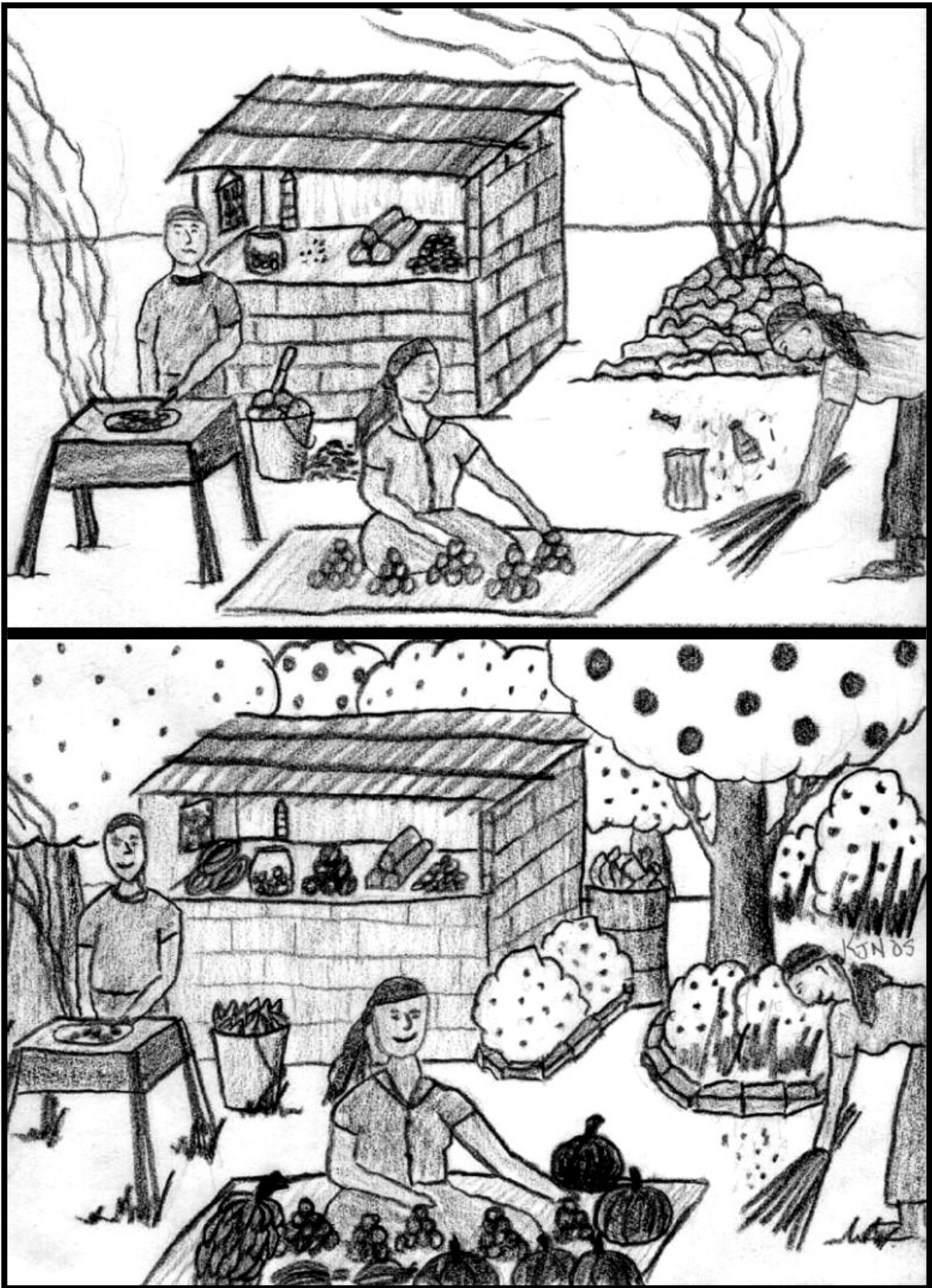


Design: Market Before & After



Art by K. Nordin

Tools for holding a low input training

The following pages provide some guides for implementing your own low input trainings. To start, here are a few general notes about planning a low input workshop or training session:

- * Venue: The best venue is simple, has a place for sessions and posters, has places around it for practical demonstrations, an area to do creative cooking session with all participants, and reasonable, safe, secure and sanitary housing for the participants if needed.
- * It is helpful to have 3 people to run the workshop: 1 logistician to work with the kitchen, food, money, and other facility issues and 2 to facilitate all the sessions.
- * Meals: you can arrange special meals at a local restaurant or hire cooks to work just for your workshop. Both ways can work well depending on the situation.
- * On Sunday, the logistician needs to arrive early to work with the cooks to finalize the menu and do any training needed. If the cooks are not very experienced, this could happen on Saturday and Sunday.
- * Participants will arrive on Sunday if it is a workshop setting. An evening session to introduce the participants and the week's schedule helps everyone feel more at ease and ready.
- * Budget – A full local workshop with local participants like the sample below, costs about 20-25 USD per person per day for accommodation, supplies and all meals. The cost does not include facilitator fees and transport costs for field trips.
- * FOLLOW UP – After the workshop, try to arrange going to see the participants at their own sites with small groups of participants to each site. During these field visits, your role is to guide, brainstorm, problem solve and clarify where people have questions. It is a learning experience for all. After the site visits, bring the group back together for a day of summarizing and way forward. If you can do this twice or even three times, even better!

Sample Workshop Schedule

This schedule could be done in the format of a week-long workshop, or, each session or pair of sessions could be done closer to people's homes for half day workshops.

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8.00-10.00	Introduction What is Low input?	Food Utilization Energy use	Water Management	Local Area mapping Field Trip	Implementing Design
10.00-10.30	Small Nutrition Break (read resources)				
10.30-12.00	Current Meal vs. Better Meal Nature Cycle	Food Use & Creative Cooking	Water Practice	Field Trip	Mapping own area & Action plans
12.00-1.30	Large Nutrition Break (read resources)				
1.30- 3.00	Nutrition Basics & The Food Groups	Soil Health	Plant/Tree and Animal Health	Creative Cooking	Wrap up
3.00- 3.30	Small Nutrition Break (read resources)				
3.30-5.00	Is there Food in Malawi? Assessing all Foods	Soil Health Practice	Planning Designs	Designing Local Area	<i>Return to homes</i>

