

**A PROPOSAL FOR:  
MASINDI HOUSEHOLD WASTE MANAGEMENT PROJECT  
(2006-2008)**

**DATED: 2006**

**DRAWN BY:  
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**EXECUTIVE SUMMARY:**

NUTRIFAM SERVICES – UGANDA: Started as a community based organization but now it is registered as a Non – Governmental Organization NGO with the National NGO- Board.

NUTRIFAM SERVICES – UGANDA is now undertaking this project of Masindi household Waste management project. The organic waste around Masindi Town will be converted into compost manure and be sold off to farmers. Many farmers in Masindi

District are currently using synthetic Fertilizers in growing of Sugar cane, Tobacco and Maize. The fertilizer being used currently is imported from abroad.

The project of compost processing is pro-poor as more incomes will be earned after using the organic manure. The project will promote social progress; the population will feed on organic food and products with no chemicals involved.

The project will promote sustainable rural Economic Development. The project will be left to the communities after the three year period and it shall continue on itself with management committees formed out of democratic elections of members.

The project will be carried by NUTRIFARM SERVICES (U) and will work with Masindi Town Council to fulfill responsibilities to the public good of solid waste disposal and promotion of the organic farming in Masindi district.

This project carry a lot of innovations and creativity in all it's applications. To implement the project successfully, it requires Ug. Shs 212,818,000 (Two hundred and twelve million, eight hundred and eighteen thousand only, an equivalent to Euro 101,342 (one hundred and one thousand three hundred forty two) where 1 Euro 2,100 Uganda shillings.

We hope that the project will attract the attention of those going to Benefit from the project and those going to fund the project for the production of good organic Nitrous foods, free from any chemical poisoning and that NUTRIFARM SERVICES (U) will be supported fully to realize our Dreams.

Yours truly,  
PATRICK Arinaitwe

**NUTRIFARM SERVICES (U)**

## **1.0 Background**

NUTRIFARM SERVICES – UGANDA is a registered Non – Government organization with the NGO board in Uganda. The NGO is also registered with the National NGO Forum and has been interested in uplifting the living conditions of individual household members by ensuring them with food security and environmental protection. The target group has been the women of Masindi District.

Masindi District is known as the National food basket of Uganda for producing a lot of Maize grain and beans. The district has about 450,000 people of which at least 30,000 people live in Masindi Town alone.

Masindi District has a lot and wet climate with favourable conditions for rain fed Agriculture. Each day at least 1 ton of house hold waste is produced by 2,000 people; Masindi Town produces at least 15 tons of household waste every day. Masindi Town Council collects less than half of it daily. The rest remains on road sides, in open drains and in low lying area. This has a negative impact on the Towns environment. As the population of Masindi Town increases in the near future, it will become very difficult to find sites to bury the waste as the Town expands and transport costs to transfer wastes needs to be reduced to a sustainable level.

In rural areas, house hold waste is not / a serious problem because most waste is thrown away to become Farm Yard Manure.

**NUTRIFARM SERVICES (U)** is concerned with this project of Masindi house hold waste management. Waste has value and some developers have referred to it as the back gold that can be turned into the compost manure.

Compost making is a vital, life saving opportunity to save waste and turn it into productive use. Compost is made from mixing together organic waste materials such as leaves, weed and straw – and leaving them to decompose until a black, crumbly solid is formed. The materials needed to make it are locally available, accessible, and free.

Mature compost helps plants to grow better. It enriches soil, which loses nutrient to food – hungry plants. By using Compost people can grow more vegetables and fruit trees to feed themselves.

Many people in Masindi district know about compost, but they don't take time to make it in an organized way. Many farmers instead are relying on chemical fertilizers. However, these are very expensive and do not improve soil structure.

## **2.0 The problem and Needs statement:**

Waste disposal is a problem in Uganda's urban areas including Masindi Town. The litter around Masindi town is the breeding ground of mosquitoes, house flies and rats. Masindi Town council wastes a lot of money collecting these wastes and dumps the same in one place, making again another heap of house hold wastes and like wise a

breeding ground of the mosquitoes, house flies and rats; which affect communities around them.

