YOUTH IN AGRICULTURE FOR ECONOMIC DEVELOPMENT (YAED)

PROJECT NAME: **ROOTING OUT MALNUTRITION WITH NUTRITIOUS ORANGE FLESH SWEET POTATO**

PROJECT TITLE: **MWANA WA THANZI**

PROJECT PERIOD: **2017-2018 GROWING SEASON**

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EXECUTIVE SUMMARY

Deficiencies of micronutrients such as vitamin A are widespread, especially in Africa. In Malawi, vitamin A deficiency is a public health concern. About 60% of children under five, 57% of nonpregnant women, and 38% of men and school-age children have vitamin A deficiency. Orange fleshed sweet potato (OFSP), one of the crops biofortified for provitamin A using conventional methods, is high in beta-carotene (provitamin A) and it is a possible solution to Vitamin A deficiency and under-nutrition. Sweet potato is an important food staple in many countries of Sub-Saharan Africa. This is because most varieties tolerate drought better than most crops and this is often the crop that is relied upon in the event of other crops' failure.

In Malawi, sweet potato is increasingly becoming an important crop in terms of its contribution to food security. Owing to the fact that OFSP is drought tolerant, it can be used to address Vitamin A deficiency and food insecurity. Access to clean planting material, however, remains a challenge in sweet potato production.

Past studies have shown that occurrence of viruses and diseases in sweet potato drastically reduce its yields. Therefore, there is a need to ensure that clean planting material is used at all times. YAED project **"Rooting out malnutrition with nutritious orange flesh sweet potato"** aims to improve vitamin A and energy intake for at least 500 rural households with women and young children using OFSP-based approaches, and to ensure that at least 80% of households growing OFSP earn not less than US$ 700 per year from OFSP sales. Owing to the fact that most of the land holding is already under crop production, OFSP production will also be achieved by intercropping with other crops. Women farmers therefore will be advised and encouraged on the intercrop system.

