of the agricultural practices in this regard offers a competitive edge in the global market to countries such as Uganda which are endowed with climatic conditions and farming systems that are conducive for organic production. A country like Uganda, which has a strong competitive advantage in organic production stands the chance of taking control of this fast growing billion-dollar niche market, as compared to the GM production where the country will be out competed even in our own domestic market by powerful corporations and countries with the financial and technical ability to produce 'better' GMOs. Already corporations like Monsanto are lobbying to sell their GMO products in the domestic market.

²² It should be noted that current vanilla price are abnormal due to the production problems in the main producing country (Madagascar). However, even if prices eventually come down, the organic farmers will still obtain a minimum premium of 20% above the conventional farmers.

²³ Opiyo Oloya (2003), GMOs: Monsanto had their agenda; The New Vision (September 17, 2003, volume 18 no.222).

6.0 Organic Agriculture under threat?

6.1 Policy shift towards GMO

Since the 1990s, there has been growing attention to modern biotechnology. More and more resources are being channelled to building capacity for genetic engineering. Most countries in SSA are already designing biotechnology policies under huge donor supported projects such as the Programme on Biosafety Systems (PBS), UNEP GEF Biosafety Enabling Activities Project, etc. Under these projects a number of scientists are being trained in genetic engineering. Laboratories and centres of excellence are being established. There are no similar or comparable efforts to boost organic agriculture production. As demonstrated before, the agricultural policies are silent on the growing importance of organic agriculture in Uganda.

The PMA, which is the main policy document on agriculture, does not make specific mention of organic agriculture. Agricultural research seems to lay emphasis on technology development and adoption without clear link to research on organic agriculture. Although research activities focusing on organic farming are taking place under NARO, Makerere University and Uganda Martyrs' University, this is happening in a policy vacuum. It is, therefore, difficult to establish the national strategy for promoting this form of agriculture.

Over the last 5 years, policy developments have all focused on genetic engineering. Uganda is in the process of finalizing a biotechnology and Biosafety policy. A multi million-biotechnology laboratory was established in 2004 at Kawanda Research centre. The country is witnessing more and more focus by scientists in the major agricultural research establishments advancing the cause for GMO technology. A pronouncement was made recently that GM food imports are allowed in the country provided that they are processed. There is evidence that Uganda's surveillance system is not water tight to ensure that unprocessed foods do not enter the country. Therefore, these developments are a threat to organic agriculture and consequently to Uganda's competitive advantage in the global food market place.

6.2 Emerging international trade regimes

The emerging international trade regime under World Trade Organization is a threat to food security. Trade Related Aspects of Intellectual Property (TRIPS) requires countries to grant patents or any other form of intellectual property rights protection to plant varieties. This puts the ownership of the seed industry to private hands. This raises the cost of production of organic farmers and reduces their income and ultimately their self-reliance for food security. In addition, the introduction of GM varieties impairs the competitive advantage and therefore the niche markets. This again has negative effect on the farmer's income and ultimately on food security.

The introduction of GMOs is pushed by countries, which have advanced in the technology. They are interested in selling their technology and the products. Therefore, they are

employing all possible tactics to make all countries to adopt the technology so that they continue in business and continue to wield political power.

6.3 High Costs of Certification

Certification is a procedure for verifying that a product conforms to certain standards. Broadly the certification process may be split into two parts: inspection to verify that production and handling are carried out in accordance with the standards against which certification is to be done, and certification to confirm that production and handling conforms to standards²⁴. There is no regulation applicable worldwide, however standards do exist and are being continuously developed at international level, particularly IFOAM and Codex Alimentarius Commission²⁵. IFOAM has established basic standards of OA and Food Processing, which provide a framework for various certification programmes. IFOAM has consultative status with European Union and Codex Alimentarius.

Much of Uganda's farming is de facto organic and yet certification is at the very heart of the process of increasing organic produce. As with all forms of quality assurance, organic certification serves to protect the propriety and reputation of the products concerned. Nevertheless, it can raise barriers to market entry. Producers and groups exporting to more than one country may have to meet multiple checks due to the requirements of international certification bodies and national or regional regulations (EU, US, Japan). Producers in developing countries lack capacity to deal with multiple requirements, and further barriers are caused by poor infrastructure and small production quantities.

