

REPORT OF THE TOUR OF AGRIBUSINESS INCUBATORS IN AFRICA

Under the
**Universities, Business and Research in Agricultural Innovation (UniBRAIN)
Project**

Prepared by:

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1.0 Background Information

The University, Business and Research in Agricultural Innovation (UniBRAIN) is a facility for linking university education, research and business in sustainable agriculture. UniBRAIN's Development Objective is for innovation and entrepreneurship derived jobs in the agricultural sector to be created through partnerships between universities, research institutions and the private sector. It aims to support the following interventions:

1. Development of agricultural business innovations in a conducive institutional setting linking universities, incubates, research institutions and private sectors in an Agribusiness Innovation Incubator Consortia (AIIC) environment,
2. Production of agribusiness entrepreneurs and innovators by improving BSc and MSc agribusiness teaching and training
3. Sharing and up-scaling innovation outputs, experiences and practices through improved networking and channels of communication

The initiative is funded by the Danish Ministry of Foreign Affairs/Danida and being implemented by four pan African organizations including the Forum for Agricultural Research in Africa (FARA) the African Network for Agriculture, Agro forestry and Natural Resources Education (ANAFE), the African Technology Policy Studies Network (ATPS) and the Pan African Agribusiness and Agro Industries Consortium (PanAAC). Each of these institutions, by virtue of its mandate and accomplishments, is responsible for facilitating the involvement of particular categories of collaborating institutions and guiding the development of particular components.

In line with its core mandate under the UniBRAIN initiative, ATPS will facilitate the agribusiness innovation incubators and incubatees through:

- Raising and sustaining awareness on the UniBRAIN initiative, its products and outcomes among its stakeholder communities, including: policymakers, incubator networks and potential incubatees, etc;
- Fostering and supporting the development of the UniBRAIN Agribusiness Innovation Incubator Consortia (AIIC) through technical advice, training and facilitation activities on innovation Incubation;
- Providing technical support for collaboration amongst the UniBRAIN AIIC to build a culture of innovation and entrepreneurship in the incubation camps;
- Technical Capacity building support for the AIIC on incubator management, operation and governance; knowledge management and intellectual property rights; etc.
- Liaising with other UniBRAIN Team (UT) members to develop a comprehensive communications strategy to upscale the AIIC products and processes and engage with the relevant stakeholders in Africa;
- Engaging advisory services as a means of ensuring that the agribusiness incubators can provide services effectively along the value chains of agricultural products and processes;
- Engaging African Governments and Policymakers to support the UniBRAIN initiative.

In order to realize the core functions of ATPS in UniBRAIN initiative, visits to agribusiness innovation incubators and incubatees were undertaken by staff of the ATPS in some selected Danida priority countries and other countries recommended by Danida. The report below shows an analysis of experiences and observations made during the visits. The report covered the following countries- Kenya, Egypt, and Uganda.

2.0 Visit to Agribusiness Incubators in Kenya

2.1 Pre-visit to the Kenyan Industrial Research and Development Institute (KIRDI)

Attendance:

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10	Moses Makayoto	0722365180	KIRDI	makayotomoses@yahoo.com
11	Dr. M. Charles Moturi	0721240118	ED, KIRDI	dir@kirdi.go.ke
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On the 18th day of May 2010, the Universities, Business and Research in Agricultural INovation (UniBRAIN) Team led by the African Technology Policy Studies Network (ATPS) made a pre-visit to KIRDI to discuss with the management of the intended visits to Agribusiness Incubators under KIRDI's management. On hand to receive the Team was the Director of KIRDI, Dr. M. Charles Moturi.

Introducing the UniBRAIN project, Dr Kevin Urama, Executive Director of ATPS informed the audience that the aim of UniBRAIN Project which was for innovation and entrepreneurship derived jobs in agricultural sector to be created through partnerships between universities, research institutions and private sectors. He further noted that the Danish Ministry of Foreign Affairs/Danida has agreed to provided funds to the Forum for Agricultural Research in Africa (FARA) to support the Universities, Business and Research in Agricultural INovation (UniBRAIN) Initiative, in collaboration with the UniBRAIN Team (UT) including African Network for Agriculture, Agro forestry and Natural Resources Education (ANAFE), the African technology Policy Studies Network (ATPS) and the Pan African Agribusiness Consortium (PanAAC).The role of the ATPS in the consortium is to provide guidance on the establishment, management and operation of agribusiness incubators.

In his remarks, the Director of KIRDI, Dr. M. Charles Moturi noted that KIRDI undertake research and development activities and disseminate results to users. KIRDI supports the establishment of industries through incubator development. He noted that KIRDI is made up of three sections namely;

- Research and Development Department (R&D), including energy, food technology, ceramics, environment, textile, leather, aloe vera, etc
- Dissemination, Technology Transfer and Extension Services
- Support Department of Finance and Administration

Incubators at KIRDI are made up of both in-house and virtual incubators.

Major success stories at KIRDI

- To date, KIRDI manages about 24 incubators in the areas of value addition, leather works, and beauty salons. The incubators are nurtured so as to be able to be commercialized.
- Records show that current incubators are already serving as major suppliers to prominent shops in Kenya such as Uchumi and Nakumat.
- KIRDI targets to establish pilot plants in certain regions in Kenya based on availability of raw materials that dominate in those regions such as mango, honey, hides and skin, banana, pineapple, biogas, etc.
- Provides platforms for technical knowledge acquisition for students in universities, polytechnics, and technical colleges. KIRDI has entered into Memorandum of Understanding (MOUs) with some institutions in Kenya.
- KIRDI gives her incubates high flexibility in incubating their innovations.

Major Challenges at KIRDI

- There is a weak linkage between KIRDI and universities in Kenya.
- There is no policy on innovation incubation in the country. Such a legal framework can sustain the linkage among stakeholders required for innovation development and entrepreneurship.
- KIRDI has not yet developed a program for up scaling and commercialization of the innovations incubated.
- There is a limited fund to support the services required by the incubators.

Key outcomes from the visit

- KIRDI management welcomes the UniBRAIN initiative and promises to participate in the process and program.
- They requested for assistance and support from the ATPS in the area of intellectual property rights issues especially on how it will benefit the incubators.
- There were some commitments from the Industrial and Commercial Development Corporation (ICDC) of Kenya, and the Kenya National Production Centre (KNPC) who were present during the meeting to participate in the UniBRAIN Program and give its support through the initiative to the incubators. Such supports include both technical and financial during the short and medium terms. ICDC already is partnering with KIRDI in the development of business plans in specific areas including; biofuels, recycling of agricultural wastes, and in the assembling of motorcycles.

2.2 Visit to Agribusiness Incubators in Kenya

Following the pre-visit made to KIRDI, visits to some incubators were subsequently made. The ATPS coordinator of UniBRAIN, Dr Nicholas Ozor led the visits in company of the overall coordinator of UniBRAIN program, Mr. Ralph Von Kauffman. An audit of the incubators visited is presented below:

1. KARMUGA ARTEMISIA FARMERS ASSOCIATION (KAFA):

Contact details:

Director's name: Mr David Nderitu Kibera

Address: KIRDI Office, Popo Rd, Off Mombasa Rd. South C, Nairobi Kenya

Phone: 0721494048; 0722742885

Email: kamuigaartemesia@yahoo.com; kamurgaartemesia@yahoo.com

Background Information:

The agribusiness incubator started in the year 2001 at Nyeri district with the production of Artemisia and Armalandas. In 2008, they engaged in the production of Aloe vera.

Mandates of the Incubator:

The mission and vision of KAFA is to cause a change in Nyeri by transforming the people from poverty to wealth through membership empowerment, job creation and self sufficiency in income. The key products of KASA are:

- Soap
- Detergents
- Shampoos
- Creams
- Juices

On the other hand, the ancillary products of KASA are:

- Organic manures
- Animal feeds
- Herbal products from dried wastes

Operations and management of the incubator:

The incubator has a key strength in the number of membership of up to 300-400 farmers. They mobilize communities in dry areas of Mweiga to produce Aloe so as to conserve the soil and also harvest for medicinal and other purposes. They have facilitated the formation of farmers' groups and have recorded aloe yields of about 10 tons per 3 farmers.

The major challenges of the incubator include; difficulty in the procurement of licenses to market Aloe and the lack of basic processing equipment. However the incubator believes that working together with KIRDI will afford them the opportunity of a better market outlook and visibility.

The incubator has worked together with some scientists from the University of Nairobi including Prof. Mukiyama of the Dept. of Pharmacology. The management of the incubator is such that they have a Supreme Council, Board of Directors, Chief Executive Officer, Head of Department, Managers, Supervisors and other Workers. The incubator also uses out-growers to source for their raw materials.

The marketing channel has been to local pharmaceutical industries and beauty salons. The incubator has no established intellectual property regime/framework. However, the association has been guided by existing agreements and constitutions.