Contents

ABBREVIATION

FAO: Food Agriculture Organisation

MoAWD: Ministry of Agriculture and Water Development

MoH: Ministry of Health

MoHDHS: Malawi Demographic Health Survey

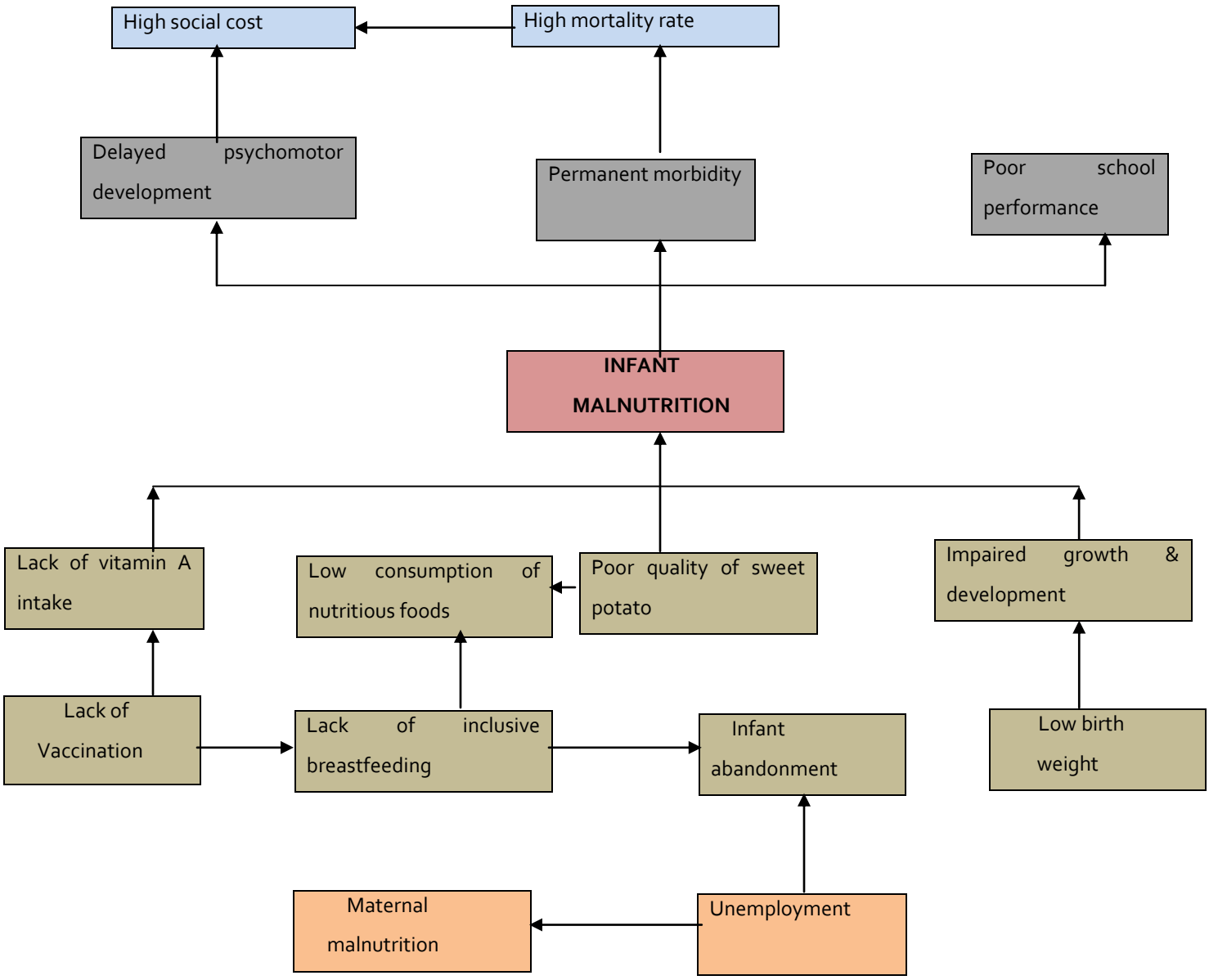
NSO: National Statistic Office

OFSP: Orange Fresh Sweet Potato

UNICEF: United Nation Children Fund

WHO: World Health Organisation

PROBLEM TREE



PROJECT OBJECTIVES

1. To improve vitamin A intake for vulnerable rural groups through the effective establishment of OFSP multipliers by 2019.
2. Increase effective demand by changing the perception of people towards sweet potato; develop fresh root marketing chains for OFSP and reduce fluctuations in overall sweet potato supply to the fresh market.
3. Increase the production and quality OFSP by intensifying farming systems to eradicate malnutrition, ensure surplus production for sale and decrease the length of hunger season by 2019.
4. Build capacity of households through growing of sweet potato plantlets and maintain primary multiplication sites by 2019.

PROBLEM STATMENT

Malnutrition describes a state of imbalance between the dietary needs of the body and the type of diet provided to the body. It impacts brain development, behavioral development, cognitive development and perhaps most visibly growth development. More specifically, the numbers of underweight (low weight-for-age), stunted (low height-for-age) and wasted (low weight-for-height) children are common measures for the number of malnourished children in most countries, Malawi in particular.

About 14% of children under 5 are underweight while 16% of them are stunted (UNICEF, 2007), but the prevalence of malnutrition in Malawi is much higher. It is estimated that 36% of children under five are underweight, 37% are stunted and 7% are wasted, with relatively equal proportions of males and females in all three categories (MDHS, 2005). Malnutrition is also more prevalent amongst the poor and in rural areas. This is caused by lack of vitamin A in the human body and low consumption of nutritious foods such as Orange Fresh Sweet Potato.

One of the best ways to reduce malnutrition is to practice immediate (within the first hour of life) and exclusive (with no other type of food) breastfeeding until the age of 6 months. Unfortunately in Malawi, although 96% of women breastfeed, only 10% of newborns are breastfed within the first hour of life (MDHS) and the Malawi Demographic Health Survey

(2005) found that only 45% of mothers were exclusively breastfeeding their infants at 4-5 months, even though exclusive breastfeeding is recommended until the age of 6 months. Moreover, many Malawian mothers do not have good complementary feeding practices as they often introduce other types of foods too early, and as these complementary foods are often not nutritious enough, consisting mainly of rice porridge or soups with low energy density (Anderson et al., 2008). As such infant malnutrition is on rise due to lack of inclusive breast feeding and children vaccination.

Unfortunately, even if Malawian mothers have a good understanding of healthy infant feeding practices they cannot be able to implement them because of other constraints, for instance poverty which sometimes forces mothers to seek additional income away from home, and availability of foods in the community as Malawi's agriculture is mainly centered on cash crops such as tobacco, tea and cotton.

Furthermore, infant malnutrition has an impact on the development of a community and nation at large especially delayed psychomotor development among the infants. Malnourished children experience developmental delays, weight-loss and illness as a result of inadequate intake of protein, calories and other nutrients. Because orphaned and institutionalized children may experience one or several macronutrient and micronutrient deficiencies, they are at risk for a variety of short-term and long-term complications. Malnutrition negatively effects brain development causing delays in motor and cognitive development, such as attention deficit disorder, impaired school performance, memory deficiency learning disabilities, reduced social skills, reduced language development Reduced problem-solving abilities

In addition, nutrient deficiencies infections commonly co-occur in children. A child may contract an infection due to poor nutritional status. In turn, a gastrointestinal infection places the child at even greater risk for nutrient deficiencies because nutrients are unable to be absorbed properly. Consequently, nutrient deficiency combined with infection can cause growth retardation. This usually affects causes poor school performance among children at school and home.

Not only that, malnutrition among children leads to high mortality rate. Deficiency in one nutrient may lead to a deficiency in another nutrient. For example, deficiencies in iron, magnesium and zinc can cause anorexia and thereby result in reduced intake of other important nutrients such as protein. Low lipid intake can also affect the absorption of important fat-soluble vitamins such as vitamins A and D. Zinc and protein deficiencies can retard bone growth and development, putting a child at risk for long-term complications. This contributes to an increase in the death of children affected with nutrition deficiency.
The short-term implications of malnutrition eventually give way to long-term complications, such as growth and cognitive delays.

Malnutrition has big devastating effects to the economy of the country and needs to be addressed at all cost hence deploying measures to curb such is a must. This if not carefully considered may result into Permanent morbidity especially to the under five children and High social cost services to the health sector in particular. Malnourishment can greatly compromise a child's immune system, making them more susceptible to infectious diseases. Particularly in institutions where there are poor sanitary practices, children are vulnerable to infections from other children or caregivers. Orange flesh sweet potato can actually play a big role in combating the permanent morbidity and high social cost which is already crippling the health sector.

