

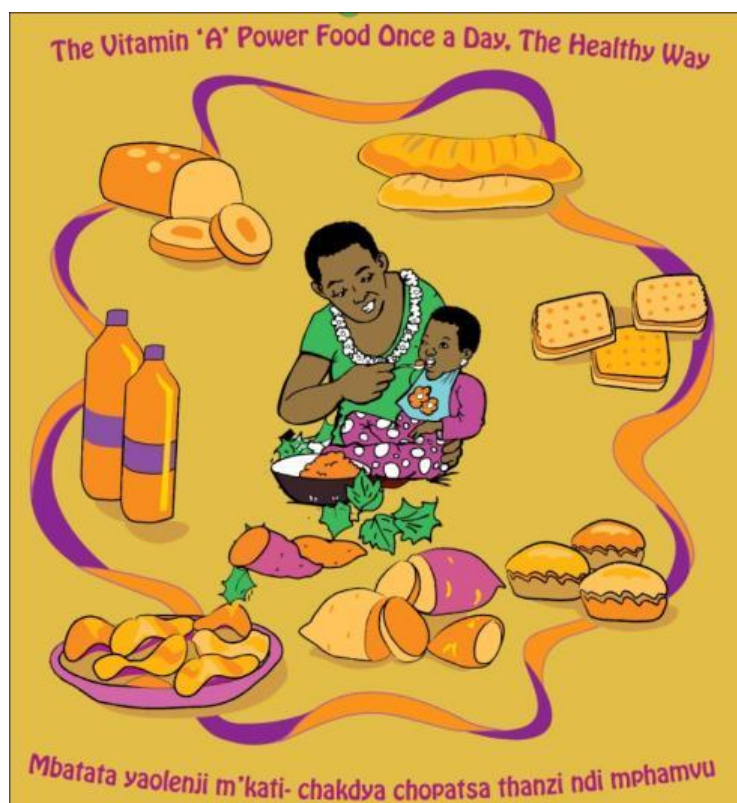
Rooting out Hunger in Malawi with Nutritious Orange-Fleshed Sweetpotato

Report on CIP regional technical support for nutrition information education and communication (IEC) activities and partnership assessment¹

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20 July 2011

¹ See Annex 1 for TOR and deliverables.



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ACRONYMS

AEDO	Agriculture Extension Development Officer
CADECOM	Chikwawa Catholic Development Commission
CU	Concern Universal
CIP	International Potato Center
DARS	Department of Agriculture Research Services
DNHA	Department of Nutrition and HIV and AIDS (DNHA)
ENA	Essential Nutrition Actions
GOM	Government of Malawi
HSA	Health Surveillance Assistants
IEC	Information Education and Communication
IYCF	Infant and Young Children Feeding
MVP	Millennium Villages Project
NMS	National Micronutrient Survey
NNECS	National Nutrition Education and Communication Strategy
NOS	National Office of Statistics
OFSP	Orange-fleshed Sweetpotato
OPC	Office of the President and Cabinet
SUN	Scaling up Nutrition
TA	Traditional Authority
TIP	Trials for improved practices
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WFP	World Food Programme

1 SUMMARY OF RECOMMENDATIONS AND PROPOSED WAY FORWARD

1.1 Review budget availability for Information Education and Communication material development and training activities

An estimated budget of \$30,335 is required for the Information Education and Communication (IEC) activities. This have been reviewed and discussed with the Project management and funding for the proposed activities are now incorporated into the proposed year 3 budget. The rest of this section summarises the proposed activities which the budget would cover.

1.2 Master trainer workshop

A master trainer workshop would be hosted with project nutritionists or other personnel responsible for training from Millennium Village Project (MVP), Chikwawa Catholic Development Commission (CADECOM), Concern Universal (CU), World Vision (WV) and district nutritionists from target districts. The workshop would be for 3 days, with 12 participants (2 from each district). The workshop will have 2 objectives:

- a. To develop up to 12 recipes and accompanying messages for multi-mix complementary foods for infants and young children which include either orange-fleshed sweetpotato OFSP roots² or leaves.

A key gap which has been identified is to adapt or develop recipes for appropriate complementary feeding with the actual amounts of ingredients which would provide the recommended nutrient content for each feed for different age groups. The recipes will follow the principles laid out in the six Malawi 6 food groups, the “essential nutrition actions” (ENA) and the Infant and Young Children Feeding (IYCF) guidelines. The recipes should also be season (i.e. rainy/dry season availability of foods) and age specific. The accompanying messages will focus on diversity, quantity, frequency and style of feeding. Before the workshop project partners will be requested to complete the short checklist in Annex 2. A competition could also be mounted before the workshop, so that the participants come with a variety of recipes which will be fine-tuned together with the appropriate messaging. Photos can be requested showing different aged children eating complementary foods in appropriate settings (e.g. own plate, encouragement from care-giver), and photos of the seasonally available foods being used in the recipes. There could also be a competition for a song/game for care-givers to encourage children to eat well, eat OFSP and grow up to their “full potentials”³.

² OFSP flour could be included, however until we have confirmation of β -carotene retention rates in stored roots and flour, we should emphasise fresh roots and leaves, and make clear that OFSP flour should not be stored more than 2 months. CIP and the Department of Agriculture Research Services (DARS) are currently conducting a trial on the β -carotene retention (see mid-term report Apr 2011 at sweetpotato knowledge portal)

³ The phrase “full potentials” is a key advocacy message in the National Nutrition Education and Communication Strategy (NNECS)

It is proposed that that a request is made to Irish Aid for their nutritionist, Ruth Ayoade/Butao,⁴ to take the role as principle facilitator for the Master trainer course and the development of the IEC materials in collaboration with CIP's communications department for the graphics work; and for Catherine Mfitlodze (MVP nutritionist) to be the field facilitator to provide continuity as the training is then cascaded to the district based HSAs.

The master trainer workshop should be implemented by September 2011 to ensure that key IEC content has been developed for use in different formats e.g. a calendar and radio programmes.

- b. Prepare 2 day course on IYCF for HSA and other frontline workers

This would be based on ENA and IYCF guidelines, and incorporate the recipes and messages developed under a) above.