The scale of operation of the incubator is still micro, but they wish to grow quickly to meet their aspirations. The source of capital for investment is through member contributions and the incubator started with the contributions made by the initial 22 members of the association. The turnover has been poor and undulating.

Success factors:

- Authority to trade and market aloe
- Supply to Local and international market
- Investment supports

Key outcome from the Incubator visit:

The incubator is ready and willing to participate in the UniBRAIN initiative.

2. LEFT FOOT MANAGEMENT (LFM)

Contact details:

Director's name: Mr Godfrey Masolo

Address: KIRDI Office, Popo Rd, Off Mombasa Rd. South C, Nairobi Kenya

Phone: 0722833873

Email: goddie71@gmail.com

Background Information:

The agribusiness incubator was established in November 2008. The main driving force behind the enterprise was the love for football and the quest to know how it is made. As a follow up to this, the Directors – Godfrey Masolo and Joseph Kenyua - went for training on how to make football in Pakistan and were trained in a company called Monsoor manufacturers. On return to Kenya, they sourced the materials locally and started production in a small scale.

Mandates of the Incubator:

The mission and vision of LFM is to develop football game locally that will adapt to the local environment – soils, ground- and achieve higher durability. The footballs produced were first tested in some slums in Kenya including Kibera and Kawangwari. Reports show that the football is more adapted to the local environment and lasts longer than most of the imported ones. These reports were confirmed by the users of the ball in those areas.

The key products of LFM are:

- Footballs, ranging from sizes 2, 3, 4, to 5.
- Volley balls
- Netballs
- Football uniforms

Currently, the incubator has the capacity of producing 60 footballs per day by 8 staff with each person making 6 balls. About 2.3- 2.7ft² of leather material are used to make one size 5 footballs. The leather is procured from BATA industries while the strings are produced by Fine Spinners industry. The dyeing material and tubes are currently being imported from India. The beeswax used to consolidate the string is obtained locally. One LFM football costs KSH 1500 compared to KSH 4000 that are valued for the imported Pakistan football. The wastes from production are now being proposed by KIRDI to be used in producing boards.

Operations and management of the incubator:

The incubator has managed to change the perceptions of many individuals, corporate companies and organizations towards believing in locally-made products from Kenya. In this regards, individuals and organizations such as Safaricom, Coca Cola, Kenya Airways, Banks, schools, Politicians, etc have requested for footballs and football polos/T-shirts from the LFM. For instance, the Kenya Airways

procured a football each from LFM for all the fans going from Kenya to South Africa for the 2010 World Cup edition.

The LFM has strategized in the use of a local hero's name on their football. For example, JOK Kadenga's name (a onetime football star and hero in Kenya) is being inscribed in the LFM football in order to promote local football and also get him (Kadenga) some benefits.

The support obtained from KIRDI during exhibitions in local and international events has made LFM very visible and in demand. Recently, a delegation from the Tanzanian President Mr Kikwete made requisitions for LFM footballs.

The major challenge of LFM is poor equipment and facilities as they still operate manually to produce the football. They also lack capital to invest on modern equipment and infrastructure. However, the incubator has opportunity for growth because of the growing demand, recognitions, and exposure. The LFM is also in touch with FIFA, the world football governing body to inspect and approve their football to be used for national and international events.

LFM is currently partnering with KIRDI only and has not had the opportunity of collaborating with the universities and other private sectors. The administrative structure of LFM is shown below:

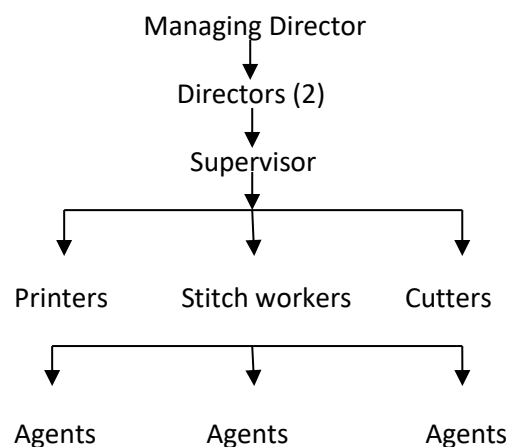


Fig. 1: Administrative structure of the Left Foot Management

The LFM has been able to register a Trade Mark and is working hard to register their brand name now. Some intended Brand names include; Kadenge Classic, Kadenge original, and Kadenge Anayo. In as much as they are still operating at a micro level with an initial capital investment of KSH400,000 they have been able to sell about 70 footballs per day with a target of 100 footballs per day. The major source of income of the incubator is through personal savings.

Success factors:

- Football is loved by many
- There is always demand for products
- Can enter international market if approved by FIFA

Key outcome from the Incubator visit:

The incubator is ready and willing to participate in the UniBRAIN initiative.

3. SAHREC ENTERPRISES

Contact details:

DIRECTOR: MICHEAL B ODOTTE

Address: KIRDI DUNGA ROAD, P.O Box 1312-00618 NAIROBI

Email: odottemike@yahoo.com

Phone Number: 0721-998938

Background Information:

The incubator started operation in the year 2003 as a community based research initiative with a view to supplementing the nutrition intake of local people. This led to patenting of “Sunguprot” an immune boost in the management of HIV/AIDS. The product has now given birth to other products numbering to 5 more.

Mandates of the incubator:

The mission of the incubator is to be a leading company in COMESA region dealing on natural products for health. It hopes to improve the health status of communities. The main objective is to create employment, carry out research on medicinal plant extracts for quality health, and excel in business and to transform medicinal plants into agribusiness.

The major products of the incubator include:

- “Sunguprot” (Patented in 2003), an immune booster in the management of HIV/AIDS also for malnourished people and for people at old age.
- Sungunet – Anti arthritis management
- Herbal tea I – For losing weight, treatment of high blood pressure, and high sugar level management (diabetic)
- Herbal tea II – used as antioxidant
- Brolux - Anti prostate cancer herbal based drug
- Supelido jet - Progesteron “For low libido”

Operations and management

Some major achievements by the incubator include:

- Patenting of products
- Funding support by the Kenya Government for further research, validation and improvement on products.
- Collaborative research with universities and leading research institutions e.g. Kenya Medical Research Institute (KEMRI)
- There is high rate of turnover in the incubator’s business as both governments and individuals now place orders for products

The major drawback for the incubator centres on lack of finding support, limited marketing outlets, poor facilities and infrastructure, poor branding, poor business strategy and information as well as linkages.

The major opportunities for the incubator:

- potential market for consumer due to HIV/AIDS pandemic
- Africa sub Sahara has food insecurity leading to malnutrition
- Poor nutrition in Africa
- Climatic interference

Currently, the incubator has established partnerships with the Kenya Medical Research Institute (KEMRI), for pharmacological analysis (safety)/clinical; the Maseno University, for chemical/phytochemical analysis; KIRDI, for Product development; and Kenyatta University, for Clinical analysis. Some of the contacts are:

- Prof. Job Jondiko and Prof. Mathews Dida, Department of Chemistry, Maseno University
- Dr. Jenifa Orwa and Dr. Wasuna, KEMRI
- Phylis Ngunjiri and Elisha Onyango, KIRDI

The Sole proprietor currently manages the incubator but has a vision of making its company limited by 2011. The scope of market for the incubator currently is in Nairobi, Kisumu, Mombasa, Nwaza TZ and Kampala Uganda. However, it hopes to cover the East Africa and COMESA regions in the near future. Already, the incubator has patented one product- Sunguprot and has filled in application for another one. The incubator uses out-growers in local communities to produce the raw materials used in product development.

The initial capital on investment was about 1 million. However, the scale of business is medium with an annual turnover of about KSH 6 million.

Success factors

The incubator noted that its prospects will be higher if more funds, training, and operating space are provided. They further noted that opportunity for partnerships and networking with relevant stakeholders could boost the incubator's potentials.

Key outcome

The incubator expressed desire to participate in the UniBRAIN initiative and to work together with other stakeholders so as to realise the mission and vision of their business.

4 All Grain Co. Ltd.

Contact details:

Name of Director: Mr. Wanyeki Joseph

Address: KIRDI South B Nairobi

Email: allgrain200s@yahoo.com

Phone contact: 0722856513

Background information:

The incubator started in the year 2004 and deals in the manufacturing of composite soya bean flour. Have now embarked fully in value added cereal based pre-cooked product with main ingredient being Grain Amaranth. The mission and vision of the incubator is to be a top of agric business company.

Mandates of the Incubator:

The main product of the incubator is in value addition of grains and other nutritious foods.

Operations and management:

The incubator has successfully developed relief foods for UNIMIX (an NGO). The major drawback is the lack of modern equipment and facilities for production. There is opportunity for growth because of the availability of raw materials. The incubator has successfully partnered with Jomo Kenyatta University, Kenya in proposal writing for improvement of Grain Amaranth value chain and won KAPP Grant. The incubator is led by two directors who take charge of the management and operations of the company. The incubator now targets unique foods for children and aged adults to improve their nutrition. The Intellectual property issue is a big challenge due to lack of funds and guidance. The scale of operation of all grain company is small with seven employees. The initial capital on investment was Ksh 700,000.00. The turnover of sales stands at Ksh 2.4 million per annum.