PROJECT DESIGN

NARRATIVE	OBJECTIVE VERIFIABLE INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS
OVERAL OBJECTIVES			
To improve vitamin A and energy intake for at least 500 rural households, with women and young children using OFSP and to ensure that at least 80% of households growing OFSP and earn not less than US$700 per year.	40% Increase in proportion of households which are food secure by 2019	Through a survey	Consistence flow of funding

	SPECIFIC OBJECTIVE			
1	To improve vitamin A intake for vulnerable rural groups through the effective establishment of OFSP multipliers by 2019.	80% of women in target areas have access to improved quality OFSP to curb death caused by malnutrition among infants	Project/ Consortium M&E reports; National Poverty Monitoring Survey Reports	Supportive political and economic environment to stimulate public and private sector investments
2	Increase effective demand by changing the perception of people towards sweet potato; develop fresh root marketing chains for OFSP and reduce fluctuations in overall sweet potato supply to the fresh market	At least 100% target women are informed, organized and empowered to respond to market and agricultural development opportunities	Project/M&E reports	Conducive policies and institutions supporting the OFSP sector
3	Increase the production of quality OFSP by intensifying farming systems to eradicate malnutrition, ensure surplus production for sale and decrease the length of hunger season by 2019.	Reduce prevalence of malnutrition among women and children by 90%	Project/M&E reports	Sustained commitment from farmers to participate in the project activities
4	Increase the income capacity of households through growth of sweet potato plantlets and maintain primary multiplication sites by 2020.	70% improve of food inadequacy and income among women and infants	MoAWD Reports	Coordinated efforts with locals
	OUTPUT			
1.1	90% Health vulnerabilities eradicated, health productive infants and women farmers emerges by 2019	At least 5 training workshops in food production and dietary innovative	MoH Nutrition Response Report	Continued high demand of OFSP by women
2.1	Market linkage between women and buyers developed for 500 women farmers	Efficient OFSP markets developed for improved varieties of sweet potato	EPA Report	Commitment of the target group
3.1	95% decrease in infants death and mortality rates caused by malnutrition predicaments	At least 500 women trained at various levels of plantlets value chain in OFSP production	UNICEF Reports	Coordinated effort with other players/stakeholders
4.1	70% decrease in dependency syndrome among through	At least 70% of women are financially independent	MoF Reports/Survey Reports	Willingness of the community and other

	communal income saving activities			stakeholders
	ACTIVITIES			
1.1	Training in the food processing, production and dietary innovative activities	At least 500 women are trained in food production	Food Insecurity Response Plan Report	Availability of inputs and resources
2.1	Training in the production of quality assures certified OFSP plantlets by community growers & out grower schemes	At least 700 youth starts their own agri-business for self-income generation	Government Gazette	Commitment of the target group
3.1	Conduct massive demonstration & dissemination campaigns in the project communities to showcase improved varieties	At least 1000 households trained proper OFSP flour production, food processing and storage management	EPA Reports	
4.1	Facilitate the production of plantlets by women and selected community clubs	At least 500 households benefits from health initiative and have implemented the project to address malnutrition	MoAWD Report/ NSO Report	Consistence flow of funding

1. INTRODUCTION

1.1 Background of the project

Globally, it is estimated that 250 million children are vitamin A-deficient, putting them at risk of night blindness and other related diseases. Sweet potato forms part of the world's most important and versatile food crops. With annual production of about 107.3 million tons; it is recorded as the fifth most important food crop in developing countries (FAO, 2009). This tuber is an important food security crop worldwide.

Malnutrition remains a serious problem in Sub-Saharan Africa (SSA), the only region in the world where both the number and the proportion of malnourished children is on the rise. Each year, more than four million children under the age of five die in Sub-Saharan Africa and malnutrition causes 55% of these deaths (UNICEF, 2007). Across the developing world, 178 million or 32% of children under five years are stunted and 112 million or 20% of the children

under five years are underweight (Black, *et. al*., 2008). The region has difficulty matching its food production with its population growth. People are malnourished if their diet does not provide adequate calories, protein and micronutrients for growth and maintenance, or if they are unable to fully utilize the food they eat due to illness (under-nutrition) (UNICEF, 2006). One of the major nutritional problems facing developing countries is micronutrient deficiency, in particular vitamin A deficiency (VAD) (West & Darnton-Hill, 2001), which predominantly affects low-income groups (Ruel, 2001). VAD is a leading cause of early childhood death and a major risk factor for pregnant and lactating women.

Vitamin A deficiency is a public health concern. In Malawi, about 60% of children under five, 57% of non-pregnant women, and 38% of men and school-age children have vitamin A deficiency (MOHP, 2003). The Malawian government has been distributing vitamin A capsules to malnourished children and lactating mothers to reduce vitamin A deficiency in the country. Supplementation as a method of reducing micronutrient deficiency, however, is a short-term, limited and unsustainable solution. Where supplementation is used as a long-term solution, deficiencies may reoccur in times of economic or political crisis, indicating that supplementation efforts may be subject to the effects of social instability (Underwood, 1999).

Orange-fleshed sweet potato (OFSP) is an example of a bio-fortified crop, in which the micronutrient status of staple foods is enhanced through plant breeding to the point where impact on micronutrient status can be achieved (Bouis, 2002). Biofortification, the improvement of the nutritional quality of staple foods, has high potential to alleviate micronutrient deficiencies and is relatively cheap (Bouis, 1999, Meenakshi, *et.al*., 2010). The OFSP biofortified for provitamin A using conventional breeding methods, released and promoted in many African countries (Low, *et. al*., 2007).

1.2 Situation analysis

Malnutrition is responsible for causing over half of all child mortalities within the Sub-Saharan African nation of Malawi. The economy of Malawi is largely agriculturally based, and has resulted in over 90 percent of the national population living under $2 per day (UNICEF 2015).