House hold waste can be reduced, reused, or recycled to minimize the costs of removing it from Masindi Town. The waste is “Black” gold and a better substitute for the chemically made fertilizer which are currently being imported from United States of America. For example the Urea, a bag of 70 kg costs Ug. shs 35,000 – 40,000. these fertilizers even it they help the crops; they have a negative effect to the soils and are not environmentally friendly. The chemicals have a harmful effect on food and the soil. The world is now advocating for organic farm products which tastes good and have no harmful chemicals within them.

The term organic has caught up like fire and in Uganda; it is significantly being associated with nature (natural) quality and availability of markets. To the exporter, it is what import markets are demanding; as there are increasing demand of consumers in the developed countries about the health and safety of the food they eat. Consequently organic products are gaining prominence.

Uganda is being looked at as a prime source of organic products. Its comparatively advantage in terms of fertile soil, unspoilt environment, good climate and the fact that we have the least usage of synthetic fertilizers in the whole of Africa (less than 2%) is Putting Uganda at the forefront.

The European Countries are more becoming interested in organic products from Uganda as indicated in the recent Biofach (the worlds biggest fair in organic products) Nuremburg, German. Processed products such as dried apple banana; goose berry jam; dried pineapples, cream honey; brown honey tomato jam; goose berry jam; dried ginger; dried mushroom; moringa leaf and root powder. Local and exotic eggs from Uganda are all in high demand. The growing of these crops should be based on organic farming to keep the world market promising.

This project is to ensure the right to a sage food to chemically free foods as in Uganda there is an increasing use of Herbicides and GMO’s – Genetically modified organization.

### **3.0 The Vision:**

The vision of NUTRIFARM SERVICES (U) is to promote sustainable rural economic development in Uganda.

### **3.1 The main Goal / Mission:**

To process Rubbish (Organic Solid Materials) being treated as wastes into compose manure; (the Black Gold) for the promotion of organic farming in Uganda for a better nutritional standards.

### **3.2 Specific Objectives**

- (i). To establish 5 community based composite plants one per ward in Masindi Town Council area and employ at least 6 daily workers per plant.
- (ii) To collect rubbish 2-3 tons of house hold waste per plant and produce at least 500 – 600 kg of compost every day per plant.
- (iii) To promote organic farming in Uganda and reduce the use of synthetic fertilizers selling the processed fertilizers at the cheapest price possible.

### **4.0 The Masindi house hold Waste management project:**

NUTRIFARM SERVICES (U) would like to influence the decision makers of Masindi Town to start seeing the house hold waste as “Black Gold”. The waster if it is collected and decomposed into the fertilizers, the same fertilizers shall be sold to the farmers currently using the imported ones.

We all produce rubbish. We just throw it away. But the world is running out of room to store all the rubbish that is pilling up. If left lying around, rubbish becomes a health hazard and looks ugly like the rubbish of Tel – Aviv. Burning the rubbish pollutes the Air and ashes are often toxic. Sometimes rubbish is dumped into rivers and lakes and pollutes the water. Often rubbish is buried in the ground. Buried rubbish may contain toxic substances that leak into the soil and pollute the water supply.

### **4.1 Community Based Compositing Project:**

NUTRIFARM SERVICES (U) will start on a community based compositing project in 2005 to promote the concept of the 4 R's – reduce, recycle, recover waste in Masindi Town. The organic content of Masindi Town house hold waste, accounts for more than 70% of the total waste and this can be efficiently converted into valuable compost. This swill reduce Masindi Town's disposal costs and prolong the life time of land fill sites. It will also, reduce the harmful environmental impact of land fill sites, because organic waste is responsible for ground water contamination and methane gas emissions.

By turning the organic waste into compost, the soil in Masindi District shall be improve. The project will involve setting up 5 small scale enterprises in the zoning of Masindi town Council as follows:

- (i) The Northern Ward
- (ii) The Central Ward
- (iii) The Eastern Ward
- (iv) The Southern Ward
- (v) The Western Ward

The planned activities will involve formation of community waste management committee and NUTRIFARM SERVICES (U) will publish Booklets to mobilize the communities living in Masindi town to carry out activities that will improve our

environment. NUTRIFARM SERVICES (U) will provide technical assistance and training to help them manage, operate and maintain the services of house to house waste collection. Composting of the collected waste and marketing the compost and the recyclable materials.

