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UNEP-UNCTAD Capacity Building Task Force on
Trade, Environment and Development (CBTF)

**INTEGRATED ASSESSMENT OF
UGANDA'S ORGANIC AGRICULTURE SUBSECTOR**

Economic Opportunities and Policy Options

FOREWORD

Advancements in different disciplines of science, policy, research, assessment, technology and economics, and possibilities of genuine multi-stakeholder partnerships, have offered unprecedented opportunities to set ourselves on the pathway to achieve Millennium Development Goals (MDGs). Ensuring food security, sustainable livelihoods and economic growth, as well as sustaining and improving the health of ecosystems, are some of the key contributing factors to help achieve MDG 1 (Poverty Reduction) and MDG 7 (Ensure Environmental Sustainability).

Organic agriculture offers one of the most promising options where a combination of traditional knowledge, scientific breakthroughs and technological advancement holds the possibility of sustaining productivity gains made in recent years, and simultaneously offering opportunities to increase trade, generate business and wealth creation opportunities for the rural farmers, and reversing declining environmental indicators, including emission of Greenhouse Gases.

However, it is important to highlight that as alternatives to industrial agriculture evolve, so must their markets and the farmers who serve them. Creating and serving new markets, both domestic and international, remains one of the key challenges for sustainable agriculture.

Uganda is one of those countries that have taken the lead in serving the growing markets for organic products. During the last few years, when contribution of agriculture to the national economy in Uganda has been declining largely due to ecological factors and limited investments, growth trends in organic agriculture provided a rare opportunity to turn around the fortunes of the farmers, spur economic growth, increase export revenue, reduce unemployment and poverty, and restore degraded agro-ecosystems while ensuring livelihoods and food security. Between 2003 and 2005 Uganda's organic agriculture growth was recorded at 38%. Today, it is a key player in the international trade of organic products and is among the African countries with the highest potential to capture market access opportunities.

This report, which is result of a two-year long research and participatory process, intends to contribute to the debate on the integrated development of the organic agriculture subsector in Uganda as an alternative farming method. It proposes that in order to reap full multifaceted benefits of organic agriculture, the Government must create an enabling environment that helps organic agriculture producers and exporters to overcome a number of obstacles and that ensures equitable distribution of benefits.

UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development (CBTF) stands ready to assist Uganda in its efforts to achieve targets that it has set for the promotion of organic agriculture in the National Export Strategy 2007-2012.

ABBREVIATIONS AND ACRONYMS

ACODE	Advocates Coalition for Development and Environment
AGOA	African Growth Opportunity Act
AMFRI	Associação dos Municípios da Região da Foz do Rio Itajaí
APEP	Agricultural Productivity Enhancement Program
ASARECA	Association for Strengthening Agricultural Research in Eastern, Central and Southern Africa
BCU	Bugisu Cooperative Union
CBTF	UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development
CGIAR	Consultative Group on Integrated Agricultural Research
COMESA	Common Market for Eastern and Southern Africa
EPOPA	Export Promotion of Organic Products from Africa
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
GCCE	Gumutindo Coffee Co-operative Enterprise
ICT	Information Communication Technology
IFOAM	International Forum of Organic Agriculture Movements
ITC	International Trade Centre
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MFPEP	Ministry of Finance Planning and Economic Development
NAADS	National Agricultural Advisory Services
NARO	National Agricultural Research Organization
NEMA	National Environment Management Authority
NOGAMU	National Organic Agricultural Movement of Uganda
NPA	National Planning Authority
NTE	Non-traditional exports
PEAP	Poverty Eradication Action Plan
PMA	Plan for Modernisation of Agriculture
SACCO	Savings and credit cooperative organizations
SSA	Sub-Saharan Africa
TE	Traditional exports
UBOS	Uganda Bureau of Standards
UEPB	Uganda Export Promotions Board
UIA	Uganda Investment Authority
URI	Uganda Industrial Research Institute
UNBS	Uganda National Bureau of Standards
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme

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Notwithstanding the valuable contributions of many acknowledged here, the full responsibility for the content of this report remains with the authors.

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EXECUTIVE SUMMARY

For the last half-century, agriculture has been the dominant sector in Uganda's economy, contributing to the highest percentage of GDP amongst all sectors and the bulk of both formal and informal employment. The agriculture sector also provides the basis for livelihood and livelihood security of many people outside the formal food market especially in the rural areas. With Uganda's total population projected to reach 129.1 million by 2050,¹ a dynamic and robust agriculture sector is critical in ensuring the provision of adequate food for the population. From an economic perspective, agriculture is still seen as the key engine of national growth. Hence, the progressive transitioning of the national economy from a nature-based economy to a robust industrial, services or a knowledge-based economy has to be grounded on agriculture.²

The Declining Fortunes of the Agriculture Sector

The agricultural sector plays a central part in Uganda's economy. As of 2004/05, agriculture was estimated to contribute on average 36.3% of *total GDP* annually. Currently, data shows that agriculture supplies 68% of all *export earnings*. Nearly 90% of the population live in rural areas and agriculture is their predominant activity. Approximately 4.5 million smallholder farmers, each owning an average of 2 ha, are the key players in the agriculture sector. According to the Poverty Eradication Action Plan (PEAP in 2004), agriculture employs around 68% of the total labour force in both formal and informal employment.

The critical importance of the agriculture sector is well recognised at the policy as well as at the political level. The sector however is suffering from its worst decline to date with persistently downward trends since 1998. For example, sector GDP growth has declined from 4.6% in 2000/01 to 1.6% in 2003/04, before a marginal recovery of 2.1% in 2004/05. Provisional statistics show that the GDP growth of the agriculture sector will reach a record low of 0.4% in 2005/06. While political leaders and senior policymakers have attributed this decline in growth to other sectors such as industry and services, the decline in agricultural productivity can be attributed to limited investments and ecological factors.

Agriculture and the Environment

This study emphasises the interdependency between agriculture and environment in the country. Subsistence and smallholder farmers, who are mainly using rudimentary technologies and production methods, dominate the agricultural sector. Most agricultural activities are dependent on nature and the ecological integrity of the environment. According to the annual State of the Environment Reports however, Uganda is beginning to experience severe environmental stress. Increasing land degradation, declining soil productivity, climate change, and unpredictable weather patterns are threatening the growth of the sector. For example, GDP losses arising from land degradation range from

¹ UNFPA, 2006. The State of the World Population Report. Pg 108.

² Y.K. Museveni, 2001. Consolidating the Achievements of Movement: 2001 Election Manifesto.

US\$1.3 billion to US\$3.8 billion, representing approximately 17% of total GDP. The problem of land degradation could be compounded by the rampant use and careless/unregulated disposal of plastic bags (*kavera*). At the moment, it is estimated that approximately 616,000 tonnes of plastic waste accumulated in Uganda's environment over the period of 1991-95.

Organic Agriculture Production

With a worsening environmental situation, organic agriculture (OA) becomes a central policy question for Uganda. Despite the declining fortunes of the agriculture sector as a whole, the OA subsector has registered dramatic growth over the last few years. Current statistics show growth rates of 38% per annum. Uganda is currently estimated to have 45,000 certified OA farmers and an estimated 185,000 ha of land certified for organic farming. Growth in OA could be stimulated by taking measures that increase the number of OA producers and traders, as well as spur more strategic research and development activities that focus on identified products and increase the documentation and use of traditional knowledge practices.

Exports of Organic Agriculture Products

OA exports have also been growing at an impressive rate. The value of organic exports grew from US\$3.7 million in 2003/04 to US\$6.2 million in 2004/05 (all f.o.b.). The variety of products being exported includes fresh vegetables, fresh tropical fruits, dried fruits, coffee, tea, cotton, sesame, spices, honey and other forest products. Major market destinations for Uganda's OA products include the United States of America (USA), Germany, and the United Kingdom (UK). However, the countries that have the highest per capita consumption of organic products are Sweden, Switzerland and Denmark. The International Trade Centre has projected that by 2010, organic agriculture markets by value could reach US\$46 billion in Europe, US\$45 billion in the USA, and US\$11 billion in Japan. This Integrated Assessment study however identifies specific constraints barring market access to this growing international market.

Organic Agriculture Growth Scenarios

Based on the current growth trajectories in the OA subsector and the aspirations of stakeholders, the study identifies three growth scenarios for OA over the next 18 years.

In the *overdrive growth scenario*, OA is expected to grow at the current 38% per annum. Evidence for established growth trends comes from a) the conversion of a number of firms from conventional agriculture to organic agriculture production; b) the increasing number of national and foreign firms; and c) the identified potential for the expansion of the local organic products market.

The study here observes that current growth trends in OA have occurred in spite of an absence of government policies or initiatives specific to the subsector. The *overdrive growth scenario* is premised on the growing evidence that the government

could develop stronger interest and provide policy direction and allocate budgets to the subsector. OA has the potential to radically transform farmer and household incomes, increase export revenues, and address equity concerns and other social and environmental shortfalls. This could convince the government to link up with development and non-governmental organizations, the private sector, and foreign investors to promote the organic orientation of Uganda's agriculture sector.

Under the second alternative, the *plateau growth scenario*, OA could grow at the global average of 6-8%. Based on this growth rate, OA exports would reach US\$16.7 million to US\$22.9 million over the next 18 years. The *plateau growth scenario* foresees that the major drivers of growth will continue to come from the private sector, mainly led by NGOs, exporters and OA farmer organizations. The growth trajectory under this *scenario* also predicts that substantial export revenues accruing from a growing export subsector could spur some selective government interventions through special programmes.

The third scenario is the *slumber growth scenario*. Here, OA production and trade stagnate due to a number of factors. For example, the subsector is only beginning to see appropriate attention at the political and policy level which could influence its position vis-à-vis other forms of agriculture production. In any case, international agencies such as the Consultative Group on International Agriculture Research (CGIAR), and the Association for Strengthening Agriculture Research in Eastern and Southern Africa (ASARECA), have significant influence on agricultural production methods and technologies in Uganda. While they are pursuing systematically designed and executed programmes to promote the adoption of modern biotechnology including Genetically Modified Organisms (GMOs), they do not have equivalent programmes on organic agriculture. In addition, the Ugandan government could also refrain from investing in OA because NGOs and the private sector are already doing so. Finally, continuing environmental degradation could worsen so much so that by 2020, the subsector could suffer from inertia and stagnation.

Absence of a Clear and Specific National Policy Framework Constrains OA Growth

The study recognises and observes that Uganda has no specific and coherent national policy on organic agriculture. While the current process of policy drafting is recognised as a significant step in the right direction, the policy document still serves little purpose as long as the proposed policy actions are not made official and time bound.

General and Specific Recommendations

Key drivers of the three scenarios, possible socioeconomic and environmental impacts, and likely winners and losers are described in section 3 of this study. Based on the analysis and the aspirations of stakeholders, we have recommended that actions to promote OA production and trade should aim to grow the subsector in *overdrive*. This is because a robust OA subsector would increase and expand income opportunities for poor people, stabilize the environment, increase export revenue and address issues of social

equity. In section 4 of the report, a set of general and specific recommendations is provided to guide future policy and decision-making in the subsector.

The following general recommendations are proposed:

- For the last twenty years, the government has focused heavily on the pilot mode when implementing major development initiatives. These pilot projects rarely see full implementation nationally. The government should go on to fully implement programmes considered successful. Hence, the tremendous successes being seen in OA in Uganda require immediate expansion.
- Future interventions in OA ought to take into account the fact that current successes are achieved in the absence of government interventions. Future policy actions should be implemented in such a way as *not* to constrain creativity and operations of other stakeholders.
- There is a need to re-examine the overall macro- and micro-economic policies of the government especially those focusing on rural development. Over the last decade, these policies have been characterised by welfarism, tax relief and administrative engineering, through the creation of small administrative units claiming to “bring services nearer to the people”. Other than reducing the burdens of expenditure on the poor, these policy actions rarely motivate people to be economically productive and hence may not necessarily lead to increased incomes for individuals and households.
- More strategic political leadership is required if appropriate policy responses to existing problems are to be developed. Evidence suggests that Uganda’s policymaking processes are sluggish, not time bound and often unclear with regard to accountability in the event of failure.
- OA can only be possible if the legal and ecological integrity of the environment is secure and accepted as the underlying source of growth for Uganda’s economy. The apparent failure by the government to reverse the current trends of environmental degradation is in itself inconsistent with the growth trajectory of the *overdrive scenario*.
- The problem of intra- and inter-sector coordination needs to be addressed as a matter of priority. At the moment, there are numerous initiatives by different government agencies on OA production and trade. Their efforts as well as human and financial resources could be mobilised and made coherent to ensure more strategic and aggressive investments in the subsector.

The following specific recommendations are proposed:

- *Incorporate growth targets of OA in the national long-term development plan.* At the moment, the National Planning Authority is engaged in a process to develop

such a long-term plan. This is an opportunity to fully reflect the centrality of OA to Uganda's development agenda and underscore the need for appropriate investments to ensure continuous competitive advantage in the global market.

- *Deliberate and specific interventions by the government.* Attaining an *overdrive scenario* growth trajectory would require the government to take deliberate steps to invest in OA, in step with efforts by OA farmers, private companies and international development partners. However, to ensure that the sector continues to be driven by the farmer-private sector alliance, the government should focus its interventions, among other things, on four strategic areas: a) it should restrict its interventions to streamlining policy and removing policy distortions that undermine OA; b) it should provide strategic long-term funding for OA research including the establishment of a centre of excellence for the Eastern African subregion; c) it should invest in market research, market development and market penetration; and d) it should invest in long-term credit and concessions.
- *Establish an organic stakeholder forum for either formal or informal discussions and broaden participation beyond NOGAMU members.* The programme initiatives and political signals that shape agriculture policy trends are unpredictable. For example, since the adoption of the Plan for Modernisation of Agriculture in August 2000, no less than five major initiatives are being formulated, such as the Strategic Exports initiative, the AGOA initiative, the Vice President's Upland Rice Initiative, the President's initiative on poverty eradication, and now the Prosperity for All (PFA) initiative. None of these initiatives however point to the presence of a coherent national agriculture policy. To help OA remain politically relevant, stakeholders need to establish a multi-stakeholder platform to mobilise all business, policy and political actors.

Integrated Assessment on OA and ACODE

The Integrated Assessment on Organic Agriculture in Uganda was undertaken by the Advocates Coalition for Development and Environment (ACODE). A National Steering Committee comprised of a multiplicity of stakeholders, and supported by the Uganda Export Promotion Board, provided overall intellectual oversight. Financial and technical support for the study was provided by the Capacity Building and Trade Branch (CBTB) of the United Nations Environment Programme (UNEP) and of the United Nations Conference on Trade and Development (UNCTAD).

SECTION 1 INTRODUCTION

This report is a comprehensive integrated assessment of Uganda's OA subsector. Its purpose is to analyse the current trends, identify the nature of the actors and the key drivers of change, examine the potential impacts of possible future growth scenarios, and make specific policy, legal and administrative recommendations that will spur further growth of the subsector in a sustainable and development-friendly way.³ The overall objective is to promote informed policy choices that are required to scale up production and trade in organic agriculture products.

The report is therefore *not* a quick fix for problems afflicting the OA subsector in Uganda. Rather, it is written to stimulate an effective alliance among policymakers, organic agriculture farmers and farmer organizations, and to keep the private sector engaged in production and trade in OA products as a means of stimulating policy change and action. As shown throughout the report, OA subsectors around the world are changing rapidly and creating new economic possibilities for farmers, traders and the environment. Yet, taking advantage of these opportunities will require radical and pragmatic policy/regulatory actions at the national level. The analysis provided in this report and the range of opportunities for the various stakeholders shown here are intended to stimulate joint action for policy change.

The report is organized in 4 sections. Section 1 covers the preliminary issues, offers a description of project *modus operandi*, and describes the target audience. Section 2 provides a background of Uganda. Section 3 presents the results of the assessment, focusing on the current and future global market trends, alternative scenarios for the future growth of the subsector and its potential constraints, and an assessment of the impacts of the identified scenarios. Section 4 contains a set of general and specific recommendations which if implemented could bring about desired changes including growth and mitigate any undesirable impacts of that growth at the same time.

1.1. Integrated Assessment of the Organic Agriculture Subsector

For the last half-century, agriculture has been the dominant sector in Uganda's economy, contributing the highest percentage of GDP and accounting for the bulk of both formal and informal employment. The agriculture sector also provides the basis for livelihood and livelihood security of many people outside the formal food market especially in the rural areas. With Uganda's total population projected to reach 129.1 million by 2050,⁴ a dynamic and robust agriculture sector is critical in ensuring the provision of adequate food for the population. From an economic perspective, agriculture is still seen as the key engine of national growth. Hence the progressive transitioning of

³ In this report, sustainable development is used to connote a development condition where policies and programmes, to achieve social development, environmental protection and economic development, mutually reinforce each other to bring about robust sustainable economic growth and social equity.

⁴ UNFPA, 2006. The State of the World Population Report. Pg 108.

the national economy from a nature-based economy to a robust industrial, services or a knowledge-based economy has to be grounded on agriculture.⁵

It is in this context that the current trends in the organic agriculture subsector are seeing increasing policy interest. Even as the share of agriculture GDP relative to other sectors of the economy continues to decline, the contribution of the OA subsector is growing exponentially. In OA, productivity has been increasing, the number of certified farmers has been expanding and organic exports as a share of the total agriculture exports have been growing. OA brings with it numerous advantages that need to be harnessed through effective policy, legal and administrative interventions. Recognising this, the government, the agriculture private sector, independent policy think tanks and farmers' organizations have worked together over the last two years to develop a draft national policy on OA.

This report examines the implications of the current policy draft on OA on the future performance of the sector.⁶ The stakeholders have defined the vision for the policy as the *“attainment of a competitive and profitable organic agriculture subsector in Uganda generating adequate safe and quality food, fibre and other goods and services for sustainable development.”* To achieve this vision, objectives are outlined with a clear emphasis on reaching sustainable development. On this basis, this study examines the economic opportunities emerging from the ongoing transformation of OA nationally and internationally and analyses the social, economic and environmental implications in accelerating growth.

This study intends to guide policy on scaling up production and trade in OA products. It is targeted at policymakers at all levels, including the private sector, OA sector, farmer organizations and international development partners. The review of the global and national structures for OA and the provision of alternative policy scenarios can influence policy decisions at the regional and national levels.

In addition this study provides a comprehensive review of the factors affecting OA production and trade. It maps out major market trends with special emphasis on global market opportunities over the next decade. Therefore, key stakeholders such as exporters of OA products, OA farmer organizations and NGOs involved in agriculture and social development programmes will find the report a useful tool when making investment decisions. Particular emphasis is placed on the current structure and changes in the global market for OA as well as the factors that may affect the growth and expansion of regional and national markets for OA.

While recognising that continued growth and expansion of the OA will create increased economic opportunities, its success and sustainability are largely dependent on the extent to which it integrates environmental, social and equity considerations.

⁵ See, for example, Museveni, 2001. Consolidating the Achievements of Movement: 2001 Election Manifesto.

⁶ Republic of Uganda, 2006. Draft Organic Agriculture Policy.