The sustainability of the Malawian diet has proven highly volatile, as both natural phenomenon and human activities have resulted in a persistent track record of food insecurity. With two major food-scarcity crises occurring in the past decade, the level of dietary energy supply within Malawi does not meet the level of demand for population dietary energy requirements (FAO 2015). Additionally, agricultural practices within this region have contributed to a lack of dietary diversification and insufficiencies in the provisioning of micronutrient food resources.

The statistical rates of children experiencing the effects of malnutrition within Malawi have remained unaltered since 1992 www.smilelife.com). With 46 percent of children under the age of 5 experiencing variations of growth stunts and 21 percent of children underweight, the adverse defects are most commonly influenced by micronutrient deficiencies.

MoH 2014 determined that 60 percent of children under the age of 5 and 57 percent of non-pregnant women were experiencing sub-clinical Vitamin A deficiencies. Low levels of Vitamin A are responsible for significantly weakening the immune systems of developing children. It further contributes to low life expectancy rates correlated to the contraction of major illnesses.

The leading causes of malnutrition within Malawian children commonly include inadequate access adequate pediatric care systems and the malnourishment of pregnant and breastfeeding mothers. Efforts to improve micronutrient deficiency rates through food-based strategies have proven widely ineffective and must be redesigned to offer adequate micronutrient resources to at risk population groupings such as children under 5 and pregnant women. Efforts to reduce the frequency of malnutrition within Malawi have included increased sustainable immunization practices, more effective micronutrient supplementation and distribution, increased access to sanitary water resources and efforts to eradicate neonatal tetanus.

Despite the use of such development programs to reduce the prevalence of malnutrition, only 61 percent of the nation's population exercises consistent access to enhanced sanitation methods. With an estimated 25 percent of government education institutions within Malawi

lacking access to sanitary water resources, it is imperative to note the dire circumstances consistently faced by many Malawian children.

Malawi will continue facing numerous challenges of malnutrition if not fully addressed. With one in eight children dying each year in Malawi from preventable conditions including neonatal defects, malaria and HIV-related diseases, attention to the nutritional status of Malawian children is essential. The strengthening of short-term methodologies such as dietary supplementation coupled with investments in long-term food-based strategies will allow continued successes in reducing national malnutrition rates.

The organisation realizes the need to address the phenomenal through engaging women in orange sweet potato farming to address malnutrition.

1.3 Project justification

Hunger and malnutrition are common in Malawi. The challenges are compounded by a changing climate that hampers agricultural production, in turn aggravating health and socioeconomic problems (MoH 2011). In 2009, vitamin A deficiency affected nearly a quarter of infants aged 6 to 36 months. Vitamin A deficiency restricts growth, weakens immunity and eyesight and contributes to high childhood mortality. By contrast, promoting the vitamin A-rich orange-fleshed sweet potato (OFSP) offers a route that both taps and supplements an existing resource.

Micronutrient deficiencies are common. MoH Micronutrient Survey (2001) revealed that 60 percent of children under five and 57 percent of non-pregnant women had sub-clinical Vitamin A deficiency. Vitamin A deficiency lowers children's immunity and reduces their chances of surviving a serious illness. The causes of malnutrition in children include poor childcare practices, diets lacking in calories and nutrients, frequent bouts of disease and chronically under-nourished pregnant and breastfeeding women.

Growing sweet potato requires few inputs compared with other crops and relatively little labor, and it is traditionally a woman's crop (Hunger Project report 2010). As women are the main care givers for young children, and together with those children are also the group most vulnerable to vitamin A deficiency, OFSP is a particularly appropriate intervention (WHO2015).

Although rural poverty and agricultural challenges persist, sweet potato can be grown with limited land, labor, and capital. Orange Sweet potato is high in carbohydrates and vitamin A and can produce more edible energy per hectare per day than wheat, rice, or cassava (FAO 2013). The crop has relatively few natural enemies, thus reducing the need to use pesticides, and can be grown in poor soils with little fertilizer. There are early-maturing varieties of tubers that resource-poor farmers can use in several ways that provide opportunities to boost both nutritional health and incomes.

Climate change, through rising temperatures and greater variability of rainfall, is significantly affecting agricultural productivity and production in Malawi. This has potentially far-reaching implications for food and nutrition security, and for the livelihoods of the rural poor. FAO 2011 portends that sweet potato is considered a robust crop that is already well adapted to production requirements in vulnerable locations. Furthermore, it has great scope for adaptation to changing climatic conditions through varietal development and improved agronomic practices.

Malnutrition is very devastating and the sole biggest contributor to child death. In Malawi, unfortunately there has been no change in children's nutritional status since 1992 and malnutrition rates remain unacceptably high. Around 46 percent of children under five are stunted, 21 percent are underweight, and four percent are wasted (UNICEF 2014).

YAED Project "Rooting out malnutrition with nutritious orange-flesh sweet potato" has the capacity to exploit the food and nutrition security potential across different climatic and environmental conditions among children and women. The project will be achieved through integrated crop management, intercropping of maize and sweet potato, and introducing drip irrigation. During Year 3, the project will extend this work to orange sweet potato- soybean intercropping in drought-prone areas of Project core districts. The project will empower women as the bears of malnutrition that affects children. They will be given the dietary food training practices and processing, OFSP preservation training skills, agribusiness trainings and necessary farm inputs including plantlets.