NUTRIFARM SERVICES (U) will ask Masindi Town Council to provide land, water and electricity to the established communities based composting plants one in each ward. The members of the committees will be encouraged to be mostly women.

#### **4.2 Waste Collection**

Rickshaw Vans will be modified to collect waste from each house. Each will have a part time driver and one two waste collectors, and serve 300 – 400 house holds. House holds will pay on average shs 2,000 per month to have their waste collected.

The Rickshaw vans are jut big bins with three tyres built on a cycle that is driven as a tricycle Van – this bin will be marked.

<p><b>WASTE IS RESOURCE</b> <b>NUTRIFARM</b></p>
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The monthly collection will cover the salary of the van drivers and waste collectors as well as operation and maintenances costs these workers shall have protective wear such as Gumboots; Gloves; and eye glasses and mouth and nose Masks.

#### **4.3 Composting process**

Once the waste has been collected, it will be taken to the nearby composting plant. Organic waste shall be converted into compost using a method that does not produce bad smells. This is important because the composting plants are located near homes rather than industrial areas. The waste will be collected by the Town Council and be taken to their Landfill areas.

The organic waste is piled around a wooden (bamboo) rack to allow a good circulation of air content. The miracle effective microbes (EMS) can also be added; these are special organic microscopic organisms that excrete enzymes. They are able to make plants grow stronger and better. They can make compost decompose better. The EM bottles are available at NOGAMU – (National Organic Agricultural movement of Uganda) at Kabalagala opposite deep supermarket; P.O. Box 70071, Kampala.