1.2. The Organic Agriculture Integrated Assessment Project

The process of conducting this assessment started in 2005 under a regional project entitled *Promoting Production and Trading Opportunities for Organic Agriculture in East Africa*.⁷ In late 2005 and early 2006, the assessment process organized stakeholder meetings and undertook fieldwork to generate empirical data and information. The assessment was undertaken in partnership with government agencies, private sector entities, and organic farmers' organizations that are engaged in the promotion of organic production and trade in the country. In particular, the following government agencies were significantly involved as equal partners/members of the national steering committee):

- Uganda Export Promotion Board (UEPB)
- National Planning Authority (NPA)
- Uganda National Bureau of Standards (UNBS)
- Poverty Eradication Department in the Office of the President
- The National Environment Management Authority (NEMA)
- Ministry of Agriculture, Animal Industry and Fisheries (MAAIF)

The National Organic Agricultural Movement of Uganda (NOGAMU) provided the vehicle with which OA farmers and farmer groups participated in the assessments. NOGAMU provided background and baseline information for the assessment and collected additional information on OA and sustainable development through literature research.

Besides analysing the efficiency of the National Policy on Organic Agriculture draft with regard to stimulating growth in OA, an analysis was done with regard to certain organic crops and their social, economic and environmental relevance in Uganda as well as their global market relevance. Three scenarios were then developed and the proposed policy actions analysed in the context of those scenarios. The strategy was to ensure that the assessment would benefit and inform the policy formulation as well as its final outcome.

1.3. Background and National Context

Located in the heart of the Great Lakes subregion, Uganda has a total landmass of 241,000 square kilometres of which approximately 18% is covered by freshwater bodies. The total population of the country is currently estimated at 27 million people with over 90% living in rural areas. This size of the population combined with an annual population growth rate of 3.3% makes Uganda a highly populated country within the Eastern and Southern Africa subregion. Table 1 provides comparative statistics for select countries in

⁷ The project which covers Uganda, Kenya and Tanzania is supported by the United Nations Environment Programme (UNEP) and the Capacity Building and Trade Branch of the United Nations Conference on Trade and Development (UNCTAD).

the subregion. Many neighbouring countries frequently suffer from prolonged droughts, low agriculture productivity and famine. In this context, Uganda has large untapped potential to market its farm products to its neighbours.

Table 1: Comparative Selected Statistics for Countries in the Eastern and Southern African Market (2006)

Country	Population (Millions)	GDP (US\$ millions)	GDP per Capita US\$	GDP PPP (US\$ millions)	GDP per Capita PPP US\$***
Uganda	29.9	9,322	316 ^c	45,375*	1,700
Kenya	31.3	21,186	681 ^a	46,224	1,200
Tanzania	35.2	12,784 ^e	204	29,639**	700
Malawi	10.7	2,232	171 ^d	9,612	600
Mozambique	18.4	7,608	204	27,089*	1,300
Zimbabwe	12.9	5,010	472 ^b	26,311	2,100
Zambia	10.5	10,907	922 ^a	13,020	900

Source: State of the World Population Report, 2006. *An Investment Guide to Uganda: Opportunities and Conditions.*

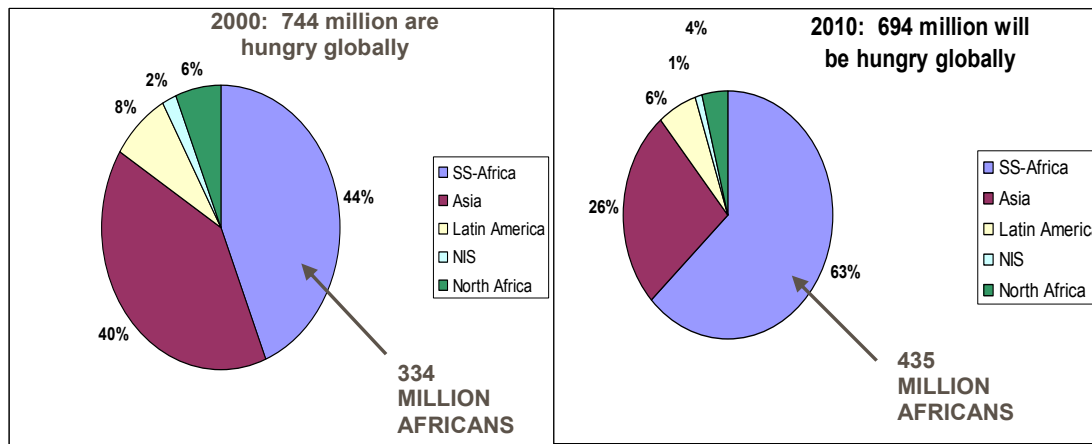
*Estimate is based on regression; other PPP are extrapolated from the latest International Comparative Programme benchmark estimates.

**Data refers to mainland Tanzania only.

***Data based on the *CIA World Fact Book*, 2006.

^a2003 estimates. ^b2000 estimates. ^c2005 estimates. ^d2006 estimates. ^eData refers to mainland only.

Figure 1. Sub-Saharan Africa's share of world hunger is rising sharply.



Source: USDA/ERS, 2000. *Food Security Assessment*.

1.3.1. Overall economic and agriculture sector trends. Agriculture dominates Uganda’s economy and is a major source of GDP and employment. Nearly 90% of the population live in rural areas and agriculture is their predominant activity. Agriculture output comes exclusively from around 4.5 million smallholder farmers, 80% of whom own an average landholding of less than 2 ha. The bulk is scattered small-scale subsistence farmers who engage in non market-oriented production and who predominantly use rudimentary technologies.⁸ There are however concerted efforts to transform the sector towards commercial orientation with the Plan for the Modernisation of Agriculture (PMA)⁹ providing the overall national strategic framework within which transformative activities ought to be considered and implemented.

- *Agriculture contribution to GDP*

Over the last decade, Uganda has had GDP growth rates averaging 5.6% per annum. This performance is attributed to strong growth in industrial output and the services sector. The overall agriculture sector however has experienced a slowdown in

⁸ The majority of subsistence farmers do not use productivity enhancement technologies such as fertilizers, agro-chemicals, improved seed varieties, etc.

⁹ The Plan for Modernisation of Agriculture (PMA) was launched in 2000 and contains a package of interventions and reforms in seven priority areas including agricultural advisory services, agro-processing, environment and natural resources management, agricultural education, and infrastructure development. See Republic of Uganda, 2000. Plan for Modernisation of Agriculture. To date, the most comprehensively implemented priority areas are agricultural advisory services and the National Advisory Services program (NAADS).

growth resulting in persistently declining agricultural output since 1998. Sector GDP growth declined from 4.6% in 2000/01 to 1.6% in 2003/04, with some recovery in 2004/05 of 2.1%. According to the 2005 Zonal Agricultural Plan,¹⁰ food crop production dominated the sector, contributing approximately one-half of the agricultural GDP in 2002/03, while cash crops provided a further 17%. The livestock subsector chipped in 16% and fisheries 12%. Table 2 below shows Uganda's GDP performance by sector over the last five years:

GDP growth by sector (%)	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06
Agriculture	4.6	3.9	2.3	0.8	1.5	0.4
Industry		8.2	6.7	8.2	10.8	4.5
Services	5.2	8.1	5.7	8.4	8.7	9.2
GDP at market prices	5.0	6.4	4.7	5.5	6.6	5.3
Share of GDP contribution by sector (%)						
Agriculture	40.8	39.9	39.0	37.4	35.6	34.0
Industry	18.6	18.9	19.3	19.8	20.6	20.5
Services	40.6	41.2	41.7	42.8	43.8	45.5

Source: MFPED, 2006. Background to the Budget.

Provisional statistics for the financial year 2005/06 indicated that the agriculture sector was expected to experience its lowest annual growth rate in over a decade at 0.4%.¹¹ These statistics show that monetary and non-monetary food crops (comprising two thirds of agriculture value added output) were estimated to grow only 0.3%. These statistics mean that Uganda's population growth has outstripped agriculture output by a factor of 4 to 1 per year over the last three years. These declining trends present a gloomy picture for the Ugandan economy as well as over 22 million Ugandans who live in rural

¹⁰ Republic of Uganda, 2005. National Agriculture Zoning Scheme.

¹¹ Republic of Uganda, 2006. Budget Speech for the Financial Year 2006/07: Enhancing Economic Growth and Household Incomes through Increased Production and Productivity. Speech to the Parliament of Uganda by Minister Ezra Suruma, Minister of Finance, Planning and Economic Development. Kampala.

areas and derive their livelihoods from the agriculture sector.¹² Table 3 below shows the growth of Uganda's agriculture sector in real terms for the period 1995-2005.

Table 3. <i>Agricultural Subsector GDP Growth, 1995/96-2004/05 (% in real terms)</i>											
	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 00	2000/ 01	2001/ 02	2002/ 03	2003/ 04	2004/ 05	2005/ 06
Cash crops	22.6	13.9	-2.8	9.3	7.0	-4.9	7.4	4.6	0.3	4.2	-7.4
Food crops	1.3	-1.9	1.7	6.1	6.1	6.2	5.7	3.7	1.7	1.7	0.9
Livestock	9.8	5.7	4.1	4.3	3.9	5.4	4.4	4.9	-3.5	1.8	5.3
Overall	4.3	1.2	1.9	5.8	5.8	4.6	3.9	2.3	1.6	2.1	
<i>Source:</i> Adapted from Republic of Uganda, Recent Changes in Agricultural Output in Uganda, 2006. Policy Brief No. 1.											

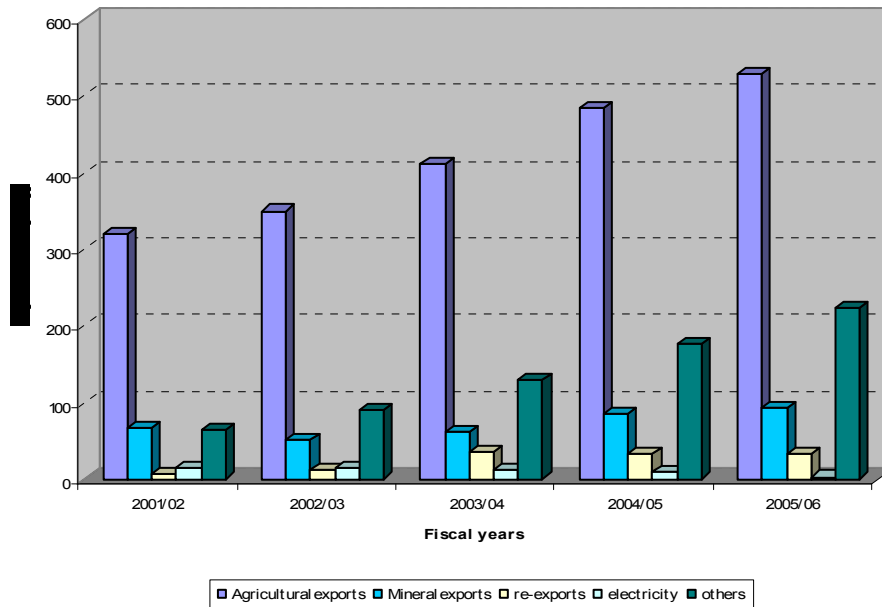
The majority of the farmers engaged in subsistence agriculture produce organically, although they have not gone through a formal certification process. As such, promoting exports and trade in OA is not only consistent with the national agriculture development objective, but also a practical approach to bring subsistence rural farmers forward from the informal to the formal market economy.

- *The contribution of agriculture to trade*

The *export sector* is currently estimated to account for approximately 11% of overall GDP growth. Agriculture in turn accounts for the bulk of these exports, contributing over 68% to all export earnings. Figure 2 below illustrates the contribution of different sectors to total export earnings.

¹² Republic of Uganda, 2006. Budget Speech for the Financial Year 2006/07: Enhancing Economic Growth and Household Incomes through Increased Production and Productivity. Speech to the Parliament of Uganda by Minister Ezra Suruma, Minister of Finance, Planning and Economic Development. Kampala.

Figure 2. Sector percentage contribution to total exports (2004).

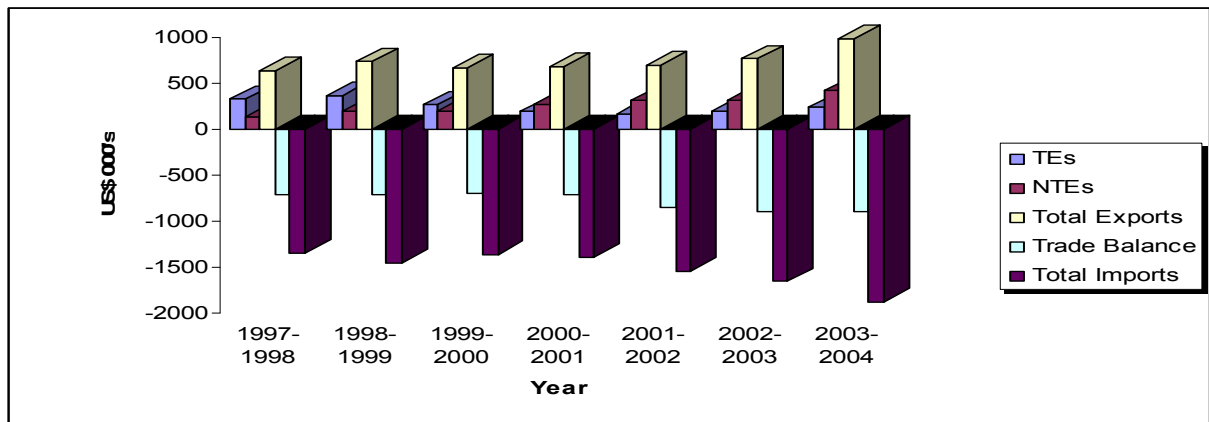


Source: UBOS, 2006 Statistics

Traditional commodity sectors of coffee, cotton, tea and tobacco continue to be pronounced in output. Non-traditional sectors however, such as floriculture, horticulture, spices, fish, cereals and legumes have grown in importance in country exports. Many of the sectors however remain low in volume and involve poor quality commodities with poor terms of trade. Inadequate organization of the farmers into market responsive structures remains a major constraint.

Figure 3 below sets Uganda’s exports against imports. As illustrated, the agricultural exports cannot finance Uganda’s rapidly increasing import bill. As a result, the negative balance of Uganda’s trade position continues to widen.

Figure 3. Uganda's trade performance (1997-2004).



Source: Bank of Uganda.

▪ *Role of agriculture in employment*

According to the Poverty Eradication Action Plan (PEAP of 2005), agriculture employs 69% of the total population. An estimated 90% of the total population live in rural areas and 73% of the active labour force in these areas are employed in agriculture.¹³

Trends of general decline in the agriculture sector vis-à-vis other sectors of the economy are evident. During the financial year, growth was largely registered in these subsectors: construction (13.7%), hotels and restaurants (21.8%), and transport and communication (20.7%). On the other hand, agriculture performed dismally, registering growth of only 0.4% underpinned by negative growth of -7.4% in cash crop production and only growing 0.9% in food production.

Statistics show that the contribution of agriculture to Uganda's GDP has been declining over the last five years. This is largely the result of the overall decline in agricultural productivity rather than the dramatic growth in other economic sectors. The agriculture sector though still remains a major potential source of GDP growth, employment creation and rural livelihood security. Planning and investment in ecologically resilient agriculture subsectors such as OA could therefore provide an opportunity to reverse current trends of decline.

1.3.2. Environment, agricultural productivity and policy This study illustrates that Uganda's economy is still largely dependent on agriculture. Consequently, the major environmental problems of the country are to be found at the interface of this agriculture based economy and the associated anthropogenic activities. Indeed, the fate of Uganda's agriculture sector is closely intertwined with the ecological integrity of the

¹³ An estimated 68% of the total population employed in the agriculture sector are subsistence farmers.

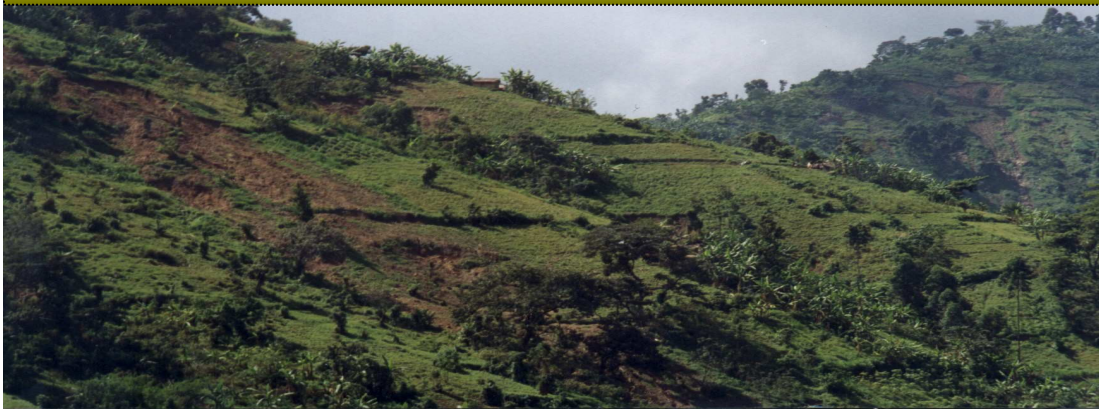
environment because all agriculture here is nature-based. Efforts therefore to find solutions to ecological problems must be rooted within the overall strategy of rural agricultural transformation. This is why understanding the nature and extent of Uganda's environmental problems is important for any short and long-term policy in OA.

The declining fortunes of the agriculture sector may be attributed to a variety of factors, including a slump in farm-gate and global market prices for agricultural products. However, the single largest factor is the environmental aspect that is adversely affecting the well-being of rural communities. Environmental factors range from a combination of soil erosion and decline in soil productivity, to climate change and unpredictable variations in weather patterns. These are largely exacerbated by wanton destruction of existing forest and wetland ecosystems and other critical water catchment areas. The latest edition of the National State of the Environment Report¹⁴ also recognised poor disposal of plastic and polythene bags as a growing problem that could significantly affect general agricultural productivity.

- *Soil erosion and loss of soil productivity*

One of the major environmental factors affecting agriculture productivity and output is land degradation. Land degradation is largely associated with escalating soil erosion, decreasing soil fertility, unsustainable agronomic practices and to some extent, agro-chemical pollution. For example GDP losses arising from land degradation was estimated in the range of US\$1.3 billion to US\$3.8 billion representing approximately 17% of total GDP.¹⁵

Figure 4. Cultivation of steep slopes in Bududa district makes them vulnerable to mass movements during rain seasons.



Source: State of the Environment Report for Uganda, 2004

¹⁴ Republic of Uganda, 2004. National State of the Environment Report for Uganda 2004/05.

¹⁵ Sector PEAP Revision Paper for the Environment and Natural Resources Sector, 2004. Environment and Natural Resources Sector Working Group, Ministry of Water, Lands and Environment. Kampala. (Unpublished).

The problem of land degradation is compounded by the widespread use and disposal of plastic bags popularly referred to as *kavera* in Uganda. According to the National State of the Environment Report (2004), the estimate was that 616,000 tonnes of plastic waste accumulated in Uganda's environment over the period 1991-95. While there is considerable concentration of plastic waste in urban centres blocking drainage channels and polluting major water sources, increasing use of *kavera* in rural areas is also a growing and significant threat to the environment and to agriculture.

Figure 5. A considerable amount of waste in both urban and rural areas is comprised of plastic bags.



- *Climate change and unpredictable weather patterns*

The second major environmental challenge facing the agriculture sector is climate change and unpredictable variations in weather patterns. The entire agriculture economy is rain-fed and there is infrequent use of technological inputs such as fertilizers, agro-chemicals, irrigation and improved seed varieties.¹⁶ It is important to observe however that there is generally limited and rather unreliable data on rainfall patterns in the country,

Figure 6: Human agriculture-environment interaction in a fragile ecosystem.