Box 3: Uganda Organic Certification Efforts

Uganda has come on board to establish its own certification company and setting Uganda Organic Standards. The certification company, Ugocert, was registered in February 2004 to provide affordable and credible certification services to Ugandan organic producers and operators. Ugocert currently works in cooperation with IMO, re-known international organic certifier. Ugocert is yet to acquire international accreditation, which will reduce certification costs. The implication is that organic producers and exporters will be faced with reduce costs thereby raising their level of competitiveness. (Ugocert 2004)

7.0 Developing a Policy and Strategies for Organic Agriculture

There is increasing evidence on the potential for organic farming to ensure food security, increase incomes and ultimately creating wealth for Ugandan farmers. However, some of the initiatives have been taking place in a policy vacuum. This, therefore, needs to be translated into setting policies and institutions, which will ensure that organic agriculture as a viable agricultural production system is scaled up. In this section we propose that there is an urgent need for a policy on organic agriculture and outline possible policy actions to stimulate and harness the full potential of organic farming in the country.

²⁴ International Trade Centre: Product and Market Development Organic Food and Beverages, World Supply and Major European Markets.

²⁵ Gunnar Rundgren (2004), Organic Agriculture Development. Published by Grolink.

7.1 Direct Support to Organic Farmers

Direct support to organic producers is seen by some governments as a means to promote organic farming. Many western and central European countries introduced conversion aid schemes and other forms of financial support for organic farmers. In Europe, Denmark was the first country to introduce a national support programme in 1987; Germany in 1989 extended support to farmers to convert to organic farming and by 1996 all EU member states had introduced policies to support organic farming. Uganda's policy needs to prioritize support to organic farmers in selected interventions such as the strategic export programmes.

7.2 Organic agriculture research and development

As was noted earlier, current research initiatives have not been putting any particular emphasis on organic agriculture. Advances and innovations inorganic agriculture, have so far been done by organic farmers. Formal research into organic agriculture appears to attract little funding. There are growing tendencies to increasingly focus most research activities on biotechnology as evidenced by the trends in investments both by governments and the international development community. There is need to prioritize adequate investments in research on organic agriculture focusing on research priorities such as various aspects of animal and horticulture production, evaluation of inputs, organic seed production and breeding, new concepts of sustainable land use with organic methods and their environmental impact, improved understanding of self regulatory mechanisms for pests and diseases control and socio-economic implications of organic farming.

7.3 Extension in Organic Farming

The National Agricultural Advisory Services (NAADS) has the potential to provide services required by organic farmers such as internal control system, improving product quality, harvesting and post harvesting techniques. The benefits accruing to farmers could be scaled up substantially by investing in post harvest handling and marketing of organic products. There is growing evidence that in the private sector, post-harvest losses are negatively impacting on the organic farming community especially where the products involved are perishables. Policy developments in these areas need to emphasize providing advisory services to farmers about organic farming and also providing the link between farmers and researchers and help ensure the relevance of research undertaken and dissemination of results.

7.4 Promoting the development of regulatory framework for certification

One of the key impediments to the growth of the organic agriculture is the high cost of certification currently being charged by foreign companies. The cost can be reduced if developing countries stimulate the growth of local certification companies. Although some efforts have been started on this, the costs are still high. Accreditation of local companies to international companies will further reduce the costs by about 30-50%

of the current price²⁶. Therefore Uganda needs to designate one body as the competent authority to oversee inspection and certification of organic farms. Government should facilitate this body to be recognized by the importing countries as a competent authority.

7.5 Declaration of GMO production free zones

There is growing political and policy emphasis on biotechnology in general and GMOs in particular, which will erode the comparative and competitive advantage of Uganda's organic farming. As a policy to protect the emerging Organic farming, Uganda needs to declare GM free zones.

7.6 Training and Education

Teaching of organic farming should be introduced as part of the curriculum in higher institutions of learning. Training courses of farmers should also provide courses in organic farming. The development of guidelines and common curricular at all levels of training in organic farming could improve the training opportunities for organic farming both within and outside mainstream agriculture education. European Union countries have already started offering degree programmes in organic farming.

²⁶ Interview with Mr. Charles Walaga Manager Ugocert.

8.0 Conclusion

There is no doubt that any strategies for promotion of organic agriculture will depend on clear government policies, institutional articulation, research, training, and investments in market development both at the local and international level. This study only provides an overview of the status of organic farming in Uganda. It has been argued that organic agriculture provides tremendous potential to increase agricultural production among smallholder farmers and accelerated penetration of major markets for agriculture products. We have also argued a case for the need to develop a national policy on organic agriculture to enable the country take advantage of the national organic agriculture potential. In conclusion, it is important to recognize that organic agriculture is a continually evolving farming system and the market trends for organic agriculture products will no doubt continue shifting. This therefore calls for a comprehensive research programme that can continuously inform policy implementation and decision making in this area.

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