Success factors:

The incubator has obtained grants from business proposals for example the KAPP Grants 2008 from KARI. The incubator also obtains some supports from micro finance institutions. The incubator is also partnering with the Kenyatta University, Kenya through Dr. Nicholas Kamindu of the School of Alternative/Complimentary medicine.

Key outcome:

The incubator is willing and available to participate in the UniBRAIN initiative.

5 ZUHURA BEAUTY CARE

Contact details:

DIRECTORS: Mr SAMUEL DAGOMA and Mr DANIEL GITHII

ADDRESS: 75956 – 00200 NAIROBI

Phone number: 0723761300/0203515903

EMAIL: skagom@yahoo.com, zuhuracare@yahoo.com

Background information:

The incubator started in the year 2006. It was started after the incubatee found out through research that most of the cosmetic products in the Kenyan market were harmful to the skin because of presence of ingredients like hydroquinone and mercury. Hence there was a need to substitute those harmful ingredients with natural ones like plants that is aloe-vera and neem oils.

Mandates of the Incubator:

The vision of the incubator is to be a leading high quality cosmetic manufacturer through the use of plants extracts, and to meet the expectations of consumers in East African region. Mainly, the incubator's objectives are geared towards customer satisfactions and to ensure they get a value for their money. Other objectives is to uplift the living standards of those farmers who supply the business with aloe-vera plant through buying their products and also supporting them in order to get more yields hence great profit.

The incubator's products include:

Body lotion -> having aloe as the active ingredient

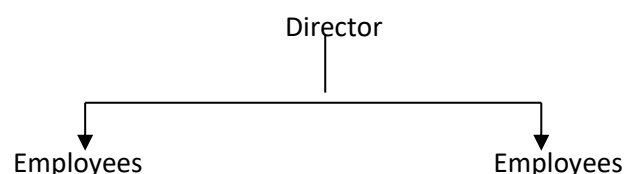
Face cream -> has aloe and vitamin E extracted from plants

Herbal bath -> a shower gel with aloe-vera

Operations and management:

The incubator has been able to produce products which are highly regarded by consumers in terms of quality. The compliments received from clients have encouraged the incubators to improve on their products and increase production too. The biggest drawback has been lack of sufficient working capital as banks in Kenya are very stringent in terms of the collateral terms. Cosmetics business is capital intensive and one requires a lot of money for marketing, advertising and even product development. There is a big opportunity for growth of the incubator if the business is supported because of high quality product involved. The market is there, but the business cannot sustain it due to lack of sufficient capital, facilities and skilled labour.

The incubator has formed a formidable partnership with universities like Kenya polytechnic University with Mrs Mutemi as the contact person and research institutes (KIRDI). The structure of the incubator is such that the employees are managed and supervised by the Director.



The incubator currently uses both door to door marketing strategy as well as running cheap promotions that is giving free samples. There are various outlets in Nairobi and the environs including major supermarkets (Uchimi, Nakumat), retail shops, etc. The incubator already has registered its trademark though it still operates as a small enterprise with an annual turnover of about Ksh600, 000. The initial capital investment was around Ksh10, 000. The incubator has borrowed a long term loan from KCB and is servicing it.

Success factors:

In order to upscale the business the incubator has started investing in capacity development of key personnel and also seeking for collaborations with key stakeholders so as to realize the incubator's mission and vision of being a leading industry in cosmetics.

Key outcome:

The incubator is willing and available to participate in the UniBRAIN initiative.

6 AROM CHEMICAL INDUSTRIES

Contact details:

Director: Mr. Peter M. Gachuhi

Address: KIRDI South 'B' Campus P.O.Box 13220 00200 NAIROBI

Phone: 0713 864 524

Email: aromchems@yahoo.com

Background information:

The incubator started in 2006 as a manufacturer of animal Health Products with special emphasis on de-wormers to control internal parasites on livestock. The incubator also manufactures animal feed supplements such as minerals, vitamin and protein supplements from locally available raw materials.

Mandates of the incubator:

The mission of the incubator is to be the leading provider of health and nutritional solution to the livestock sector and improve the profitability of small livestock farmers. The vision is to provide effective, competitive and convenient products to livestock farmers as accessible and convenient as possible. The main objectives are to reach the peasant, rural based livestock farmers with our farmer-friendly products.

The key products are:

(1) dewormers – to control internal parasites in livestock

(a) aromisole plus

(b) abedazole 2.5%

(2) mineral supplements – to provide mineral that are usually lacking in livestock diet and that reduce yields and productivity.

(a) DCP

(b) Heart Inducer

(3) Vitamin supplements – to provide vitamins enzymes and hormones to boost health, productivity and rapid growth in livestock.

(a) Multivitamin blend

Operations and management:

The incubator has introduced dewormers targeted for calves which were not hitherto available in the market. The product – “Abedazole Dowa Ya Njau” is doing very well in the market. Also, the incubator is introducing a liquid dewormer for sheep and goats which is gaining acceptance in the market. Only tablets were available in the market before they introduced the product – “Abedazole Dawa Ya Mbuzi.”

The major drawback for the incubator is the lack of funds to finance the rapid growth that is taking place in our company. Also, there is lack of adequate transportation and logistics to get products to the customers as fast as they are needed. A 1ton van and 3ton lorry is needed to satisfy current demand. Packaging machines to accelerate production output and enhance product quality are not available.

However, there is tremendous opportunity for growth of the incubator. Currently, the incubator is growing at about 10% per month. They have their presence in 3 regions of Kenya and intend to cover other provinces in future. The incubator is growing their product range consistently and every product they have introduced has gained acceptance in the market.

Already, the incubator has been funded by a microfinance institution -KADET and Equity Bank. It is also working closely with the Ministry of Livestock. The staff in the incubator is made up of the MD, Office manager, Factory manager, 2 Salesmen, IT operator and 6 factory workers.

The incubator targets rural based Agro veterinary shops and chemicals. It has not yet any registered patents or trademark.

The initial capital investment was KSH 350,000 which was obtained from personal savings and loans from friends, but now has a monthly turnover of about KSH300,000. The annual turnover is about KSH 3.6Million.

Success factors:

The incubator is currently updating their range of products to meet huge demands.

Key outcome:

The incubator is ready to participate in the UniBRAIN initiative so as to explore the world outlook for their business development, partnerships and networks.

7 HOMEFIT FOODS

Contact details:

DIRECTOR: KIHURIA MWANIKI

CONTACT ADDRESS: KIRDI (South 'B' Campus), Dunga/Lusaka Road Industrial Area (Nairobi)

P.O.Box 565-00300, NAIROBI

PHONE: 0722-943334

EMAIL: kihuriam@yahoo.com

Background information:

The incubator started operation in 2009 with hotel supplies. The challenge that spurred the incubator was why many hotels in Africa still import some basic food supplies such as jams and honey for their clients. In providing alternatives to these product supplies, the incubator joined KIRDI so as to add value to honey and also do fruits value addition.

Mandates of the incubator:

The incubator's mission is to serve the hospitality industry with quality convenient single-use products. The key products are honey (20g single use; 300g, 500g) and jams made from locally sourced tomatoes, mangoes, pineapples, oranges.

Operations and management of the incubator:

A key success story is the opportunity the incubator now has to supply minijams to Kenya Airways. However, the lack of modern equipment and facilities, and capital restrains the incubator to meet demands which is available in the tourism and hospitality industry. The incubator is not also linked to other stakeholders except KIRDI. The incubator also has not employed staff on full time basis but currently operates on needs basis. The tourist hotels and catering industries have been the major market outlets for the incubator. However, value added honey products are being supplied to some supermarkets in Kenya- Tuskys and Ukwala.

The incubator has not registered his trademarks and has not patented any his product. In as much as the business is still at a micro level, it will employ up to 20 staff when it gets the best equipment and supports. The estimated turnover from this business annually is Ksh5 – 7.5 million.

Success factors:

All the raw materials used by the incubator are sourced locally.

Key outcome:

The incubator declared unreserved interest and willingness to participate in the UniBRAIN initiative and noted that the initiative will promote Homefit through market linkage, ICT, product development, and research. These are the resources that the Company cannot afford alone now.

3.0 Visit to Agribusiness Incubators in Egypt

1 THE FOOD TECHNOLOGY CENTRE

Contact details:

Executive Director: Dr Ahmed Fouad Mandour

Address: 9 Cairo University Street, El-Orman 12916

Phone: +20235712019, mobile: +2012 212 36 43

Email: a_mandour@mfti.gov.eg

Website: www.ftc.gov.eg

Mandates:

The vision of FTC is to serve the Egyptian technology based industry for a better society. Food Technology Center creates value through research and innovation, and offers specific solutions for sustainable food sector. FTC will mobilize a multi-disciplinary team of international & Egyptian top level experts in life science and biotechnology. FTC cooperates closely with universities, authorities and industry, and combines research & innovation to Egyptian business culture.