¹⁶ See also Tumushabe, G., Mugenyi, O., Naluwairo, R., 2005. The Status of Organic Agriculture Production and Trade in Uganda: Background Study to an Integrated Assessment of the Subsector (Unpublished).

especially since the Government Meteorology Department only produces reports from a limited number of locations. As a result, it is difficult to state with certainty the extent of the impact of low rainfall on overall agriculture productivity and output. Furthermore, MAAIF has observed that there is generally no evidence to link “prolonged drought seasons” with low agriculture sector growth and productivity.

However, in the face of climate change characterised by prolonged dry seasons, and growing unpredictability of rainfall patterns, the smallholder/household-based farming system is experiencing unprecedented stress. Since OA is also practised by these smallholder farmers, the organic subsector is thus affected. These conditions are likely to continue into the future since there is no official indication that restoration of degraded ecosystems, stabilisation of fragile ecosystems or establishment of irrigation infrastructure are budgetary priorities.¹⁷

- *Agricultural practices and policy distortions*

Existing agricultural practices and national development policy decisions are undermining the ecological integrity of the environment.

At the local or farm level, stress from unpredictable rainfall patterns and loss of soil fertility is forcing farmers to shift their agriculture activities to marginal lands and ecologically sensitive areas. For example, it is reported that Uganda’s range lands, especially the country’s cattle corridor stretching across the districts of Mbarara, Rakai, Sembabule, Mubende, Kiboga, Nakasongola, Kotido, Moroto and Nakapiripit, have been severely degraded by overgrazing and bush burning.¹⁸ Across the country, major wetland ecosystems representing Uganda’s critical water reservoirs have been severely degraded or converted into agricultural or grazing lands.¹⁹

At the national level, there are two major problems related to policy and decision-making. Firstly, major development decisions are being made which undermine the integrity of the environment and natural resources. For example, decisions have been made to convert key ecosystems or parts thereof for other land uses, including: conversion of wetlands into agriculture use in rural areas and for construction in urban areas; conversion of forest reserves and forest reserve lands into agricultural use; and attempts to de-gazette forest reserves and protected wildlife areas for alternative development activities. Table 4 below shows selected ecological areas that have been affected by such decisions.

¹⁷ For example, the 2006/07 National Budget puts most of the emphasis on agricultural advisory services and micro-credit, paying only lip service to investments in the environment and natural resources sector.

¹⁸ Republic of Uganda, 2002. State of the Environment Report for Uganda 2002. Pg 77.

¹⁹ Environment and Natural Resources Sector Revision Paper, 2003.

Area	Size	Affected resource	Planned activity	Notes
Butamira Forest Reserve		Forest plantation	Sugarcane growing	High Court declared decision illegal but court declarations have been ignored in the subsequent decision-making processes
Selected forest reserves on Bugala Islands		Natural forests and water	Palm oil plantation	
Pian Upe Game Reserve		Wildlife	Fruit and flower growing	Decision contested and currently on hold
Mabira Forest Reserve	7100ha	Natural forest	Sugarcane growing	Process ongoing with widespread protests from stakeholders
Wetlands		Wetlands and water	Agriculture	Conversions by both individuals and public decisions especially in urban areas.

Secondly, policy making in Uganda is slow and painstaking. The process is generally devoid of strategic approaches necessary to confront pressing national problems. Over the last decade, for example, attempts have been made to formulate national policies on biological diversity,²⁰ soil,²¹ the environment and natural resources,²² and OA. These policy processes have either been incomplete, stalled or their status unknown to the public. Table 5 shows comparative timeframes that have been taken to formulate key policies in this area, and the status of each policy.

Policy process	Lead institution	Known start date	Known status
National Biodiversity Strategy and Action Plan	National Environment Management Authority	1998	Draft completed in 1998 and pending Cabinet approval
National Soils Policy	Ministry of Agriculture	1997	Process stalled due to conflicting institutional mandates
ENR Sector Investment Plan	Ministry of Water and Environment	2002	Final draft produced in December 2006 and pending presentation to

²⁰ A draft National Biodiversity Strategy and Action Plan (NBSAP) which is a mandated obligation under article 6 of the Convention on Biological Diversity 1992 was first drafted in 1999 yet was only published around the time of completing this study.

²¹ Although land and soil degradation are considered some of the major problems facing the agriculture sector, the process to formulate a National Soils Policy has been going on since the 1990s and its status is unknown.

²² Although the government claims to recognise the importance of the environment and natural sectors, persistent under-funding of the sector has been going on since 2000.

Organic Agriculture Policy	Ministry of Agriculture, Animal Industry and Fisheries	2000	the Cabinet. First draft produced in 2005 and pending formal public consultations.
National Food and Nutrition Policy	Ministry of Agriculture, Animal Industry and Fisheries/ Ministry of Health	1996	Policy only completed and published in 2003.

It is important, therefore, to see that persistent failure at the policy level to recognise environmental factors is the underlying cause of decreasing agricultural productivity, which in turn has resulted in further policy and farm decisions that in turn violate the environment. The case of Uganda demonstrates the self-reinforcing nature of the agriculture-environment-poverty nexus. These problems are compounded by Uganda's policy and decision-making processes.

Indeed, the critical issue is the implication of these dynamics in the policy making process on future attempts to address environmental problems. It is important to recognise that while environmental change may be a slow process with negative impacts only realized in a medium and long-term time horizon, sporadic drastic changes in environmental parameters can occur. In any case, when the impacts of ecological change eventually become visible, they may already have a far reaching impact on the national economy and the livelihoods of those whose production methods are directly dependent on the mercy of nature.

1.3.3. Poverty, income distribution and agriculture. According to the 2006 poverty status report,²³ income-related poverty fell dramatically in the 1990s. The proportion of Ugandans whose incomes fell below the poverty line (or the poverty headcount) fell from 56% in 1992 to 44% in 1997/98, followed by a further fall to 34% by 2000. These changes were driven mainly by increases in average income, rather than through redistribution of wealth. Inequality was steady from 1992 to 1997, but increased thereafter. The Gini coefficient²⁴ was between 0.37 and 0.35 until 1997, but rose to 0.39 in 2000.

Since 2000, however, the trends have been less encouraging. Income-related poverty increased from 34% to 38% between 2000 and 2003, and inequality as measured by the Gini coefficient rose markedly from 0.39 to 0.43. As can be inferred from Table 6 below, the increase in poverty is particularly marked for households in the agricultural sector.

²³ Republic of Uganda, 2006. Uganda Poverty Status Report. Ministry of Finance, Planning and Economic Development.

²⁴ The Gini coefficient is lower bound at 0 if everyone has the same income and higher bound by 1 if one household has all the income. Generally, Gini coefficients are lower for expenditures than for incomes. Gini coefficients in African economies are generally quite high by international standards, and Uganda is considered to have one of the highest.

Table 6. *Proportion of People Below the Poverty Line (%)*²⁵

	1992	1993/94	1994/95	1996	1997/98	1999/00	2002/03	2005/06
National	55.7	51.2	50.2	49.1	44.4	33.8	37.7	31.1
Rural	59.7	55.6	54.3	53.7	48.7	37.4	41.1	34.2
Urban	27.8	21	21.5	19.8	16.7	9.6	12.2	13.7
Central	46				28	19.7	22.3	16.4
Western	53				43	26.2	31.4	20.5
Eastern	59				54	35.0	46.0	35.9
Northern	72				60	63.7	63.6	60.7
Gini coefficients								
National	0.36	0.35	0.36	0.37	0.35	0.39	0.43	0.41

Table 7. *Proportion of People Below the Poverty Line by Occupational Group (%)*²⁶

	1992	1996	1999/00	2002/03	2005/06
Occupation of household head					
Food crop	64	62	45		
Cash crop	63	46	34		
Crop farmers			39	50	36.8
Non-crop agriculture	55	40	42	34	28.1
Manufacturing	44	34	23	28	21.8
Construction	37	35	20	23	27.1
Trade	26	21	13	17	14.9
Government services	37	32	15	13	8.5
Not working	59	60	43	38	37.2

Crop farmers were hit by lower prices for commodities such as coffee. While the prices remained constant in nominal terms, they fell in real terms whereas non-food prices increased (MFPED, 2004). Surveys on welfare changes between 1999/00 and 2002/03, showed that poverty among households where the head works in agriculture rose from 39% to 49%. Moreover, poverty was worse among households practicing crop farming than among those engaged in non-crop agriculture like livestock production and fishing. The ratio of food crop prices to other consumer goods in the Consumer Price Index (CPI) fell by 19% between the two surveys. The lag in food crops was associated with among others; food crop output not keeping pace with population growth, food consumption per capita fell by 3% in nominal terms over the three period and consumption of food fell by 20% per capita (MFPED, 2004²⁷).

²⁵ Appleton, S., 2001. Poverty Reduction During Growth: the Case of Uganda, 1992-2000. Appleton, S. and Sswanyana, S., 2003. Preliminary Explanations for the Worsening of Poverty 1999-2003, Information paper for UBOS/MFPED, (Unpublished). The sample for 1999/2000 and 2002/3 excludes Kitgum, Gulu, Pader, Bundibugyo and Kasese districts. Data by occupation are available only for the years shown. Also see Republic of Uganda, 2006. Background to the Budget. Ministry of Finance, Planning and Economic Development.

²⁶ *Ibid.*

²⁷ MFPED (2004) Background to the Budget for the Financial Year 2004/05: Promoting Economic Growth and Reducing Poverty through Public Expenditure, Ministry of Finance Planning and Economic Development, May 2004, <http://www.finance.go.ug>

SECTION 2 KEY ISSUES IN ORGANIC AGRICULTURE PRODUCTION AND TRADE

2.1. Defining Organic Agriculture²⁸

The debate on the utility, and strategic and multiple, advantages of OA is increasingly seen in government policy and planning. The exact definition of what constitutes OA is still a subject of much debate however. In current literature, there is a tendency to confuse agricultural production based on the principles that underpin OA with certified production. This may lead to the failure to recognise certain elements of OA that do not meet globally accepted production standards and principles. For purposes of proper policy planning, it is essential to draw the distinction between agricultural production that adopts principles of OA production and OA production that is certified as organic.

IFOAM Principles for Organic Agriculture

- *The Principle of Health:* Organic agriculture should sustain and enhance the health of soil, plant, animal and human as one and indivisible.
- *The Principle of Ecology:* Organic agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them.
- *The Principle of Fairness:* Organic agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities.
- *The Principle of Care:* Organic agriculture should be managed in a precautionary and responsible manner to protect the health and well-being of current and future generations and the environment.

The generally accepted definition by the International Forum of Organic Agriculture Movements (IFOAM) specifies that OA is “a holistic production management system that promotes environmentally, socially and economically sound production of food and fibres.”²⁹ OA production systems emphasise good agronomic and management practices over the use of off-farm inputs.³⁰ The use of natural properties of

²⁸ This section is based on a background paper on organic agriculture in Uganda prepared for this integrated assessment study. See Tumushabe, G., Mugenyi, O., Naluwairo, R., 2005. The Status of Organic Agriculture Production and Trade in Uganda: Background Study to an Integrated Assessment of the Subsector (Unpublished).

²⁹ IFOAM definition at http://www.ifoam.org/organic_facts/doa/index.html (accessed on September 15, 2007). The process of defining organic agriculture by IFOAM is an ongoing process and by this date, IFOAM had published a report proposing four interrelated definitions with explanatory notes which are also relevant to the proposed definitions. The report is found at http://www.ifoam.org/organic_facts/doa/pdf/membership_inquiry_definition_20070815.pdf

³⁰ Former Ugandan Minister for MAAIF Dr. Wilberforce Kisamba Mugerwa argued that organic agriculture is not the traditional way of doing things but rather a system which promotes ecosystems, food safety, good nutrition and social justice. Quoted in Musiime Eunice and Naluwairo Ronald, 2004. Report of

plants, animals and the landscape is preferred to synthetic fertilizers and pesticides. At present, an agricultural production system is considered to be organic if it adopts and adheres to globally accepted principles and practices which are implemented in specific social, economic, geo-climatic and cultural contexts.

Ten Basic Facts about Organic Agriculture Production and Trade in Uganda

- No specific government policy on organic agriculture.
- Certified organic agriculture targets mainly the export market.
- Ugocert is the only local certification company.
- Uganda has the largest amount of organically certified acreage in Africa standing at around 122,000 ha.
- Uganda now has over 39,000 certified farmers.
- The majority of farmers (over 85%) practice de facto organic agriculture.
- Very limited research, education and training in organic agricultural production systems exist.
- Interactions between institutions responsible for economic development, social development and environmental sustainability are limited.

OA is also affected by general perceptions at the policy level that it is an alternative to biotechnology rather than a complementary agricultural production system with unique characteristics and advantages to the farmers, the economy and the environment.

Examined according to the principles above, a big percentage of agriculture production, especially by rural smallholder farmers, can be considered organic. Indeed, in the African region, Uganda enjoys a huge strategic comparative advantage in the production of organic agricultural products. This is largely due to a number of factors. Firstly, Uganda is known to have very conducive weather patterns that can support OA and allow increased agricultural production without the need for non-organic agricultural inputs. Secondly, Uganda has one of the lowest agro-chemical usage rates in Africa.

However, it is important to recognise that certification has increasingly gained global acceptance as the 'passport' to enter the global organic agricultural production and marketing system. Beyond overseeing the application of OA principles, certification is becoming an important policy and marketing instrument as well. The global organic system requires that certain elements such as land, farmers' practices or products be certified as organic before the products are marketed. As such, the existing levels of OA certification need to be understood.

2.2. Key Organic Agriculture Crops in Uganda

the Proceedings of the Workshop on Organic Agriculture, Food Security and Poverty Alleviation in Sub-Saharan Africa (30-31, Kampala, Uganda). ACODE Public Policy Dialogue Series No. 4, 2004.

Table 8 below lists export operators and a range of organic products in Uganda for which it has a comparative advantage.

Table 8. *List of Certified Organic and In-conversion Export Operators in Uganda*
A) Certified at some point during 2005

Name of operator	Crops/ Products	Location(s)
AMFRI (African Organic)	Fresh fruit and vegetables, dried fruit and vanilla	Luwero, Kampala
Bark Cloth	Bark cloth	Masaka
Bio Fresh (U)	Fresh pineapple, apple banana, passion fruit and ginger	Eight districts in central Uganda
BioUganda	Fresh pineapple, apple banana and passion fruit	Mubende, Entebbe
Coetzee Natural Products (U)	Vanilla	Mukono
Esco (U)	Vanilla, cocoa	Bundibugyo, Mukono
Gumutindo Coffee Cooperative	Fair trade arabica coffee	Mbale
IBERO (Uganda)	Robusta coffee, vanilla	Kikyusa
Kawacom (U)	Arabica and robusta coffee	Nebbi, Bushenyi, Okoro
Masaka Organic Producers/St Jude Family Projects	Dried pineapple, apple banana, mango, jackfruit and papaya	Masaka
Outspan Enterprises	Sesame, cotton, red eye chillies	Lira
Phenix Logistics (U)	Unblended cotton yarn, grey knit fabric, grey washed knit garments, comber oil	Kampala
RECO Industries	Dried pineapple	Kasese
Shares!/Bo Weevil	Cotton, sesame and red-eyed chillies	Lira, Mukono
Tropical Ecological Fruits Uganda (TEFU)	Dried pineapple and apple banana	Mityana
Uganda Marketing Services	Vanilla	Four districts in central Uganda

B) In the process of conversion during 2005

Name of operator	Crops/ Products	Location(s)
Be Organic	Pineapple and other fresh fruit	Jali Island, Wakiso district
Bee Natural Products	Honey and beeswax	Arua
Buiga Farm Industries	Vanilla	Mukono
Greenfields Uganda	'Wild and sustainable' Nile perch and tilapia	Lake Kyoga, Entebbe
KM International Trade	Shea butter	Lira
Mukono Vanilla & Spices	Vanilla and spices	Mukono
Uganda Aromatics	Essential oils and vanilla	Hoima
Nile Teas Uganda	Dried hibiscus	Pallisa
Sulma Foods	Fresh and dried pineapple	Luwero
Tree Shed Organic Farm	Robusta coffee and vanilla	Nakifuma

The current popularity of vanilla is of particular interest to many. Not only will there be nine certified organic vanilla operations by end 2007, but at least one of the companies, close to beginning the conversion process, is aiming to become organically certified for this crop. The total Ugandan output at this stage appears likely to be at least 30 tons of cured vanilla. According to a report on the organic vanilla market prepared for EPOPA, global annual demand for organic vanilla is in the range of 12.5 tons to 25.0 tons. However, Ugandan exporters report a level of demand from customers which seems to indicate a serious underestimation by EPOPA of global demand.³¹

There is, however, a wider uncertainty about the future shape and size of the sector. The vanilla market is characterised by significant price instability and corresponding high risk. These characteristics are shared with the coffee, cocoa and cotton sectors. However, for these three crops, futures markets exist for risk hedging. No such risk management instruments are available for vanilla.

Farmers give different reasons for their interest in organic crops. These reasons are summarized in Table 9 below. The results are analysed from a microsurvey of 45 commercial organic farmers (or farmer groups) conducted for this study in 2006 in seven districts: Mbale, Namutumba (formerly part of Iganga district), Kayunga, Mukono, Wakiso, Luwero and Masaka.

Table 9. *Farmers' Reasons for Growing Organic Crops*

Reasons for growing organic crops	%*
Market access	30.28
Trained in organic agriculture	26.78
Avoid dangers of chemical use	10.69
Higher yields	10.69
Use local materials which are cheaper	7.19
No money to buy chemicals	3.60
Results of organic growing are long lived	3.60
Better quality produce	3.60
Some crops need a lot of attention	1.80
Soils are generally exhausted	1.80

Some farmers maintained conventional agricultural practice on some fields for reasons shown below in table 10. The belief exists that some crops, especially root tuber and cassava, do not need organic manure as they can do well despite relatively low soil fertility.

Table 10. *Farmers' Reasons for Growing Conventional Crops*

Reasons for growing conventional	%*
Fields are large	58.82

³¹ Koekoek, F. J., 2005. The Natural Vanilla Markets: With Special Attention for the Organic Segment.

Do not require much attention	18.01
Fields are far away from home	15.44
They take a short time in the field and manure is not helpful	5.15
Some crops do not need manure e.g. cassava, sweet potato	2.57

Source: Farmer survey in Uganda, 2007

2.3. Organic Agriculture in Value Added Exports

In Uganda, there is a limited but growing trend towards value-added organic exports. In most cases, the only value addition being carried out in Uganda is to convert the products into a suitable form for export. Cotton, fruits and vegetables, and sesame are exceptional crops where some real processing is done in terms of value addition.

The highest level of value-added in unit terms is found in part of the cotton crop, which is spun into certified organic yarn by Phenix Logistics (U) in Kampala. The value-added in this case is about US\$3,200 per ton. In the case of sesame, there is some treatment and packing over and above the level which is necessary to attain basic export grade.³² The value added in this case is US\$50-US\$100 per ton depending on the process used. Processing allows the product to be sold to the bakery market instead of the oil extraction market.