Sample Training Outline

Title:	Low Input Food and Nutrition Security (Growing and Eating More Using Less)	
Trainer's contacts	Stacia Nordin, RD, nordin@eomw.net , 09-333-073, 01-707-213 Post Dot Net X124 Crossroads, Lilongwe, Malawi (Africa)	
Outcome Objectives:	By the end of the program the participants will be able to: <ul style="list-style-type: none"> • Improve Food and Nutrition Security for themselves by using local resources and be able to share the knowledge and skills with others. • See individual session for specific objectives. 	
Time frame:	30 hours of sessions and activities: <ul style="list-style-type: none"> ➔ 5 days 6 hours of sessions per day (generally extension staff from different places) OR ➔ 10 days 3 hours per day (generally joint community training in the same general area) ➔ 20 days 1.5 hours per day (generally one village) 	
Participants:	15-20 people (include what type of people they are so you know how to gear the training.)	
Activities:	<ul style="list-style-type: none"> • discussions / brainstorming • group work • nature observations 	<ul style="list-style-type: none"> • view food display • food preparation • design practicing
Supplies presenter will bring	<ul style="list-style-type: none"> • Posters: personal food and nutrition visual aids and Malawi Food Groups • Food Display • Food and Nutrition resource books for viewing only • Some seeds for planting and some foods for preparation • Improved energy Stoves & briquettes, Fireless cooker, Solar Cooker, Solar Dryer, other cooking ideas 	
Supplies needed from Site	<ul style="list-style-type: none"> • Nutritious snacks and lunches based on the 6 food groups (see attached sample menu and foods available planning sheet). • 2 large tables (1m x 2m) for the food display • Creative Cooking session items see list below <p><i>These are nice if possible:</i></p> <ul style="list-style-type: none"> • Stapler or hole punch and folder: for participants to organize all the handouts at the end of the day. • Handouts provided from Presenter, enough for each participant. Please DO not give to the participants, Presenter will hand them out during sessions. • Flip Chart with markers or Chalkboard with chalk and eraser • Pre-Stick (Sticky goop to hang up posters) 	
Creative Cooking Supplies:	<p>Preparation of very simple meals based on foods available in area. The foods will be eaten as part of some of the breaks.</p> <ul style="list-style-type: none"> • Provide list of foods and then make do with what is available, participants can bring local Malawi foods. • Variety of local pots, containers, cooking spoons, and knives for every group of 5 people. • Plus plates, cups for each participants. 	

DAY ONE Training Outline

8:30 – 10:00 Introduction: What is Low Input?

Session Objectives:

- * *Define Low Input - What is the goal of Low Input living?*
- * *List at least 5 methods you can use to help others understand new concepts.*
- * *List at least 1 important advanced skill and at least 1 way you can support advanced skills development.*

- I. Introduction of presenter & participants
 - a. Pre-Test if applicable
- II. Overview of training program, purpose & objectives
- III. What is Low Input:
 - a. Basic Principles
 - b. Gaining understanding
 - c. Advancing Skills

10:30 – 12:00 Current Meal vs. Better Meal

Session Objectives:

- * *What is the Current Diet? How does it impact health, food security and environment?*
- * *What is the Cycle of Dependency and what are 3 ways it can be broken?*
- * *What are the main differences between the Current Meal and Better Meal?*
- * *What is the Cycle of Better Living and what are 3 ways it can be strengthened?*
- * *What is the Nature Cycle? What are 3 ways we can affect it positively and negatively?*

- I. Current meal
 - a. Cover each point, including Cycle of dependency
- II. Better meal (handout)
 - a. Cover each point including Cycle of better living
- III. Nature Cycle use poster and discuss human effects
 - c. Walk outside and look at the nature cycle and human effects

1:30 – 3:00 Nutrition & The Food Group Basics

Session Objectives:

- * *Define Nutrition. Explain the basic steps of Digestion & Absorption from the mouth to blood. Name the 6 groups of nutrients.*
- * *What are the 6 Food Groups?*

I. Nutrition is: How any living thing changes/uses food for life.

II. Digestive System: Follow poster

a. Digestion (breaking down) & Absorption (entering body) & Use / Storage

III. Nutrients: about 45 Nutrients, put into 6 groups. Use house as nutrients poster (handout)

a. Define Nutrient (what you have to have to live)

b. Relate each nutrient to village: 8 Proteins, 14 Minerals, Carbohydrate, 3 Fats, 13 Vitamins, Water

c. Three goals of Nutrients: Building & Repairing, Energy, Protection & Healing

I. What does Diet mean?

a. Diet: A way of eating – why do we eat the way we do?

b. Diet – meals & snacks (list) – food – nutrients

II. Malawi 6 Food Groups – use the food group poster (handout)

a. Start with what groups they know (3), Show how 3 changed to 6, cover each group and the primary nutrients in each (see handout)

3:30 – 5:00 Is there food in Malawi? Assessing all Foods.

Session Objectives:

* Name at least 5 foods from each food group that you have

* Name 3 ways you can increase knowledge of native foods.

I. Group Activity: Food Availability Exercise

a. marker and ½ sheet flip chart paper for each food group

b. 6 groups of people (or 3 groups each doing 2 food groups, or whatever!), list 10 foods and the seasons they are available in 20 minutes

c. Review, discuss results, are there enough foods? What can we do to fill gaps?

d. Repeat process at home/work (handouts)

e. Food List (handout)

II. Food /Resource Display: Show as many local foods and products made from local resources as possible. The Permaculture Nutrition project has a display with 150+ items.

III. Discussion: What is happening to local foods

a. Brainstorm the focus on maize and why

b. Brainstorm solutions to diversify into what was seen in this session

DAY TWO Training Outline

8:30 – 10:00 Using Food

Session Objectives:

- * *How much should you eat from each of the food groups each day?*
- * *How much food should one adult have for the year from the grain group?*
- * *Name 3 things that reduce the nutrients in foods and 3 ways to keep more nutrients in food.*
- * *Name 3 ways you can reduce the energy you use in food preparation.*
- * *List 2 benefits of solar drying.*

I. Meal Planning

- a. Display one day's meals / snacks for an adult based on the balance of the 6 food group.
- b. Mix the foods back into one pile and have others try

II. Preserving Nutrients and Food Safety

- a. Protecting nutrients (selecting produce, cutting, cooking)
- b. Improving nutrients (germinating, fermenting) (handout)
- c. Safety (sanitation, cook meat well, leftovers)

III. Energy used in food preparation

- a. wood fuel improved stoves
- b. paper or other briquettes
- c. Solar cooking & drying

10:30 – 12:00 Creative Cooking: Preserving nutrients in food

Session objective: * *To practice preparing foods based on nutrition and food groups.*

I. Creative Cooking: Preserving nutrients in food

Very simple small meal for the whole group to make based on foods available, the food will be tasted with lunch. Choose something from your recipes that won't interfere with kitchen lunch activities. Could be:

- Avocado with herbs, lemon and vegetables; cucumber with skins on; brown bread; roasted pumpkin seed, fruit juice or herbal tea
- Sir Fried vegetables with nuts or seeds; Rice with millet or sorghum with spices

1:30 – 3:00

Soil Health

Session Objectives:

- * *How does the soil maintain its fertility and structure?*
- * *Name 3 actions that negatively affect the soil's fertility and/or structure.*
- * *Describe at least 3 ways to conserve the soil and how you can use them in your own life.*
- * *Describe at least 3 ways to improve soil fertility and structure and how you can use them in your own life.*

I. How does the soil work?

- a. Connect to Nature Cycle, use soil posters, go outside
- b. Discuss what people do to harm soil structure & fertility while outside point out negative and positives

II. Conserving soil

- a. Brainstorm how soil can be conserved
- b. Discuss each method, demonstrate in afternoon

III. Fertility and Structure

- a. Soil types
- b. Discuss Organic vs. Synthetic production
- c. Brainstorm and discuss how to keep fertility and structure

3:30 – 5:00

Soil Health Practice

Session Objectives: * *Practice soil health methods*

Practice mulching, composting, manure teas, etc.

DAY THREE Training Outline

8:30 – 10:00 Water Management

Session Objectives:

- * *How does water cycle from rain to rain again? Describe the basic steps.*
- * *Name at least 3 things humans do to interfere with the water cycle.*
- * *Describe the water table and how perennials survive without water.*
- * *When managing water, what are four 'S' words that are helpful for planning a design?*
- * *Describe at least 3 ways you can harvest rain water at your home, work or surroundings.*
- * *Name at least 3 things you can do to reuse your 'grey' water at home, work or other place.*
- * *List at least 2 things that are important to remember in any irrigation system.*
- * *Describe at least 3 low input irrigation methods.*

I. How does the water work?

- a. Tie a plastic bag on a tree for evaporation demo, let people get curious about what you are doing, but don't give the answer!
- b. Start session by connecting to Nature Cycle and soil health
- c. Discuss water cycle and water table
- d. Brainstorm what humans do to interfere with with – link to soil health as they are about the same.