2. PROJECT DESCRIPTION

2.1.1 Overall objectives

The overall objective of the project is to improve vitamin A and energy intake for at least 500 rural households, with women and young children using OFSP and to ensure that at least 80% of households growing OFSP earn not less than US$700 per year from OFSP sales

2.1.2 Specific objectives

1. To improve vitamin A intake for vulnerable rural groups through the effective establishment of OFSP multipliers by 2019.
2. Increase effective demand by changing the perception of sweet potato; develop fresh root marketing chains for OFSP and reduce fluctuations in overall sweet potato supply to the fresh market.
3. Increase the production and quality OFSP by intensifying farming systems to eradicate malnutrition, ensure surplus production for sale and decrease the length of hunger season by 2019.
4. Increase the capacity of households through growth of sweet potato plantlets and maintain primary multiplication sites by 2019.

2.1.3 Target Beneficiaries

Direct Beneficiaries: The 2-year project appeal seeks to support 500 women with children in the age bracket of 4month-12years, who take subsistence farming as their source of livelihood. The beneficiaries will be identified in two districts of rural Blantyre and Nsanje which are among the worst hit with chronic food insecurity and its associated issues. The districts are in the southern region of Malawi. YAED will therefore, target the 500 women in two Traditional Authorities in each district, that is Traditional Authority (T/A) Somba and T/A Mulolo in rural Blantyre and Nsanje respectively. The main strategy to use is to increase household food security through the introduction and adoption of integrated diversified agricultural system for 500 women.

Beneficiary targeting and selection criteria will be based on the most vulnerable women with the most affected infants in terms of malnutrition, food instability, shocks and inability to recover (with reference to the four pillars of food security; availability, stability, accessibility and utilization).

Beneficiary Identification and Registration systems; 60% of the targeted beneficiaries will be from:

i) Female Headed Households (FHH)
ii) Households with People Living with HIV/AIDS or chronically ill persons
iii) Ultra poor households
iv) With Disabilities

Beneficiary identification and registration will use participatory approaches that will involve close coordination between YAED staff, District agriculture office staff as well as local communities in the two districts.

Indirect Beneficiaries: Members of the surrounding communities of the target areas who have been relieved from the social burdens as former vulnerable and food insecure households may in time have reliable income and stable OFSP that will later on flow to the community and help strengthen local markets, increase farm labour demand as well as the value of productive assets. These beneficiaries will also benefit from the primary beneficiaries through mentorship and barter.

2.1.4 Target Area

Rural Blantyre and Nsanje Districts are the two districts targeted among the districts in the southern region of Malawi. Rural Blantyre district has a total population of 583,167 resulting from population density of 230 persons per km^3, more than half of whom are 18 years or younger (52.6%). The main ethnic groups are Mang'anja/Nyanja, Yao and Lhomwe and the predominant marriage system is matrilineal.

The economy of Nsanje is dominated by agriculture, and farmers in this district produce different crops such as rice, cassava, sweet potato, groundnuts, beans, and pigeon peas with

Individual maize production as the main activity, while tobacco is cultivated as the main cash crop. Husbandry is still underdeveloped; nevertheless cattle, poultry, goats, sheep, pigs and rabbits are raised for meat production, with livestock production being the most dominant.

The District has a total land area of 1,942square kilometers (750 sq mi) and has a population of 194 924. The annual rainfall varies between 600mm and 150mm. Of all the cash crops, cassava has the highest yield while maize was the food crop with the highest yield. The people in these two districts depend on agriculture as a source of their livelihood, Individual maize production accounts for the main agricultural activity, while tobacco is cultivated as the main cash crop. The conservative farming system of tilling soil using animal traction and applying fertilizer is not well adapted to the cycle of reoccurring droughts, declining soil fertility and lack of oxen and inputs in the two district. The result of these problems is a chronic shortfall in food production at the household level forcing households to become more dependent on food relief.

Despite this initiative, the women from the two districts are given little or no any opportunities to engage them in innovative agricultural initiatives that address vitamin A deficiency and malnutrition.

3. PROJECT OUTPUT

Output1: 90% Health vulnerabilities eradicated, productive infants and women farmers emerge by 2019

The Ministry of Health's Micronutrient Survey (2001) revealed that 60 percent of children under five and 57 percent of non-pregnant women had sub-clinical Vitamin A deficiency. Vitamin A deficiency lowers children's immunity and reduces their chances of surviving a serious illness. As such YAED project will reduce health predicaments caused by vitamin A deficiency among the infants. Women will be empowered to stand out in addressing children deaths through farming of OFSP that contains vitamin A.

Output2: Market linkage between women and buyers developed for 500 women farmers

It is widely recognized that women contribute significantly to agricultural production, processing, and marketing. Despite their importance, however, there are market imbalances in ownership of key productive assets that continue to perpetuate greater poverty and vulnerability among women. In recognition of such imbalances, the project will make conscious efforts to reach women farmers and female-headed households. It is envisaged that at least 70% of the beneficiaries of the project will be women who will gain access to improved OFSP and agronomic practices. Varietal characteristics of importance to women include early maturity (food security, especially during the hungry season, or cash needs during critical period). This will be achieved through linkage between stakeholders, buyers and female farmers.

Ouput3: 95% decrease in infants death and mortality rates caused by malnutrition predicaments

Malnutrition is devastating and the single biggest contributor to child death. In Malawi, there has unfortunately been no change in children's nutritional status since 1992 and malnutrition rates remain unacceptably high. Around 46 percent of children under five are stunted, 21 percent are underweight, and four percent are wasted. Micronutrient deficiencies are common. The causes of malnutrition in children include poor childcare practices, diets lacking in calories and nutrients, frequent bouts of disease and chronically under-nourished pregnant and breastfeeding women. Through YAED project **"**rooting out malnutrition with nutritious orange flesh sweet potato" there will be 95% decrease of child death caused by malnutrition due to lack of food nutrients being caused by poverty that strikes the mother.