Tel: + 256 – 269415

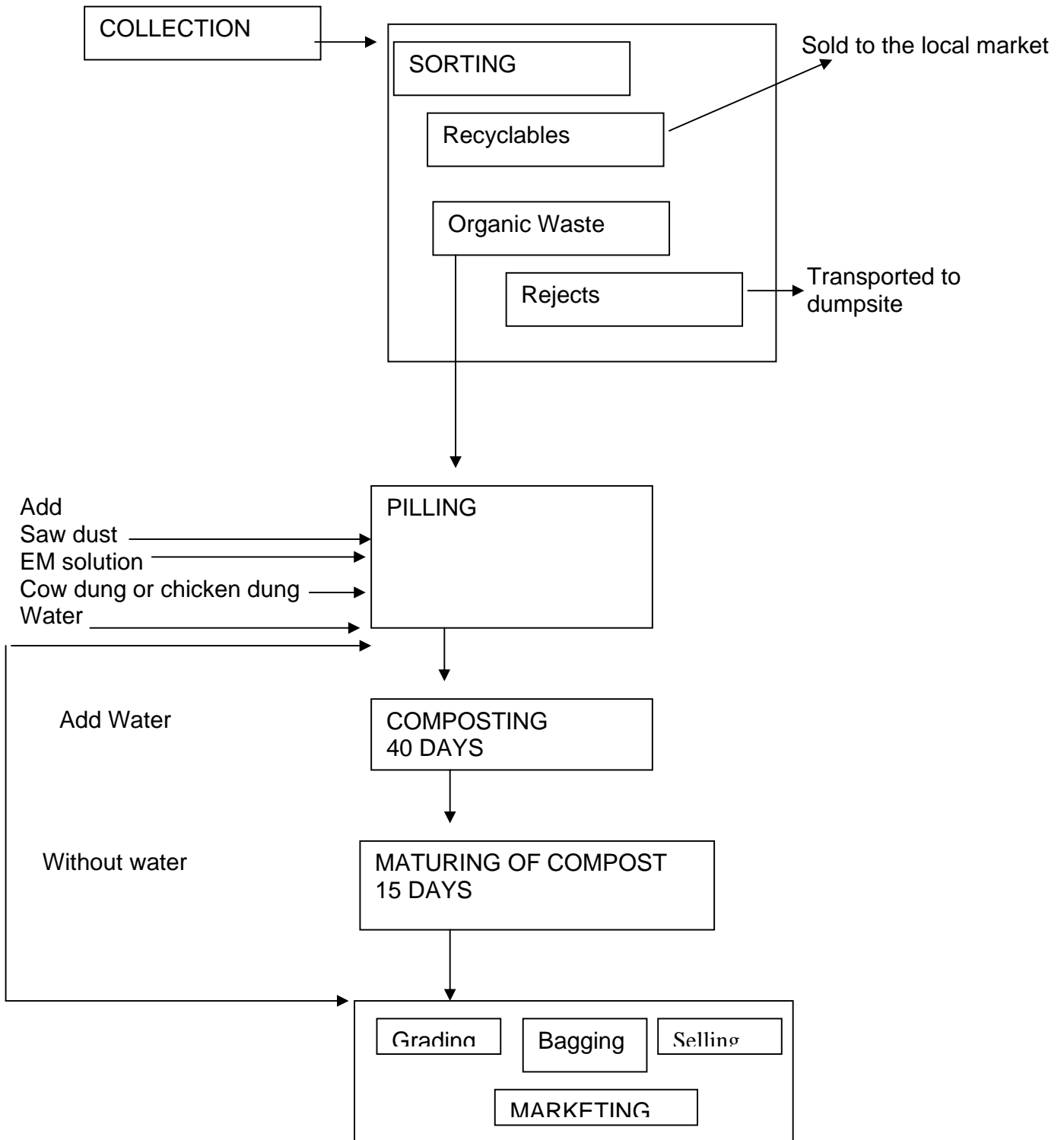
Fax: + 256 – 31264040

e-mail: [nogamu@utlonline.co.ug](mailto:nogamu@utlonline.co.ug)

The pile will be turned frequently in order to maintain the temperature and to ensure equal decomposition throughout the pile. Water will be used to speed up decomposition. Chicken and cattle manure will be added to increase the nitrogen in the compost.

This process will take 40 days. The pile will then be left to mature without turning or watering for 15 days. The compost will then be separated into fine and coarse grades and be packed into 50 kg bags to sell. Large lumps will be re-composted. One plant will be able to produce 500 – 600 kg of compost each day by processing 2-3 tons of household waste. This will involve six workers, mostly women.

**Masindi household Waste Management Process.**



## **5.0 Marketing process**

There is a good market for compost in Uganda, NUTRIFARM SERVICES (U) will help the communities sell their compost to a number of businesses, such as farm supply companies and plant Nurseries, NUTRIFARM SERVICES (U) will work closely with Uganda National Agro Inputs Dealers Association (UNADA) to help distribute the organic fertilizer to commercial Farmers.

Each 50 kg of compost bag will sell Ug. Shs. 15,000. more community based compost plants will be established in other urban areas once the demand for enriched compost grows up.