Drying of fruits and vegetables is a third value-adding process currently being performed by certified operators. For pineapple (the most common dried organic fruit in Uganda), five tons of fresh fruit is required to generate one ton of dried fruit. Since the export value of organic fresh pineapple is US\$800-US\$1000 per ton (f.o.b.) and that of organic dried pineapple is US\$6,000 per ton (f.o.b.), about US\$300 per ton is being added to the value of the fresh fruit product.³³

The technical literature for dried chillies (the most common dried organic vegetable in Uganda) states that about 3.5 tons of fresh vegetable is required to generate 1 ton of dried vegetable. It is not possible to provide an estimate of the value added of processing dried organic chilli since there are no fresh organic chilli exports. What is known though is that the export value of a ton of organic dried chilli is US\$2,240 (f.o.b.), which is significantly higher than the export value of conventional fresh chilli at \$560 per ton (f.o.b.).

There are plans by certified producers to process diced fruit and fruit pulps, and also undertake solar drying for fruit, distillation for essential oils, and solar extraction for beeswax.

³² The basic export grade for sesame is 'low purity' sesame (98% purity).

³³ This may underestimate the value added since it is possible to prepare dried fruit from pineapples too small to be exported fresh, and because there is less risk of fruit perishing after drying.

2.4. Organic Agriculture in the Export Trade

Uganda's total exports in 2005 amounted to US\$655 million. Agricultural exports accounted for 67% of this revenue. Certified organic exports totalled around US\$6.2 million in 2004/05, growing from US\$3.7 million in 2003/04 (f.o.b.). The figure of US\$6.2 million is less than 1% of all Ugandan exports during 2004/05.

Ranked in descending order of export value, the products exported in 2004/05 were: coffee, cotton, fresh and dried fruit and vegetables, and sesame (each contributing at least US\$1 million). The previous year's leading exports, again in descending order of value, were cotton, fresh and dried fruit and vegetables, vanilla and coffee. The latter financial year (2004/05) saw very large contributions from coffee and sesame and a large increase from cotton. In the case of coffee, the higher value was due to a combination of increased volumes and rising prices. In the cases of cotton and sesame, higher values were mainly due to large increases in volume. The declining relative contribution of vanilla occurred despite an almost eight-fold rise in export volumes.

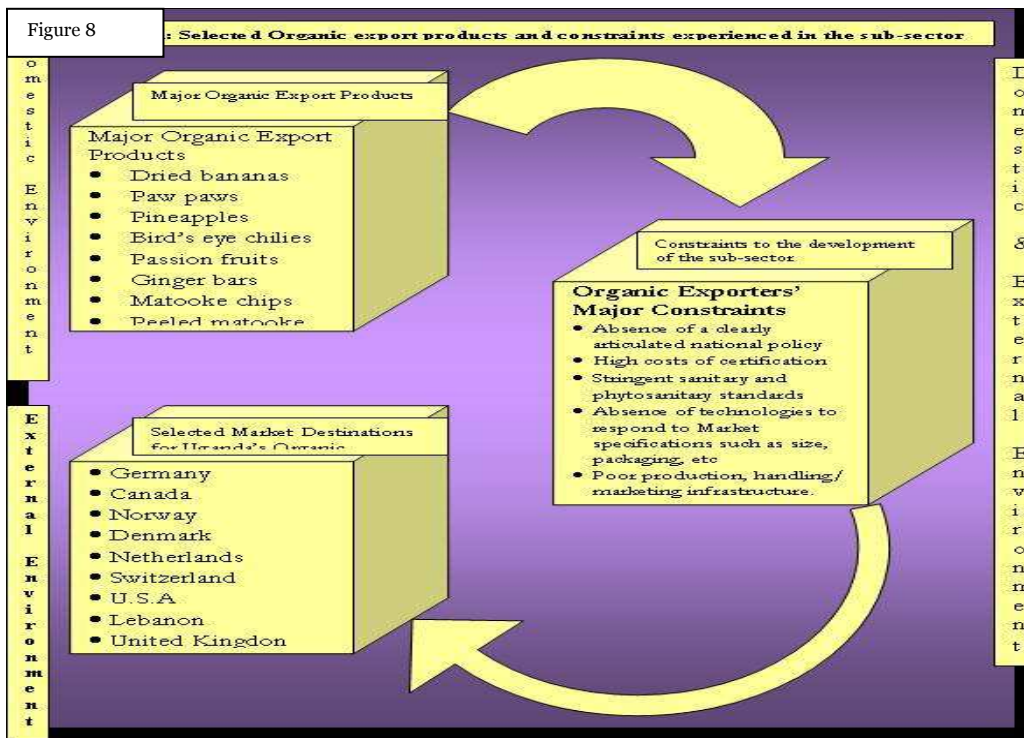
OA exports were dominated by a handful of companies in the years under review. In 2004/05, the two largest exporters together accounted for over half of total export value. At the other extreme, two operators did not export any certified organic products. In one case, products were exported but sold entirely as conventional (though the company received a small premium over normal prices due to superior quality). In the other company, no production took place.

Although this was not the case for every crop³⁴, the overall volume of production by certified organic out-growers, in both years, was considerably higher than the volume of certified organic exports. (Out-growers tend to be small land holdings that have limited capacity to negotiate with input suppliers and merchants who take products to market). The difference between the volumes is due to a number of factors. Firstly, some certified organic out-growers side-sell products to conventional buyers, mainly due to cash needs. In some traditional cash crop projects, only half of the output from certified organic out-growers is sold to the project owners. At the same time, project owners are known to influence the output from certified out-growers, either because products do not match their private quality requirements for certified organic production³⁵, or because of a temporary lack of demand in export markets; or because they lack the crop finance necessary to make the purchase (see figure 8). The last of these reasons mainly applies to smaller-scale exporters, and when it takes hold, may feed into a new cycle of side-selling by out-growers to raise cash.³⁶

³⁴ One important exception was cotton.

³⁵ Examples include requirements that cocoa beans be properly fermented and that pineapple should be not more than 1.6 kg in weight, be free of bruising and cut from the plant with a knife.

³⁶ This seems to be a problem in the case of vanilla, where contact between small exporters and out-growers may be for only two weeks a year, and out-growers could easily lose interest.



Furthermore, as a result of lack of demand in export markets, project owners who purchase organic output are often obliged to sell the produce as conventional (or under another type of certification besides organic), or store the products until the following season. In addition, there are unique quality demands specific to some organic product markets. This means that even when demand is strong, some products are barred and miss out on premiums in these export markets.³⁷ In a practical sense, the gap between certified organic production and exported volume is almost impossible to estimate with accuracy. However this is by no means specific to organic production. Rather, it is a general feature of export-related contract farming.

If predicted levels of exports by in-conversion operators materialise, then total certified organic exports could increase by US\$1.5 million to US\$2.0 million by 2007/08. A more conservative estimate would be half this amount. Short-term changes in export levels in the meantime could arise from existing projects or changes in the international product prices.

2.5. Organic Agricultural Products in the Domestic Market

There are currently 15 organic export companies and many of them have started sales of organic products to local institutions, supermarkets, schools and colleges in the domestic market. There is some statistical evidence that suggests visible growth trends

³⁷ One respondent mentioned that there was no organic market for smaller-sized coffee beans (screen 1200/1500), regardless of their provenance.

for fruits. For example, farmers are selling directly at a reasonable minimum price of 350 Ushs/kg. Three mangoes weigh a kilogramme. MOP the processor sells 100 g of solar dried mangoes to the local market (Uchumi) at a minimum of 2000 Ushs per piece. In comparison, a consumer buys the same at not less than 2500 Ushs from the supermarket.

Table 11. *Local Sales Statistics for Organic Products (2003-2006)*

Year	Solar-dried fruit volumes sold (100 g/pc)		
	Pineapples (pcs)	Mangoes (pcs)	Apple bananas (pcs)
2003	280	50	180
2004	823	516	653
2005	1891	2906	1601
2006 (Jan-May)	1174	1579	690
Total	4168	5051	3124

Source: Farmer survey, 2006

2.6. Price Differentials Compared to Non-organic Agriculture Products

Because of the greater profitability of business in OA arising from premium prices, it could be argued that small farmers stand to benefit less. The cotton sector for example sees the exporters make the big profits. An APEP/NARO and UEPB Study on organic cotton in northern Uganda also asserts that the 46% price premium seen last year for a bale of organic cotton (ex-ginnery price) is suggestive of unfair pricing when the farmer was only offered a 13% price premium for growing organically.

2.7. Organic Agriculture and Employment

The agriculture sector is the biggest employer of labour in Uganda, with over 80% of the total labour force working in this sector. There is evidence that the organic agriculture subsector is expanding in both production and employment. Table 13 below shows the employment growth at selected organic farms between 2001-2004.

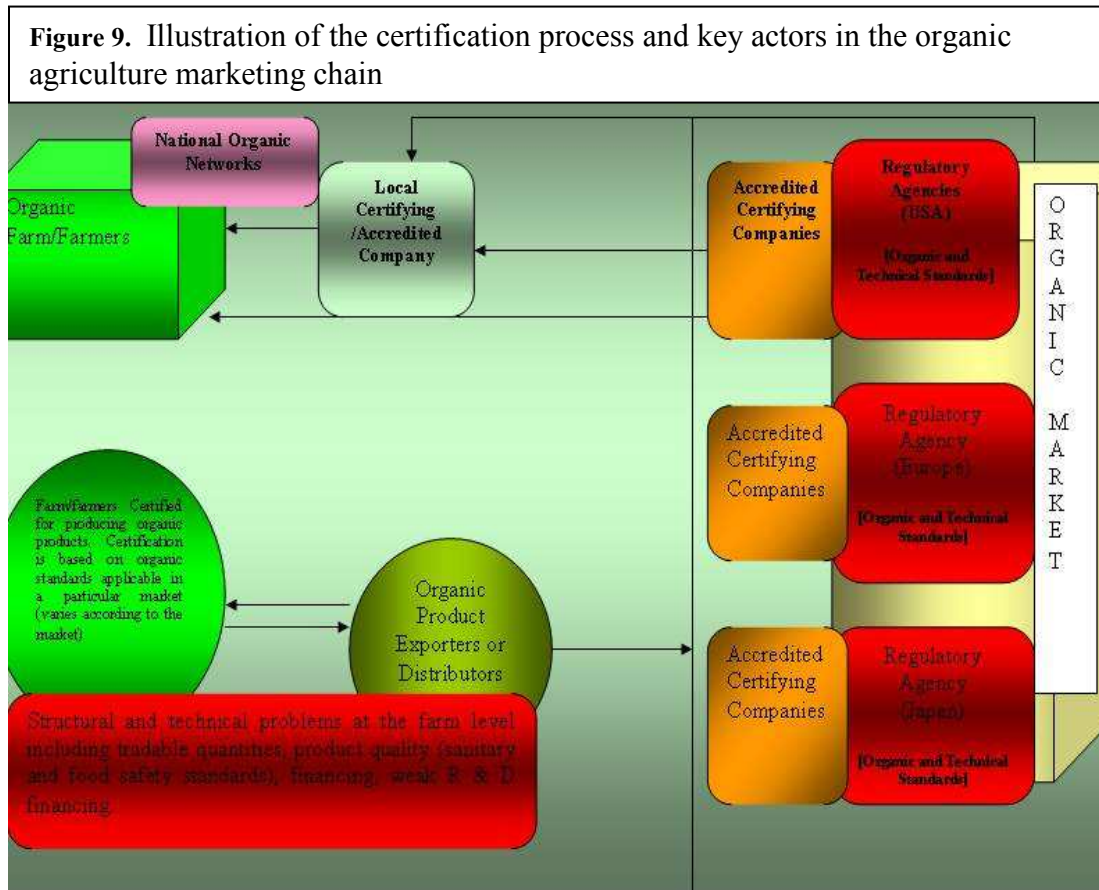
Table 13. *Primary Employment within the Organic Agriculture Subsector - Certified Farmers*

Company name	Region/ District	Products	Numbers registered/ certified in 2001	Numbers registered/ certified in 2003	Numbers registered/ certified in 2004
Suntrade/	Luwero,	Fresh fruit and vegetables,	62	82	106

African Organic/ Amfri-Farms	Mukono, Rakai, Masaka, Mpigi, Mubende, Mbarara and Kamuli	dried fruits, vanilla, ginger, and chillies			
Lango CU/ LOFP/ Boweevil/ (Shares)	Lira and Apac	Cotton lint, sesame, and chillies	8,000	10,000	10,000
Outspan Enterprises Ltd	Lira, Apac, and Kaberamaido	Cotton lint and sesame	5,000	6,530	3,641
Kawacom (U) Ltd	Bushenyi	Robusta	5,000	5,200	
Kawacom (U) Ltd	Nebbi	Arabica - fair average quality (FAQ)	5,000	3,000	
Kawacom (U) Ltd	Kapchorwa	Arabica – fair average quality (FAQ)	3,000	4,500	
Tropical Ecological Foods Uganda Ltd (TEFU)	Mubende	Dried fruits	10	31	88
Masaka Organic Producers (MOP)	Masaka, Rakai	Dried fruits	0		57
Uganda Marketing Services (Ltd)	Mukono	Vanilla and dried fruits	0	23	
Twin Trading - Gumutindo Project	Mbale	Fair-trade Arabica	0	733	
Ibero (U) Ltd	Luweero	Robusta and pineapples	0	295	
ESCO (U) Ltd	Bundibugyo	Cocca, vanilla, tea, and coffee	1,500	2,500	
BioUganda	Mukono	Vanilla and fresh fruits	-	100	150
Bark Cloth	Masaka, Rakai	Bark cloth	-	240	
Biofresh		Fresh fruits and vegetables	-	-	103

2.8. Organic Agriculture and the Organic Certification Process

Certification is quite a complex process and there is a need to strengthen the arbitration mechanism to resolve conflicts between organic operators and certifying agencies. Organic operators have registered their difficulties and complaints against the high certification costs, the varying quality of services being provided to them, delays in the timing of inspections, duplication of paperwork requirements and most critically delays in the issuance of transaction certificates. For an overview of the certification process, see figure 9.



Fifteen out of the sixteen certified organic operators provided data on certification costs for 2005. Total certification charges (not counting the cost of transaction certificates) amounted to US\$132,105. This was calculated as 2.3% of the 15 operators' total sales revenue during 2004/05. The ratio of certification costs to turnover is still considerably below that of producers in the European Union (around 3%).³⁸

Table 14 classifies certification costs in Uganda into bands and shows how many operators fall into each band, as well as how many out-growers are contracted on average by the operators within each band.

³⁸ *The Organic Standard*, 2001.

Table 14. Classification of Certification Costs (2005)

Certification cost in US\$	<5,000	5,000-9,999	10,000-14,999	15,000-19,999	20,000-24,999	>25,000
N* operators	5	5	3	0	1	1
Average out-grower numbers	130	782	2180	-	12,000	15,000
Root mean square (magnitude of varying quantity)	11.4	28.0	46.7	-	109.5	122.6

*N = 15

Although the above table is based on the information gathered from a small number of respondents, it shows the majority of operators paying less than US\$10,000 for certification. It also appears to show a positive relationship between the numbers of out-growers and costs of certification. Nevertheless, it is not clear that a regression analysis would confirm that this relationship is significant, given the variance in the number of out-growers for the first three bands. The relationship between the magnitude of certification cost and the magnitude of the varying out-grower numbers in each band (which should generate the number of individual farmer inspections required) is also unclear.

It appears that there are economies of scale in certification costs. Smaller operators with low sales are paying considerably more than the equivalent of 2.3% of turnover in certification costs. One operator, with sales of only US\$12,000, was paying US\$4,000 in certification costs. At the same time, some well-established operators reported certification costs falling in relation to turnover, as sales volumes increased and as lower numbers of inspection days were required.

2.9 Policy-level Constraints for Organic Agriculture Development in Uganda

Uganda is struggling to move beyond a traditional reliance on export crops (coffee, tea, cotton and tobacco). There are several initiatives to export high value crops (cut flowers, vegetables and dried fruits) and low-value ones (maize and beans), though few explicitly link subsector growth with poverty reduction objectives.³⁹ Currently, non-traditional exports (NTE) outstrip traditional exports (TE) by a ratio of 2:1.⁴⁰ OA has been recognised as one of the niche subsectors with more potential for accessing the benefits from globalization.

³⁹ Kidd, D. A., 2001. Extension, Poverty and Vulnerability in Uganda: Country Case Study for the Neuchâtel Initiative. Overseas Development Institute (ODI)/PACTeam. Working Paper 151.

⁴⁰ Republic of Uganda, 2006. Uganda Statistical Abstract 2006. National Bureau of Statistics.

In conclusion, constraints facing OA in Uganda can be classified into four categories: a) the nature of the policy process – sluggish, unpredictable and may not fully be reflective of the level of support that may be required; b) institutional issues, especially the lack of coordination and absence of proper lines of responsibility and channels of accountability; c) production-related constraints related to land tenure, certification and inspection costs, as well as constraints from limited relevant research on OA; and d) marketing constraints such as lack of information on markets for organic products, market penetration difficulties, supply side constraints, and poor marketing infrastructure.

SECTION 3

INTEGRATED ASSESSMENT OF THE ORGANIC AGRICULTURE SUBSECTOR

The previous two sections explored the circumstances of Uganda's OA subsector, as well as the current statuses of production and trade, and the key problems until now affecting the subsector. The following section assesses the social, economic, and environmental implications of the policy actions here proposed to scale up production and trading in organic agriculture. There are four parts to this section:

- Parts 3.1-3.3 look at the emerging concerns of the key stakeholders (government of Uganda; Ministry of Agriculture, Animal Industry and Fisheries; NGOs and CSOs) about developing a policy for the OA subsector.
- Part 3.4 validates the opportunities, strengths and challenges emerging from current literature and the policy development process itself.
- Part 3.5 identifies and examines three OA growth scenarios and the potential social, economic and environmental implications of those growth trajectories.
- Part 3.6 provides conclusions about emerging issues.

3.1 Government Development Priorities and How They Relate to the Agriculture Sector

During the reading of the budget speech for 2007/08, Uganda's Minister of Finance, Planning and Economic Development (MFPED) noted that the government's funding strategy is aimed at: high rates of economic growth; low inflation; a sustainable external balance; and macroeconomic stability through fiscal discipline. Further development priorities are: development and maintenance of transport infrastructure; ICT, science, technology and industrial development; rural development; and security and governance. The government's ICT strategy, in the specific case of agriculture (and rural development), consists of a National Data Transmission backbone, which will link districts through fibre optic cables ensuring high speed connectivity for both voice and data exchange. In addition, all government ministries and agencies will also be linked using fibre optic technology.

In its Rural Development Strategy, the government plans to raise incomes of rural households by increasing the following: access to lands, labour productivity, access to capital, and more agricultural credit while improving the economic organization of farmers.⁴¹ In the medium term, the strategy will also include access to basic production inputs such as: planting materials, breeding stock, and extension services.

The links between farmers and processors as well as their processing capabilities will be enhanced through industrial development interventions. At the community level, the government will be building a supportive community infrastructure in the form of roads, water and education and health facilities, to be complemented by a community information system which could generate information for planning and service delivery.

⁴¹ Republic of Uganda, 2007. Prosperity for All Strategy.

Emphasis is also being placed on educating communities and households on harvesting and storage of water from their roofs especially those homeowners with modern roofs. The government funds and supports Savings and Credit Cooperative Organizations (SACCOs) to encourage them to lend and hold savings for rural communities.