Output4: 70% decrease in dependency syndrome among women through communal income saving culture

The project will create a revolving fund established to sustain basic production of OFSP using revenues from the sale of produce to various consumers by beneficiaries. Efficient OFSP markets will be developed for improved varieties of sweet potato, Continuous and sustainable supply of basic plantlets of improved varieties of OFSP will be established in Malawi to Increase profitability and sustainability of potato production.

4. PROJECT ANALYSIS

4.1 Economic Analysis

The project will go a long way in uplifting the livelihood of the target beneficiaries. This is in line with the Malawi Growth and Development Strategy II which seeks to reduce poverty through sustainable economic growth and infrastructure development, focusing on agriculture and food security as a key priority area (Government of Malawi, 2011).

According to UNICEF (2015) 74% of Malawi's population lives below the income poverty line of US$1.25 a day while 90 per cent of the population lives below the US$2 a day threshold. Therefore, this project will help to enhance agricultural productivity among women and thus increase their disposable income through sale of their surplus harvests. This will also help in promoting National food self-sufficiency which is also being championed by the Malawi government.

According to a 2015 FAO report; Malawi's agricultural sector accounts for one third of the GDP and nearly 80% of employment, as such it is considered the engine of our economy. The 500 beneficiaries will therefore be empowered to help in complimenting the Government's efforts in increasing agricultural productivity and diversification for sustainable economic growth.

The project will also improve access to credit for the 500 beneficiaries. Due to increased Disposable income, there might be an accumulation of assets among beneficiary households, these assets can serve as collateral when accessing loans.

4.2 Environmental Analysis

The World Bank climate profile of Malawi states that Malawi is particularly prone to adverse climate hazards including dry spells, seasonal droughts, intense rainfall, ravine floods and flash floods (2014). According to statistics this has led to a decrease of about 30% in maize production. In view of this, the project will diversify from the reliance on maize and scale up support to other agriculture crops like OFSP.

The targeted beneficiaries will be taught on the new techniques of farming to contain the effects of climatic change. In 2006 the government launched the National Adaptation Plan of Action (NAPA) which encourages growing of drought resilient crops and use of appropriate technology.

The plan also articulates of enhancing food security and developing community-based storage systems for food which happens to be in line with this project.

The project will also advocate for reforestation to combat the effects of climate change, soil erosion and soil fertility. Encouraging the 500 beneficiaries to plant Tephrosia Vogelli (a fertilizer tree) will be one of the strategies used. This will help in replenishing the soils used for Agriculture purposes.

4.3 Social Analysis

Our target area is largely dominated by the women and single parent households who can help achieve food security and eradicate infant malnutrition in their society if given resources.

Understanding the social needs of the target area is of paramount importance to any effort of reducing poverty and ensuring food security to address malnutrition.

This analysis tells whether the project contributes to equitable and sustainable development in the area and the country as a whole. The target beneficiaries and other key stakeholders will express their opinions to do with the project as well as participating in the development opportunities created by the project.

There will also be social inclusion aiming at empowering the women, single parent households and those living positively with the HIV pandemic. This will give them a firm decision making voice about situations affecting their lives hence achieving shared prosperity.

The project will also keep the single mothers away from indulging in risky behaviors such as prostitution, theft which might negatively affect their lives. Through increase in household

disposable income, the project will increase access to a number of social and economic services such as education, health, nutrition, and sanitation and agriculture extension. For some requiring home based care, HIV/AIDS services (prevention and mitigation of effects), psychosocial support and other rehabilitation services, this project will provide links to such services through coordination with District Agriculture and Health offices.

Linkages to other services will illustrate significant positive impacts such as:

- Increased agriculture production which will result in greater food stores, increased daily meal intake (fewer days without adequate food or fewer missed meals).
- Better nutrition resulting from improved dietary diversity
- Improved health for both adults and children (e.g. Decrease prevalence of underweight children)
- Improved school enrolment, attendance and performances

5. PROJECT SUSTAINABILITY

Prospects for sustainability are high primarily because the project will bring about changes in agriculture and agribusiness skills of women and long-lasting core competencies in women entrepreneurs. The programme methods will build the capacity of local partners and communities through transferring skills rather than simply money, equipment or materials. The sustainability depends on local women relevance, ownership and attitudinal change. The main mechanisms to ensure the sustainability of the programme are:

- Ownership and commitment from local authorities and communities: This commitment is assured through their active participation in the design and implementation of the programme. The programme will engage with community structures directly in an on-going dialogue to explore from the vantage of the community what can be done to improve the quality of livelihood among the women. Work within the community will include trainings in nutritious food production. The knowledge imparted will remain even after the end of the project and will be a resource for the women and the community.

- Furthermore, the project will be integrated into Ministry of Agriculture and Water Development systems. District agricultural advisors and Inspectors from Agriculture Development Division (ADD) will ensure that this approach is embedded within agriculture policy. There will be monitoring / reviewing its performance as part of their normal practice including farm inspections. Long term coaching and capacity building

by experienced volunteer experts and employees will model change and provide significant coaching support, as opposed to one-off training.

- Improved leadership: the project has as much focus on leaders as service providers (e.g. national volunteers) this shows the lasting effect of the approach. Continuous monitoring and feedback loops. The primary output of the M&E will be a document outlining recommendations for nutrition and agribusiness reform, which could be applied to other developing countries.