II. Water Management & Designs

- a. Introduce 4 S's of Permaculture water management
- b. Brainstorm ways to assist the water cycle
- c. Discuss each method – do a soil erosion demo – go outside and look at positive and negative examples.

III. Irrigation

- a. Using grey water
- b. Using other water

10:30 – 12:00 Water Management Practice

Session Objectives: * *Practice Water Management methods*

Practice the 4 S's, grey water designs, water harvesting, etc.

1:30 – 3:00

Plant, Tree & Animal Health

Session Objectives:

- * Describe how nature grows and keeps growing.
- * Name at least 4 things to consider as you develop your design.

I. How do plants / trees / animals stay healthy?

- a. connect to nature cycle, soil and water health
- b. connect to human health and cycle of better living

II. How nature grows - guilds

- a. Discuss how things grow in nature (link to better meal)
- b. Compare with how 'modern' agriculture grows (link to current meal)
- c. Describe Permaculture Guilds (handout)
- d. Go out side and look at guilds.

III. Considerations for designs

- a. Cover each of the considerations: resources, seeds, yields needed, space needed, labour, lifestyle, weather, where to start, pathways, fences.

IV. Creating the design plan for your area

- a. Mapping, drawing design plans and individual guilds
- b. Making an action plan

3:30 – 5:00

Planning Designs

Session Objectives:

- * Map out the area around your home, including all the resources you have available, then draw a design for your home area and discuss the ideas it with someone.

I. Guild activity & Action Plan

- a. 4-5 Groups of 4 people each draw a simple design plan for different small areas (bathing house, dish drying rack, porch, kitchen, borehole, etc.). Allow 40 minutes.
- b. 4-5 Groups 5 min present 5 min feedback (40-50 min)
- c. Summarize the session
- d. Homework: Have each participant map their own area, including a list of all their resources. This will be used on Friday to create a design and action plan.

DAY FOUR Training Outline

30-60 minutes Morning Mapping and Design Walk

- This could be done before breakfast or after to give the group practice as mapping out an area. Use the venue where you are and have each person individually sketch the area in their note book. Discuss different ideas with them.

8:30 – 12:00 **Field Trip** (*snacks and drinks brought along, with enough for any community members at the site*)

Session Objectives: * *To observe Low Input Food & Nutrition Security in action.*

- Use the list in the manual or talk with local informants to identify a site or two or more to take the participants to see and discuss.
- The most important part of any field trip is a good facilitator to make connections, and guide discussion when it is needed. The facilitator helps to make the field trip a learning experience instead of just a nice visit!

1:30 – 3:00 **Creative Cooking**

Session Objectives: * *To practice using nutrition and food group information*

- Refresh minds about food preparation by asking questions
- Prepare a more complicated recipe that will be eaten at snack time.

3:30 – 5:00 **Designing local area**

Session Objectives: * *To practice designing*

Group Activity: Divide the local area map into smaller parts and have each group design an area, starting with listing their resources, then drawing a design that will be implemented the next day. Each group should present their ideas to the rest of the group for feedback to be ready for implementation.

DAY FIVE Training Outline

8:30 – 10:00 Implementing the Designs

Session Objectives: * *To practice implementing designs*

- Each group will implement the design they made.
- Walk around to the different groups and participate or advise if needed as they put their designs into practices.

10:30 – 12:00 Personal Design and Action Plans

Session Objectives: * *To create a design and action plan for their own area.*

- Using their mapping homework, participants will now create their own designs and action plans.
- Encourage the use of the print and people resources and guide each participant as needed.

12:30 – 3:00 Wrap up

Session Objectives: *To take the information home and use it personally, then share it.*

I. Taking it Home

- a. Summarize the week's activities and personal thoughts
- b. Communication activity – Have a volunteer describe a simple drawing to the group and see if the rest of the group can do it without seeing the picture.
There are many lessons to drawn from the activity.
- c. Brainstorm - think back over all the teaching tools used in this workshop, allow a brainstorm and write them all down. Review the many ways of learning. .

II. Post Test & Evaluations

III. Certificates – everyone loves them, indulge yourselves and make them fancy!

- a. Give a nice take away packet such as travel snacks, local seed packets, locally made products, etc.
- b. Give a final flowery speech on applying the information and sharing it.

Menu planning & Sample menus

This can be provided to the logistician or cooks to help in planning the meals. It doesn't have to be done in advance, but it is nice if it is.

The goal of this project is in part to develop a model for diet diversification; in support of this goal, the meals and snacks that we eat during our time together will be a model. Please help me in planning for the workshop by telling me what we can find in your area for food diversity. I'm thrilled when someone teaches me a new food or a new way to prepare a food!

- Please tick off which ones you can source locally during the time of your workshop and what the cost is.
- I prefer to get as much bought locally, especially quality items from the village level. This helps to support the local economy (versus making South Africa, the UK or the USA richer!)
- If you can't get enough variety from each food group locally then I will buy it and bring it.
- I will contact each of you after getting this back from you about what items I will bring and what I will buy locally from your district

Mealtime	Example One	Example Two
Breakfast	1 Nut 1 Fruit 1 Staple 0.5 Animal Food 1 Herb Tea / Honey	1 Fruit 1 Staple 1 Vegetable 1.5 Animal Food 1 Herb Tea / Honey
am break	1 Staple (sweet) 1 Fruit 0.5 Animal Food 1 Herb Tea / Honey	1 Nut 1 Fruit 1 Staple 0.5 Animal Food 1 Herb Tea / Honey
Lunch	1 Legume 1 Fruit 1 Vegetable 2 Staple 1 fat	1 Animal Food 1 Fruit 1 Vegetable 2 Staple
pm break	1 Staple 1 fat 1 Vegetable 0.5 Animal Food 1 Herb Tea / Honey	1 Nut 1 Fruit 1 Staple 0.5 Animal Food 1 Herb Tea / Honey
Supper	1 Animal Food 1 Fruit 1 Vegetable 1.5 Staple 1 fat	1 Legume 1 Fruit 1 Vegetable 1.5 Staple

Staples: (5 mitande / person / day)	Available?	Know how to Cook?	Cost
Yams – Coco or other local edible yam			
Buye, air potatoes, other local potatoes			
Cassava			
Sweet Potato			
Rice – whole with husk (unmilled)			
Maize – whole grain			
Sorghum			
Millet			
Green Bananas			
Thobwa			
Chikondamoyo / Chigumo			
Wheat Breads – preferably whole wheat			
Other Staples:			
Legumes & Nuts: (1 chipande /person / day)	Available?	Know how to Cook?	Cost
Kakumpanda / chimbamba			
Khungudzu			
Kabifa			
Soya			
Soya meat pieces			
Soya milk or other soy products			
Nzama			
Kalongonda			
Nseula / Khobwe			
Common beans various colours			
Muula / Mbula / Maula / Mfula Nuts			
Groundnuts			
Chiponde from nuts			
Other local nuts or nuts			