Provisional budget: **\$ 4,390**

1.3 Preparation of IEC materials

The seasonal recipes and accompanying messages would form the core materials which could then be produced in different formats. Suggested formats are:

- a. Wall calendar showing recipes by season and age group with accompanying messages, and photos
- b. 2 day IFYC module incorporating OFSP
- c. HSA counselling and communication "aids" (e.g. roll up oil cloth with recipes, pocket note book)
- d. Radio spots including "seasonal recipe of the month" and testimonies from mothers who have improved their complementary IYC feeding practices. See Annex 2 for request to Irish Aid for additional technical and financial resources for recording mothers' testimonies.
- e. Theatre, songs, games encouraging care-givers in appropriate feeding styles

Provisional budget: **\$ 9,250**

It is hoped that the project can also take advantage of the design team which will be contracted as part of the NNECS 1,000 Special Days Initiative. (See section 1.5)

1.4 Implement HSA training module and plan for cascading training to care-givers

Provisional budget for five districts:

- a. Training of 15 HSA per district: **\$10,450**

⁴ Formerly Food Security Adviser in the Department of Nutrition and HIV and AIDS (DNHA) in the Office of the President and Cabinet (OPC))

- b. 15 HSA in each district train 10 care-givers each: **\$6,245**
- c. Each care-giver then mentors 2 other care-givers, who then mentor another 2 care-givers

Estimated total number of care-givers who could be reached:

5 districts x 15 HSAs, x 10 caregivers, x 2 caregivers x 2 caregivers: 3000

This course should be implemented at the beginning of the sweetpotato harvesting period in March-April 2012, and the cascade training approach should continue from April through to September 2012.

1.5 Review experiences and lessons and share in National Nutrition Education and Communication Strategy forum

It is essential that the project keeps in the loop with the National Nutrition Education and Communication Strategy (NNECS) to ensure harmonization of messages and to identify future opportunities for expanding production and utilization of OFSP within the “1000 special days” initiative. The initiative will be launched at the end of July 2011. The pilot districts for the NNECS are: Dowa, Mangochi, Nenu, Nkhata Bay (Unfortunately, none of these are in our target areas). The project leader (Erna Abidin) will send the names and contact details of the nutritionists working with each project partner (MVP, CU, CADECOM, and WV), so that they can be included in e-mail lists about the activities and roll out of the NNECS⁵. In August or September 2010, the project will hold an awareness raising session with key members of the NNECS team. In order to ensure that the IEC materials are harmonized with the NNECS, the draft materials will be sent to the core team for the NNECS in the Department of Nutrition, HIV and AIDS (DNHA) in the Office of the President and Cabinet OPC. The NNECS will be supported by a communication design team from Uganda which will work with communication specialists from the Ministries of Agriculture and Health. This is being supported by UNICEF. Dr. Mtimuni leads the NNECS IEC development group, the project will keep in close contact with her so that it can possibly use the same design team for the IEC materials or at least ensure that style and branding is harmonized with the NNECS “1000 special days” initiative. Likewise, the project will seek to have our OFSP-related materials integrated into the NNECS IEC standard materials.

⁵ However, it is not yet clear who will be the operational focal person in DNHA for the NNECS.

1.6 Proposed time line

Table 1 below proposes a timeline for the implementation of the project nutrition IEC activities based on the major seasonal availability of OFSP roots⁶. The activities can be spread across two budget years.

Table 1: Proposed time line for implementation of IEC activities

Seasonal availability	Leaves available													
Seasonal availability								Harvest of roots						
Project Budget year	year 2							year 3						
Calendar year	A	S	O	N	D	J	F	M	A	M	J	J	A	S
General Demand Creation Events				x	x						x	x		
Master trainer workshop														
Preparation	x	x	x											
Implementation			x											
IEC material														
Design and layout		x	x	x	x	x								
Printing calendar			x											
Printing counseling cards (6 districts x 50 staff)							X							
Recording for radio spots	x	x												
Air time: radio spots: 2 x month				x	x	X	X	x	x	x	x	X	x	
Theatre: 5 districts x 2 events									x	x	x	X	x	
2 day trainings of HSA/AEDO at district level														
Preparation								x						
5 districts									x	x	x			
Training community focal persons in districts														
5 districts										x	x	X	x	x
Monitoring activities					x			x			x			x

⁶ Note that in some areas with valley bottom access there is also production of roots and vines during a second season; hence, there are some roots available in the October-March period. The project is also testing fresh root storage pits, which if widely adopted would help expand period of availability for consumption.

2 INTRODUCTION AND BACKGROUND

Malnutrition levels, in particular stunting and micro-nutrient deficiencies in Malawi have remained stubbornly high over the last decades. Efforts to improve food security have focused on fertiliser subsidy programmes which have contributed to short term improvements in maize security. While at the national level there are policies to support crop diversification; these have not necessarily been translated into improved dietary diversity at the household and individual levels. However recent surveys do provide some evidence of a reduction in malnutrition rates. According to the 2009 National Micronutrient Survey (NMS) preliminary results (OPC, 2010), mild Vitamin A deficiency⁷ (of children 9-59 months) dropped from 60% in 2004 to 40% in 2009. According to the same survey 95% of children 6-59 months received vitamin A supplementation.⁸ This good news largely results from extended coverage of Vitamin A supplementation through all health facilities and extension to hard to reach areas through Child Health Days. Levels of under five child stunting have also improved from around 48% to 36% (OPC, 2010). Macro level factors (e.g. economic growth of around 7% for the period 2005-2009, and increased agricultural production, food security) together with expansion and improvement in nutrition and child health –related services have contributed to these improvements. (OPC, 2010) However, the question is whether these improvements will be sustained, and what additional efforts are needed to support a continued reduction in malnutrition rates. While facility based interventions have played a key role reducing Vitamin A deficiency, food based approaches can complement Vitamin A capsule distributions and contribute to sustained vitamin A intakes as part of an overall balanced diet at household level.

Sweetpotato is one crop which has the potential to contribute much more to alleviate hunger and address simultaneous address food and nutrition security in Malawi. All sweetpotatoes are good source of vitamins C, E, K, and several B vitamins (not B12) and a good source of energy (Jaarsveld et al., 2006, Haskell 2004). The energy output per unit of land per unit time is higher than maize or cassava (Woolf, 1992). Sweetpotato is grown throughout Malawi. In terms of total production, sweetpotato is the third most important food crop in Malawi but most varieties grown in Malawi are white or yellow-fleshed. The dominant variety, “Kenya”, is yellow-fleshed but its color is due to other carotenoids. It has no significant amounts beta-carotene, nor do white-fleshed varieties⁹.