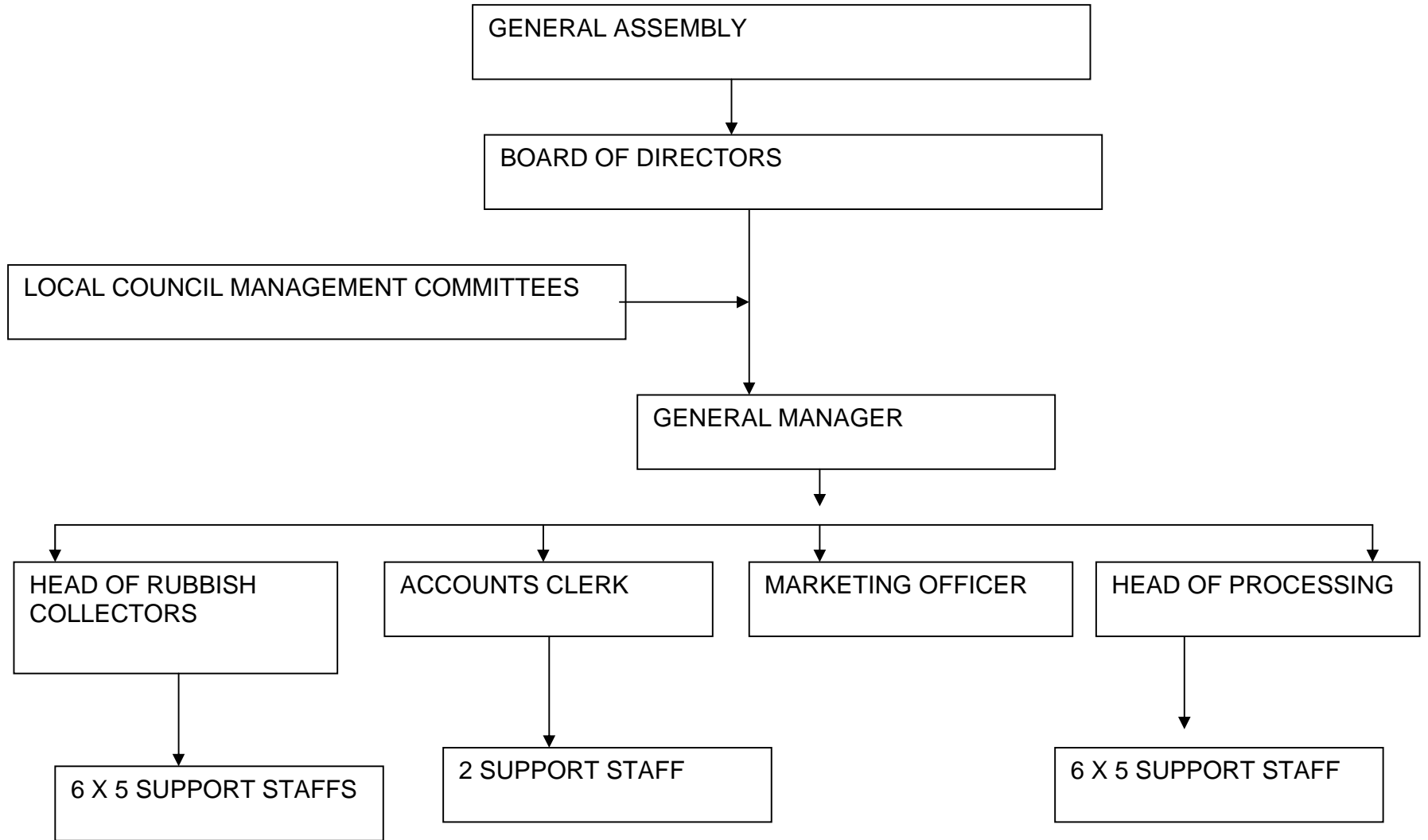
The Masindi household waste management project; if well established and implemented; it shall clean up communities, create jobs for poor people, reduce the Town councils waste management costs, and above all create business opportunities. This model after being successfully implemented, it shall be easily duplicated in else where in urban areas of Uganda. The project will work in close co-operation with Mr. Liftekhar Enayetullar, Director of Waste Concern in Dhaka, Bangladesh.

E:mail: [officer@wasteconcern.org](mailto:officer@wasteconcern.org)

Website: [www.wasteconcern.org](http://www.wasteconcern.org)

### 6.0 The Organizational Structure

The NUTRIFARM SERVICES (U) will be in close collaboration with the communities because they are the ones who generate the Household wastes and are therefore the much needed collaborators in the project.



A bank Account shall be opened up and three signatories will include the chairperson of the Board of Directors, the Treasurer of the Board and the General Manager.

The General Manager shall be the chief accounting officer and shall be responsible for the day to day running of the organization and planning for the progress of the NURTIFARM SERVICES (U)