The core competencies of the FTC are:



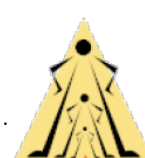

- Manage technology transfer and innovation activities to deliver new products and process innovations in life sciences and biotechnology.
- Strong & reliable communication methodology between research teams and beneficiary industry.
- State of art fat analysis laboratories and medium technology pilot plants supported by international institutions (AINIA & Fraunhofer).
- Qualified and trained technicians and industry experts. A multidisciplinary pool of consultant.
- FTC culture support creativity and innovation.

Operations and management:

FTC is providing services and linkages to over 3000 agribusiness entrepreneurs in Egypt in food production, processing, packaging and storage. For instance, an entrepreneur may demand for the best fruit juice that will be preferred by the public, FTC goes ahead to prepare and pre-test a formulation which will be made available to such an entrepreneur. If the product or process is for export, FTC ensures that the product meets with the standards and requirements of the country of destination. The FTC offers services to entrepreneurs who must have registered with the Egyptian Industrial Modernization Center (EIMC). The IMC is an EU project worth Euro 180M for a period of 10 years and aimed at modernizing and improving the competitiveness of the private sectors in Egypt, especially the SMEs. It is

required that prospective entrepreneurs must have a license and at least 10 workers in their staff list.

SWOT- Analysis

<p>Strength</p> <ul style="list-style-type: none"> •Innovative Services. •Efficient customer services. •Personal relation with customers. •TT & Innovation service. •Fat Laboratory & Pilot Units. •Multidisciplinary pool of experts. 	<p>Weaknesses</p> <ul style="list-style-type: none"> •Slow response bureaucratic system. •To many levels discussion making in the organizational setup. •Weak response to new evolving issues. 
<p>Opportunities</p> <ul style="list-style-type: none"> •New trend healthy food. •Sustainable and ethical food production. •Halal Food. •Optimization of logistics value chain. 	<p>Threats</p> <ul style="list-style-type: none"> •Week framework for TT. •Apathy of Industry for TT. •Competitors are fast to market. •Loss of competent experts 

A SWOT analysis of the Food and Technology Center (FTC) in Egypt

Impact of FTC on Food Industry in Egypt:

- Innovative food and feed processing.
- Improved quality and safety of food, beverage and feed.
- Total food chain concept (Fork to farm).
- Increase the industry knowledge of food consumer science.
- Enhanced cooperation in the area of technology transfer and innovation between medium technology provider and Egyptian food industry.
- Increase the excellence and innovation potentials of the Egyptian nutrition research communities. Promoting health and quality of life by addressing health determinants such as diet and lifestyle conditions.

Key Success Factors:

- Enhance international networking activities.
- Capacity building of technical staff.
- Innovative services packages with strong impact.
- Access to Global Market trends & Technology Watch.
- Cooperation with peer development agents.
- Technology Transfer and Innovation national policy and framework.

Key outcome:

The FTC accepted to collaborate with other partners in the UniBRAIN initiative by offering technical support to incubators in the Danida priority countries of Africa.

2 The SEKEM initiative

Contact details:

Founder: Dr Ibrahim Abouleish

Address: 3 Cairo – Belbeis Desert Road, P. O. Box 2834, El – Horreya, Cairo, Egypt

Tel: +20 226564124/5; Fax: +20 226566123

Email: info@sekem.com

Website: www.sekem.com

Background and mandate:

SEKEM was established in 1977 by Dr. Ibrahim Abouleish, in the north east desert of Egypt. He received the RIGHT LIVELIHOOD AWARD also known as the “ALTERNATIVE NOBEL PRIZE” for “establishing a business model for the 21st century in which commercial success is integrated with and promotes the social and cultural development of society through economics of love.” The name SEKEM is the transliteration of a hieroglyph, meaning “vitality”. The SEKEM initiative with its many areas of activity was founded to realise the vision of sustainable development. SEKEM aims to contribute to the comprehensive development of the individual, society and environment. Cooperation in economic, social and cultural endeavours is cultivated through dedication to the pursuit of science, art and religion.

SEKEM has various arms including:

- Business arm- 9 companies
- NGOs
- Educational arm
- Research arm- all research are conducted based on industry need and demand. Some areas of research are- renewable energy, water, biotechnology, climate change
- University

SEKEM’s main objectives include:

- Healing the environment through the application of biodynamic agriculture methods
- Developing solutions, providing services, and manufacturing a variety of products that meet the consumer’s true needs and conform to the highest standards
- Marketing and distributing products in partnership with farmers, producers, vendors and consumers

For all social endeavours, the Cooperative of SEKEM Employees forms a community of people, from all over the world, who:

- Appreciate dignity of each human being
- Teach democracy and governance
- Create the foundations of healthy living

In the cultural domain, the development of the individual is strengthened by the Sekem Development Foundation through:

- Education for children, youth and adults, provided in several centres to promote free and clear thinking and artistic expression.
- Health care and therapy using holistic medicine are available through the medical centre and outreach programmes
- Research and development to provide solutions for pressing questions dealing with various aspects of life, are conducted and taught by the SEKEM Academy for Applied Arts and Science

The Abouleish foundation is holding the family capital of SEKEM. The foundation council is the safe guard of SEKEM's vision to ensure the future sustainability of all SEKEM activities.

SEKEM Companies:

The SEKEM Initiative established several specialized companies to ensure productions and marketing of its products. The umbrella organisation for SEKEM's independent firms was established in order to supervise, evaluate, and support all subsidiary ventures, and to enable it to act as investor and lender to them. The nine companies include:

1. The SEKEM holding- supervises, evaluates, and supports all its subsidiary ventures.
2. LIBRA- an organic cultivation company that has evolved into a multifaceted production company by diversifying into milling, drying and oil processing
3. El-Mizan- a joint venture between Grow Group Holland and SEKEM Group Egypt offers grafting and plant cultivation services for organic and conventional fruit and vegetable plants.
4. LOTUS- processes organic and biodynamic, thus natural and chemical free, herbs and spices according to international Demeter Processing Guidelines.
5. ISIS- produces wholesome, nutritious, tasty and healthy food, from careful selected raw materials, free of artificial additives or preservatives. The foodstuff processed and packed by ISIS includes organically grown cereals, rice, vegetables, pasta, honey, jams, dates, spices, herbs, edible oils, beverages such as herbal teas, coffee and juices and other multi-ingredient products.
6. HATOR- packs bio-dynamically grown fresh produce to local and international markets in order to supply and maintain the highest nutritive value, and adhere to the customers' technical specifications of each product.
7. ATOS Pharma- manufactures and markets an array of natural medicines and health care products of superior quality for effective causal treatment combined with maximum tolerability.
8. NATURETEX- is an organic cotton producer of high quality fabrics, fashionable home textiles, and colourful baby wear. The products are produced and marketed internationally under their own brand Cotton People Organic (CPO), NatureTex or under private labels.

9. SEKEM Europe- located in Bochum, Germany is a 100% subsidiary company of the SEKEM Holding. It operates in the areas of import and sales of SEKEM's readymade consumer goods and fresh produce, raw materials and ingredients, provides services to SEKEM in the field of customer care, export marketing, market development and public relations.

There is a strong IP framework guiding businesses at SEKEM and they have registered trademarks and patented some products.

Key outcome:

SEKEM is ready to partner with agribusinesses in sub Saharan Africa and collaborate in the UniBRAIN initiative

3 Agricultural Research Centre (ARC) of the Ministry of Agriculture and Land Reclamation

Contact details:

Prof. Dr. Eid M. A Mageed

Director Technology Management and Commercialization Office

ARC President Office, 9 Gamaa St, 12619, Giza, Egypt

Email: meid@idsc.net.eg

Mobile: +2010 585 4306

Phone: +202 3570 4359

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Background

The Technology Management and Commercialization Office of the ARC is charged with the mandate of encouraging technology and innovation development and commercialization of such in order to meet industry needs, create jobs and promote entrepreneurship in Egypt. The Centre conducts relevant research and is strongly linked with universities and private sectors. The Centre is partnering with the Industrial Modernization Centre (IMC) and the Research Development Initiative (RDI) to strengthen the linkage between research and industry on specific needs of the industry.