Pro-vitamin A rich varieties are now available and can be exploited, both for home consumption and sale. Research has established that the beta-carotene is bio-available (Jaarsveld et al., 2005) and can significantly contribute to reduction in vitamin A deficiency in resource-poor settings in Africa using an integrated approach (Vine distribution combined with demand creation (awareness raising + community level nutrition education) (Low, et al., 2007). OFSP serves as an entry point for working with caregivers to improve young child feeding practices and the household diet. The introduction of OFSP involves a marginal change in agricultural practice as farmers are used to growing sweetpotato. There is a concurrent opportunity to introduce better agronomic practices to improve overall yields (Grüneberg et al., 2004). OFSP can be made into porridge and enhanced porridges with groundnuts and other sources of protein and oil can be promoted for children 6 months of age and above. Sweetpotato leaves are also consumed as a relish in Malawi. They are a good source of B vitamins (except B12) and for a dark green

⁷ 0.7-1.05mmol/L

⁸ NNECS (draft document 6/12/10)

⁹ There is confusion in Malawi and OFSP is often incorrectly called yellow potato or yellow sweetpotato (as is the case in the Essential Nutrition Messages shown in Annex 7). It is important to emphasize that it is the orange-fleshed varieties that have adequate amounts of beta-carotene. This could be shortened to orange sweetpotato but orange-fleshed specifies that we are talking about the inside not the outside of the sweetpotato.

leaf, have good levels of protein (4%). Consumers prefer lobed sweetpotato leaves, not broad leaves and this influences varietal choice. Zondeni, the OFSP variety currently being promoted by the project, has the preferred leaf shape.

Dr. Felicitus Chipungu, sweetpotato breeder and project co-leader based at Bvumbwe research station, released Zondeni in 2008. With support from Irish Aid, the International Potato Center (CIP) is backstopping the Department of Agriculture Research (DARS) and other development partners (government extension, CADECOM, Concern Universal (CU), Millennium Village Project (MVP)) to disseminate OFSP. For the first two years (2009-2010 and 2010-2011) the project operated in Chikwawa, Dedza, Phalombe, and Zomba districts¹⁰, emphasizing building up the supply and delivery system for planting material for Zondeni. The variety is well liked, particularly by young children. The program emphasizes the training and establishment of trained vine multipliers in villages to serve a 10 km radius with quality planting material. As of 31 March 2011, more than 10,000 households had received 300 cuttings each of OFSP (Zondeni) planting material. During this period, project partners hosted many event days at which key messages about the benefit of vitamin A and the benefits of growing and consuming OFSP were emphasized (see Annex 4 for details).

This report covers the background, rationale and planning for the nutrition interventions which need to be incorporated into the project. The preparation of the National Nutrition Education and Communication Strategy (NNECS) in the latter part of 2010 and its expected launch at the end of July 2011 as part of the Scaling up Nutrition (SUN) initiative, provide a serendipitous context for the project's proposed activities. The work undertaken as part of this report draws upon the NNECS, identifies concrete areas where the project can contribute to the NNECS practical implementation, and additional mutual opportunities for further up-scaling.

3 SCOPING MISSION AND DRAFT FINDINGS FROM FORMATIVE RESEARCH

A scoping mission was conducted in July 2010 by the regional nutrition and partnership specialist for the start up of the formative research on infant and young child feeding (IYCF) practices. Meetings were held with the Department of Nutrition, HIV and AIDS (DNHA), Bunda College and MVP to develop an understanding of the nutrition policy context, determine what nutrition education and communication activities are being conducted, the key actors, and how to best incorporate messages and practices on OFSP consumption into project activities. Discussions were held to determine how to incorporate MSc student field work as part of the formative research. However the project timing for this did not synchronise with the university year.

A "Trials for Improved Practices" (TIP) study on infant and young child feeding practices had recently been conducted with support from USAID and the World Bank (2010), although the report was not yet available for distribution. It was therefore recommended that a desk review be commissioned from Dr. Beatrice Mtimuni of Bunda College who had been involved in the TIP study to identify options on how to best position demand creation activities for OFSP in the current socio-economic and policy context of Malawi¹¹. The finalisation of this desk review took longer than expected. A draft report was made available in May 2011, and a revised report was received on 18 July 2011. These draft reports

¹⁰ Mulanje District has been added for 2011-2012 by Concern Universal and negotiations are underway to include World Vision in Thyolo district.

¹¹ "State of Knowledge and Recommendations on Key Messages & Policy Actions for Nutrition/Communication components for Orange-fleshed sweetpotato Introduction in Malawi"

highlighted the following findings related to the policy context and infant and young child feeding practices.

3.1 Policy framework

There are a number of relevant policies under the responsibility of different Ministries and Departments. These include: the National Nutrition Policy (2005), which later became the five year National Nutrition Policy and Strategic Plan (2007-2012); the Food Security Policy (2005), and Infant and Young Child Nutrition Policy (2009). This leads to challenges in terms of harmonisation of recommendations and coordination of actions.

3.2 Malawi nutrition guidelines

Malawi is promoting seven “essential nutrition actions” (ENA) as follows:

- i. Optimal breastfeeding
- ii. *Complementary feeding to breastfeeding*
- iii. *Feeding of the sick child*
- iv. *Women’s nutrition*
- v. *Control of Vitamin A Deficiency*
- vi. Control of Iodine Deficiency Disorders

Of these, numbers 2, 3, 4, and 5 can clearly benefit from the contribution of OFSP. The ENA approach is considered different from previous approaches which were: not integrated, viewed as separate programmes, and not action orientated¹². Earlier approaches had focused mainly on growth monitoring and promotion activities with little integration and linkage with other nutrition, child survival and maternal health programmes within and outside the health sector, and were not community orientated. In addition messages were not harmonised and were too general, without due consideration of an individual’s socio-economic context.