3.2. State of the Organic Agriculture Policy

There is currently no official document setting out the policy framework for organic agriculture. Consequently, any policy statements on OA have to be discerned from other (and general) policy and planning documents such as those written for agriculture modernisation, agriculture zoning, poverty eradication and budget allocations.⁴² Implicit recognition of the importance of OA may also be discerned from the range of initiatives described below.

3.3. Selected Government Initiatives on Organic Agriculture

Not a large number of initiatives exists in the country to demonstrate the government's support towards organic agriculture. Isolated activities and practices are more the norm.

3.3.1. Presidential Investors Roundtable. This is a major forum of the country's major investors that serves to advise the government on investment in the environment. It was instituted in 2004 under the Uganda Investment Authority (UIA) but is largely driven by the private sector itself with UIA serving as the Secretariat. The Roundtable recognises OA as an alternative investment area and among its members is the major OA investor Boovevil/Shares. The many recommendations that the Roundtable has made include a call for deliberate support and incentives for the sector.

3.3.2. The A to Z Organic Programme in Luwero of 2006. This Initiative began in 2006. It is largely a community-based programme aimed at helping rural producers in central Uganda, particularly the Luwero district, to market their organic fruits. The government has initially extended minimum support to a few farmers to acquire solar fruit driers. It is also mobilising inter-institutional support to help the farmers establish a primary-value addition centre at Kasana diocese in Luwero, also focusing on solar drying of fruits, but for export to Austria and Germany. If this inter-institutional support materialises, an estimated US\$140,000 will be invested in the proposed centre. The institutions expected to support the initiative include NAADS, Uganda Industrial Research Institute (UIRI), and UEPB from the Government side. Partners outside Government include NOGAMU, UNIDO and the International Trade Centre (ITC) that have expressed interest in the project. The project is largely in the hands of a community based organization. Although the project has not been officially

⁴² See also Y.K. Museveni, 2001. Consolidating the Achievements of Movement: 2001 Election Manifesto.

launched yet, it nevertheless demonstrates growing interest by the government in this subsector.

3.3.3. The agricultural zoning programme of 2004. This was conceived as a national master plan in 2004 to promote agriculture for export. It involved zoning the country into several distinctive zones, each with its own agricultural enterprises focusing on export. An attempt was made in the programme to zone off some parts of the Lango region to produce organic cotton and sesame seeds.

However, the programme has largely remained unimplemented, as the organic zone was not well received by the national agricultural research fraternity, itself largely dominated by adherents of conventional agriculture. An assessment study on whether to create an OA zone in the Lango region was conducted in 2005 by the National Research Organization (NARO) and supported by the Agricultural Productivity Enhancements Program (APEP). The study did not recommend the organic zone on the grounds that the price premium was not large enough to warrant an exception.

3.3.4. The President's Export Award.

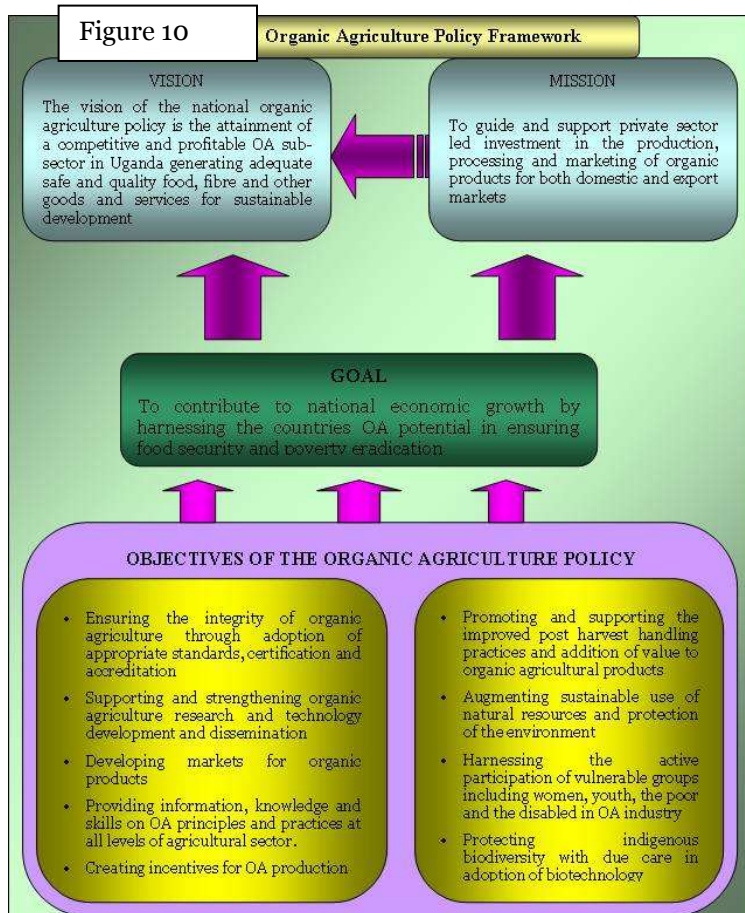
This is an annual award from the Government that is given to leading exporters in recognition of their role in country's economic development. For the last three years organic exporters have won this award. In 2004, Amfri Farms Ltd received a Silver Award while in 2005, Booweevil/ Shares was honoured with a Gold Award for both exporting organic products and integrating the rural poor into their export operations.

Mr. and Mrs. Amin Shivji of Amfri Farms received the Silver Award for "Leading Organic Products Exporter" for the year 2002.



3.3.5 Organic Agriculture Policy. Although several documents and initiatives of the Government of Uganda contain some statements and perspectives on OA, a final national policy on OA is missing. Managed by MAAIF with support from ACODE, NOGAMU and many other stakeholders, the process for this policy had already started in 2002 but since then only a draft policy has been prepared (see figure 10).⁴³

⁴³ Republic of Uganda, 2006. National Organic Agriculture Policy, 2006.



3.4. Opportunities and Strengths of Uganda’s Organic Agriculture Subsector

3.4.1. Global positioning of Uganda’s organic agriculture subsector.

Worldwide, OA products constitute one of the fastest-growing food industries. Growth rates in organic food sales have been in the range of 20-25% per year for over a decade⁴⁴. Some recent statistics show that organic food sales are growing at between 10-20%⁴⁵. However, long-term growth is expected at only 6-8%, especially for organic foods and drinks.⁴⁶

By geographic area, Africa accounts for only 3% of the world’s certified organic land. Europe is a major OA producing continent. Oceania, Australia, and Latin America all have large areas of organic grasslands for cattle, accounting for their important share of certified organic land. In Asia, OA production is growing swiftly in China. In North

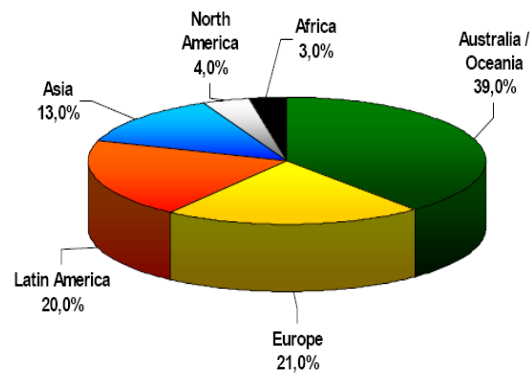
⁴⁴ ITC, 2002. The United States Market for Organic Foods and Beverages. Available at <http://www.intracen.org/mds/sectors/organic>

⁴⁵ FAO, 2005. The Importance of Soil Organic Matter: Key to Drought-Resistant Soil and Sustained Food Production. FAO Soils Bulletin Vol. 80.

⁴⁶ Willer, H and Yusseffi, M, 2005. The World of Organic Agriculture: Statistics and Emerging Trends. IFOAM, Bonn. Cited in UNCTAD, 2006. *Trade and Environment Review*. Chapter 3 available at http://www.unctad.org/en/docs/ditcted200512ch3p2_en.pdf

America, OA is still highly specialized and there remains considerable dominance of conventional agricultural production.

Figure 11. Land area under certified organic agriculture by continent⁴⁷



In Uganda, the growth rate of OA has been recorded at 38%⁴⁸. The value of exports grew by 61% in the 2003/04 fiscal year and 13 new export companies were started during the year bringing the number to 17.⁴⁹ One of the reasons for the impressive growth is the fact that Uganda has one of the lowest chemical use levels in sub-Saharan Africa and indeed the world. Average use of chemical fertilizers in Uganda is less than 1 kg per hectare per year, which indicates that fertilizers are not used in most cases.

Consumers of organic produce rely on organic certification programmes to verify whether the produce supplied to them is indeed organic. However, international organic agriculture sales contribute only between 1-2% of global foods and beverages, albeit a growing market⁵⁰. Approximately 100 countries produce certified OA products in commercial quantities. Uganda has 45,000 certified organic farmers and 185,000 ha of land⁵¹. In 2001, Uganda had the third largest land area of any developing country under OA, just behind Argentina and Brazil as shown in figure 12.

⁴⁷ Willer H. and Yussefi, M 2006. *The World of Organic Agriculture: Statistics and Emerging Trends*. IFOAM/FiBL. Bonn and Frick.

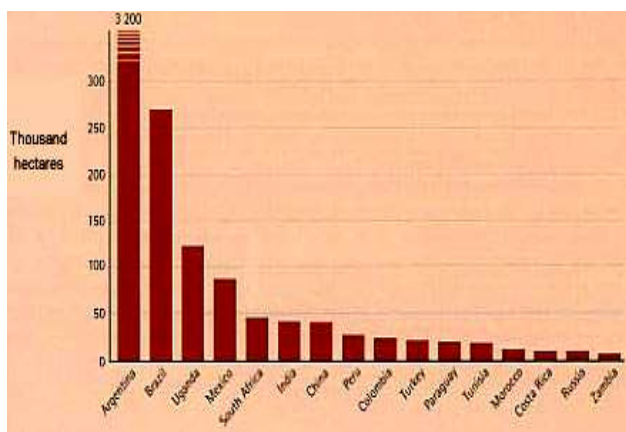
⁴⁸ Tumushabe, G., *et al.*, 2006. Background study to the integrated assessment of organic agriculture sector in Uganda (Unpublished).

⁴⁹ Gibbon, P., 2006. *An Overview of the Certified Organic Export Sector in Uganda*. Danish Institute of International Studies (Mimeo). Copenhagen.

⁵⁰ FAO, *et al* 2006. *Organic Agriculture and Food Security*. Food and Agriculture Organisation. Rome.

⁵¹ Republic of Uganda, 2005. *Draft Organic Agriculture Policy of Uganda*. Ministry of Agriculture, Animal Industry and Fisheries. Entebbe.

Figure 12. Certified organic lands in some developing countries



A fundamental consideration in international OA trade is the certification of organic products. Certification is the guarantee that with well-defined and established organic standards are respected. In the 1990s, certification in Uganda was carried out by two international companies: Krav (later IMO) and Skal (later Ecocert), two Swedish companies. Together, Ecocert and IMO are the two most prominent international certification agencies based in Europe.⁵² UgoCert, a national certification company, has started operations in Uganda as a joint venture between NOGAMU and EPOPA.

The North American and European Union markets are expanding with regard to OA. The increasing volumes of imports into the USA are fruit, vegetables, grain, seeds, beans and herbs. The shortage seems to be in raw materials for manufacturing, which represents an opportunity for countries such as Uganda. National policy however is seen as biased against the organic sector since subsidies are given to large scale, chemical and energy intensive, genetically engineered crops. The European Union on the other hand has programmes that provide subsidies and technical assistance to farmers transitioning from conventional to organic farming.⁵³

3.4.2. International market opportunities for organic agriculture exports. A broader understanding of the potential market opportunities requires a comprehensive analysis of the available market segments. However, it is clear that the domestic market for OA products is only in its early days. Although NOGAMU reported an approximate 50% growth in sales in Uganda, the available information is still scanty and inconclusive. Although urban populations are the largest potential consumers, only 15% of Uganda's population live in urban areas. In addition, the majority of Uganda's population cannot be considered a significant consumer population in market terms because they have low purchasing power.⁵⁴ Indeed, many current rural economic policies mainly focus on

⁵² Gibbon, P., 2006. An Overview of the Organic Export Sector in Uganda. Danish Institute for International Studies, Working Paper No. 2006/13. Copenhagen.

⁵³ FAO, 2005. The Importance of Soil Organic Matter: Key to Drought-Resistant Soil and Sustained Food Production. FAO Soils Bulletin Vol. 80.

reducing household expenditure burdens rather than encouraging growth through raising per capita productivity or household incomes.⁵⁵ This is likely to further distort the domestic market as a sizeable percentage of the population depend on welfare programmes.

On the other hand, the regional sub-Saharan African market is not considered to be lucrative as most of the countries have similar or even lower disposal incomes. The only potential countries are Egypt, which is a member of the Common Markets for Eastern and Southern Africa (COMESA), and South Africa.⁵⁶ OA production and trade remain largely driven by lucrative and expanding Western markets.⁵⁷

The USA, Germany, and the United Kingdom are the biggest markets for organic products. Sweden, Switzerland and Denmark, however, have the largest *per capita* consumption of organic products. Other markets of growing interest include Japan; the middle income countries of Mexico, Brazil and South Africa; and the Middle East especially the United Arab Emirates.⁵⁸ About 15-30% of the annual global growth in organic exports globally comes from demand in Europe, the USA and Japan.⁵⁹ Indeed, as early as 1999, the International Trade Centre (ITC) projected a market size of at least US\$46 billion in Europe, US\$45 billion in the USA, and US\$11 billion in Japan (by 2010).⁶⁰ Table 15 below gives an overview of the global organic food and beverage sales for select markets.

Table 15. *Overview of World Markets of Organic Foods and Beverages*

Markets	Retail sales (millions US\$)	Total sales (%)	Annual growth 2003–2005 (%)
Germany	2,800-3,100	1.7-2.2	5-10
United Kingdom	1,550-1,750	1.5-2.0	10-15
Italy	1,250-1,400	1.0-1.5	5-15
France	1,200-1,300	1.0-1.5	5-10
Switzerland	725-775	3.2-3.7	5-15
The Netherlands	425-475	1.0-1.5	5-10
Sweden	350-400	1.5-2.0	10-15
Denmark	325-375	2.2-2.7	0-5
Austria	325-375	2.0-2.5	5-10

⁵⁴ Nationally, purchasing power is still low because per capita income is only US\$330 (UBOS, 2004) and income inequality actually increased by 6% between 2000 and 2003 (UBOS, 2005).

⁵⁵ For a more detailed discussion of the rural economic policies currently being pursued by the Uganda Government, see Mwenda, Andrew, 2007. *Redefining Uganda's Budget Priorities: A Critique of the 2006/07 Budget*. ACODE Policy Briefing Paper No.17, 2007. Kampala.

⁵⁶ Gibbon, P, 2006. *An Overview of the Organic Export Sector in Uganda*. Danish Institute for International Studies, Working Paper No. 2006/13. Copenhagen.

⁵⁷ Temu, E. A. and Temu, A. A., 2005. *High Value Agriculture Products for Smallholder Markets in Sub-Saharan Africa: Trends, Opportunities and Research Priorities (Workshop Paper)*. International Centre for Tropical Agriculture (CIAT). Colombia.

⁵⁸ EPOPA, 2005.

⁵⁹ Lohr, L., 2001. *Factors Affecting International Demand and Trade in Organic Food Products*. Economic Research Services, United States Department of Agriculture (USDA). Washington, D.C.

⁶⁰ *Ibid.*

Belgium	200-250	1.0-1.5	5-10
Ireland	40-50	<0.5	10-20
Others in Europe	750-850	-	-
Sub-total (Europe)	10,000-11,000	-	-
U.S.A.	11,000-13,000	2.0-2.5	15-20
Canada	850-1,000	1.5-2.0	10-20
Japan	350-450	<0.5	-
Oceania	75-100	<0.5	-
Total	23,000-25,000	-	-

Source: Yussefi, 2005

3.4.3. Prospects for organic agriculture in Uganda. Uganda's organic exports totalled US\$6.2 million in 2004/05, having risen from US\$3.7 million in 2003/04.⁶¹ The total organic exports in 2004/05 were less than 1% of total exports. Uganda's current organic exports include: fresh vegetables, tropical fruits (avocados, mangoes, pineapples and papaya), dried fruits, coffee, tea, cotton, sesame, spices, and other forest products. The leading organic exports by value were: coffee, cotton, fresh and dried fruits, vegetables and sesame, each contributing about US\$1 million, a turnaround from 2003/04 when the leading exports, in order of importance, were: cotton, fresh and dried fruits and vegetables, vanilla and coffee.

Uganda's market for organic exports is dominated by only a handful of private and foreign companies, and some cooperatives and joint ventures.⁶² Although growth in the sector is apparent (including growth in exports between 2003 and 2005), the vanilla sector is suffering owing to a collapse in prices. The overall volume of organic production by certified organic out-growers was also considerably higher than the volume of certified organic exports. One reason could be the quality demands specific to some organic product markets (see section 2.4). This means that even when demand is strong, some products purchased as organic at the farm-gate cannot enter and command a premium in these export markets⁶³.

3.4.4. Organic export opportunities: coffee and fruit. About 5% of coffee growers worldwide sell some of their beans in the *sustainable coffee market*, divided into fair trade, organic and shade (eco-friendly) coffee.⁶⁴ The largest market growth is in Italy and Sweden, followed by the United Kingdom, Germany and Denmark. In 2004, nearly 600,000 bags of organic coffee were exported worldwide, the equivalent of 0.7% of total coffee exports. The organic market worldwide could be worth around US\$100 million. In North America, specialty coffee accounts for 17% of total green coffee imports by volume, and its sales represents 40% of the USA market. The market for specialty coffees is reportedly growing at a rate of between 5-20% annually. In 2000, sales of

⁶¹ See Gibbon, P., 2006. An Overview of the Certified Organic Export Sector in Uganda. Danish Institute for International Studies (DIIS). Working Paper No. 2006/3. Copenhagen.

⁶² *Ibid.*

⁶³ While the gap between produced and exported organic products is considerable, it is not an exception. This is a general feature of export-related contracts.

⁶⁴ CTA, 2006.

specialty coffee beans were US\$2.5 billion, while the sales of specialty coffee beverages were US\$ 5.4 billion.⁶⁵

Table 16. *Size and Value of Specialty and Sustainable Coffee in 2000*

Coffee type characteristics	North America (USA and Canada)			
	Volume		Retail value	
	Tons	% of total market	US\$ millions	% of total market
Total organic coffee including non-certified beans	5,364	0.38	146	0.71
Certified organic coffee	4,091	0.29	122	0.59
	Global markets			
Total organic coffee, including non-certified beans	9,636	0.14	286	0.58
Certified organic coffee	7,500	0.11	223	0.45

Source: Giovannuci, 2001.

In the USA and Canada, importers earn a premium of US\$0.79/kg for organic coffee. Fair trade coffee, of which nearly half is imported, is sold at US\$1.63/kg. By volume, organic and fair trade coffees comprise the largest volume of specialty coffees traded in the USA. However, there is extensive overlap in that over 40% of the fair trade market is also certified organic.

Table 17. *Estimated Volume of Certified Coffee Markets (2003)*

Types of certified coffee traded in the USA	Total volume (tons)
Utz Kapeh	14,000
Organic*	26,400
Fair trade	17,870
Shade	660
Total	51,067

*A 15% annual growth in imports of organic coffee was noted by Lewin, Giovannuci and Varangis (2004) for 2001; and Ponte in 2005.