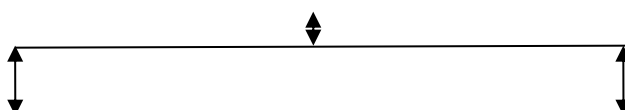
Current Status

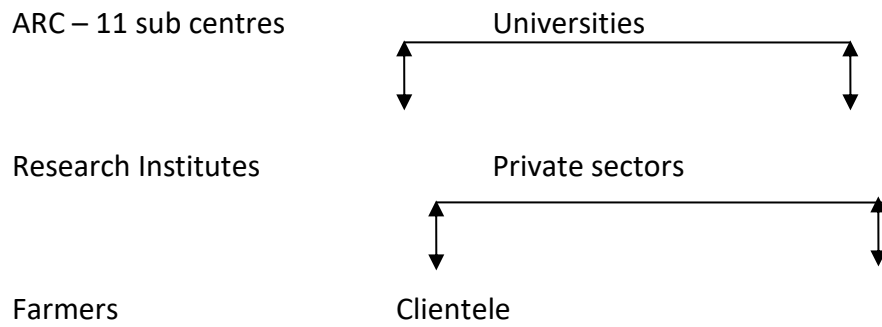
Currently, the Centre is engaged in eleven programme activities across Egypt with over 37,000 participating entrepreneurs. To confirm the strength of the centre in research development, it has about 6,000 staff with PhDs. The Centre recognizes that for any incubator to thrive, it must have good reputation, commitment to duty, trust, and adequate funding. It is noteworthy to mention that Egypt has a policy on Intellectual Property that support innovation incubation.

The Centre conducts training programmes for both researchers and private sectors on how to optimize products and services. Such trainings include; technology development, technology validation, technology management, technology licensing, technology negotiation, etc.

The flowchart of operation of the Centre is shown below:

ARC HQ





Key Outcome

The Technology Management and Commercialization Office of the ARC expressed their availability and willingness to cooperate with the UniBRAIN team by providing expertise and sharing experience which could lead to the overall success of the initiative.

4 International Trade and Marketing Company (ITM)

Contact details:

Dr Amr Mohamed Helal
Managing Director
International Trade and Marketing Company
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Egypt PCO 12411
Tel: +202 33458525
Mobile: +2010 2100429
Email: amr@itm.com.eg

Background

The ITM is among the leading companies in the field of public health, agricultural and environmental issues. Most specifically ITM has three main innovative products and services:

- Rice waste management- from rice straw and bran
- Developing Egyptian Nutraceuticals
- Developing Egyptian Algae

Most importantly, the rice waste management initiative of ITM has led to the development of range of products that not only lead to environmental improvement but in sustainable development, employment, and entrepreneurship.

Current status of ITM on rice waste management

ITM is currently engaged in several research projects that are aimed at commercialization of products and services on rice waste. They include:

- Phytochemical study of stabilized rice bran
- Implementation of the different rice bran products in food, pharmaceutical and cosmetic industries
- Rice bran stabilization
- Innovative, environmental and economic rice waste management
- Rice bran nutraceuticals

Key outcome

The ITM expressed their desire to collaborate with ATPS in the UniBRAIN initiative.

4.0 Visit to Agribusiness Incubators in Uganda

1 Tropical Aloe Lands Foundation (TALF)

Contact details:

Director: **Mr. Muhumuza James**

P.O. Box 70646 Kampala Uganda

Tel: +256 772 460 171

Email troaloelds@yahoo.com

Background information

The TALF started on 1st July 2002 as an Initiative for adding innovativeness and improving IK based plant uses and values from communities. Thereafter the uses and values were much marked to respond to modern demands for product through creative innovation and by improving upon the existing methods of production at small scale level. Priority is mainly on the Aloe Vera (*Aloe dawei sp*) which is dominantly found along the shores of Lake Albert in the Western Albetine Rift in Western Uganda. This Aloe Sp has been used by the indigenous Banyoro as a remedy for many health problems in human livestock and as well as biological pest control among others.

TALF started product development from wild collected raw materials which could not sustain the demand of the developed products. TALF is also engaged in the domestication initiatives for commercial cultivation by host communities as a solution for sustainable production. Over 200 farmers have been registered and have cultivated over 400 Acres and the Company owns 15 Acres of Aloe. So far 30 products have been developed ranging from cosmetics (skin care), Herbal teas, Therapies, insect repellents, Nutrition Supplements, Natural Ingredients for cosmetic and Pharmaceutical among others. The market demand is increasing due to product use and acceptability by consumers

Mandates of TALF

Mission, Vision and Objectives

TALF aims to develop IK by utilizing biodiversity resources sustainably for product development through innovativeness for social, economic, institutional and environmental sustainability.

Key ancillary products and services:

- Introduction of commercial cultivation of medicinal plants for income in rural communities
- Developing sustainable use of biodiversity resources through domestication.
- Field Attachment of University Students from Department of Botany from universities around Kampala. Students engaged are mainly those registered for B.Sc Botany,/BSc. Ethno botany,/ BSc. Conservation Biology. Such students acquire new knowledge,

practical skills and experience to improve their confidence in problem solving, acquiring relationship to different people in the real life situation and exposure to the demand and challenges of the work place (Industrial work experience).

- Stake holder in developing National Conservation assessment and Management Planning for Prioritization of Medicinal Plants of Uganda, Makerere University.
- Stake holder in value chain development for development of Biotrade activities in Northern Uganda (UNCTAD and UNDP programmes)
- Implementation of Prioritized medical plants in the Lake Victoria Basin with Makerere University sustainable use of Plant Diversity (SUPD)

Key success stories

- Development of 30 marketable products from IK and indigenous resources
- Creating household incomes at community level in rural areas.
- Improving IK processing methods to the current generation
- Involving high institutions and Universities in TALF's activities so as to develop their real life experience through innovation internship.
- Documentation of products and acceptability by consumers

Major weaknesses and draw backs of the incubator

- Lack of standardization and certification of products.
- Lack of Training skills at production level
- Lack of modernized equipments i.e. Transport facilities for raw materials from collecting centres, processing and parking, etc.
- Research on Therapeutic claims of the products by Universities and institutions.
- Lack of Funding to up scale the initiatives.

Opportunities for growth

- Sky rocketing demand of green and organic products.
- Possibility of innovating multiple values from biodiversity resources.
- Virginity of the sector in all areas of research and product development.

Partnerships and Stakeholders

- Makerere University, Botany/Ethno
- Biotrade Initiative (UNCTAD/UNDP)
- Natural Chemotherapeutic Research Laboratory of Uganda (NCRL)
- National Organic Movement of Uganda (NOGAMU)
- Uganda Export Promotion Board (UEPB)
- Sustainable use of Plant Diversity Makerere University.

Management

The incubatee's has an administrative Board of Directors comprising of farmer, production, marketing and human resource personnel. TALF has four marketing outlets and also supply products to supermarkets, pharmacy shops, organic shops and regional exports. Currently,

the incubatee has neither intellectual property framework nor any patent. However, he hopes to have one soon. The estimated initial capital on investment was \$50,000

Suggestion on way forward

- A number of opportunities in innovation and technology development and Universities taking lead in research and product development.
- Developing IK for new innovation and new products for use in a modern world which will create more jobs for University graduates.
- Response to UniBRAIN by Business and research in Agribusiness is a very important tool, if well understood by the stakeholders. It can be a biding hinge to reflex the development of the IK for proper utilization of resources sustainably in a reasonable manner

Key outcome

The incubator was willing to participate in the UniBRAIN initiative

2 BUSHENYI BEEKEEPERS ASSOCIATION (BUBEEKA)

Contact details

Bushenyi Beekeepers Association (BUBEEKA)

Director: Ben J. R. Asiimwe

Mobile: 0772-915601/0712-853910

E-mail: basimwe@yahoo.com

P.O Box 31750, Kampala/ P.O Kabwohe

Head office: Nyamufumura Trading Centre, (After Kabwohe Township).

25 km Mbarara- Ishaka Road

Background:

The Bubeeka was established in 2002 as a Community Based Organization (CBO) at Nyamufumura T.C in Kagango Sub-county, Sheema County, Bushenyi District to promote beekeeping from domestic to a community self help project promoting honey and related bees products. It started with twenty five (25) members of whom 15 were women practicing domestic beekeeping on their own small pieces of land. Later the association was registered at district level to increase production, and improve on bees products quantity and quality standards to date. The incubator undertakes other agro- based activities like mushroom, fruit and vegetable, banana, tree planting, peas, beans and flower plants growing.

Mandates:

- To become a number one East African County of excellence for beekeepers organization in developing, promoting, processing and marketing honey and related hive products by the year 2015.
- Realization of a rich beekeepers community through sales of processes and packaged bees products:- Honey, bees wax, propolis, bees venom, royal jelly, and also fruit and vegetable, bananas, incubator penetrating National and External markets.

Key Products:

Honey, bees wax, propolis, bees venom and royal jelly.

Operations and management:

Key success stories

The Association has acquired a piece of land on which to build structures, has a bank account, is registered, planted honey trees, fruits and vegetable nursery, has planted trees and flowers to increase nector and mitigation of climate change hazards, has trained more than five hundred (500) stakeholders and has registered more than 321 members. Bubeeka has enabled members to acquire five beehives each. The Association buys, markets and sells honey and other hive by-products from the members.