Malawi uses a 6 food group system to encourage optimal dietary patterns. These food groups are:

- i. Locally available animal foods (e.g. flying ants, fish, mice, meat, milk, eggs)
- ii. Legumes (e.g. beans, peas, cowpeas, pigeon peas, groundnuts, soya)
- iii. Fruits (including wild fruits such as: *masuku*, *masau*, *malambe*) mango, pawpaw, oranges, bananas
- iv. Vegetables and leafy cultivated and semi-cultivated vegetables (e.g. *bonongwe* (amaranthus); *kholowa* (sweetpotato leaves); *chisoso* (blackjack) *chigwada* (cassava leaves); *mkhwani* (pumpkin leaves); *luni* (similar to blackjack); *mpiru* (Chinese leaves)
- v. Staples: *mgaiwa* (low extraction milled maize), cassava, millet, sweetpotato
- vi. Foods containing fats: avocado pear, groundnut or soya flour, flour from pumpkin seeds, cooking oil, margarine.

¹² i.e. “Who” should take “what” action “when”

Sweetpotato roots and leaves provide both energy and pro-vitamin A and can be classified as staple, vegetable, or leafy vegetable depending on the quantities used and how they are used as part of a meal.

3.3 Infant and young child feeding practices (IYCF)

The draft report from Dr. Mtimuni emphasised the following factors and constraints which influence infant and young child feeding practices (IYCF).

- a. Sub-optimal breast feeding practices
 - i. While the percentage of mothers practising exclusive breastfeeding has increased from 53% in 2004 (MDHS, NOS, 2004) to 61% in 2009 (preliminary results of national micronutrient survey (OPC, 2010) there is room for improvement. Early introduction of liquids and semi-solid foods increases exposure to infections, in particular diarrhoeal diseases.
 - ii. The duration of breast-feeding episodes are short; so babies do not benefit from both the fore milk (less concentrated, but more thirst quenching) and hind milk (energy and nutrient dense and hunger satisfying).
 - iii. Mothers do not empty and use both breasts; therefore continued milk production is not stimulated. This creates a vicious cycle where the infant is not fully satisfied, the mother feels she is not producing enough milk, and therefore introduces other liquids and semi-solid foods at an earlier than ideal age.
- b. Low food diversity in complementary foods
- c. Inadequate quantities of food
- d. Inadequate frequency of feeding (especially in the 12-23 month age group)
- e. The feeding style for children 12-23 months often does not include staying with the child while she or he eats; or the use of a separate plate for the child to ensure that older siblings did not finish the food more quickly; or encouraging the child to complete the portion or to have more.

The TIP approach emphasises the importance of understanding the factors which motivate current practices or are constraints to improvement. Some of the examples of constraints identified during the study include:

Practices at 3-4 months

- *Phala ufa woyera* (watery porridge from refined maize flour) given at 3-4 months: mothers believe when the baby cries it is from hunger, often because breast milk is insufficient.

Practices at 6-23 months

- Watery foods are easy to swallow
- Child's intestines are not ready for solid food
- Solid foods cause constipation, stomach pains, vomiting
- Small amounts to avoid constipation or stomach pains

3.3.1 Conclusions from TIP research

The TIP study "Consulting with Caregivers" (USAID et al., 2011) showed that a good number of different types of food are available throughout the year and affordable in most districts¹³. According to key

¹³ The TIP study was carried out in 16 of Malawi's 28 districts: 4 in the North, 5 in the Center, and 7 in the South. Areas were purposefully selected to capture different geographic and climatic differences. Sample sizes

informants, the most expensive foods are big fresh fish such as *chambo*, meat (beef, goat), milk, rice, bread, wheat, beans, maize during the lean season (December through March), cassava, and sweet potatoes (only in Chikwawa). Foods that were considered affordable were small dried fish (six districts); maize and cassava (three districts); eggs, vegetables, and rice (two districts); bananas, cowpeas, sweet potatoes, sorghum, milk, beans, soybeans, groundnuts, and Irish potatoes (one district each).

The research also showed that for Vitamin A, the percentage of children who met 67% of the recommended intake rose from 45% on the initial visit to 74% on the follow up visit (USAID et al., 2011). The study presentation made the following conclusions. Implications for the project are included in brackets.

- a. The statements of mothers who are happy with the results of the new practices and say that they will continue, *can be utilized in community mobilization campaigns to motivate other mothers and caregivers. (The project with additional Irish Aid funds of \$1,000 and technical support could record mothers' testimonies for inclusion in radio programmes – see Annex 1).*
- b. In TIP, mothers try something new and see immediate results. *The ability to target counseling and to negotiate new practices are important skills for health workers and community agents that require training to learn and supportive supervision to maintain. (The project should support training of HSAs in counseling skills for the use of IEC materials).*
- c. The results of the TIP showed the importance of counseling mothers to try small, feasible, improved practices *rather than only general messages* about good nutrition. *(The project started with general messages, and now needs to be more specific in its messaging).*
- d. Counseling messages are more effective if they are *targeted to the child's age and mother's/family's specific situation*, giving the information she needs when she needs it. *(The messages need to be age specific and doable).*
- e. Meat, fish, eggs and *nsinjiro* (groundnut flour) were added several times per week in small amounts. Some mothers said they could not always buy them, but fish (especially small dried fish) and eggs were easier. *(The project should encourage multi-mixes using cheaper and available animal proteins i.e. small dried fish).*
- f. Only vegetables and in some cases fruits were added daily. *(These are the easiest modifications for mothers and they could do almost daily. The project should highlight that OFSP leaves are available all year round and when mashed are an excellent addition to porridge for young children.)*

4 PROMOTING OFSP AS PART OF IMPROVED INFANT AND YOUNG CHILD FEEDING PRACTICES

The preliminary findings from the desk review were the first phase of the formative research. Now that communities involved in the “Rooting out Hunger in Malawi” project are moving into OFSP root production it will be important to reflect on these findings to identify how best to integrate OFSP into improved infant and young child feeding and care practices. The project has already conducted

were small (60 mothers and 18 key informants in Phase I; 100 mother-child pairs in Phase II) and should not be considered nationally representative of all Malawian women but indicative case studies.

sensitisation activities targeted at the general population (see mid year report 2011) including community meetings, theatre, songs etc. For MVP, the nutritionist (Catherine Mfitilodze) has provided training on processing and utilisation of OFSP in all the clusters. The messages used as part of the demand creation campaign in 2010 are included in Annex 3. These messages cover a wide range of activities related to OFSP and have been targeted at the general population as follows:

- a. Benefits of OFSP
- b. Demonstration of a mother feeding OFSP to her child
- c. Motivate community to develop interest in OFSP
- d. Agronomic practices for growing sweetpotato
- e. Demonstrating how farmers get vines from a multiplier
- f. How a multiplier redeems vouchers for cash

In order to make a contribution to the reduction of under-nutrition and Vitamin A Deficiency Diseases there is now the need for the project to develop a set of activities focused on infant and young children. While the project aims to contribute to improved nutritional well-being among mothers and young children, it may not be in a position to influence this group directly. This requires clarity on who the project is able to influence directly. This includes extension service providers from project partners and government (i.e. next users). In turn these extension providers can influence community leaders, households and care-givers (i.e. end users). The findings from the TIP study and lessons from nutrition communication activities in projects promoting OFSP in Mozambique highlight a number of principles which should be kept in mind while designing the nutrition intervention for the Rooting out Hunger Project. These include:

- a. Providing IEC materials is insufficient, there is the need for capacity strengthening of extension providers and front-line workers to adopt a counselling and negotiation approach with care-givers rather than a lecturing or prescriptive approach
- b. Ensuring a balance between general and specific messages. Therefore as the messages to date have been general, there should now be a focus on care-givers and IYC.
 - i. Messages need to be targeted for specific age categories for IYC (i.e. 6-8 months; 9-11 months and 12-23 months)
- c. Keeping to a minimum number of messages. While it is acknowledged that the immediate causes of malnutrition are multi-dimensional (food insecurity, inadequate health and sanitation, poor caring practices, including inadequate breast-feeding practices, and nutrition knowledge and skills), this project can not address all of these. The project should focus on those messages where it can make a contribution, and integrate these into other programmes and activities, which are addressing other contributory factors to malnutrition.
- d. Ensuring that messages are doable, within the social and economic context of care-givers. Suggestions for improving complementary foods and feeding practices for IYC should be based on locally and seasonally available foods; recognise economic, social and cultural barriers to acceptance, and introduce incremental changes.
- e. Ensuring that messages reinforce existing positive practices and avoid being prescriptive. Care-givers need to have options if one particular food is not available or beyond their means.
- f. Ensuring that key decision makers and opinion formers are included in the process e.g. fathers and grandmothers who can support the primary care-giver in providing improved complementary foods.

- g. OFSP should be promoted as one option among different pro-Vitamin A rich foods. OFSP roots are predominantly available from April/May to through September. Practices such as staggered planting, valley bottom production during the dry season, and fresh root storage should be promoted. OFSP leaves are available all year round. Messages should include other examples of Vitamin A rich foods, particularly when OFSP roots are not available.

4.1 Target groups

Next users:

- i. Master trainers from each implementing partner (MVP, Concern Universal, CADECOM and key government personnel (e.g. district nutrition staff from the Ministry of Health and the Ministry of Agriculture and Food Security))
- ii. TOT for Health Surveillance Assistants (HSA), Agricultural Extension Development Officers (AEDO)

End users:

- i. Community based focal persons for maternal health and IYCF
- ii. Care-givers of mothers and young children (conception to 24 months), i.e. mothers, fathers, grandmothers
- iii. Community level enablers (Traditional Authority (TA) leaders and village chiefs)

4.2 Key thematic areas

- i. Prioritising children and in particular the period from conception (“minus 9 months” to 24 months (“1000” special days))
- ii. Increase food diversity in complementary foods, and include pro-vitamin A rich foods, such as OFSP
- iii. Increase quantities of food per meal and number of snacks for infants and young children
- iv. Increase frequency of feeding (especially in the 12-23 month age group)
- v. Encouraging children to eat well (the feeding style for children 12-23 months)

4.3 Strategy

It is proposed that the strategy focus on three areas: recipe adaptation and development; identifying appropriate communication materials and audience specific channels; and capacity strengthening of key community based workers

4.3.1 Recipe adaptation and development for different seasons

- i. Promotion of multi-mix complementary foods with OFSP (roots or leaves) or other vitamin A rich foods as ingredients.
- ii. Development or adaptation of recipes for different age groups from 6 months to 24 months, using seasonally available ingredients
- iii. Development and testing of messages to use the recipes, incorporating increased quantities, and frequency and style of feeding

4.3.2 Communication Channels

The development of communication materials and appropriate (target audience specific) channels will be based on the principles of: positive messages to reinforce existing good practices, self-reliance to encourage use of locally available and accessible (i.e. affordable), and culturally acceptable foods, and rights-based (i.e. identifying duty bearers and duty bearers).

- i. Wall calendar of seasonal recipes for IYC using OFSP roots and leaves as much as possible, for use in partner offices, health centres, agricultural offices, chiefs offices)
- ii. Roll up oil-cloth, pocket IYCF recipe book in English and Chichewa to support HSA and agricultural facilitators to promote IYCF recipes and practices based on seasonal availability with mothers and care-givers
- iii. Use for radio programmes (e.g. Zodiac, which is widely received by Malawians in rural areas, – in particular targeting men’s awareness). The programmes would be seasonally relevant and linked to established listening groups where appropriate. See Annex 2.
- iv. Theatre, songs, children’s games in school
- v. Competition for best recipes

4.3.3 Capacity strengthening to implement improved IYCF practices

An essential principle behind the TIP approach is to *negotiate* incremental improvements to feeding practices, which are possible within the mother’s social and economic context. This in turn requires the relevant frontline worker (e.g. Health Surveillance Assistant, Agricultural Extension Development Officer) to have not only technical information but the *counselling* skills and *competencies* to work with mothers to adapt the technical message to the mother’s setting. Thus the project, (as budget allows) should support focused training of trainers (TOT) courses on IFYCF (based on existing modules,) with key trainers from the project partners. These trainers will then cascade the training to Health Surveillance Assistants and other relevant front line workers in the target districts. The following activities are recommended:

- i. Continue to organise exchange visits among project partners in different districts for nutritionists & agricultural facilitators focusing on OFSP processing and utilisation for IYCF.
- ii. Plan and budget for 2-3 day master trainer workshop for project partner and district staff on IYCF. The workshop would prepare a 2 day training module on IYCF practices for use by project partners to train HSA in their own target districts.
 - a. The training would be based on Government of Malawi GOM IYCF and ENA guidelines¹⁴
 - b. Participants would be asked to prepare and document before the workshop: “best recipes” for IYCF for different age groups using at least 3 of the Malawi food groups, incorporating OFSP (roots or leaves) and including foods available in the rainy season or foods available in the dry season. The recipes would be demonstrated during the workshop and compared in terms of cost, nutrient value, ease of preparation and acceptability by IYC and care-givers. OFSP can be included as staple, vegetable or leafy vegetable in porridge mix.