#### 7.0 The Log – frame Matrix table for the House Hold Management Project by NUTRIFARM SERVICES (U)

Objectives	Planned activities	Target	Time	Indicator / output	Responsibility	Budget
1. Communities sensitized and made aware of the value of rubbish as "Black gold"	i) Mobilization ii) Radio programmes	7 1 per week	** ***	- Rubbish well kept - Town clean	Executive director Nutrifarm	
1. Plots of land acquired	i) Getting the land titles ii) Fencing them with barbed wires	5 5	** **	Land title A gazetted area	Nutrifarm Masindi Town Council	
Building materials assembled	Purchasing and transporting them to the site	See annex 1	**	Heaps Bags and numbers	Nutrifarm	
Plants established	Construction		***	Shades constructed	Nutrifarm	
Workers recruited	- Advertisements - Interviews	2 7	*	The general manager and the support staff	Nutrifarm	
Implements acquired	Purchasing them, transporting to the plant	See annex 2	*	See annex	Nutrifarm	
Collection of wastes	Tricycle men collecting the rubbish from homesteads	5 tricycle men	***	Heaps of collected rubbish at plant site	Rubbish collectors of Nutrifarm	
Sorted materials	Separating the following:-	5 tons	***	Heaps of rubbish	Nutrifarm	
	i) Recycles ii) Organic waste iii) Rejects	Unsorted materials			Processors	

Pilled materials mixed with other components like saw dust, water and chicken dung	<ul style="list-style-type: none"> <li>- mixing the materials</li> <li>- Composting</li> <li>- Composting</li> </ul>	The organic waster materials	**	Compost manure	Nutrifarm processors	
Marketing the compost manure	<ul style="list-style-type: none"> <li>- Grading</li> <li>- Bagging</li> <li>- Selling</li> </ul>	500 – 600 kg of compost per plant	50 bag 10 – 12 bags per plant			



	- Break Tea	30	2,500	75,000
	- Lunch	30	4,500	135,000
	<b>Allowances:-</b>			
	- Facilitators ( 2 days)	4	50,000	200,000
	- Participants	30	20,000	600,000
	Seminar hall	1	150,000	150,000
	Transport to demonstration sites	2 min bus	150,000	300,000
	Accommodation for 2 nights	4 facilitators	96,000	384,000
	<b>Sub Total</b>			<b>2,006,000</b>
Workshop 2 Institutional	<b>Stationary:-</b>			
	- Note books	30	2,500	75,000
	- Pens	30	300	9,000
	- Flip chars	1	15,000	15,000
<b>Leaders</b>	- Markers	1 pkt	3,000	3,000
	- Printed materials	30	2,000	60,000
	<b>Meals:-</b>			
	- Break tea	30	2,500	75,000
	- Lunch	30	4,500	135,000
	<b>Allowances:-</b>			
	- Facilitators (2 days)	4	50,000	200,000
	- Participants	30	20,000	600,000
	Transport to demonstration centres	30	5,000	150,000
	<b>Sub Total</b>			<b>1,322,000</b>
Workshop 3 L.c II & III Masindi Town	<b>Stationary:-</b>			
	- Note books	30 x 6	2,500	450,000
	- Pens	30 x 6	300	54,000
	- Flip charts	3	15,000	45,000
	- Markers	6 pkt	2,000	12,000
	- Printed materials	30 x 6	3,000	540,000
	<b>Meals:-</b>			
	- Break Tea	30 x 6 x 2	2,500	900,000
	- Lunch	30 x 6 x 2	4,500	1,440,000
	<b>Allowances:-</b>			
	- Facilitators (2 days)	4x6x2	30,000	1,440,000
	- Participants	30x6x2	5,000	1,800,000
	Transport to demonstration sites	2 min bus	150,000	600,000
	accommodation for 2 nights	4 facilitators	96,000	384,000
	<b>Sub Total</b>			<b>7,665,000</b>
Equipments and tools	i) Protective wears	3 sets	40,000	1,200,000
	ii) Tipper lorry	1	80,000,000	80,000,000
	iii) Wheel barrows	10	60,000	600,000
	iv) Spades	30	15,000	450,000

	v) Vans	10	200,000	2,000,000
	vi) Sticking machines	5	500,000	2,500,000
	vii) Empty bags polythene	6,000	500	3,000,000
	viii) Motor cycle	1	6,000,000	6,000,000
	ix) Shades	5	2,000,000	10,000,000
	<b>Sub Total</b>			<b>105,750,000</b>
	<b>Summary of the budget</b>			
	1. Salary and wages			64,800,000
	2. Operational expenses			10,000,000
	3. Mobilization			21,275,000
	4. Workshop 1			2,006,000
	5. Workshop 2			1,322,000
	6. Workshop 3			7,665,000
	7. Equipments and tools			105,750,000
	<b>Sub Total</b>			<b>212,818,000</b>