Bubeeka has linked its members with Bushenyi local authorities, Private sector /trader's development partners e.g. Uganda National Chamber of Commerce and Industry (UNCCI), Private Sector Foundation Uganda (PSFU), and traders in Bushenyi (Western Uganda) and

other parts of Uganda. Development partners include also Makerere University cluster department, and now in advance stage of linking with Africa Technology Studies Network (ATPS) Uganda chapter.

Major weaknesses

Bubeeka has not yet acquired an office space of its own and hence still rents an office space. There is no adequate beehives yet procured to members to increase honey production. There is lack of processing plant or refinery in place to handle member's products expected to increase in the near future. Membership registration in Bubeeka is now declining due to high demand for modern beehives. There is also lack of funds to make hives and other equipments for members.

Opportunities for growth

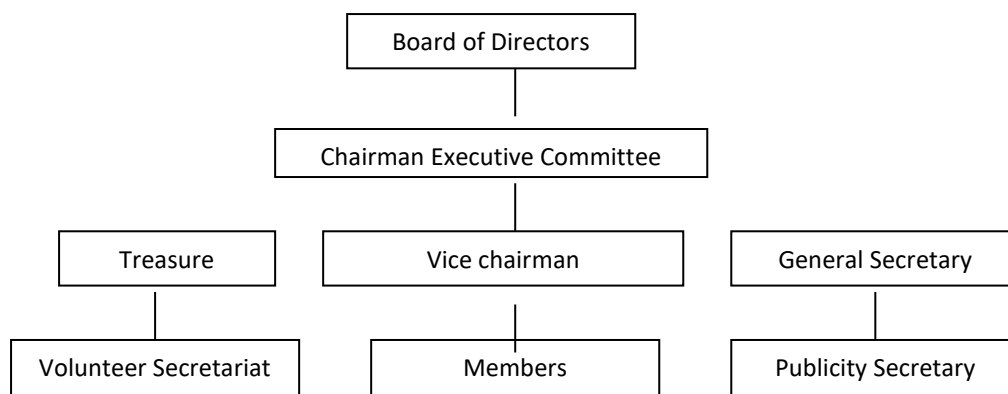
There is growing number of beekeepers in the district hence more honey and hives are expected to be produced. There is high demand for Bubeeka organic honey and other products. Bushenyi organic products are on high demand in neighbouring countries of Rwanda, DR Congo, Kenya and Tanzania.

Partnerships with other stakeholders

Bubeeka's partners include; Makerere University, Private sector foundation Uganda (PSFU) Kabaale University, Kampala International University (Western wing), Rwampala Firm School, Ruharo High Centre, Mbarara University of Science and Technology (MUST), Imperial Royal Hotels, Kabila Country Club, Shoprite Supermarkets.

Structure of administration

Bubeeka is governed by Board of Directors whose chairman is Mr. Asimwe Ben J.R. other portfolios include; Vice Chairman, Treasurer, Secretary, Publicity Secretary, Volunteer Secretariat headed by office administrator (see organigram below).



Marketing strategies

Bubeeka has employed some unique marketing strategies including; radio and newspaper adverts, direct sells at outlets, exhibitions, supermarkets, churches, hotels, schools, Universities, Restaurant, Bars, Hospitals, Clinics and homes.

Intellectual Property Rights

The Protection of Bubeeka's products is of high priority. Unfortunately, none of the products is currently protected or patented through a formalized IPR regime. This is of great disadvantage as most people **tend to fake our genuine organic products** and sell then in our name outside our knowledge and without our permission. The incubator is still on a small to medium scale but hopes to grow bigger if given supports. The original investment was approximately twenty five (UGSH25m) Uganda shillings. This has enabled the organization to organize and sell 130,000 kilos of clean honey and other products since the inception of the association.

Way forward

Bubeeka hope to become a member of ATPS and other networks aimed at up scaling innovations and knowledge of innovators. It hopes to acquire more skills for better managerial and organizational performance and employ more technical personnel for improved operational performance. It hopes to establish effective strategies for resource mobilization.

Key outcome

Bubeeks's response is that **UniBRAIN is quite welcome** mainly because of its readiness to combine skills, resources and input from diverse sectors like academia, professional and private sector in order to support the development of SMEs.

3 BTL International Ltd Uganda

Contact details:

Name of Promoter: Luzinda Henry Kizito

Address: P.O. Box 5902, Kampala

Physical Address of Demonstration Plot: Najjera Village, Kiira Subcounty, Wakiso District

Physical address of commercial production: Najjera Village, Kiira Subcounty, Wakiso District

Phone numbers: Mobile 0712 416101; 0712 939333

E-mail address: tmnhomeruler@yahoo.com

Background information:

The Agribusiness incubator started in the year 2005. During this year, a first step was undertaken to outsource farmers to plant the plant - Loofah. BTL International Ltd was established to add value to the loofah, package, and brand and produce the loofah for both local and foreign markets. The *ROBI Bath Sponge* was the first branded and packaged bathing sponge in the Ugandan market.

Mandates of the Agribusiness incubator

Mission: To become the largest producer of the natural loofah bath sponge in Africa for both the local and foreign market and encourage the practice of using natural and environmentally friendly products.

Vision: To encourage, support and empower local communities in the production of the loofah raw materials for consumption in the process of the final product- *Robi Bath Sponge*.

Key products from the incubator:

The *Robi Bath Loofah sponge* is the final finished product of BTL International.

Operations and management

Key success stories

- BTL International Ltd has succeeded in creating a client base of over 20 large and medium sized super markets in and around Kampala
- BTL International Ltd supplies the *ROBI bath loofah sponges* to hotels in Uganda.
- BTL International Ltd exports its products to destinations within East Africa.

Major weaknesses/draw backs

- Inadequate source of the Loofah raw material
- poor farming methods employed by the farmers
- Inadequate operation capital
- Limited access to funders.

Opportunities for growth

The incubator has comparative advantage over competitors in other countries in terms of a good and reliable climate, land, labour and fertile soils for the production of the plant. It also has available market for the sale of the products.

Partnership with other stakeholders

The incubator has partnerships mainly with the farmers and farmer organizations that produce the plant used as primary raw material for the production of *Robi bath loofah*

Organisational Structure

BTL International Ltd comprises of a Managing Director and Directors with individual assignments. These are supported by a Project Co-ordinator.

Marketing strategies and outlets for the products

From the inception in 2005 we have established a network of outlets both within and outside Uganda including:

- *Hotels within and outside Uganda*
- *Shoprite Super Market – Lugogo*
- *Shoprite Super Market – Clock Tower*
- *Uchumi Super Market*
- *Nakumatt Super Market*
- *Half Price Chain [TUSKER MATRESSES] – Bugolobi, Ntinda, Nakulabye*
- *Quality Chain – Martin Road, Lubowa and Ntinda*
- *Embassy Super Market – Kabalagala*
- *John Riche Super Market – Kabalagala*
- *Jaaz Super Market – Bugolobi*
- *Kibuli Super Market - Kibuli*
- *G & R Super Market Ntinda*
- *Pick 'n Save – Ntinda*
- *Good Price - Ntinda*
- *REHOBATH Shopping Centre – Kiwatula*
- *Quick Sale Super Market – Kiwatule*
- *P.K Super Market - Kiwatule*

Intellectual Property Right (IPR)

BTL currently has no IPR regime and has not patented any product. However it hopes to do so in the coming years as business scale grows.

Investments

The initial capital on investment was UGX18, 000,000 with an annual turnover of UGX 24,500,000.

Opportunities for up scaling the innovation

BTL International Ltd is in partnership with the farmers to introduce better methods of farming in order to enhance production of better and reliable loofah raw material.

Key outcome

The BTL International is willing to participate in the UniBRAIN initiative along with other stakeholders in the agribusiness innovation.

4 Fresh Vacuum Sealed Matooke (Frevasema) and Ancilliary Products

Contact details:

Director/ Principal Investigator: Dr.G.W.Byarugaba-Bazirake

Address: Food Processing Department, Kyambogo University, P.O.Box 7181, Kampala, Uganda

Mobile: +256776426578

Email: gwbbazirake@gmail.com

Mandates:

Vision

To commercialize post-harvested banana fruits and its by-products sustainably for global benefits

Mission

To provide fresh peeled, vacuum sealed matooke for both local and export market, reduce banana bulk transportation, optimally utilize matooke by-products (wastes) and reduce matooke wastes in urban centers.

Objectives

- Adding value to the matooke by prolonging FREVASEMA shelf-life and easing marketing locally and internationally.
- Reducing by 40% weight of the bulk burden of transporting matooke, hence reducing matooke waste (garbage) and their disposal costs in urban areas.
- Formulation of enriched livestock feeds.
- Formulation of dietetic menus using matooke as a base.
- Utilization of biotechnology cultures to produce vinegar.