¹⁴ Session 8 in the ENA manual is on optimal complementary feeding. This has a training plan and hand-outs which could be adapted to incorporate OFSP as training and IEC material

- c. The training would incorporate dialogue, counselling and negotiation skills between HSA and mothers to support sustainable adoption of optimal feeding practices. (e.g. using role play)
- d. Update/prepare calendar of seasonally available foods suitable for IYCF
- e. Competition for song for care-givers to sing to encourage/praise 6 month – 24 month to eat well (including OFSP) in order to grow up strong and healthy
- f. Preparation of IEC materials
- g. Plan and budget strategy and action plan for roll-out/cascade training on IYCF. For example MVP in Zomba have 45 HSA
 - i. Master-Trainers train HSAs in each district (No. of HSAs in each district = 40-50?)
 - ii. Each HSA trains 10 care-givers in their area (= 45 x 10 = 450)
 - iii. Each mother trains 2 other care-givers (=450 x 2 = 900 mothers)
 - iv. Each mother trains 2 other care-givers (= 900 x 2 = 1,800 mothers)
- iii. Conduct 2-3 day master training for nutritionists from project partners and district staff on IYCF *(aim to conduct in August or September 2011 as part of year 2 budget, and in order to prepare content for calendar and radio programmes)*
- iv. Master-trainers train HSAs and Agriculture Extension Development Officers (AEDO) in their own districts (up to 50 per district) *(late March/April 2012)*
- v. HSAs/AEDO each train 10 care-givers in their areas (May – July 2011)
- vi. Care-givers continue disseminating messages and mentoring other care-givers (July – September 2011)

4.4 Reinforcing actions

In order for care-givers to act on nutrition messages it is important to understand the socio-economic context at household, community and national levels.

4.4.1 Household and community context

The *Chichewa* are predominantly a matrilineal society. While inheritance and residence practices may be changing and increasingly negotiated on an individual level, it is important be aware if men perceive and prioritise support to their biological children and the children of their sisters differently. Grandmothers are also a key influence on the infant and child feeding practices of their daughters and daughter-in-laws. They need to be included in nutrition communication activities so that they are aware of why particular foods are important for young children, discuss why certain taboos (against consumption of eggs, and cessation of breastfeeding when mother is sick or pregnant) may be continuing and how they can be supportive of mothers and young children. In some cases, it may not be appropriate for a daughter-in-law and mother-in-law to be part of the same nutrition communication session or group. Grandmothers may also be left with many grandchildren to raise after HIV related deaths. Whereas in the past grandmothers had time to encourage good feeding practices with 1 or 2 grandchildren, but with 3 or 4 grandchildren to care for full-time, they may no longer have the time and energy to do this, so individual child attention is reduced. The impact of HIV may also be affecting the inter-generational transmission of knowledge. Young (and especially teenage) mothers who have lost their own mothers, or older siblings who are the main carers for younger children, may not have had the opportunity to gain tacit knowledge through observation and practice within an adequate caring family environment.

What can grandmothers do? As respected elders they can talk with village leaders, about how the village's infants and young children need support, etc. Grandmothers could also suggest joining with others to form local child care and play groups to promote improved and shared child caring practices.

Fathers are often buying biscuits, kamba puffs and carbonated drinks for young children as treats. Positive behaviour (i.e. thinking to buy special foods) needs to be reinforced, and awareness increased about the types of foods which are more nutritious, appropriate for infant and young children and cheaper. So message could be formulated:

Fathers can also encourage good snack eating habits for young children by buying bananas and tangerines whenever possible. These are more nutritious and cheaper than biscuits and “Soba”!

4.4.2 Media context

The TIP study “Consulting with Caregivers” (USAID et al., 2011) also collected information on mass media. It reported that while overall, only two-thirds of families reported having a radio in their home (65 percent), 82 percent of mothers said they listened to the radio. Most of these mothers (67 percent) listened on a daily basis, while another 20 percent listened two to six times a week. Radio ownership varied by region, with 80 percent of families in the Northern region owning a radio as compared to only 61 percent and 60 percent of families in the Central and Southern regions, respectively. The most popular radio station was Radio 1; more than one-third of mothers tuned in to this station. The most popular programs were religious (27 percent), news (18 percent), and music (13 percent). About half of the audience listened in the afternoon and evening, while others listened throughout the day. The study also reported that most mothers (75 percent) reported that they had heard a message on child feeding, both on the radio (78 percent) and/or from a person who was influential to them—most commonly health staff (81 percent) or a family member (17 percent). Eighty percent of mothers remembered the message they had heard, with the most frequently heard messages relating to the importance of frequent breastfeeding (32 percent) and frequent feeding of the child (13 percent). (USAID et al., 2011). This information will be useful to identify the type of radio station and programme time most appropriate to target caregivers of infants and young children.

4.4.3 Entry points at community level

The training manual for the “essential nutrition actions” presents potential contact points for care-givers with young children. In the health care delivery system these include: ante-natal clinic, labour and delivery, postnatal (ward, discharge, post-natal check up, family planning, growth monitoring and promotion in the under 5 clinics or outreach, during immunization when the child is sick. For the Rooting out Hunger project the relevant contact or entry points at the community level and which some project partners are already using include: nutrition education and demonstration sessions; agriculture methodologies sessions, adult literacy classes, livestock orientation meetings; young people’s peer education sessions; traditional initiation sessions, marriage counselling sessions (send off and bridal shower); faith women’s and men’s groups. (DNHA, 2009)

4.4.4 Link to national level NNECS

Malawi is an “early riser” country of the Scaling up Nutrition (SUN) global initiative. The National Nutrition Education and Communication Strategy with its focus on 1000 special days (conception to 24 months) is welcomed by the Rooting out Hunger Project as an opportunity to be part of a common framework which different sectors will be contributing to. The NNECS will also help to ensure that messages are harmonised across different organisations and increase the value and coverage of those messages through different communication channels and at different levels. The social movement concept underlying the NNECS will also form the basis for common advocacy and monitor progress

towards a joint goal. The MVP Nutritionist, Ms. Catherine Mfitilodze is on the national committee for the NNECS. Dr. Beatrice Mtimuni is responsible for the IEC component of the NNECS.