Fruits: (3 chipande / person / day)	Available?	Know how to Cook?	Cost
Leaves List ALL types available, za Malawi best (matowo, mazimezime, baobab, tamarind, masuku, mvilo, magalagadeya, jamu, etc.)			
Chidede fruits (red part for making tea)			
Sugar Cane			
Honey			
Vegetables: (3 chipande / person / day)	Available?	Know how to Cook?	Cost
Leaves List ALL types available, za Malawi best (luni, denje, mwmuna aligone, etc.)			
Peppers – any hot peppers			
Onions			
Tomatoes, small pwerekete best			
Garlic			
Ginger – local thungula best			
Eggplants, local types mabunzo / zimphwa best			
Sponge / Loofa			
Okra			
Chipwete			
Khanyanga (prickly cucumber)			
Cucumber foreign			
Pumpkin			
Mphonda (gourd)			
Mushrooms			
Flowers (pumpkin, nasturtium, etc.)			
Lemon grass for tea			
Avocado leaves for tea			
Magalagadeya leaves for tea			
Other Local Tea Leaves (medicinal or for pleasure drinking)			
Other Vegetables			
Animal Foods: (1/2 chipande / person / day)	Available?	Know how to Cook?	Cost
Chicken eggs			
Duck or other eggs			
Cow's milk			
Goat's milk			
Insects			
Wild meats (legal only please!)			
Fish			
Chicken			
Goat or Beef			
Rabbit or Guinea Pig			
Chambiko			
Other			
Fats & Oilseeds: (3 tablespoons/person /day)	Available?	Know how to Cook?	Cost
Pumpkin seeds			
Sesame			
Sunflower			
Coconut			
Avocado			

Menu ideas

A list like this can get your mind going on different choices for the food groups. This doesn't list all the choices, just some possibilities.

Food Group	Breakfast	Break Times	Lunch and Supper
Staples	Phala (rice, mgaiwa, oats, etc.) Thobwa, Bread, Cassava, Sweet potato, Chikhande, Futali, Chapati	Cassava, Sweet potato, Chikondomoyo, Dowe, Sugar Cane, Crackers, Bread, Chapati	Futali, Mgaiwa, Ufa woyera, Irish potatoes, Sweet potatoes, Rice, Cassava, Pasta, Bread, Millet, Sorghum, Green bananas, Yam, Chikhande, Cocoyam, Chapati
Legumes	Nsinjira added to Phala, Groundnuts, Roasted soya, Cashews, Macademia, Almonds	Any nuts OR roasted soya, chiponde, chipere	Nzama, Nandolo, Soya Pieces, Nyemba, Nsinjira, Kabaifa, Nseula, Khobwe, Chipere
Animal Foods	Milk, Eggs, Breakfast meats, Cheese	Milk, Ngumbi, Other insects, Cheese	Eggs, Beef, Fish, Chicken, Duck, Goat, Pork, Birds, Cheese, Insects
Vegetables	Bonongwe, Asparagus, Nkwanya, Chisoso, Cabbage, Chinese cabbage, Chigwada, Luni, Chillies, Green peppers, Cukecumber, Chipwete, Eggplant, Mphonda, Lettuce, Chinkhupule (young), Mushrooms, Mpiru, Okra, Tomato, Pumpkin, Chidede, Kholowa, Mdele, Chamalawi, Chewe, Denje, Limanda, Kalokola, Amunaligone, Mbiidsongwe, Mlozi, Mtambe, Zumba, Impwa, Garlic		
Fruits	Apple, Banana, Baobab, Chitimbe, Kayimbe, Cashew fruit, Masau, Mposa, Mkuyu, Lemon, Lime, Oranges, Nachis, Papaya, Peaches, Pineapple, Nthudza, Masuku, Maso ang'ombe, Matowo, Mpungulira, Jamu, Magalagadya, Guava, Mbula, Mkungu, Chidede fruit, Tamarind, Watermelon		
Fats	Margarine or butter, Oils, Oil seeds, Avodado, Coconut	Mlambe seed, Sunflower seed, Pumpkin seed, Avocado, Kayimbe seed	Avocado, Bonongwe seed, Pumpkin seed, Sesame seeds, Oils, Margarine or butter
Notes:	Estimate 1 tbsp (15 ml) of oil for each person when used (so for 30 people use 450ml) this is a very generous portion! Spices are nice, too: Curries, Herbs, etc.		

Example of a Menu Plan for the Week

Food Group:	Arrival	Day 1	Day 2	Day 3	Day 4	Day 5
6:30 Breakfast						
Staple		Chips with Skins	Mgaiwa phala Brown Bread	Sweet Potato Futali	Likuni Phala	Brown Bread
Fruit		Banana	Papaya	Tangerine	Papaya	Fruit Salad
Legume or Animal		Boiled Egg Milk	NutButter Milk	Peanut flour Milk	Soy/Peanut Flour Milk	Fried Egg, NutButter, Sausages, Milk
Fat		Avocado	Avocado	Coconut pieces		Stork, Avocado
Other		Teas, Sugar & Honey	Teas, Sugar & Honey	Teas, Sugar & Honey	Teas, Sugar & Honey	Teas, Sugar & Honey
10:00 Break						
Staple, Fruit, Vegetable		Banana in Chikondamoyo	Sugar cane	Thobwa Cucumber	Banana Brown Bread	Sweet Biscuits
Legume, Oilseed, Animal		Peanut Butter Milk	Groundnuts Milk	Pumpkin seeds Milk	Boiled Eggs Milk	Groundnuts
Other		Teas, Sugar & Honey	Teas, Sugar & Honey	Teas, Sugar & Honey	Teas, Sugar & Honey	Soft Drinks
12:00 Lunch						
Staple		Mixed flour nsima cassava in stew	Mixed flour nsima	Rice/Millet	Chips with skins	Nsima, Rice
Legume or Animal		Beef Stew	Nzama Stew	Fried Fish	Nyama ya soya (soy meat)	Fried Chicken
Vegetable		Greens tomato, onion, garlic, etc.	Greens tomato, onion, garlic, etc.	Pumpkin tomato, onion, garlic, etc.	Okra tomato, onion, garlic, etc.	Cucumber tomatoe, onion, etc.
Fruit		Tangerine	Pineapple	Baobab	Custard Apple	Pineapple
Fat		Roasted sesame seeds in green	Oil	Oil	Oil	Chocolate treat
3:00 Break						
Staple, Fruit, Vegetable	Participants Arrive	Fruit Juice Popcorn	Cassava Futali Tamarind	Papaya	banana in chikondamoyo	Participants Leave
Legume, Oilseed, Animal	Fruit Juice, Water, fruit,	Soy nuts Milk	Milk	Chambiko Milk	Milk	Popcorn & Peanuts for the trip
Other	Groundnuts	Teas, Sugar & Honey	Teas, Sugar & Honey	Teas, Sugar & Honey	Teas, Sugar & Honey	
6:30 Supper						
Staple	Nsima, potatoes in stew	Rice & Sorghum	Nsima	Cassava Stew	Nisma, Green Banana futali	
Legume or Animal	Chicken Stew	Beans stew	Nyama ya soy (Soy meat)	Grilled Beef, pigeon pea in stew	Eggs Stew peanut flour	
Vegetable	Greens tomato, onion, garlic, etc.	Salad tomato, onion, garlic, etc.	Eggplant tomato, onion, garlic, etc.	Mushrooms tomato, onion, garlic, etc.	Greens tomato, onion, garlic, etc.	
Fruit	Papaya	Banana		Banana	Tangerine	
Fat	little oil	Avocado	little oil	little oil	Avocado	

Recipes

Creative Cooking Recipes

This booklet contains recipes from the Introduction to Permaculture Nutrition Course. This first page describes how to read the recipes. Page 2 gives a review of the food groups. Pages 3 to 8 are the recipes. Each recipe is in the following format:

Recipe Name Serves	Food Group <i>Vegetable, Fruit, Legume, Animal Food, Fat, Staple</i>
First Ingredients...	First Methods...
Second Ingredients...	Second Methods...
Variation	
Uses	
Taken	From

- * Each recipe begins with its name, how many people it serves, and the food groups that are used in the recipe.
- * Next is the list of ingredients and the cooking methods.
- * Teaspoon has been shortened to "tsp."
- * Tablespoon has been shortened to "T"
- * Some recipes include just one box of ingredients and methods, other list several.
- * After the methods there are ideas for varying the recipe
- * Suggestions on how to use the recipe at a meal or snack time
- * Last is the source of the recipe

The Recipes included in this booklet:

Page 3	Pasta Pasta Salad	Page 5	Sprouts Pickled Eggs	Page 7	Chitipa Cheese Guacamole Tortillas
Page 4	Roasted Soy Beans Rice & Millet Stir Fry	Page 6	Pumpkin or Bean Patties Pumpkin Seeds Mixed Ndiwo / Soup	Page 8	Mango Chutney Mango Salsa Eggs & Vegetables

Food Group Review

Vegetables	
Leafy, fruit or root vegetables	<ul style="list-style-type: none"> ✓ Local leaves (Bonongwe, Luni, Denje, Thelele, etc.) Pumpkin leaves, Bean Leaves, Sweet Potato Leaves. ✓ Pumpkin, Tomato, Eggplant, Cucumber, local gourds ✓ Onion, Carrot, Garlic, local root vegetables.
Nutrients	Vitamins, Minerals, fiber in all vegetables. There is a lot of Protein in dark leafy greens, little in other vegetables, a lot of carbohydrate in pumpkin, very little in other vegetables.
Nutrients lost by:	Sun (heat), Water & Air steals nutrients! Baking Soda, and throwing away edible parts (like seeds and skins) also steals your nutrients. Any part that you don't eat should be given back to feed the soil.
Fruits	
Fruits	✓ Papaya, Citrus, Melons, Berries, Many many local fruits.
Nutrients	Vitamins A & C, Carbohydrate, Minerals in the edible skins. Fiber also.
Nutrients lost by:	Sun (heat), Water & Air steals nutrients! Any part that you don't eat should be given back to feed the soil.
Legumes & Nuts	
Beans & Nuts	✓ Nzama, Pigeon Pea (Nandolo), Cow Pea (Khobwe), Soy, Local Beans and nuts, Ground Nut, Cashew Nut
Nutrients	Incomplete Protein, Vitamins, Minerals, Carbohydrate, and fiber. In soy beans and nuts there is Fat.
Nutrients lost by:	Not many nutrients are lost with processing. Fermenting or sprouting legumes actually increases nutrients.
Animal Foods	
Flesh & Products	✓ Eggs, Milk & Milk products, Animal Flesh, Fish, Birds, insects, etc.
Nutrients	Complete protein, Vitamins, Minerals, Fat
Nutrients lost by:	Not many nutrients are lost with processing, a bigger concern is food safety to prevent food borne illness.
Fats	
Seeds & avocado	✓ Avocado, Sesame (chitowe), Sunflower, Local Seeds (Bonongwe, Mpiru, etc.) cooking oils, margarine, butter
Nutrients	Fat. Seeds, fruit fats contain minerals, vitamins & protein. Processed fats lack almost all other nutrients.
Nutrients lost by:	Pressing the oil out of seeds and robs your body of minerals, vitamins & protein..
Staples	
Grains & Roots	✓ Rice, Maize, Sorghum, Millet, Wheat, Local Grains, Potatoes, Cassava, Yam, Coco yam, Local Starchy Roots
Nutrients	Carbohydrate (in the form of starch), Incomplete protein, Vitamins (especially B vitamins), and Minerals
Nutrients lost by:	The protein, vitamins & minerals are found in the bran (gaga or madeya) & germ (mitima) of grains, and the skins of starchy roots. If you remove these you rob your body of these additional nutrients. Germinating grains improves the nutrition.

Pasta Salad Serves 2 people		Food Groups (depending on toppings) Staple, Animal Food, Vegetable, Fat
1 Recipe	Pasta	Drain pasta and cool by rinsing it in clean water. Put in a large bowl.
½ cup ¼ cup ½ cup 1 T 1 T	Onion Green pepper Tomato Fresh garlic	Chop up Onion, Green Pepper, Tomato, and Garlic and add to pasta. Amounts can be varied according to your tastes.
1 T	Sesame seeds	Add Sesame seeds if available.
1	Lime	Squeeze juice from the lime into the bowl.
1-2 T ¼ cup ½ tsp.	Oil Vinegar Salt	Add according to your taste & calorie needs.
Variation	Spices & Vegetable	Many variations. Any vegetables like fresh greens, young okra, or green beans. Any spices like chillies, black pepper, or basil.
	Seeds	Any small edible seed: mpiru (mustard), bonongwe (aramanth), etc.
	Animal Foods	Boiled eggs chopped up and mixed in or sliced and place on top of the salad. Cheese cut or broken up into salad.
Uses	Serve with	Fresh fruit, fruit salad, nuts, eggs or cheese for a balanced meal.
Taken	From	Stacia Nordin

Pasta Serves 2 people		Food Groups (depending on toppings) Staple, Animal Food
1 Cup ½ tsp.	Flour Salt	Mix dry ingredients in a bowl. Make a well in the center of the dry mixture.
1 2 T	Egg Milk	Beat the egg and milk. Pour the wet ingredients into the well of the dry mixture. Slowly mix the dry and wet ingredients together. As the dough gets stiffer use your hands to continue to mix. Place the dough on a floured surface and roll the dough into a thin sheet. Lightly flour the top surface of the dough and let it stand for a few minutes. Roll up the sheet of dough like a poster and slice pieces off the roll in the noodle width that you prefer. Unroll the noodles and cook in boiling water.
Variation	Flour	Flour from wheat is mostly used in this recipe. You can try other flours though.
	Milk	Water can be used instead of milk.
	Spices	Black pepper, basil, garlic, onion or other such spices may be added to the wet ingredients and mixed right into the dough.
Uses	Hot	Serve in many ways: top with tomato sauce or a white sauce and spices or just stir fry some vegetables and mix with hot pasta.
	Cool	Add a little oil, vinegar or lime juice, chopped up fresh vegetables and spices for a nice pasta salad. Sesame, garlic, onions, and basil are good (see next recipe)
Adapted	From	The Peace Corps Malawi Cookbook, 95

Roasted Soy Beans		Food Groups
Serves 1 person		<i>Legume</i>
1/4 to 1/2 cup	Soy beans	Use 1/4 to 1/2 cup cleaned soy beans for each person. Add to frying pan. Clay pots work best to keep the beans from burning, but any pan may be used. Fry the soy beans (NO oil is needed!) but stir frequently to avoid burning. The soy beans will turn light brown and crack open when ready to eat (about 15 minutes). Cool slightly before eating.
Variation	Cooking	Can be boiled first, then fried
	Spices	Salt, periperi, or other spices can be added, similar to ground nuts.
Uses	Meals	With stir fry, pasta salad or sandwiches.
	Snacks	Take on trips, to school or work.
Taken	From	Various friends