Background

Tropical and sub-tropical Africa is endowed with plenty of fruits growing domestically and wild. However, a lot of these fruits are not optimally utilized for economic benefit. Fruit losses and wastages have been reported as high as 25% in bananas (Shahadan and Abdullah, 1995). One particular fruit which has become the most important crop world worldwide is the banana (Shahadan and Abdullah, 1995; INFO COMM, 2005). Globally, Uganda has annual banana yields of over 12 million tons, Uganda ranks 2nd in world banana production after India. Uganda is the largest world producer of cooking bananas locally referred to as matooke and yet she ranks 70th country in terms of total banana trade. Evidently, this shows that banana production in Uganda does not correlate with expected commercial returns. It is therefore uneconomical and a big burden for farmers and traders to transport unpeeled matooke on the poor road networks, at high fuel prices using reconditioned tracks in the Ugandan situation.

FREVASEMA project therefore, focuses on establishing ways of commercializing post- harvested matooke in a fresh form.

Chains of Agribusinesses under the FREVASEMA Company

i. Biogas Electrification and Refrigeration Project at Mbarara Industrial Park

○ Objectives

- To provide full or partial power of the Fresh Vacuum Sealed Matooke factory with a biogas fueled electric generator
- To provide full or partial refrigeration for the Fresh Vacuum Sealed Matooke factory from a biogas fueled absorption chiller (heat driven refrigerator)
- To economize the fuel requirements of the absorption chiller by utilizing the waste heat from the electric generator

ii. Biogas Production from Banana (*Matooke*) Waste Project in Eight Districts of Uganda

○ Objectives

- To develop a commercially viable, market oriented biogas industry in Uganda
- To increase awareness and knowledge transfer of biogas technology in rural areas
- Strengthen sustainable development of the biogas sector
- Provide lost cost, clean and environmentally friendly cooking energy and reduce respiratory and eye diseases caused by indoor pollution from smoke inherent to traditional cooking
- Improve the sanitary conditions of farm yards
- Design and build a macerating/shredding machine, this will be used to reduce the size of the feedstock before fermentation
- Fabricate efficient biogas stoves
- To reduce the workload of mainly women and children related to fuel wood collection and cooking
- Identify and establish the possible commercial applications of biogas (thermal and refrigeration) at dairy farms and institutions
- Evaluate the emission reductions from biogas systems to make a case for carbon emissions reductions (CERs)
- To improve soil nutrition through application of organic manure (from the biogas digester).
- To create rural employment related local biogas enterprises providing biogas services to households

iii. Uganda Banana Textiles Project (Ubatex) at Kyambogo University

○ Objectives

- Collaborate with Kyambogo University for research and development of banana textiles
- Conduct countrywide feasibility study of make fabrics and other essential products out of banana stems.
- Establish community banana textile groups to extract fibres and production of textiles
- Organize training in manual extraction of banana fibres and weaving

- Establish links with local and International Agencies interested in buying banana fibres and products.
- Introduction of appropriate technology to extract fibres from banana stem

iv. Banana Wine Processing at Bushenyi Winery

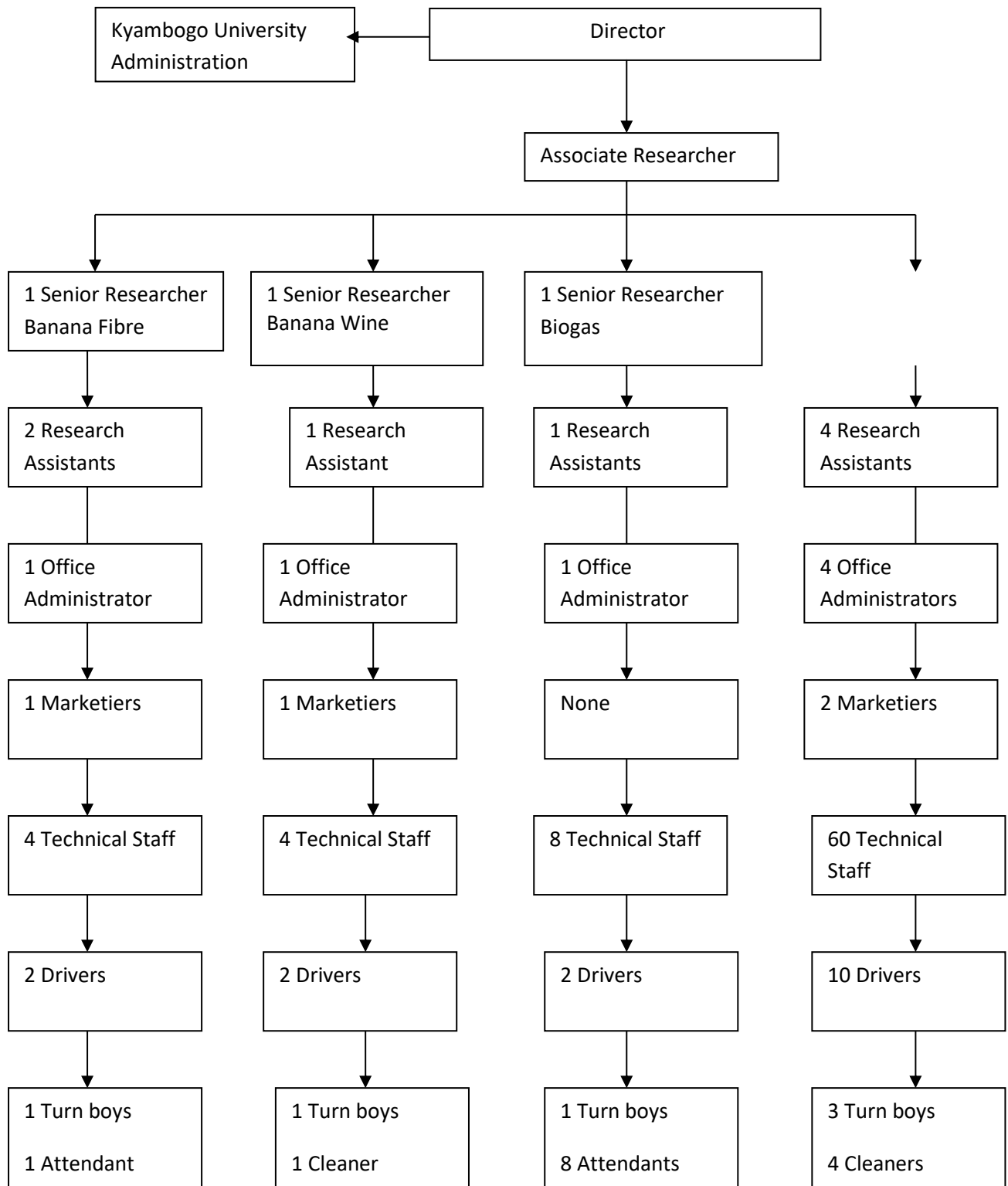
The Bushenyi Banana and Plantain Farmers Association (BUBAPFA) aims to promote agricultural value added innovations through banana wine processing and marketing.

BUBAPFA was established as a sustainable institution to support and sustain activities of improving and conserving bananas at grassroot in Bushenyi District. BUBAPFA operates and works with farmers in Bushenyi district, at the moment, concentrates in the pilot sub-counties of Nyabubare, Mitooma and Bumaire. It is a fully registered local NGO under non-governmental Statute of 1989, of the Republic of Uganda and incorporated under section 16(1) of the company's Act with limited liability. The Association itself is a properly registered local NGO with functional structures that include Local Authorities, Research Institutions, Religious leaders and farmers.

○ Objectives

- Increased production and earning capacity of the peasants by increased value from their bananas.
- Impart new practical technologies of food processing and post harvest technologies
- Be implemented by BUBAPFA Directors hand in hand with UniBRAIN
- The impact shall be evaluated using participatory methods by all stakeholders.

The business chain operates using the Structure of Administration & Governance shown below:



Capital Investment and Annual Turnover for 2010/11

No.	UniBRAIN Proposed Project	Capital Investment (USD\$)	Annual Turover (USD\$)
1	FREVASEMA	967,989.60	1,440,000.00
2	BIOGAS	128,774.00	3,600,000.00
3	BANANA WINE	121,412.00	100,000.00
4	BANANA FIBRE & TEXTILE	506,030.00	1,400,000.00
	Total	1,724,205.60	6,540,000.00

Key outcome

The consortia of FREVASEMA agribusinesses are very willing to consolidate the opportunities they have to participate in the UniBRAIN initiative.

5 ORIBAGS INNOVATIONS (U) LTD

Contact details:

Managing Director: Orikiriza Rusia Bariho

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P.O.BOX 26187 KAMPALA

Mobile: +256 774510325/ +256 703049185

E-mail: oribags_innovations@yahoo.com; orikirizarusia@yahoo.co.uk

Background Information

An Oribags innovation is a private limited company registered under the law of Uganda with the registrar of companies Reg No.111402. Since its birth in 2007 Oribags has been dealing in the manufacture of handmade paper products including paper bags, printing paper, beads and jewellery, out of agricultural wastes like wheat straw, rice straw, elephant grass waste paper and other natural fibres like banana and sisal.