6. MONITORING AND EVALUATION

The Project Management Team will have a significant monitoring and evaluation capacity. Monitoring and Evaluation Coordinator will oversee Monitoring and Evaluation Officers in each operation areas. The Monitoring and Evaluation staff will be responsible for supporting the collection, analysis and sharing of data across the programe areas. Data generated by this unit will be shared with all stakeholders, as well as being used to adjust programming activities as needed to address any gaps or reduce overlaps as appropriate.

M&E staff will regularly review data received from partners and undertake field visits to sites to assess progress and meet with partners and beneficiaries. They will prepare monthly progress reports that provide a summary of planned activities for the month, progress to date and plans for the upcoming month. In addition, M&E staff, in collaboration with partners, will develop standardized monitoring forms that will be used to collect information about the project.

During the first month of the programme, baseline data will be collected and supplemented as needed to ensure that the programme is able to accurately measure progress against the proposed indicators and detail the programme's outputs and outcomes. In addition, a final evaluation by an external evaluator will be conducted at the end of the programme to assess achievements, lessons learned and best practices.

YAED will operate transparently to ensure that all project planning, implementation updates and evaluation findings are communicated to all stakeholders. YAED will also continue to use a people centered approach that will put women themselves at the centre and ensure that all interventions are shaped and guided by them, with quick and responsive feedback loops. Group village headmen, councilors and Members of parliament will be engaged to support the project's M&E. In particular conduct research on the project's areas of innovation and specific research questions.

The organisation will work with selected agricultural experts to develop the Monitoring and Evaluation Framework (MEF) for the project and to coordinate the M&E activities. It is understood that the MEF will evolve over the course of the project and will be modified when the operating environment dictates a need to review initially proposed performance indicators.

Any amendments to the framework will be discussed among project partners and submitted for approval and endorsement.

Initially, YAED will seek feedback from all stakeholders in this project – womens themselves, both political and traditional leaders, Ministry of Agriculture and project implementers. Focus groups would be convened with all beneficiaries. The desire is to make it participatory and innovative in all aspects of project implementation, including M&E data collection and analysis.

7. PROJECT IMPLEMENTATION APPROACH

The project objectives will be achieved through the formation womens clubs initiative nurtured by YAED. This is through mobilization and organization of women into nutrition and agri-business groups for growing, distribution and marketing of OFSP based products. Systematically, identified women will be up skilled in OFSP flour production, OFSP biscuits production, business plan development, agri-business enterprise management, group action, as well as incentivized to address dietary issues. In addition, women will be mobilized and organized into agri-business groups and trained in OFSP food production and selling. The project will also use the women to create awareness for regular consumption of OFSP based products to improve household dietary diversity.

These women are going to begrouped into clubs identified through local leadership and organized into Community Agriculture womens Clubs where every woman in the club shown own a minum of not less tha one hecter of land verified by the chief. Each Community Agriculture women Club will have 10 members that will efficiently run the enterprise supervised by senior officers from YAED. These club members will be given an initial start up plantlets.

As a startup, the organization will have 6 Community Agriculture Clubs, three in each of the two districts. YAED will also identify and explore potential markets where the women will sell their produce. This way, the project is also used as a self regenerating mechanism for the project to sustain itself among the targeted beneficieries beyond the pilot period. This project will eventually grow their entrepreneur's capital base after sales and make the project sustainable in the long term.

8. GENDER ANALYSIS

YAED is an organization that works across the gender divide , thereby creating opportunities for benefieries of either sex. YAED is a very open organization and regularly consults all staff with full staff meetings. YAED provide an exceptional platfoarm for open discussion parteining arising ideas and opinions whilst encouraging women to fully express their views without any hindrance. There is an equal opportunities policy within the organization that includes no sexual harassment in the workplace. All members of staff, both men and women, are keenly aware of gender issues in development and YAED as a whole is pasionate to improve the opportunities available to women across Malawi. This is a core component of project planning. Although YAED does not have enough representation by women on its full time staff, it aims to have a 50:50 representation by end 2017. This notwithstanding, the beneficiary members of the 6 Community Agriculture womens Clubs. The project will also be co-managed, with one of the key Project Coordinator being female. This ensures that issues of gender are taken on board for project sustainability.

9. PROJECT ACTIVITIES

- Training in the food processing, production and dietary innovative activities
- Training in the production of quality assures certified OFSP plantlets by community growers & out grower schemes
- Conduct massive demonstration & dissemination campaigns in the project communities to showcase improved varieties
- Facilitate the production of plantlets by women and selected community clubs
- Conduct massive demonstration and dissemination campaigns in project communities to show-case improved pig breeds and complementary animal management practices
- Develop user friendly extension materials to stimulate interest
- Organize field days and field evaluation sessions to popularize and engage more women
- Identifying and mobilizing women into groups for agribusiness trainings