Uganda is the leading country for organic coffee production in the Africa, Caribbean and Pacific (ACP) group with about 21,000 certified organic farmers out of 26,000 coffee-growing smallholders.⁶⁶

During the 2003/04 season, 7,692 bags of specialty coffee were exported from Uganda accounting for 0.3% of Ugandan coffee exports, of which organic coffee exports

⁶⁵ Ponte, S., 2004. Standards and Sustainability in the Coffee Sector: A Global Value Chain Approach. UNCTAD/DIIS.

⁶⁶ CTA, 2005.

accounted for just 0.11%.⁶⁷ Three reasons for this low export volume: specialty channels are less characteristic of the robusta market, in which Uganda has a competitive advantage; Uganda produces the world's best robusta, which itself may be viewed as a niche; and the competition in the specialty markets is more intense than in traditional markets. Indeed, expectations are that specialty premiums are on the decline.⁶⁸

For the Uganda operators, coffee certification showed a premium price range of between 25-35% depending on the type of coffee. This translates into US\$0.23 per kg for robusta and US\$0.35-US\$0.44 per kg for washed arabica.

In the *international markets for fruits and vegetables*, Uganda has relatively free access to the EU market under the Everything But Arms (EBA) Initiative.⁶⁹ Indeed, the EU is a large niche market for organic products of fruits and vegetables from developing countries. By 1999, there was an estimated US\$11 billion market in Denmark, France, Germany, the Netherlands, Sweden, Switzerland and the United Kingdom.⁷⁰

In 2001, Uganda had only a single certified organic exporter of fruits and vegetables. The Sun Trading Company had 93 out-growers spread out in eight districts. They earned an organic price premium of between 40–70%. The potential fruits considered for export were pineapples, passion fruit, citrus, pawpaw, avocado, mangos, bananas, apple bananas, hot pepper, fine beans, runner beans, green chillies, okra, sugarcane, jackfruit, aubergines and mangoes. *Matooke* (table bananas) and hot peppers accounted for 65% of Uganda's fruit and vegetable exports in 2001. The total volume of exported fruits and vegetables, including fresh and dehydrated pineapples, apple bananas and passion fruits, was 500 metric tonnes (mt).

Uganda's dried fruit output is estimated at 95 mt per year,⁷¹ and it is believed that only 10-20% of the market demand is being met, suggesting room for growth. In 2002, a metric tonne of dried fruits was valued at US\$3,000 and therefore the value of Uganda's *total production* was in excess of US\$270,000 per annum. However, Uganda's *organic dried fruits exports* in 2000⁷² were only a fraction of that.

Total world demand for organic dried fruits for 2005 was estimated at 164,000 mt per annum and valued at US\$182 million. Leading world markets are the USA, China,

⁶⁷ Beffes, J., 2006. Restructuring Uganda's Coffee Industry: Why Going Back to the Basics Matters. World Bank Policy Research Working Paper 4020, October 2006. Washington, D.C.

⁶⁸ Kilian, B., *et al.*, 2006. Is Sustainable Agriculture Viable to Improving Farm Income in Central America? Cited in Beffes, J., 2006. *Ibid.*

⁶⁹ Under the EBA Initiative, the EU made a decision to do away with entry quotas and tariffs for products, except arms, from the world's 49 poorest countries, effective March 5, 2001. Quota and tariff-free access for bananas, rice and sugar was to be implemented progressively to September 1, 2009.

⁷⁰ UIA, 2003. An Investment Guide to Uganda: Opportunities and Conditions. United Nations Conference on Trade and Development/Uganda Investment Authority.

⁷¹ Agona, A. J., Nabawanuka, J., and Kalunda, P., 2002. A Market Overview of the Dried Fruit Sector in Uganda. National Post Harvest Program/ Kawanda Agricultural Research Institute (KARI), July 2001.

⁷² FAO, 2001. World Markets for Organic Fruits and Vegetables: Opportunities for Developing Countries in the Production and Export of Organic Horticultural Products. International Trade Centre for Agricultural and Rural Cooperation/FAO. Rome.

Germany, Japan and Canada.⁷³ Currently, Uganda exports about 30 mt per annum of dried fruits (pineapple, apple banana, mangoes and papaya) to the UK, Japan, EU and Canada, valued at US\$240,000. These values may look small, but operations could grow to viable proportions. The dried fruit market consists primarily of natural dried mango (spears), pineapple (slices or pieces) and to a lesser extent banana (slices, wholes and chips).

At the farm gate, farmers earn a premium of about 42–300% depending on the fruit varieties. The relative premium on fruits is higher than the premiums on other commodities such as coffee and cotton. However, the cash profits are generally smaller for fruits.

Table 18. *Commodity Farm-gate Prices of Organic and Conventional Agriculture (2005)*

Product	Organic price Ushs/kg	Conventional price Ushs/kg	Premium (%)
Pineapple	400-500	100-200	150.0-300.0
Apple banana	250	100	150.0
Passion fruit	1000	400-700	42.9-150.0
Ginger	2,000-2500	1,000-2000	25.0-100.0
Sesame	1,100	900-1000	10.0-22.2
Robusta dry cherry	600	450	33.3
Cotton	450	350	28.6
Vanilla	5,000-7000	2,000-3000	133.3-150.0
Cocoa	1,500	800	87.5

Source: AgroEco Consultancy, 2006

3.5. Potential Growth Scenarios for Organic Agriculture Production and Trade in Uganda

3.5.1. Foundation for constructing the scenarios. The OA subsector depends on several critical success factors as a source of competitiveness. These are: seasonality of production, low-capital requirements, relative labour intensity, non-repetitive production processes, and small production volumes.

There are two levels of organic farming in Uganda — certified organic production, and non-certified organic production or agro-ecological farming.⁷⁴ Certified production is mostly geared to export beyond Africa's shore. Three supply channels emerge: a) certified organic produce; b) non-certified organic, agro-ecological, or sustainable/ shade/ fair trade produce; and c) conventionally grown produce.

Firms can achieve higher levels of growth and competitiveness through one or more of the following strategies: a) improved efficiency or cost advantage, especially

⁷³ UEPB, 2005.

⁷⁴ Parrot *et al.*, 2006

lowering the price at which the industry can deliver an acceptable product or service to the consumer; b) product differentiation, increasing the uniqueness of the product or service in terms of price, quality ratio or capacity for branding; and c) shaping demand around unique characteristics, such as responsiveness to changes in demand.

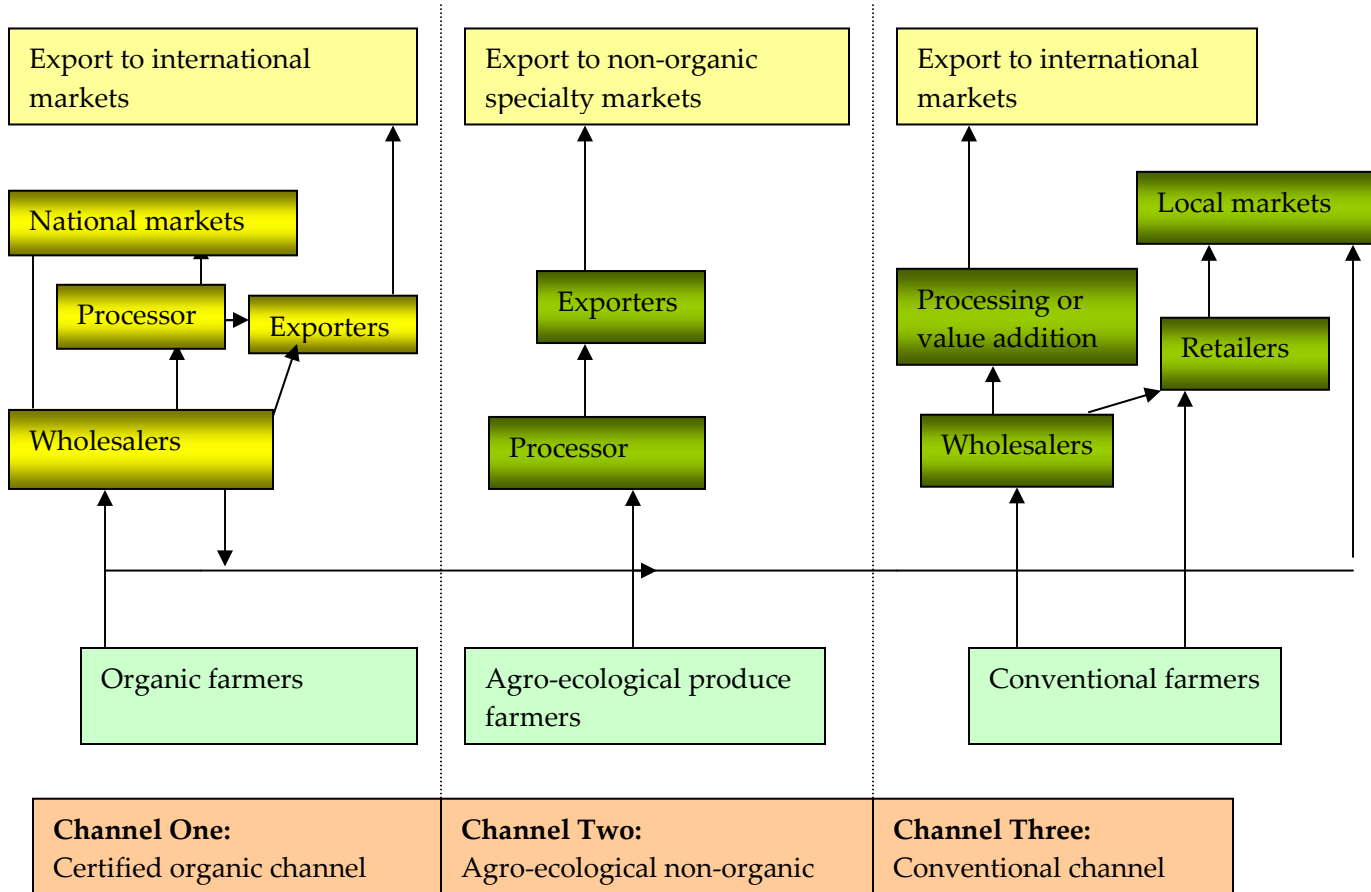
3.5.2. Organic market channels. The supply chain for organic agriculture in Uganda is built on four levels:

- Farmers or primary producers
- Middlemen/traders including wholesalers and retailers
- Processors
- Exporters or importers.

An example of a supply chain is the Gumutindo coffee project, set up in 1998 by TWIN Trading, an international coffee trading firm, in partnership with Bugisu Cooperative Union (BCU). The project was set up to ensure that the quality of arabica coffee was maintained in the wake of coffee trade liberalisation in the 90s.⁷⁵ The farmers organized in the Gumutindo Coffee Cooperative Enterprise (GCCE) produce high quality coffee and are paid based on fair trade. The project is located in the Mount Elgon region with 3000 individual farmers who, with the assistance of five to twelve contact farmers per primary society, are organized into six primary societies. At the processor level, BCU carries out coffee drying and processing under the supervision of GCCE. TWIN Trading now buys direct from GCCE. The exporters are UNEX, while the importers are TWIN Trading, GEPA and InterAmerican. Retailers include fair trade and organic shops in the UK, the USA and Germany. For a comparison of the supply chain for certified organic agriculture with the other two channels for agro-ecological and conventional produce, see figure 13.

⁷⁵ Ribbink, G., Nyabuntu, P., and Kumar, s., 2005. Successful Supply Chains in Uganda: A Study of Three Successful Chains in the Coffee, Dried Fruit and Fresh Vegetables Sectors.

Figure 13. Overall supply chains for commodities within and external to the country



3.5.3. Farming systems and their contribution to livelihoods. In spite of the limited opportunities to create domestic premium value for OA, organic harvests may contribute to food security and enhance household income. Farming systems and their future developments are determined by five main parameters: natural resources and climate; science and technology; trade liberalisation and market development; policies, institutions and public goods; information and human capital.

Changes in the farming system whether directed towards organic, sustainable or conventional OA production will have direct impact on natural, physical, financial, human and social resources. Technology decisions are taken both at the farm-level and beyond the farm. In Uganda, agriculture is largely subsistence based. However, the growing urban communities and traders rely on infrastructure and institutions. National policies affect savings and investment, sales, and home consumption.

3.5.4. Potential growth scenarios for the subsector. Three potential growth scenarios for OA in Uganda are proposed: a) OA grows into a mainstream component of the agriculture sector with strong support from public, private and international

stakeholders; b) OA does not grow beyond current levels because not all stakeholders are ready to promote and support OA; and c) Growth in the OA subsector is driven mainly by changes in tastes and preferences in the international markets.

- *Scenario I: Overdrive scenario. A niche becomes conventional practice.*

In this *over-drive scenario*, the long-term strategy of certification initiatives is ensuring growth of the subsector in competition with conventional agriculture. For instance, OA stakeholders have proposed a 38% growth rate for the foreseeable future to 2025. Evidence suggests that the agro-ecological movement in Uganda is strong and sustainable agricultural practices have been used to address national priorities such as:

- Ensuring food security;
- Eradicating poverty;
- Maintaining and enhancing soil fertility;
- Combating diversification;
- Promoting tree planting and agro-forestry;
- Developing low input means of combating pests;
- Maintaining biodiversity;
- Supporting the most vulnerable social groups; and
- Combating global warming.⁷⁶

By 2005, eleven exporting firms were in conversion and six of these firms were switching from conventional exports to organic produce exports. A growing interest in organic certification is observed.⁷⁷

Table 19. *Certified Organic and In-conversion Companies in Uganda (2005)*

	Company by ownership type	Frequency	Also producing conventionally
Certified organic	Ugandan private	7	3
	Ugandan cooperative	1	1
	Foreign	4	3
	Joint venture	4	2
In conversion	Ugandan private	8	4
	Joint venture	2	0
	Foreign	1	1

Furthermore, NOGAMU reported a 50% growth in sales at their organic shops and most of the sales were for local consumption as opposed to sales to foreigners and tourists in the past. Therefore, with growth in organic production coming from both

⁷⁶ Parrot, N., Ssekya, C., Makunike, C., Muwanga-Ntambi, S., 2006. *Organic Farming in Africa* in Willer, Helga and Minou Yosseffi, 2006. *The World of Organic Agriculture: Statistics and Emerging Trends*. International Federation of Organic Agriculture Movements (IFOAM), Bonn/Research Institute of Organic Agriculture FiBL, Frick, Switzerland. Pg. 96

⁷⁷ Gibbon, P, 2006. *An overview of the Organic Export Sector in Uganda*. Danish Institute for International Studies, Working Paper No. 2006/13. Copenhagen.

certified and non-certified production, it is indeed possible that the sector could grow by 38% per annum over the next 18 years.

The *overdrive scenario* is premised on the realization by public and private stakeholders that OA has the potential to greatly contribute to the broad social, economic and environmental goals in the Poverty Eradication Action Plan (PEAP). The potential to increase the internal (national) economy for farmers, increase export revenue and address social equity and other social or environmental shortfalls could convince the government to link up with development organizations, NGOs, the private sector, local consumers, farmers and international markets to move towards an organic orientation for Ugandan agriculture. With these assumptions, OA will go through an *overdrive growth phase* over the next 18 years.

- *Scenario 2: Slumber scenario. Scepticism of organic agriculture curtails action.*

Taken as a whole, OA is still a very small component of Uganda's agriculture production. Only 45,000 farmers are known to practice organic farming out of Uganda's population of nearly 27 million people. In this scenario, the government and development agencies mainly consider broad development goals, prioritising increased food security for all, export revenue growth, primary health care, education, infrastructure and social services. OA contributes about 0.6% of all exports and farmers have been able to grow crops under the current government-aided agricultural extension. In fact, agricultural research conducted by the Consultative Group on Integrated Agricultural Research (CGAIR) and other regional institutes such as the Association for Strengthening Agricultural Research in Eastern, Central and Southern Africa (ASARECA) have not emphasised OA.

Uganda's population is growing rapidly while conventional techniques have already been tried and proven successful throughout most of the world, such as the Green Revolution in Asia. With limited resources to control what actually takes place within Uganda's agriculture sector and the official focus firmly set towards raising as much food as possible from the available land to ensure food security and growing incomes for the rural poor, the government might not be persuaded to support OA. However, in the *slumber scenario*, while recognising that some farmers and development agencies are already engaged in promoting OA, the government would merely be an external observer. Over the next 18 years, OA could either come to a grinding halt or continue to grow but without the government's aid or hindrance either way. For OA stakeholders, the international markets and interested development partners will be the main players.

- *Scenario 3: Plateau scenario. A local market matches international growth.*

The international sustainable development debate has shifted in favour of sustainable agriculture. Global warming concerns, environmental awareness and health concerns continue to lead towards growth in OA in the developed world. In the USA, OA grew at a rate of 20% in the early part of this decade. In Western Europe, OA has

grown to overtake that of North America. The EU accounts for more than 50% of worldwide sales of OA products. In addition, the EU has always been Uganda's major export market. Buoyed by the growth in sales in Europe and America, the organic sector will expand in this scenario. There will be government support for this export-oriented agriculture because the government is in need of export revenues and sources of export growth.⁷⁸

Since international markets point to continued growth in the range of 6-8%, OA exports could grow to between US\$16.7 million and US\$22.9 million. While the government may have to act to facilitate exporters, the major efforts would be private sector-led (with help from NGOs and farmers' organizations). Hence, OA will remain a 'niche' subsector largely directed by the export market. Government support will be limited to auxiliary services such as regulation activities, incentives and to some limited extent, research and development findings.

OA trade is just one of the many international trade concerns that have to be spelled out in Uganda's agricultural and trade policies. However, the *plateau scenario* does not envisage a shift towards organics, but instead sees a growing emphasis of its commercial value. Conventional agriculture will still be promoted for national food security and for export to regional and international markets. Any support to OA in this scenario would be a by-product of the support to conventional agriculture.

3.5.5. Key drivers of the scenarios and underlying assumptions. The drivers for change in the markets may be categorized as: a) *exogenous drivers*; and b) *endogenous drivers*. *Exogenous drivers* are factors likely to change the course of OA in Uganda but are, characteristically, out of the hands of local stakeholders. Such drivers are decided in the international markets in the importing countries, as well as the retailer groups and international trade negotiations. On the other hand, factors that are in the hands of the farmers, operators and the government of Uganda are *endogenous drivers*. They include land use, property rights structures, incentives and subsidies to OA, and others. A full discussion of the drivers follows.

3.5.6. Exogenous variables that drive growth of the organic subsector in Uganda. The variables are:

- *Growth in international markets for organic agriculture products*

Based on the statistics and emerging trends in the world of OA,⁷⁹ international sales of organic foods and drinks are expected to continue growing between 6-8% in the medium to long-term. However, sales do vary considerably depending on the markets.

⁷⁸ This is already apparent in various government programmes such as those targeting poverty eradication, agriculture zoning, etc.