Rice & Millet		Food Groups
Serves 4-5 people		<i>Staple</i>
1 cup 1/2 cup 3 cup	Rice Millet Water	Put whole grain Rice, Millet & water into a pot. Bring to a boil on high heat with cover on. Lower heat and simmer for 15 with cover on. Remove from heat. Let sit 10 minutes before serving.
Variation	Spices	Can be added to the pot at any time. Basil, Onions, Garlic, Salt, Peppers, etc.
	Grains	The amount of grain can be varied as long as there is 1 1/2 cups grain and 3 cups liquid. Sorghum can also be used.
Uses	Serve with	Stir fry, beans, meat, vegetables
Taken	From	Various friends

Stir-Fry		Food Groups
Serves 3-4 people		<i>Vegetable, Fat depends on ingredients</i>
1 cup 1/2 cup 1 cup 1 cup 2 cups 2 cups 2 T	Green pepper Okra Onion Tomato Greens Cabbage Fresh Garlic	Cut up all vegetables into desired pieces. Larger pieces will keep more nutrients.
1-2 T	Oil	Heat oil in frying pan. Add slower cooking vegetables first (green pepper & okra). Allow to cook 2-3 minutes, stirring occasionally. Add onion & cook 2-3 minutes more until browning begins. Browning will add flavor. Add tomatoes, greens & garlic. Cover and cook for 2-3 minutes. The water in the tomatoes will steam the greens. Cook as little as possible to keep the most nutrients. Vegetables should keep their color & some crispness.
Variation	Vegetable	Any! Local greens, eggplant, carrots, loofa (sponge or chinkupule), cucumber
	Spices	Any! Basil, corriander (cilantro), pepper, periperi, etc.
	Add	Nsinjira, roasted nuts, edible seeds, meat, scrambled eggs, chicken, fish, etc.
Uses	Serve with	Rice, rice & millet, pasta
Made up	By	Stacia Nordin

Sprouts		Food Groups <i>Vegetable, Legume</i>
<ul style="list-style-type: none"> Sprouts can be made from grains or legumes. Sprouting improves their nutritional value. Vitamins A, B, E, and K all increase and Vitamin C is created even though there is none in the dry seed. Small bean seeds like mung bean (mphonza) work well. There are different ways to sprout seeds, either way soak the seeds overnight. Fresh beans don't need to be soaked. The next day pour off the water (use the water for cooking, it is loaded with minerals, vitamins, and amino acids). Then do one of the following: <ol style="list-style-type: none"> The traditional way is to pile them in a licherio (winnowing basket) and cover them with large thick leaves such as coco yam leaves or banana leaves. Leave them covered for a few days until they sprout. Uncover them when the sprouts are 1-2 inches long. Place the licherio in the sun so the sprouts turn a nice bright green color. Or another way: After draining the seeds, put them in a container and cover it with a clean cloth (something like cotton is best). Put the container in a dark place. Rinse the seeds 2-3 times a day or more. Small seeds begin to sprout in 2-3 days. When the sprouts have reached a desired length, bring the container out into a sunny spot and they will turn bright green. Rinse them again and eat. 		
Uses	Raw	To get the most nutrients from your sprouts eat them raw with a salad, or alone.
	Hot	They can be added to a stir fry or other vegetable stews.
Adapted	From	The Malawian & Expatriate communities

Pickled Eggs <i>Makes 12 eggs</i>		Food Groups <i>Animal Foods (vegetables, fruits)</i>
2 cup ½ cup 1 cup 1 T	Vinegar Water Sugar Salt	These are the basic ingredients. Any spices can be added. Add to saucepan. Cover pan and heat until boiling. Then simmer for 10 minutes. Allow to cool before pouring over eggs.
2 12	Medium Onions Hard Boiled Eggs	Slice Onions. Put onions and hard-boiled eggs into the container that you will store the pickled eggs in.
Variation	Spices	The sugar, salt, water, and vinegar needs to stay as is to keep the eggs safe. Any combination of spices can be added: garlic, periperi, corriander, basil, etc.
	Foods	Many foods can be pickled: cucumbers, green peppers, carrots, okra, etc.
Uses	Time	It is best to leave the eggs a few days before eating them so that they absorb the flavor of the spices. They can store for quite a while this way—a few weeks at least to a few months.
Adapted	From	Lillian Nordin, my mother-in-law

Pumpkin Patties <i>Serves 3-4 people</i>	Food Groups <i>Vegetable, Staple, Animal Food, Fat</i>
2 cup Pumpkin 1 Egg	Cook and mash 2 cups of pumpkin. Beat egg and add to pumpkin, mix well.
½ cup Flour ½ T Baking Powder ½ tsp. Salt	Mix together dry ingredients, then add to pumpkin & egg.
Frying Oil	Fry spoonfuls in hot oil, turning once until browned on both sides. Serve hot.
Variation	In a little oil, fry diced onion, green pepper, minced garlic, salt, and pepper to taste. Add to the pumpkin mixture.
	Add sugar, cinnamon, nutmeg (available at PTC), and 2 T peanut flour.
	Mashed beans, or any mashed food.
	Any including more vegetables like carrots, tomatoes, local greens, etc.
	Flour from soy bean, mgaiwa, millet, sorghum, cassava, etc. can be used.
B. Powder	You don't have to add baking powder.
Adapted From	The Peace Corps Malawi Cookbook, 95

Pumpkin Seeds <i>Serves 4-5 people</i>	Food Groups <i>Vegetable, Fat</i>
Pumpkin Seeds	¼ cup pumpkin seeds for each person. Add to frying pan (NO oil is needed!). Add salt if desired. Roast slowly until browned. Other spices like periperi can also be added if desired.
Adapted From	American Tradition

Mixed Ndiwo/Soup	Food Groups <i>From one up to all</i>
This recipe can be any mixture of foods you like. It can be made with more water for a soup, or less water for any ndiwo.	
2 or 3 cup Water 1 cup Staple 1 cup Vegetable	Put water in a pot. Add 1 cup of any staple food and 1 cup of any vegetable food. Can be one type of food or a mixture.
2 or 3 Garlic ½ cup Onion ½ cup Cooked beans	Add chopped garlic, onion & cooked beans. Cook until the staple is soft. Add more water if needed, or to make it thicker, add a little flour and stir.
Variation	Roots, Rice, Maize, Millet, Sorghum...
	Greens, Eggplant, Tomato, Pumpkin, Carrots, local vegetables, etc
	Basil, salt, pepper, chili, local spices.
Uses	If watery, serve with bread and a salad. If thick, with a staple like nsima or rice.
Made up By	Stacia Nordin, Anabanda

Bean Salad <i>Serves 4-5</i>	Food Groups <i>Legumes, Vegetables</i>
2 cups Cooked beans 1 medium Onion 1 medium Pepper ¼ cup Oil ½ cup Vinegar 1-5 cloves Garlic	Slice onions & green pepper thinly. Mix everything together in a bowl. Add ingredients according to taste. Add salt, black pepper, or sugar if desired. A little lemon juice is nice, too. Allow to sit before eating for the best flavor.
Variation	Any type
Uses	Sandwiches, other salads or hot meals
Adapted From	Various friends

Chitipa Cheese <i>Makes about 1 cup</i>	Food Groups <i>Animal Foods</i>
4 cup Milk	Heat milk while stirring constantly to almost boiling. Remove from heat and wait 5 minutes.
2 ½ T 2 tsp. Vinegar Salt	Stir vinegar until milk completely curdles, producing a fluffy white solid and a pale yellow liquid. Allow curds to settle for 30 minutes. Pour through a cotton cloth to drain off the liquid. Mix in salt. Wring the cloth containing the cheese to remove all excess water.
Variation	Add any spices: garlic, onions, Italian spices, garlic chives, peri-peri, etc.
	Lime juice or other acidic fruit juice
Uses	Salads, Sandwiches,
	Pasta, Soups
Adapted	From The Peace Corps Malawi Cookbook, 95