9.1 Expected Outcomes

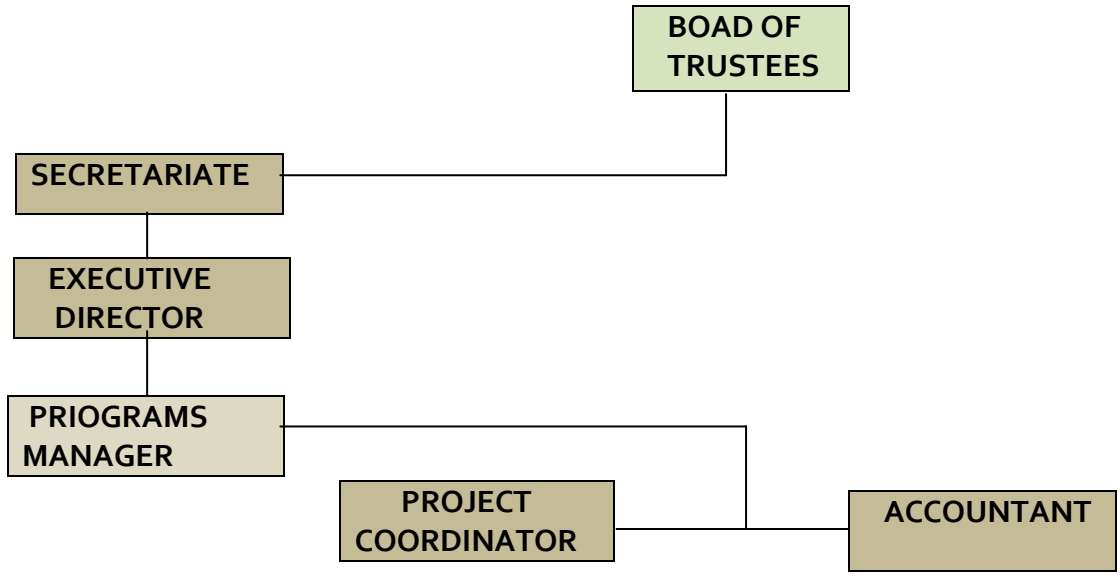
- 6 nursery multiplication scheme established
- 6 clubs identified, mobilized and trained
- At least 500 women trained in OFSP management
- Marketing channels identified
- Performance report produced quarterly basis and end of phase one evaluation conducted.
- At least 5 training workshops held every year
- At least 500 farmers trained in OFSP flour production

10. PROJECT ACTIVITY TIMELINE

	Time Schedule (year and months)																					
	Year 1 (2017)										Year 2 (2018)											
Project Activity	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Project planning & design																						
Women identification at village-level																						
Nursery established & multiplication of orange sweet potato for each club																						
Training programs of women clubs on plant material propagation																						
Prepare farmer-friendly training & extension manuals in local language																						
Distribution of plantlets of OFSP to farmers and planting																						
Developing , implementing food-based nutrition improvement strategies (e.g., nutrition education through schools, communication campaigns for nutrition awareness)																						
Training in OFSP food processing & agribusiness management																						
Data collection, analysis, and report writing																						

Quarterly review meetings																							
Management field visit																							
Demonstration/ field day																							
Monitoring and Evaluation																							

ORGANOGRAM



14. TEAM RESPONSIBILITY

- **Board of Trustees:** Guide management and staff of the organization on all issues and matters affecting the operation of the Organization. Furthermore, the Board put into strategic plans operational guidelines and policies formulated by the organization.

- **Executive Director**: Accountable for all operations, employees and volunteers; setting of strategic direction and new partnerships with government/funders/private businesses.
- **Programs Manager:** Responsible for organizational systems and processes to deliver effective and efficient programmes. Ensures that there is a sharing of learning, and ensure that there is cross-fertilization between programmes.
- **Accountant:** Guarantees the financial and operational integrity of the grant within the requirements of the donor; ensures effective and efficient processes and appropriate creation of necessary documentation / reports. Responsible for the production of management reports for the project steering committee as well as the donor.
- **Project Coordinator:** Lead on daily project operations including planning and management; establishment and communication with partners; assess capacity gaps among key implementers and set specific capacity building objectives; ensure all employees, volunteer advisors and implementers have detailed work plans; provide ongoing technical support and ensure feedback is incorporated into project implementation; link with finance and M&E support systems; report on progress and share good practice; address performance issues; conduct annual partnership reviews.
- **Coordinators:** Assist the management team in the running of the organization, carrying out field tasks as directed by management and reporting to management the progress of the Program components under them.

15. ABOUT YAED

Youth in Agriculture for Economic Development-YAED is a nonprofit making organization that seeks to promote and advocate participation of locals in agriculture. The organization was formed in January 2016 and is duly registered with the Malawi Government's Registrars act (cap: 5:03) as The Registered Trustees of Youth in Agriculture for Economic Development (YAED) and affiliated with Ministry of Sports, Youth development and welfare under the Southern Region Youth Office. YEAD is in the process of joining National Youth Council of

Malawi (NYCOM), the Council for Non Governmental Organizations in Malawi (CONGOMA) and the NGO Board.

YAED understands that youth in the country take dim view of agriculture as a career; Yet Africa's agriculture is predominantly done by the old and infirm – those left behind or retired into rural areas as young people seek opportunities in the growing urban setting

The organization acknowledges that the exodus out of rural areas also means exit from agriculture. The trend condemns Africa's future without successors to the agricultural producers of food fiber and fuel. YAED realizes that youth are energetic than the elders left on the land: if they were engaged, they would have greater capacity to learn and apply modern yield-enhancing technologies, technologies for processing, and modern management methods to apply to the entire value chain from farm to market. The organization is operating in the districts of Blantyre, Nsanje, Zomba and Chiradzulu.

The organization was born out of a working group of youth engaged in agriculture who sought to find ground breaking solutions to combat unemployment through agro based enterprises. Furthermore, YAED address the problems arising from climate change by diversifying production, high unemployment and extreme poverty faced by the youths.

Currently, YAED is implementing agricultural projects in growing of soybean seeds with the support from International Institute of Tropical Agriculture (IITA) under the project harvesting wealth from the soil. The organisation also intends to implement a livestock project in breeding of pigs, goats and poultry and maize and pig production.