4.5 Monitoring uptake of OFSP as part of improved IYCF practices

The baseline survey for the project included a 24 hour food frequency recall for a reference child less than 60 months. Questions were included on infant and young child feeding practices. It is recommended that the end of project impact survey include some questions to be able to capture any changes in IYCF practices. It is proposed that during the master trainers workshop some simple indicators are discussed and agreed on which the project partners can collect within their budget availability.

5 BUDGET

Table 2 below provides a draft budget for the IEC interventions. The implementation will begin in the last two months of year 2 and continue through year 3 (Oct 2011-Sept 2012). Two additional districts (Mulanje and Thyolo) have been added to the project area. However, World Vision in Thyolo has other resources that they can draw on for conducting district level trainings. Hence, the Master Trainer work is budgeted for 6 districts; the district level training for 5 districts. In new districts, it is proposed that the general sensitisation and awareness activities done in the first year in other districts will be included in this year's campaign and presented before addressing infant and young child feeding practices.

Table 2: Proposed budget for IEC interventions for August 2011 through September 2012

	Description	Unit	No	Cost	Total
Master trainer workshop					
2 nutritionists/extensionists from each district	room hire	day	3	100	300
(6 districts for master training)	refreshments	person	42	15	630
2 persons in charge of course	DSA	person	42	30	1,260
	Accommodation	person	42	50	2,100
	Stationary	lumpsum	1	100	100
	sub-total				4,390
Prepare IEC material					
calendar, counseling cards	layout and design	lumpsum	2	500	1,000
calendar	printing	copy	600	5	3,000
counseling cards (6 districts x 15 staff)	printing	copy	75	10	750
Radio spots: 2 x month	air time	spot	24	100	2,400
Theatre: 5 districts x 2 events	show	performance	10	200	2,000
	Communications	lumpsum	1	100	100
	sub-total				9,250
2 day trainings of HSA/AEDO at district level					
5 districts	room hire	day	10	50	500
15 per district & 2 trainers	refreshments	person	154	10	1,540
	DSA	person	154	20	3,080
	Accommodation	person	154	20	3,080
	Trainer support	person	1	2000	2,000
	Stationary	lumpsum	5	50	250
	sub-total				10,450
Training community focal persons in districts					
5 districts (10 agents/HSA) + 2 trainers	refreshments	person	760	5	3,800
	trainer support	person	1	1445	1,445
	materials	lumpsum	200	5	1,000
	sub-total				6,245
TOTAL					30,335

6 REFERENCES AND RESOURCE MATERIALS

The following references have some annotated notes to highlight specific areas of use in the development of IEC materials and proposed training in IYC feeding practices:

Department of Nutrition, HIV and AIDS. 2010 Presentation of the Malawi National Micronutrient Survey, 2009 Results. Presented at a Food Fortification Sensitisation Workshop for Media, July 2010, Blantyre by Dr Mary Shawa, Secretary for Nutrition, HIV and AIDS. Office of the President and Cabinet.

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(Copy left with project. See extract on Nutrition Fact No. 7: Feeding infants and pre-school children in Annex 4).

Nordin, S. 2005. Low Input Food and Nutrition Manual...Growing and Eating More Using Less. WFP, Malawi. <http://www.neverendingfood.org/h-low-input-manual/> (Copy left with project. Very useful seasonal food calendar)

Office of the President and Cabinet. 2007. Infant and Young Child Nutrition Policy. WHO and UNICEF. (2nd edition updated from 2005) (Copy left with project)

Office of the President and Cabinet. Department of Nutrition, HIV and AIDS (2010). 1,000 Special Days. Preventing Child Stunting in all Malawian Families. National Nutrition Education and Communication Strategy. (Draft 6/12/2010)

Picado, J.I., and Mtimuni, B. 2011. Presentation on preliminary findings of "Consulting with Caregivers. Formative Research to determine the barriers and facilitators to optimal infant and young child feeding in three regions of Malawi". February 2011, Lilongwe, Malawi. USAID, World Bank, IYCNP.

USAID, World Bank, Infant and Young Child Nutrition Project, (2011). Consulting with Caregivers. Formative Research to determine the barriers and facilitators to optimal infant and young child feeding in three regions of Malawi. Lilongwe, Malawi.
(<http://www.iycn.org/files/FinalMalawiInfantFeedingStudy05-19-11lowres.pdf>) Accessed 20/7/11.

Woolfe, J. A. (1992). Sweet potato: an untapped food resource. Cambridge, Cambridge University Press.

7 ANNEXES

7.1 Annex 1: TOR and deliverables from nutrition and partnership specialist – June 2010 – July 2011

The specialist will provide support for strategic planning and technical backstopping assistance to the project for the formative research component for the nutrition information education and communication interventions and partnership support with project implementing partners.

The specialist will:

- a. Carry out a scoping mission for the formative research for nutrition demand creation activities,
- b. Prepare a TOR for the preparation of a background document on “State of Knowledge and Recommendations on Key Messages & Policy Actions for Nutrition Communication Components for Orange-fleshed Sweetpotato Introduction in Malawi “
- c. Review the background document, and support the project in preparation of a strategy for the project to contribute to improved infant and child feeding practices.
- d. Conduct assessment of partnership processes within the project
- e. Contribute to reports and presentations made by the project

Deliverables:

- a. Report on scoping mission (available)
- b. TOR for preparation of background literature review and review comments on the document (comments being finalised)
- c. Draft strategy for project contribution to improved infant and young child feeding practices (draft available)
- d. Report on findings of project “partnership health check up” (draft available, awaiting submission of outstanding questionnaires)

7.2 Annex 2: Initial checklist for other project partners in preparation for master trainers workshop

1. Describe common complementary feeding practices in area
 - a. Age of introduction of phala
 - b. Content of phala: what type/s of ingredients are used. Are there any differences by season or by age of child
 - c. Quantity given at one feed for a 6-11month child and 12-24 month child
 - d. Frequency of feeds for 6-11 month child and 12-24 month child
 - e. What kind of encouragement do mothers give their children when feeding
 - f. When is nsima first given to child?
 - g. Breast-feeding practices
 - h. When a child is sick, are there any changes in the feeding or breast-feeding practices?
2. What are the main challenges for care-givers (mothers, fathers, grandmothers) to feed infant and young children adequately
3. What kinds of nutrition education activities have been implemented by the partner