Guacamole <i>Serves 3-4 people</i>	Food Groups <i>Fat, Vegetable</i>
1 large Avocado	Mash avocado. Chop the rest of the ingredients and mix with the avocado.
1 large Tomato	The herb cilantro is a great addition to this if it is available.
2 cloves Garlic	
2 T Onion	
2 tsp. Lemon Juice	
1 tsp. Salt	
1 Red Chili	
Variation	Any spices of your choice
Uses	Tortillas, sandwiches, bread
Adapted	From The Peace Corps Malawi Cookbook, 95

Tortillas <i>Serves 2-4 people</i>	Food Groups (depending on toppings) <i>Staple & Fat</i>
2 Cups 1 tsp. Flour Salt	Mix dry ingredients in a bowl
¾ cup ¼ cup Water Oil	Add wet ingredients and mix well. Take about 2 tablespoons of the dough and form into a ball. Roll it out thinly onto a floured surface. Fry the tortilla in a hot pan (do NOT add oil to the pan).
Variation	You can use most starchy flours that you have (maize, wheat, millet, cassava, etc.), or more than one type of flour can be used to make up the 2 cups. Different types of flour have different amounts of moisture in them, so you may need to add a little more or less flour.
	If you are trying to cut back on fat, you can use more water and less oil. Use approximately 1 cup of wet ingredient in total.
	Adding about 1 tsp. of baking powder to the recipe creates a softer tortilla.
Uses	Beans, ground beef, salad, and avocado mashed with tomatoes, onions & spices is a common topping for a tortilla. Add cheese when it is available.
	Put something sweet on a tortilla like fruit, syrup, jam, sugar or cinnamon and sugar.
Adapted	From The Peace Corps Malawi Cookbook, 95

Mango Chutney <i>Serves 10</i>	Food Groups <i>Fruit, vegetable</i>
½ cup Sugar ½ cup Raisins 1/3 cup Vinegar ¼ cup Onion ¼ tsp. Crushed red pepper 3 cups Chopped mangoes	Chop onions. Combine all ingredients medium saucepan. Bring to boiling. Reduce heat. Simmer uncovered for 15 minutes stirring occasionally.
Variation	Stir in mangoes. Heat through. Let cool and serve.
Uses	Other fruit
Adapted	Tortillas, sandwiches, meats Better Homes & Gardens Magazine

Mango Salsa <i>Serves 5</i>	Food Groups <i>Fruit, Vegetable</i>
1 ½ cup Chopped mangoes 1 medium Pepper ¼ cup Onions 1 Chilli ½ tsp. Lime peel ½ tsp. Lime juice 3 T Oil 1 T Vinegar ¼ tsp. Salt ¼ tsp. Pepper	Thinly slice mangoes, peppers, onions, and hot peppers Shred the lime peel, combine all ingredients together with the chopped mango and vegetables. Makes 2 cups
Variation	Any spices of your choice
Uses	Tortillas, sandwiches, meats, beans
Adapted	Better Homes & Gardens Magazine

Eggs & Vegetables <i>Varies 1 to whatever</i>	Food Groups <i>Animal Foods, Vegetables, Fat</i>
2 eggs Per person ½ Onion ½ Green pepper 1 or 2 Garlic cloves ½ cup Greens 1 or 2 tsp. Spices 1 or 2 tsp. Oil	This dish can be made in several ways: Beat the eggs in a bowl. Set aside. Chop vegetables into the desired size (larger pieces will keep more nutrients). Use approximately the amount of vegetables and spices listed for each person you are serving. Then use any of the following methods...
Variation	Tomatoes, chillies, okra, eggplant, etc. Basil, salt, pepper, local spices.
Uses	Bread, Potatoes, Rice, Nsima, and then to balance the meal add a Fruit
Adapted	The Peace Corps Malawi Cookbook, 95

1. This method should create a fluffy, fresh-tasting egg dish. It works well when you are serving a large group. Mix the beaten eggs, vegetables, and spices together. Heat a frying pan on low heat. Add oil to the pan and then the egg mixture. Cover the pan and cook until done. If this is allowed to cook slowly enough while remaining covered it should not have to be turned. Serve Hot.

2. This method will produce omelets that are better for just a few people. Heat frying pan and oil. Add Onion & green pepper and fry until golden brown stirring occasionally. Add garlic, greens & spices. Cook 2-3 minutes. Remove vegetables from the pan and set aside. Add a little more oil to the pan. Add 2 beaten eggs to the pan and fry until light brown. Flip the egg and fry it on the other side. Serve each person a fried egg with vegetables. The egg can be wrapped around the vegetables.

A few bonus recipes

Jams:

(From Malawi's Traditional and Modern Cooking Book)

-
- Choose firm fruit, discard any brown parts. Wash, peel, and deseed the fruit. Cut into small pieces. Cut roughly. Put the cut up fruit into the pan, cover with water.
 - Leave to stand for a few hours or overnight if possible to extract the juice from the fruit.
 - Bring to a boil and cook gently till the fruit is tender. Measure by cupfuls the fruit and liquor.
 - To each cupful add 1 cup of sugar and the juice of ½ lemon. If there is time to leave the pan overnight, the jam will set better and have better flavour.
 - Stir the jam over a gentle heat till the sugar is dissolved then bring to a fast boil and continue boiling, uncovered, on the fastest boil possible until the jam is set. To test for setting, stir the jam well, then let the last drop from the spoon fall on a cold plate. As it cools, push the drop gently with a finger. If it crinkles, setting point is reached.
 - Set the pan aside to cool slightly, to prevent the fruit from rising in the jam as it cools.
 - Bottle in clean hot jars, cover with an airtight layer of thin plastic, cut from a clean sugar bag perhaps, or a layer of candle wax, then seal the bottles. Cool, wipe the bottles clean, label them and store in a cool place. If jams are made as a small scale income generating activity, ask the customers to bring their own clean containers and sell them the jam by the cupful. This keeps costs down when food containers are not readily available.

Cream Soups

(not sure of source, text by Grace Sagawa, nutritionist Concern Universal Dedza 2004, adapted slightly by Stacia Nordin)

Soup is the 'gravy' of vegetables, meat, fish or bones, It is usually drunk before eating the main dish, but can be the main dish alone, too! It is great for someone who is sick. Some people use a thick soup as part of the main dish with a staple food, or over bean, vegetables or meat. Get creative with this basic recipe!

<ul style="list-style-type: none">• 2 small onions and other herbs: mpungabwe (basil), garlic, hot peppers, etc.	<ul style="list-style-type: none">• 6 medium: potatoes, or tomatoes, or carrots, or handfuls of local greens, or 1 small pumpkin
<ul style="list-style-type: none">• 2 T flour, any type preferably whole grain	<ul style="list-style-type: none">• 1 T oil, optional
<ul style="list-style-type: none">• 4 cups boiling water	<ul style="list-style-type: none">• little salt, optional

Cut up all veggies and herbs. Onions and other herbs can be fried a little if desired, but do not brown them. Add the veggies and cook until tender, stirring from time to time. When veggies are tender, separate from water and mash the veggies into a paste. Mix flour and with a little water or milk to a thin paste, then mix with water and add the mashed veggies. Put on the stove and cook until thick. Eat!

Rice in a fireless cooker

(Learned this from the Integrated Food Security Project, Mulanje, 2003. Any errors in explanation are my own as I describe the process from what I remember and my own experiences using my fireless cooker.)