Brief History

The company derives its experience from its founders in particular Mrs. Orikiriza Rusia who started making beads in 2005 while still a student as she narrates her story below.

“Having been a first born from a peasant family, my parents could not afford to pay for my secondary education. I was adopted by a humanitarian family that took care of me right from senior one. While in school I used to ponder about the blessing I had but something difficult was worrying about how my siblings would survive. They probably would not get the opportunity and luck I had received. I used to think of what to do to break this barrier and support my siblings in the village. In 2005, I observed I could do something out of jewellery which could be sustainable for years. I used to do design and do decorations out of art pieces using local resources such as millet seeds and beans to make artistic impressions. From such experience, I embarked on beads making using imported beads from India and China to make bracelets, bangles, necklaces, and designs. The business was lucrative. After the discovery of the need to back up my work with intellectual capacity and to ensure long term sustainability, I did data collection on how to use Paper and dry banana leaves to make jewellery. After experimentation, I realized that instead of relying on imported products, I could set up my own project. I thought of forming a small company for my own but this was seemed a dream due to lack of funds to effect the process.

In 2007 while in first year at Makerere University, I embarked on utilising waste paper from offices to manufacture beads. I then did my first experimentation on how to extract fiber from a banana stems to get fibre to make paper in a combination with other locally available materials. After saving some little pocket money from my guardian, I thought it was the opportunity I had always been waiting for to form the small company that was always in my dreams. I teamed up with a colleague and we formed Oribags innovations. In 2008, we started trying other organic fibres like pineapple crowns, Rice and wheat straw, cotton cuts, and

waste paper in collaboration with Uganda Industrial Research Institute after the Institute had identified the potential we exhibited and we are currently operating under the incubation programme at the Uganda Industrial Research Institute. Despite its limited capacity Oribags Innovations now produce good quality products from local materials which are then used to produce paper bags and beads that I currently sell on retail to various gift shops, craft shops and on many workshop functions in and around town”.

Mandates of Oribags innovations

Vision

To be the leading producer of environmentally friendly products in the region

Mission

To be a regionally respected value addition and environmentally responsible company in the region that offers, quality and cost-effective products and services to clients at the right period of time focussing on ensuring client needs and satisfaction.

Key products

Oribags key products include beads for jewellery including bangles, ear rings, necklaces, paper bags, greeting cards, manilla paper, and visitor’s books. With improved capacity we hope to make improved products and also diversify our product range to suit customer needs. Ancillary products include beaded bags, egg trays, craft paper, tetra packs and recyclable/disposable cups.

Awards and recognition

- Won the **WOMAN ACHIEVERS AWARD 2010** from the New vision group and DFCU Bank due to the contribution on innovation in Science and Technology/education/research/agricultural value addition/health and information sharing that has improved the wellbeing of people in the communities. The award was dedicated to the 2010 International women’s day (March 8th 2010).
- Won the **RISING STAR AWARD** from International Labour Organization (ILO) in collaboration with Africa Business Women Network and Uganda Women Entrepreneurs Association (UWEAL) on 13th Nov. 2009 at Imperial Royale Hotel Kampala as the Youngest Entrepreneur in Uganda with a young business that has demonstrated a true point of difference in the market place.
- Was elected to the Board of Directors of Uganda Women Entrepreneurs Association (UWEAL) as Young female entrepreneur’s representative.

Major weaknesses/Draw backs

- Space is limited for operation of activities
- Lack of modern machinery and equipment to produce high quality products
- Inadequate financial resources have continuously limited effective production to meet the intended targets.
- Limited capacity/training on better production techniques and specific areas in handmade paper technology, quality standards and assurance.
- Weather vagaries which prolong the production process due to dependency on sunshine for drying purposes
- Limited market access across the borders like southern Sudan and Rwanda due to lack of capacity to navigate the market.

- Greater effort is required to enable the public realize the importance of environment ally friendly products
- High competition from foreign investors with established firms which are in the production of polythene paper known as Kaveera.
- Transport challenge especially when it comes to sourcing of materials and deliveries which are far from the city centre

Opportunities for growth

- Collaboration with the Uganda's lead agency for industrialisation (UIRI) and other institutions gives us a lot of hope for business growth and support services.
- Increased access to information through the available information centers at UIRI
- Increased exposure and publicity especially has enhanced the opportunity of identifying new customers
- The newly launched East African common market promises to increase our customer base as our business as it grows.
- Availability of Technical expertise both in Oribags and UIRI will lead to improved product quality and business growth.
- The Government's move to ban the use of polythene bags is envisaged to boost market for paper bags.
- We hope to benefit from the governments support to young innovative entrepreneurs.

Partnerships

- Oribags is an incubatee at the Uganda Industrial Research Institute incubation centre and has been working in close collaboration with UIRI for her business development initiatives.
- Oribags is a member of private sector Foundation Uganda (PSFU)
- Oribags is an active member of Uganda Women Entrepreneurs Association Ltd (UWEAL) and has its director as the representative for young female entrepreneurs at the Board of Directors.
- Oribags is a member of the Uganda national chamber of commerce and industry.

Structure and Governance

Oribags innovations is owned and operated by Orikiriza Rusia and Davis Bagamuhunda .The share holders own 60% and 40% respectively. Orikiriza Rusia a trained Entrepreneur is the Manager and Managing Director of the company. She oversees management and running of the enterprise. Davis Bagamuhunda is a trained Engineer with great experience in production Engineering and Energy systems engineering, innovation and entrepreneurship. He is the Technical Director of the Company also responsible for research and development. Daily operations of the company are run by Kanyankole Denis who is the production Manager. He has great experience in paper and textile technology and has attended various trainings in Japan and India in paper processing and product Development. The Company employs other 4 people doing operations in our small scale plant. We still have a gap of more personnel as we expand.

Marketing strategies

The clientele are basically retail shops dealing in the sale of crafts and paper, gift shops, workshops and conferences where we supply most of the gift bags and jewellery. A big share of the market in

jewellery lies in the wedding functions where we have done lots of jewellery for wedding and introducing couples.

Oribags innovations recognize primary packaging production to be a new niche and the best prospect for Uganda in the medium to long term. It is against this background that efforts are being geared to this industry so as to specialize in producing complete ready-made biodegradable primary packages for end-users. This industry has great prospects to grow as local production increases.

At the other end of the spectrum, it is reasonable to assume that these trends will continue given the company's strategic location, human resource, experience, mandate among others. In order to sustain our relationship with the private sector, we hope to strengthen our collaboration with UIRI- a lead urgency in the Industrialisation of Uganda, other institutions and indigenous entrepreneurs who are seasoned players in the making of similar products for the past three decades. Oribags does person to person marketing. Oribags currently sells its products directly from the plant at UIRI and has no outlet in town. With increased resources Oribags plan to open up an outlet in the city centre for its products and also at Katuna Border of Rwanda where our products have been identified to attract a good market. Oribags intends to do serious advertising through the media to increase the market base for their products.

Issues of intellectual property rights

Oribags has not yet acquired any intellectual property rights so far due to limited capacity. However, they hope to obtain a trade mark and file a patent for their innovation with acquisition of viable resources.

Scale of Oribags innovations

Oribags Innovations is still a nascent enterprise still at the micro level although it is developing at a fast rate.

Financing

The initial capital investment for Oribags innovations was 5 million Uganda Shs.(\$2500).This included contribution of its Directors and seed support from UIRI. The estimated turnover currently in the last year was 7 million Ugandan Shillings.

Way forward

Opportunities for up scaling the technology

- The government of Uganda is in strong support of agricultural value addition initiatives to produce quality products. Oribags initiative is a good venture that promises serious transformation of the country within the sector.
- Space expansion for production facilities including establishment of a technology demonstration centre
- New equipment that can aid quality improvement to meet international standards and compete favourably on the market
- Skills capacity development and training in business management, project management, marketing skills etc
- Mentoring and coaching in the area of business development
- Intensive marketing and collaboration with other institutions for proper delivery of results.

Key Outcome

Oribags is willing to enter into the UniBRAIN initiative so as to enhance further use of research from universities and other research institutions, do networking with other entrepreneurs and foster cooperation and benefit from the capacity building programme which is very critical at this stage where we are.

Summary of Lessons Learned from the Visits:

- There was overall willingness of the incubators to participate in the UniBRAIN initiative. This was manifested in their positive responses that culminated during the workshop for agribusiness incubators.
- Most of the incubators and incubatees visited have no existing intellectual property arrangement and have not patented their products.
- Most of the incubatees have strong links with research institutions and private sectors but the link between them and the universities are weak.
- The incubators have no trusts on the university researchers hence they distance themselves and their innovations from them.
- The incubators lack the requisite facilities and infrastructure for up-scaling the innovations and are not well linked to sources of social capital/ venture capital
- The incubators and their incubatees still need capacity strengthening in agribusiness innovation incubation and in their respective endeavours.