7.3 Annex 3: Proposal to Irish Aid for support in preparation of materials for radio spots/programmes/discussion on IYC feeding practices

Background and justification

The “Rooting out Hunger in Malawi” project is promoting OFSP for improved nutrition and income at household level. In 2010 the demand creation strategy focused on general messages to the rural population at large. This was appropriate and successful in raising interest and awareness about growing and consuming OFSP. Now within the nutrition intervention component of the programme there is the need to develop a more targeted approach to support improved complementary feeding for infant and young children (IYC). The project will work with district nutritionists from project partners, Ministry of Health and Ministry of Agriculture and Food Security to adapt recipes for complementary foods for different age groups, based on seasonally available and affordable foods. This will form the basis of information education and communication (IEC) counselling materials for Health Surveillance Assistants (HSAs) and Agriculture Extension Development Officers (AEDOs) to use with care-givers. To complement these materials and to be able to give wider coverage it is proposed to develop and air a series of radio programmes/spots targeting both care-givers with IYC and key family members (e.g. fathers and grandmothers, who can influence the successful implementation of improved practices).

The project is requesting additional funds and expertise from Irish Aid to prepare material for these programmes.

Proposed activities

1. Participation of communications and nutrition specialist from Irish Aid in final day of Master Trainers workshop to support planning for radio content
 - a. agreement on target group/s for programmes and appropriate air-time slot (day of week and time of day)
 - b. Agreement on key content of 12 monthly programme slots. Each programme would be repeated within a month either as the complete programme and, or with shorter “spots” repeating key messages. It is proposed that these programmes are based on seasonal calendar for sweetpotato vine conservation/multiplication, root production and consumption- utilisation. The format for 10-15 minute programme could be:
 - i. welcome and introduction to key message,
 - ii. music interlude;
 - iii. key informant interview/testimony related to key message
 - iv. music interlude
 - v. Q&A based on phone in or FAQ panel questions
 - vi. Music interlude
 - vii. Wrap up and repeat of key message
2. Preparation for and recording of interviews with mothers and other care-givers who are using improved complementary feeding practices
 - a. 4-6 interviews that show how care-givers have used OFSP roots and leaves as part of improved IYC feeding practices:
 - i. 2 recipes suitable for early and late rainy season
 - ii. 2 recipes suitable fore early and late dry season
 - iii. Incorporate frequency and amount of feeding

- iv. Incorporate supportive practices from father and grandmother
 - v. Age-specific: 6-8 months; 9-11 months; 12-23 months
- 3. Support in negotiation with Radio station

Timescale: August –September 2011

Budget:

Personnel and operational costs to cover:

- a. 1 day participation in Master Trainers workshop
- b. 2 days preparation with recording team and radio station to design programme slots
- c. 5 days in the field interviewing care-givers
- d. 3 days for recording team for editing and final production

7.4 Annex 4: Demand creation and agronomic messages utilised in 2010-2011

1. BENEFITS OF ORANGE-FLESHED SWEETPOTATO

Source of vitamin A which is essential in our bodies for

- Good vision
- Strengthens your body's ability to fight disease
- Source of income at household level through sales of:
 - Storage roots
 - Vines
 - Small-scale enterprises: doughnuts, mandazi, cakes, juice, sweet beer.
- MESSAGE: eat OFSP every day, for as long as you can!

2. DEMONSTRATE A MOTHER FEEDING ORANGE-FLESHED SWEETPOTATO TO HER CHILD

- Demonstrate a mother feeding cooked sweetpotato her child, with a local source of protein like groundnuts, small fish, etc.

3. HOW TO MOTIVATE COMMUNITY TO DEVELOP INTEREST IN ORANGE-FLESHED SWEETPOTATO

- Actors should stimulate interest to community by explaining the benefits of eating Orange-fleshed Sweetpotato.

4. AGRONOMIC PRACTICES ON SWEETPOTATO GROWING

- Planting: Use the top part of the plant as that avoids the weevils that can live at the base.
- Plant 30 cms apart.
- Harvesting: 5 months after planting.

5. DEMONSTRATION ON HOW A FARMER IS GETTING VINES FROM A MULTIPLIER:

- Using a voucher that he/she received from the NGO and Extension.
- Farmers should buy vines from vine multipliers. Health, quality and disease free vines is the basis for high quality.

6. DEMONSTRATION ON HOW A MULTIPLIER IS REDEEMING MONEY AFTER RECEIVING VOUCHERS.

7.5 Annex 5: Nutrition Facts: Facts on Feeding infants and pre-school children

1. Breast milk alone is not enough after the age of 6 months. Other foods need to be introduced gradually in order for the baby to continue to grow well.
2. The right foods for babies aged 6 months are mixed phala and other available foods such as mashed fruits and sweet potatoes. Breast feeding also needs to be continued
3. Frequent feeding is necessary for young children because they have small stomachs and cannot eat much at one time.
4. Babies aged 6-8 months are more likely to get enough if fed at least 4 times a day in addition to breast feeding
5. At the age of 8 months a child needs to start eating the family meals in addition to weaning foods and breast milk.
6. Food for a young child needs to be put on a separate plate, if young children eat from the same plate as the rest of the family they may not get enough
7. Young children that are given snacks between meals are likely to get enough food. Good snacks are fruits, chikondamoyo¹⁵, mkate¹⁶, chiponde¹⁷, boiled potatoes and cassava, eggs, groundnuts and ntakula.
8. A greater variety of foods will ensure that young children eat better and grow well
9. Children with diarrhoea often die because they lose fluids. They need to be given plenty of fluids and food and should continue to be breast fed if they are still breast feeding.
10. Children suffering from an illness need extra food to recover quickly. Children recovering from an illness need extra food to regain lost weight and strength.
11. Young children need to be supervised during meal times to ensure that they have eaten adequately.

¹⁵ A bread made from wholemeal maize mixed with some sugar and bicarbonate of soda and baked in a hot oven. Often eaten as a snack.

¹⁶ Steamed bread made from mashed bananas mixed with any type of flour

¹⁷ Groundnut butter prepared by pounding roasted groundnuts