⁷⁹ Willer and Yussefi, 2005; IFOAM and FIBL, 2006

Table 20. *Estimates for Organic Food and Beverages Retail Sales in 2010*

Country	Expected medium-term growth rates (%)	Estimated sales in 2010* (millions in US\$)
Germany	10-15	5,706-8,900
The UK	25-30	9,313-13,786
Italy	15-20	4,046-6,192
France	15-20	3,034-4,644
Switzerland	15-20	1,719-2,631
Denmark	10-15	908-1,416
Austria	10-15	648-1,011
The Netherlands	10-20	584-1,393
Sweden	20-25	774-1,164
Others in Europe	10-15	778-1,214
Sub-total (Europe)	-	27,510-42,351
The USA	15-20	32,364-49,534
Japan	10-15	778-1,214
Australia	10-15	441-688
New Zealand	10-15	153-239
Argentina	10-15	52-81
People's Republic of China	10-15	31-49
Republic of China (Taiwan)	10-15	26-40
Philippines	10-15	16-24
Total	15-20**	61,372-94,220

*Growth rate estimates for European Union member states are derived from ITC, 2001. Where unspecified, growth rates are assumed to range from 10% to 15% per annum. The 2010 sales projections are based on these assumed growth rates applied to the lower bound of the 2000 sales estimates.

** Weighted average.

Growth in the international markets for OA will be driven by market demand. The factors that affect demand in the long run are: a) income growth and relative prices; and b) environmental consciousness and exogenous shocks (e.g. food scares). In some developing countries, which could serve as regional markets, demand for certified OA is emerging, especially through specialized shops in large cities. Theoretical and empirical evidence suggest that demand for environmental goods is positively related to income levels once national incomes rise above US\$8,000 per person per year⁸⁰. The most rapid increases in income growth are occurring in areas where the organic market share is low or the products are uncertified. China is a large and rapidly expanding market, but organic sales are starting from a low base and are often over-shadowed by 'green' foods (i.e. foods produced through practices that decrease the use of synthetic inputs).

The driver for growth in producer countries is market premiums. Premiums lead to growth in production as well as growth in support for the growing consumption of

⁸⁰ Dixon *et al.*, 2001

organic products. In the national markets, prices paid tend to be agreed on in advance of the growing season, especially for organic products sold under the fair trade regime. Organic products tend to command impressive premiums in developed countries at 10-50% above conventional prices.

Premiums in excess of 50% are usually the result of supply constraints and bottlenecks. These are temporary and unpredictable. Long-term, high premiums often reflect severe production problems such as endemic pests and chronic diseases that cannot be managed effectively by existing biological and cultural techniques.

The premiums compensate farmers for skilled resource management, higher labour costs, handling expenses, and administrative, inspection and inspection fees. Premiums also reflect the perceived health benefits of organic produce to consumers as well as the amount of investment needed for the environment to be able to continue providing those benefits.

- *Market access*

Evidence suggests that with demand outstripping production, trade of organic products in developed countries will be significant. Much of the organic trade occurs intra-European Union and intra-NAFTA. Much of the intercontinental organic trade is between the USA and Europe. About a third of USA's organic production is exported, mainly to Canada, Europe and Japan. About 70% of UK's consumption is imported, mainly from other EU members.

Developing countries are managing to meet the necessary standards and supply of tropical and out-of-season products. Egypt and Morocco have the advantage of proximity to the rapidly expanding European market that seeks fresh products such as oranges all year round. Argentina has third-country status with the EU, reducing the costs of certification and inspection. China has the potential to be a key exporter, with a large agricultural area, low labour costs and proximity to the Japanese market.

In terms of market access, organic products do not receive preferential access *per se* over conventional products, and there are significant tariffs (of 100% or more) on many agricultural products in most developed countries. However, due to the premium prices of organic products, the tariffs as a percentage of price are lower for organic products, which could favour their import.

3.5.7. Endogenous variables that drive growth of the organic subsector in Uganda. The variables are:

- *Organic agriculture productivity*

Generally, there are five main local strategies to improve farm livelihoods. They are:

- Intensification of existing production patterns;
- Diversification of production and processing;
- Expansion of farm and herd size;
- Increased off-farm income, both agriculture and non-agricultural; and
- Complete exit from agricultural sector within a particular farming system.

For all the above cases, OA provides a realistic and affordable opportunity to improve livelihood options. Indeed, case studies focusing on OA production show dramatic increases in yields as well as benefits in soil quality, a reduction in pests and diseases, as well as a general improvement in taste and nutritional content of the produce. The widespread assumption that converting to organics means a decline in yields has been proven false by overwhelming evidence.

The productivity of OA systems varies through the different stages of management: a) in transition from conventional to organic management; b) in conversion from traditional to organic management; c) organic management based on input substitution, and d) complete shift to a systems approach. However, the need to secure farm economic viability in the short term rarely results in the systems approach.

In its 2001 Report,⁸¹ the FAO argues that yield losses associated with OA are greatly exaggerated by conventional experiment stations. The report notes that the actual experience of most transitioning farmers was that yield losses were tolerable. In fact, farmers in developed countries suffer more from increased labour costs than lower yield. Yield losses are caused by interrelated factors such as levels of soil organic matter and the time taken by biological activity to become established.

The performance of OA cannot be judged on a single crop or a single year. OA usually shows up better if total production (of useful crops per area) is the primary consideration. In fact, the problems those farmers face transitioning from conventional to organic are the lack of knowledge, information sources and technical support.

Productivity in organic production systems is management specific. Studies suggest that switching to organic management commonly results in yield reduction in perennial crops (of up to 50%) and also yield reduction in areas with already favourable crop growth conditions (up to 40%). But in regions with medium growth conditions and moderate use of synthetic inputs, organic productivity is comparable to conventional systems (at 92%) and by following subsistence agricultural systems that are common in

⁸¹ FAO, 2001.

most low-income developing countries, OA adoption does result in increased yields of up to 180%. Global average organic yields are calculated to be 132% more than current food production levels.⁸²

Three studies conducted in Costa Rica and Mexico comparing organic and conventional (high synthetic input-based) coffee production recorded results similar to those obtained in other developing countries⁸³. Organic farmers produced yields that were respectively 22% and 43% lower than conventional farmers, in two of the studies, and 15% lower in the third.

A study on household food security effects of certified organic export production in Uganda⁸⁴ however, found that organic pineapple farmers enjoyed high levels of food self-sufficiency. This was mainly because the expansion of pineapple farms and their improved management had been facilitated by additional investments in land and hired labour instead of diverting household resources away from food crops. These positive factors also took strength from the high incomes earned in pineapple farming as well as the large average farm size. However, in the case of organic coffee, the general trend has been a reduction in local food production from organic conversion, as coffee crops are grown on land previously cultivated with food crops.

- *Organic certification*

Consumers of organic produce rely on certification programmes to verify claims of organic authenticity. Uganda has no organic standards of its own but efforts are currently underway by NOGAMU and other stakeholders to develop national standards. The organic standards currently in use in Uganda are those of the EU,⁸⁵ and also requirements of the individual EU countries importing the produce. Because of the predominance of small holder farming systems, almost all OA export projects in Uganda are based on the Smallholder Group Certification (SGC) system. In this system numerous small holders are certified together as a group, with a minimum of 30 farmers per group to form an internal control system.

At the moment, Uganda has only one farm (Kahangi Estate of 56 acres located in Kabarole district) certified on its own. The farm pays around US\$1,200 for certification. This is considered to be very high when compared to similar farms in Sweden which pay between US\$400–US\$500 for the same service and from the same certifier.

While Uganda has 45,000 certified farmers working on 185,000 ha of land, there is no official policy on OA to guide the government agencies, extension agents, organic farmers, NGOs, CBOs, etc. Some 40,000 farms are certified organic from 22 countries

⁸² Badgley, *et al.*, 2006, 2007. Organic Agriculture and Food Security

⁸³ Gibbon, P. and Bolwig, S., 2007. The Economics of Certified Organic Farming in Tropical Africa: A Preliminary Assessment. DIIS Working Paper No. 2007/3. Danish Institute for International Studies.

⁸⁴ Bolwig, S., Odeke, M., Gibbon, P., 2007. Household Food Security Effects of Certified Organic Export Production in Tropical Africa: a Gendered Analysis. EPOPA/DIIS.

⁸⁵ Walaga, C, 2003. Certification Mapping for Uganda. Business Services Market Development/International Labor Organization/Department for International Development.

across Africa and this translates into a total of 235,000 ha of land under organic farming, of which 50% is in Uganda. In fact, Uganda is the only country in Africa where certified OA exceeds 1% of the total land area in the country. In 2004, a local certification company UgoCert was launched and this is expected to lead to a reduction in certification costs for organic producers.

- *Property rights or land tenure policies*

The Uganda Constitution, as of 1995, recognises four main land ownership systems: freehold, *mailo* land, leasehold, and customary land. The majority of the smallholder farmers fall under customary land tenure and some rent the land they use for agriculture. Of the four main tenure systems, customary ownership is the most insecure, although the law tries to strengthen the rights of the customary landowners.

Recent trends in Uganda indicate that land ownership continues to decrease among the middle income and poorest households, especially among smallholder farmers. Land is increasingly concentrated in the hands of a few rich people. The typical farm size decreased from 0.75–1.5 ha in 2001 to 0.5–1.0 ha in 2005, again lower than the 1.5–2.0 ha recorded ten years ago.⁸⁶ Plans to increase OA production may require extension of each farm. The high population growth rate at 3.3%⁸⁷ has led to land fragmentation. Traditionally, land equity has been biased against groups which are socially weak such as women, children and the poor.⁸⁸

- *Incentives and subsidies*

Some agricultural policies have not supported practices and technologies that internalise environmental and social considerations. They include: economic incentives and subsidies for pesticides and fertilizers; subsidies or policy prescriptions for planting some uniform varieties; land tenure policies that undermine small farmers' security of ownership; and trade and marketing policies that promote investments in crops not suitable for production by poorer farmers. Uganda's Plan for Modernisation of Agriculture (PMA) allocates nearly 33% of the ten billion Ugandan shillings for the Non-sectoral Conditional Grant (NSCG) to purchase fertilizers and seeds. The funds were an incentive to use conventional inorganic fertilizers.

To enhance the economic viability of an OA approach and thus provide the foundation for industry expansion, a wide range of incentives could be considered:

- Create appropriate market opportunities including access for small farmers to fair trade markets;
- Establish more flexible and cheap certification procedures;

⁸⁶ Ellis *et al.*, 2006.

⁸⁷ UBOS, 2006

⁸⁸ Republic of Uganda, 2006. Budget Speech for the Financial Year 2006/07: Enhancing Economic Growth and Household Incomes through Increased Production and Productivity.

- Develop methods of collecting and evaluating promising organic agriculture technologies generated by farmers and disseminating them among other farmers for local adoption;
- Disseminate technologies with high potential nationally through exchange visits, regional-national farmer conferences, and publication of manuals that explain the technologies in an accessible way; and
- Train government research and extension agencies in organic agriculture in order to encourage inclusion of organic principles in extension programmes.

- *Value addition*

Consumers of organic produce have traditionally expressed a preference for minimally processed foods, and organic standards reflect this to some extent. To date, the share of processed products in Uganda and the degree of processing are rather limited. This can be attributed to traditional expectations of ‘organic’ and the abandonment of additives to preserve the product.

While records are largely unavailable, individual exporters in Uganda such as Masaka Organic Producers, Amfri farms, BioFresh and others are increasingly exporting dried mangoes, pineapples and bananas, a shift from fresh produce exports. Primary levels of processing have been reported for organic sesame and coffee as well, which has increased the value of exports and moved the Ugandan organic industry up the value chain.

Limited food processing restricts the range of products that can be sold. As the organic industry develops and moves to the mainstream, there is pressure from some producers and consumers to offer more processing. The phenomena of supermarkets, with vertically integrated systems linking producer to consumer, has increased the viability of processed organic foods. These entities are also more likely to seek raw materials from abroad if found to be advantageous. There is a growing trade in bulk products from developing countries for further processing in developed countries. Furthermore, higher degrees of processing mean that superficial blemishes of the products are less important.

- *National trade and marketing policies*

The first draft of the National Trade Policy of Uganda does not mention the existence or potential for organic agriculture. Therefore, there is no foundation to build on as yet. However, the Uganda Export Promotions Board (UEPB) and the PMA borrow from the PEAP in recognising OA and its potential for sustainable development and conservation of the environment. The potential is largely represented here as an alternative to conventional agriculture.⁸⁹

⁸⁹ MFPED, 2003.

Agro-ecological zoning carried out by government agencies to map out areas in the country for the most viable agricultural enterprises for export identified ten such agro-ecological zones.⁹⁰ They are the: northeastern drylands, northeastern and northwestern savannah grasslands, western and para savannah, Kyoga plains, Lake Victoria Crescent, eastern rangelands, southwestern farmlands and the highland ranges. The factors used to assess the zones were: suitability of agro-ecology, profitability levels, export potential, available production, processing and marketing infrastructure, opportunities for value addition, and land availability.⁹¹ However, the potential for OA in any of the agro-ecological zones was not mentioned.

- *Technology and research*

OA is not a return to low technology, or backward/traditional agriculture. It pursues a blend of innovations that originates from scientists and farmers and only utilizes traditional practices when they are sustainable and useful. Through favourable policy commitments and related support programmes (i.e. production support, research funding, field trials and knowledge/marketing development), one will see Western Europe move a tenth of its total agricultural lands to organic management by 2010. If policies and organic growth trends are sustained, this will increase to a quarter of the EU's total agricultural lands by 2030. Lack of data and rapid changes do not allow predictions of organic land management elsewhere.

Growth areas for research and technology can be found in:

- Value addition;
- Soil fertility;
- Soil erosion control;
- Biodiversity conservation;
- Seed improvement/ productivity improvement;
- Post harvest handling; and
- Pests and disease control.

The solutions that emerge determine the type of scenario that OA in Uganda will follow in table 21.

Table 21. *Matrix of Assumptions for Scenarios Built for Uganda's Organic Agriculture Policy*

Endogenous drivers	Organic agriculture scenarios		
	Slumber – no government help	Plateau – growing international market	Overdrive – organic agriculture enhances food security and incomes
1. Yields and food security	<ul style="list-style-type: none"> ▪ Low, at least 30% lower than 	<ul style="list-style-type: none"> ▪ At least equivalent to conventional 	<ul style="list-style-type: none"> ▪ In Uganda food is secured with marketable surplus

⁹⁰ Republic of Uganda, 2006. Agriculture Zoning Program. Ministry of Agriculture, Animal Industry and Fisheries. Entebbe.

⁹¹ *Ibid.*

	<ul style="list-style-type: none"> ▪ conventional ▪ Food insecurity forecast 	<ul style="list-style-type: none"> ▪ Future food insecurity may occur 	
2. Type of certification	<ul style="list-style-type: none"> ▪ Led by organic private sector 	<ul style="list-style-type: none"> ▪ Private sector led with government support ▪ Multiple certification 	<ul style="list-style-type: none"> ▪ Government led in organic and specialty markets ▪ Multiple certification
3. Quality	<ul style="list-style-type: none"> ▪ No change in quality 	<ul style="list-style-type: none"> ▪ 10% improvement in quality** 	<ul style="list-style-type: none"> ▪ 25-50% improvement in quality**
4. Productivity growth	<ul style="list-style-type: none"> ▪ Food crop productivity at 0.7%, unchanged ▪ Cash crop productivity 4.8% per annum* 	<ul style="list-style-type: none"> ▪ Food crop productivity unchanged at 0.7% ▪ Cash crop productivity very high at 7.4%* 	<ul style="list-style-type: none"> ▪ Food crop productivity grows to 6.2% per annum ▪ Cash crop productivity very high at 7.4% per annum*
5. Number of farmers	<ul style="list-style-type: none"> ▪ Maximum possible growth to 250,196 people by 2025 	<ul style="list-style-type: none"> ▪ Growth rate 6–8%* 	<ul style="list-style-type: none"> ▪ Growth rate based on national food demand ▪ And organic exports (6-8%)
6. Property rights (land tenure)	<ul style="list-style-type: none"> ▪ Inequitable for the poorest smallholder farmers 	<ul style="list-style-type: none"> ▪ Inequitable for the poorest smallholders 	<ul style="list-style-type: none"> ▪ Increased land security for smallholder producers
7. National trade and marketing policies	<ul style="list-style-type: none"> ▪ No position on OA 	<ul style="list-style-type: none"> ▪ Organic exports to meet international market growth 	<ul style="list-style-type: none"> ▪ Multiple certification ▪ Value addition ▪ Domestic market growth
8. Technology and research	<ul style="list-style-type: none"> ▪ Poor availability of seed 	<ul style="list-style-type: none"> ▪ Seed provision, soil fertility improvement and pest and disease control. Private sector led 	<ul style="list-style-type: none"> ▪ Seed provision, soil fertility improvement, pest and disease control as government priorities
9. Environment/c onservation	<ul style="list-style-type: none"> ▪ Soil fertility, land improvement and soil erosion decline 	<ul style="list-style-type: none"> ▪ Soil fertility, land improvement, erosion decline and biodiversity 	<ul style="list-style-type: none"> ▪ Soil fertility, land improvement, soil erosion decline and biodiversity
Exogenous drivers			
10. Market access	<ul style="list-style-type: none"> ▪ Low and restricted to a few markets based on certification 	<ul style="list-style-type: none"> ▪ Multiple lines of organic certification 	<ul style="list-style-type: none"> ▪ Multiple lines of organic certification
11. Export growth	<ul style="list-style-type: none"> ▪ All organic exports grow by 6-8% ▪ Zero growth in domestic market 	<ul style="list-style-type: none"> ▪ Export coffee growth at 28.5% ▪ Other exports grow at 8% rate 	<ul style="list-style-type: none"> ▪ Domestic and export-driven organic coffee growth rate at 28.5% ▪ Domestic and export-driven growth fruits and food growth at 38%

*MFPED, 2006

**IFPRI, 2003

3.6. Potential Impacts of Growth Scenarios

Pursuing any growth scenario described above would require the government and other stakeholders to identify and implement an agreed package of policy, legal and administrative actions aimed at accelerating growth in the subsector. In section 4 of this report, a set of such actions is proposed.

This section analyses the potential negative and positive impacts arising from pursuing any identified growth scenarios. This is important because the growth trajectory that needs to be pursued should not only be based on potential overwhelming benefits but be weighed against possible negative impacts and possible mitigation measures.

The overwhelming view amongst OA stakeholders is that Uganda should pursue the *overdrive scenario*. This would imply a growth trajectory that sustains the 38% growth rate achieved between 2002/03 and 2003/04. In the domestic market, it would require the continued growth of organic markets in the country, similar to the 50% annual sales growth in the retail outlets in Uganda. Achieving these growth trends would require a package of actions by the government in the form of incentives, policy and administrative actions, legal and regulatory systems, and appropriate budget allocations. In addition, key stakeholders especially exporters and farmers' organizations would need to invest substantially in market access and market penetration programmes.

The highest premium in the coffee market is commanded by the fair trade certification. A sensitivity analysis carried out on specialty coffee prices found that a 30% increase in coffee market prices eliminated the premiums of Utz Kapeh arabica certified coffee but the premiums for *organic arabica* increased. In general, fair trade premiums were eroded when market prices rose. It was also observed that two thirds of the fair trade coffee was actually organically certified as well. In such a case a flexible strategy based on dual certification would lead to continued long term gain for the operators (and exporters).⁹²

Table 22: *Projected National Cereal Grains Production and Utilization under the Overdrive Scenario of Organic Agriculture in Uganda*

Food production and utilization indicators	2007	2007-2025 at current rate of growth (%)	2025
National food production 2005 (thousand tonnes)	2,657,000	3.3	4,766,475.24
National food utilization 2005 (thousand	2,584,000	3.3	4,635,518.27

⁹² Ponte, S., 2004. Standards and Sustainability in the Coffee Sector: A Global Value Chain Approach. United Nations Conference on Trade and Development/Danish Institute for International Studies.

tonnes)			
Actual food production (thousand tonnes)	2,657,000	1.5	3,661,286,37
Possible shortfall contribution of organic produce, or future shortfall calculated by food production growth required less current expected growth (thousand tonnes)			1,105,188.87

Source: Adapted from IFPRI (2004) and FAO (2006)

Under the *overdrive scenario*, beyond non-certified agriculture production, the OA sector could set a target of closing the projected national food deficit by 2025, which could reach 1,105.2 million tonnes of cereal grain per year alone. The current contribution of OA to national food security is not documented.

Pursuing this growth scenario would produce the most dramatic and desirable economic impact given the structure of the subsector described earlier. It could reverse the falling fortunes of the agriculture sector as a whole and thus increase employment opportunities for the rural poor farmers and women. A successful OA subsector would increase public confidence in key government programmes such as the PMA and Prosperity for All (PFA) plan.

The single biggest factor negatively impacting agriculture is the deteriorating state of environmental parameters. Widespread land degradation, loss of soil fertility, disappearance of biological diversity, and unpredictable climatic and weather conditions are all converging to diminish the productivity of smallholder agriculture systems. In effect, the environment is both a driver as well as a victim of agricultural activities. However, with OA production methods and techniques described earlier, the environment would be the biggest beneficiary while farmers improve productivity and trade performance.

In social terms, achieving the growth trajectory under the *overdrive scenario* would yield substantial positive effects. OA stands to benefit smallholder farmers who are major participants in the subsector. This is the same group of farmers who are targeted by key government programmes such as the PMA, NAADS, the Strategic Exports Programme (SEP), etc. Increased production and trade would boost the incomes of smallholder farmers and hence improve their social welfare.

Existing field data shows the significant participation of women (approximately 40% of farmers) in OA production. This implies that any future investments to scale up OA production and trade would have the effect of mobilising a sizeable female population, improving their incomes as well as empowering them.

OA is an essential embodiment of the diversity of traditional agricultural knowledge. Within this production system, farmers are able to draw on existing knowledge for the control of weeds and pests, post harvest handling, etc. This implies that a knowledge repository would continue to exist and be available for future research and development activities that would benefit the entire agriculture sector. Finally, a

strong and growing subsector would also benefit the increased production of OA, and promote local consumption of organic products which could have impact on the health conditions of consumers.

The benefits outlined above and summarized in tables 23 and 24 below are based on an *overdrive growth* trajectory. However, even under the alternative growth trajectories (*plateau and slumber scenarios*) such benefits would be attainable, although the size of the benefits would depend on the scenario.

Table 23. Positive and Negative Environmental Impacts

Parameter	Positive environmental impacts	Negative environmental impacts
Pollution	OA leads to reduced use of toxic/ polluting external inputs such as pesticides and herbicides.	
Soil quality	Farmers interviewed in surveys indicated a considerable improvement in soil quality, through the use of organic matter and soil conservation techniques. A similar conclusion is supported by leading researchers cited throughout this report.	
Genetic contamination	OA has no potential contamination effects associated with GMOs.	
Biodiversity conservation	Organic farming systems are inclined to enhance and protect biodiversity, since it is an important tool to achieve agro-ecological balance that blocks pests and diseases. Therefore, organic farming has been found to have positive effect on species diversity and abundance. ⁹³	
Reduced energy consumption	OA precludes the use of petroleum-driven chemical inputs, which reduces energy reliance and consumption. Organic farming systems in Uganda rely on the hand hoe, and animal traction (especially in cotton production cycles).	
Landscape services	If the <i>overdrive and plateau scenarios</i> target soil improvement and rejuvenation of degraded ecosystems, there could be a reduction of land degradation in the dryland areas and heavily encroached ecosystems.	A rapid expansion of land area, which by implication could lead to destruction of some landscapes.
Adaptation to climate change	Intensive production under the <i>overdrive scenario</i> increases the opportunities for adaptability because organic farming is more productive than current farming systems. Still, it requires less external inputs, especially from carbon dioxide emitting fuels used for mechanized farming systems. As well, organically managed ecosystems have demonstrated greater capacity for resilience.	Export-oriented organic agriculture accumulates carbon mileage. In Uganda, EPOPA and several private exporters are working on goods shipment methods that will lead to a reduction in carbon footprints. ⁹⁴

⁹³ Bengtsson, J., Ahnström, J., Weibull, A., 2005. The Effects of Organic Agriculture on Biodiversity and Abundance: a Meta Analysis. *Journal of Applied Ecology*, vol. 42 pg 261-269.

⁹⁴ Alastair Taylor of EPOPA, personal communication

Table 24: <i>Positive and Negative Social Impacts</i>		
	Positive social impacts	Negative social impacts
Benefits for smallholders	The systematic introduction of organic agriculture opens up new markets for smallholder farmers where they were previously uncompetitive. In addition, the premiums earned could compensate farmers for the extra care given to their lands and to reward an organized farming system.	There is also the chance of negative social impacts if organic premiums are the focus of attention, and not enough farmer attention is paid on farm integration, productivity and lower production costs. The associated costs of multi-certifications could erode the organic premium for small farmers anyway.
Female empowerment	OA in Uganda encourages gender equality. Organic approaches in Uganda rely on farmer groups. In addition, simple organic systems have considerable interest from women because women form the bulk of organic food crop farmers. ⁹⁵	
Traditional knowledge systems	OA builds on traditional farming systems and therefore adjustment to organic agriculture is an easier (and cheaper) alternative for farmers. Intensive farming systems which use a lot of pesticides and fertilizers usually disrupt (and sometimes destroy) traditional farming systems.	
Health and safety	Organic foods (fruits and vegetables) together contribute to better health. ⁹⁶	
Community revitalization	Change of political systems, armed rebellion and modernisation disrupted community action in many parts of the country. However, cooperative groups have stayed on and even reformed to produce for organic markets (e.g. Luwero and Lira districts of Uganda).	
Reduction in rural-urban migration	Communities in Luwero, Kayunga, Iganga/ Namutumba, Lira and Masaka districts, which have adopted organic farming practices, are so encouraged by the potential of their farm activities that they have seen less movement of people searching for employment in urban areas.	

3.7. Understanding Winners and Losers

In the worst case scenario, expansion of OA could affect some communities dependent on those forests, wetlands or rangelands converted for OA. However, as mentioned in other parts of this report, OA is more productive than conventional agriculture once systems are established and if integrally managed to develop organic

⁹⁵ Tumushabe *et al.*, 2007

⁹⁶ Mitchell *et al.*, 2007. "Organic Fruits and Vegetables May be Better for You Than Conventionally Grown Crops." In *Monitor Newspaper*.

biodiversity intensive systems as opposed to creating organic extensive input substitution systems

At the national level, unplanned expansion of OA could, potentially, have some negative impact on protected areas, leading to loss of revenue for certain communities. For instance, some communities use wetlands for sustainable activities such as papyrus mats production and aquaculture. In the absence of appropriate institutional safeguards, the *overdrive and plateau scenarios* could impact them negatively. However, there are already initiatives such as sustainable fisheries which benefit communities living in wetlands ecosystems. Such institutional safeguards and community initiatives should be included in any long-term plans for OA.

The growth of OA may discourage small farmers from continuing with conventional ways of farming. A line of thought goes that conventional agriculture could become a commercial large scale business, while organic farming stays with smallholders unable to take benefit of the opportunities offered by economies of scale.

The government has put in place many medium-term programmes such as the Medium Term Competitiveness Strategy (MTCS) for the private sector, and Strategic Exports Programme (SEP). These efforts have largely benefited conventional exporters of flowers and fish and have increased the volumes and value of exports, a 24.5% rise between 2003 and 2004 alone. Similar types of targeted programmes are needed to maximise benefits for those who convert to organic production.

3.8. Summary Findings

1. Certified coffee sees quantity supplied often above market demand. This reduces certainty on the benefits from certification and changing to agro-ecological practices. Oversupply of coffee is a common problem.
2. Although farmers in Uganda perform agricultural practices close to OA, shifting practices still requires a certifiable conversion process, which is elaborate, expensive, and may take several years. In addition, the process usually requires extension services and technical assistance.
3. The premium received by farmers depends on the marketing system (cooperative or importer-led), the number of farmers involved, the percentage of total sales that are certified, and the costs of acquiring and maintaining certification.
4. The key to economic sustainability is for organic conversion to find a reliable and sizeable market year after year.
5. The highest premium in the coffee market is commanded by the fair trade certification. A sensitivity analysis carried out on coffee premium prices⁹⁷ found that a 30% increase in coffee market prices eliminated the premium of the Utz

⁹⁷ Ponte, 2004

Kapeh arabica (fair trade certified) coffee but the organic premium for arabica increased. It was also observed that two thirds of the fair trade coffee is actually organically certified as well.

6. Most organic projects are focused on a small group of interrelated crops for which the exporter has technical and market competence. In Uganda, the most obvious candidate for diversification into organic produce would be bananas. However, this has not happened so far for at least three reasons:
 - Some exporters fear that selling other organic products may distract farmers from coffee maintenance practices.
 - The technical specification for exporting other organic crops may be different and/or more stringent than coffee, especially where fruits and vegetables to the European market are concerned.
 - In Uganda, certifications of coffee, fruits and vanilla are carried out by different agencies which can lead to problems for bulk exports as different certification agencies use different standards.⁹⁸ The way forward could be a cooperative where a single organic farmer can sell his or her produce to several operators certified for the crop.⁹⁹ This would mean that farms themselves would have multiple certifications.
 - The lack of coordination among international certification bodies and individual governments, and their reluctance to create common organic standards and regulations could be the result of trade protection or other defining interests. The proliferation of different standards is seen as an urgent problem because the follow-on need for multicertification creates added associated costs which must be borne by smallholder farmers, who are often bewildered by the numerous hoops to jump through. The situation also limits the farmers' options (which could be predetermined by each buyer market given the lack of one international standard). Even as the situation breeds growing dependency on certification bodies, governments continue to keep their own counsel on import standards, and the promise of organic agriculture to aid rural poverty in the world's poorest countries falters.
7. Organic coffee certification creates spillover effects on adjacent communities improving both farming practices and coffee quality.
8. Organizations that operate organic projects have become an anchor for other rural development activities such as micro finance. The examples in Uganda are several. For instance, Kulika Charitable Trust is engaged in training farmers and young professionals in organic production practices. The Uganda Martyrs University Nkozi is also engaged in similar activities.
9. Sustainability certification is a costly and sometimes lengthy exercise. It requires rule setting and compliance monitoring. At the same time farmers organizations

⁹⁸ Ponte and Kawuma, 2003

⁹⁹ Gibbon, 2006

may find it difficult to cope with rough economic times if the expected benefits do not materialise in the short-term.

10. The hidden costs of coordination (i.e. time spent in meetings and transport) as well as uncertainty and collective decision-making may decrease the overall benefits of certification efforts.

SECTION 4

SCALING UP ORGANIC AGRICULTURE PRODUCTION AND TRADE: POLICY OPTIONS

This study offered an opportunity to develop a better, more comprehensive understanding of the issues surrounding the present and the future of OA in Uganda. The process of undertaking the assessment, the methodological approaches used, the range of stakeholders involved and the interaction with policy processes has proved to be a useful experience. In this last part of the report, an attempt will be made to draw conclusions and present a set of specific and actionable recommendations to accelerate the development of a sustainable, productive and globally competitive OA subsector.

4.1. General Conclusions and Recommendations

4.1.1. From piloting to long-term strategic actions. The problems faced by the OA subsector are inherent to the structure of the national economy as a whole and the agriculture sector in particular. At the macro level, political leaders and policymakers recognise that agriculture will, in the short and medium-term, provide the main stimuli for economic growth, employment, and food and livelihood security. Yet, policy actions to transform the sector are less than strategic at best or laissez-faire at worst. Interventions, such as PMA, SEP, the Upland Rice Scheme, the Africa Growth and Opportunities Act (AGOA), or the agriculture zoning programme, are all conducted as mere pilot programmes. Political interventions do not display long-term economic policy perspectives. An integrated strategy to scale up production and trade in OA should be strengthened for its known social, environmental and economic advantages, and be built with a long-term development horizon.

4.1.2. Mobilising and managing government interventions. There is general consensus that the current successes in OA, whether in terms of increased productivity or market expansion, have been achieved with little government support. Intra-sector mobilisation by OA farmer organizations, exporters and donors (the private sector working with organizational stakeholders) has been the main driver. Recent interventions by government agencies have recognised this drive by tapping the dynamism of these stakeholders.

Consequently, it is important that any further government interventions should complement ongoing efforts and should not have the effect of stifling intra-subsector growth. Indeed, the government should focus on such areas as research and technology development, long term financing, intra- and inter-sector coordination, and strengthening subregional markets by pursuing product standardisation and market integration, etc.

4.1.3. Re-examine the incentive structure underpinning the overall agriculture sector. This study highlighted one of the major constraints on agriculture productivity – the current rural economic policies of the government. Some of the policies are founded on welfarism and tax relief. Socio-economic welfare programmes, such as Universal Primary Education, Universal Health Care, and political ‘sloganeering’

(such as *Bona Bagagware*), cannot bring about rural economic transformation in the absence of actions to increase productivity and growth. While these programmes have the immediate effect of alleviating the livelihood constraints faced by poor people in rural areas, they are not incentives for production.

4.1.4. Political leadership is essential to round off the policy formulation process. It has been argued and demonstrated through this report that Uganda's major problem is not the absence of policy. If anything, the apparent fragmentation of policy efforts is becoming a major source of distortion and discordance. Across the sectoral spectrum, there are policies covering almost every aspect of the economy – environment, agriculture, economy, social development, etc. Indeed, the tendency among government agencies has been to develop policies, strategies, action plans, guidelines, etc. with few however being implemented. Throughout this study, there has been no indication that a national policy on OA will dislodge the current policy practice. Indeed, more than three years have passed without a completed organic policy formulation process, which points to an absence of the necessary political commitment or the lack of understanding of global market mechanisms.

At the moment, the private sector and farmers organizations are taking the lead and generally succeeding. This self-driven process could continue serving as a codification of the practices and experiences of the private sector. But this would reduce the opportunities for higher level integration of the environmental, economic and socio-equity dimensions of OA.

4.1.5. Intra- and inter-sectoral coordination are still problematic. An integrated approach for the development of the subsector is only possible if there is an appropriate mechanism for intra- and inter-sectoral coordination. At the moment, there is no platform for discussion among the broad range of actors. Existing platforms like the PMA forum or the PMA steering committee could be encouraged to put OA on their agendas. Although there are questions asked of the effectiveness of such platforms, it is clear that integrated development cannot be achieved in the absence of such a forum or platform.

4.1.6. Securing the ecological integrity of the environment is fundamental. The immediate and long-term success of the OA subsector, as is the case for the larger agriculture sector, is directly dependent on good stewardship and responsible management of our environment. The deepening environmental crisis characterised by widespread soil erosion, land degradation, destruction of water catchments areas, and the wanton disposal of plastic bags and bottles all point to impending environmental degradation. Addressing some of these environmental problems does not require more laws but rather political foresight to ensure sufficient budgets and proactive law enforcement measures.

4.1.7. Stakeholder cooperation is essential. The progress of OA production and trade to date is the result of combined efforts by a range of stakeholders. For example, organizations such as NOGAMU have been at the forefront of mobilising farmers to

explore new market opportunities. Independent policy think tanks such as ACODE have consistently advocated and supported the development of friendly policies. A number of donors such as Danida, Sida, Hivos and many others have either supported the policy development process or production and trade programmes. Societal stakeholders will always need to be mobilised to complement the efforts of the government.

4.2. Specific Recommendations

There is general consensus that Uganda's policy interventions should advance the *overdrive scenario* hence maintaining an annual OA growth of up to 38% up to 2025. Beyond the economic justifications, the environmental and social benefits outlined in this report provide strong reason to pursue this scenario. The current subsector trends also suggest that such optimistic scenarios are achievable. However, obtaining and sustaining such economic growth targets while ensuring effective dovetailing of environmental, social and economic concerns would require the following specific actions:

4.2.1. Inclusion of the growth targets of organic agriculture in the national long-term development plan. To date, many plans by the government lack specific growth targets and actions. In most of the cases, policy actions are stated in general terms making measurement impossible. In fact, the current draft of the National Organic Agriculture Policy suffers from this same deficiency. The policy process should be based on desired performance targets. These performance targets could then provide justification for the package of policy, legal and administrative actions needed to spur growth along the trajectories described.

4.2.2. Expand the scope of policy to cover sustainable agriculture. As shown throughout this assessment, some of the market niches, potential new markets and expanding markets are aimed at sustainable production methods. For example, fair trade products, in some cases, exceed organic products with regard to price premiums. In any case, focusing on sustainable agriculture would capture a larger group of farmers who may not have been planning to take up organically certified production in the short and medium-terms.

4.2.3. Establish organic agriculture production zones in selected districts. Given the growing interest in OA and other sustainable agriculture production methods, there is no doubt that designating selected districts as sustainable agriculture production zones would be beneficial. The government could set aside a package of funds and incentives to stimulate districts interested in hosting such zones. The size of the package would be based on the agreed growth targets and the chosen scenario.

4.2.4. Maintain a budgetary allocation to organic production and trade programmes as a percentage share of the overall agriculture budget. To achieve the growth trajectory projected in the overdrive scenario, the government could allocate funding in favour of OA production and trade. The level of budget commitments would be one of the clearest indications of importance attached to this area. If future budget

support to the subsector remains embedded under the overall agriculture budget, it is unlikely that a strong growth trajectory will be achieved.

SECTION 5 CONCLUSION

OA production and trade hold great potential for Uganda. If appropriate policy actions and investments are put in place, the subsector could reverse the declining fortunes of the agriculture sector and spur economic growth, employment and rural livelihood security. However, the current growth of OA is primarily driven by immediate economic interests and until now, there has been a lack of appreciation for the immense ecological and social benefits that accrue from OA production and trade. The process of conducting this assessment has therefore created an opportunity for a structured and focused debate on the integrated development of the OA subsector in Uganda. In the meantime, a number of lessons have been learnt which could inform future integrated assessment studies in the country and elsewhere.

Firstly, the process is rather resource intensive in terms of required expertise, stakeholder engagement and consultation processes. The wide range of stakeholders, some of which were not identifiable in the early stages, dictated that the stakeholder mapping process should remain open and flexible to allow progressive contribution.

Secondly, the absence of appropriate structures for coordination and multi-stakeholder dialogues is a constraint. During this assessment process, coordination could only be achieved through the establishment of a national task force and through a series of national stakeholder workshops. The informality of such processes reduced the opportunities for institutionalising such structures and the establishment of an architecture that could be used for similar processes in the future.

Thirdly, the absence of structured and credible data was telling on the problems of policy and planning in the country. The lack of general data and OA data in particular made the assessment difficult. Baselines for scenario projections could only be constructed from incomplete or anecdotal data. Indeed, data collection, storage and retrieval remain a major problem that needs to be addressed.

Finally, this project has demonstrated the value of public-private partnerships. The project was implemented as a joint partnership of the Uganda Export Promotion Board (UEPB), a semi-autonomous government agency; Advocates Coalition for Development and Environment (ACODE), an independent public policy research and advocacy think tank; and the National Organic Agriculture Movement of Uganda (NOGAMU), a network of organic agriculture farmers. Close partnership made it possible to mobilise all stakeholders in Ugandan government, private sector and the civil society.

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