Instead of boiling rice for 20 or 30 minutes and using a lot of firewood, and possibly forgetting it and burning it....You can use a fireless cooker and only boil the rice for 2 minutes, have perfect rice and no chance of burning it!

- A fireless cooker is simply anything that holds heat very well. A maize basket stuffed tightly with dried banana leaves works very well. Another idea is a box stuffed with paper. You will need to cover the basket / box with more dried leaves / papers to hold heat in from the top. A clean, old cloth stuffed with the leaves / paper works well.
- In the end, you will have a place to set a hot pot of food that is completely wrapped with a lot of leaves or paper to hold the heat of the hot pot.
- Before heating your food that is going to go into the fireless cooker, put the pot into the middle of banana leaves that were stuffed into a maize basket. Make the same size hole in the middle of the leaves so that the pot will fit in when you are ready.
- Measure the number of cups of rice that you want to cook and set it aside in a dish.
- Put exactly double the amount of water as rice into the pot. So make sure you measure the water with the same cup that you measured the rice.
- Put the water on any type of stove (briquettes, improved wood-burning, electric, etc).
- When the water boils, add the rice (and a little salt if desired).
- Also add other nutrients such as spices, vegetables, nuts, seeds, or other grains at this time. You will have to become experienced at the different cooking times for other foods. (For example, I cooked rice and sorghum together and found that sorghum takes a little longer; sorghum should be added to the pot before the rice.)
- Allow to boil 2 minutes at a full boil.
- Remove the pot of rice / other food from the stove and put in the fireless cooker. Seal it tightly with the lid, allow to sit 30 minutes (or longer as it won't burn!).
- Eat whenever you are ready! It can sit several hours and still stay warm.



Technical Details

Nutrient Composition of the Current Meal versus Better Meal

Current Meal		
<i>(2 cups of food)</i>		
<ul style="list-style-type: none"> • 1 ½ cups mgaiwa (<i>whole grain maize flour</i>) • ½ cup Beans 		
<i>Nutrient</i>	<i>% of needs</i>	<i>Amount supplied</i>
Protein	23 %	14.8 g
Carbohydrate	34 %	86 g
Fat	3 %	1.2 g
Vitamins	23 %	
Vitamin A	0 %	.5 RE
Vitamin C	0 %	0 mg
Vitamin E	52 %	4.2 mg
Thiamine	64 %	.64 mg
Riboflavin	33 %	.4 mg
Niacin	34 %	4.4 mg
Vitamin B6	10 %	.16 mg
Folate	38 %	68 mcg
Minerals	19 %	
Calcium	5 %	43 mg
Magnesium	27 %	76 mg
Potassium	13 %	252 mg
Iron	57 %	5.7 mg
Zinc	13 %	1.52 mg

Better Meal		
<i>(2 cups of food)</i>		
<ul style="list-style-type: none"> • 1 cup mgaiwa (<i>whole grain maize flour</i>) • ¼ cup beans • ½ cup greens made with onion, tomato, sunflower seeds and millet • ¼ cup (1 medium) banana 		
<i>Nutrient</i>	<i>% of needs</i>	<i>Amount supplied</i>
Protein	28 %	17.6 g
Carbohydrate	41 %	104 g
Fat	19 %	9.1 g
Vitamins	68 %	
Vitamin A	98 %	781 RE
Vitamin C	45 %	27 mg
Vitamin E	149 %	12 mg
Thiamine	78 %	.78 mg
Riboflavin	58 %	.7 mg
Niacin	44 %	5.7 mg
Vitamin B6	71 %	1.13 mg
Folate	132 %	237 mcg
Minerals	49 %	
Calcium	21 %	170 mg
Magnesium	72 %	200 mg
Potassium	69 %	1291 mg
Iron	89 %	8.9 mg
Zinc	25 %	3 mg

Nutrient Analysis of one day's diet from the 6 Food Groups for an adult

Malawi Food Groups	Foods eaten throughout the year	Average grams per adult per day	Average kcal per 100 grams	Average kcal per day	Total grams per group per day	Total kcal per group per day
1. Fruits	Fruits Fresh (all but a few)	300	50	150	300	150
	Fruits Dried & Honey	0	287	0		
2. Vegetables	Fresh Vegetables	400	32	128	400	128
	Dried Vegetables	0	243	0		
3. Legumes & Nuts	Beans dried	25	392	98	110	388
	Beans fresh	25	222	56		
	Nuts	60	390	234		
4. Animal Foods	Meat, Fish, Eggs, fresh	60	59	35	135	147
	Milk, Yoghurt	50	87	44		
	Dried fish or meat	25	272	68		
5. Fats & Oils	Oilseeds (like pumpkin)	20	541	108	50	235
	Fatty Fruits	20	203	41		
	Fats / Butter	5	853	43		
	Oil	5	877	44		
6. Staples	Cereals & Grains	250	335	838	500	1,078
	Tubers & Starchy Fruits	250	96	240		
TOTALS:					1,495 grams	2,125 kcal
<p><i>Note: Calculations and estimates by Stacia Nordin, RD using a Nutrient Composition spreadsheet which measured Malawian Foods in the 1990s. There are MANY different calculations that could meet the needs of an adult; <u>this is only one balanced example!</u> This diet shown contains about 14% protein, 23% fat and 63% carbohydrate.</i></p>						

Food Lists by Food Group

Lists of Foods in Malawi

The foods on these lists have come from various sources--through studying books, research papers, magazine articles, and through people with whom I live and work. I have NOT tried all the foods on these lists. Use these lists to start you off in the communities and see what you can find. Local knowledge on food plants, especially from the older generations is usually the best source. They can show you the foods and teach you how to identify and use them. When you learn new foods, share your new information with others through informal discussions, meetings, or writing to newsletters or local newspapers. The following books and papers were valuable in compiling these food lists:

Useful Plants of Malawi

Jessie Williamson, Published by the University of Malawi, Revised 1975.

Traditional Food Plants

Food and Agriculture Organization of the United Nations (FAO) Rome, 1988.
ISBN 92-5-102557-6

The Composition of Foods Commonly Eaten in Eastern Africa

CTA (Technical Centre for Agricultural and Rural Cooperation), ISBN 90 72407 10 5. Copies available through -Department of Human Nutrition, Wageningen Agricultural University, De Creijen 12, 6703 BC Wageningen, The Netherlands- OR -Tanzania Food and Nutrition Centre, Box 977, Dar es Salaam, Tanzania.

Workshop to Promote Indigenous Foods

Centre for Social Research, Zomba

Number of Foods on these lists to date: 595

Fats	48	Vegetables	278
Fruits	151	Staples	52
Legumes & Nuts	29	Foods from Animals	37

Scientific	English	Malawi Names	Edible Parts
Fats Food Group			
<i>Abrus precatorius</i>	Crab's Eyes	Ntimbua	Seeds, CARE
<i>Adansonia digitata</i>	Baobab Oil	Mlambe Mafuta	Seed Oil
<i>Aleurites moluccana</i>	Candle Nut Tree		Seed kernel
<i>Amaranthus hybridus</i>	Amaranth Seed	Bonongwe Mbewu	Seeds
<i>Amaranthus sp.4</i>	Wild Blite Seed	Bonongwe Mbewu	Seeds
<i>Amaranthus spinosus</i>	Spiny Pigweed Seed	Bonongwe wa minga Mbewu	Seeds
<i>Amaranthus thunbergii</i>	Poor Man's Spinach Seed	Mberekete Mbewu	Seeds
<i>Balanites aegyptiaca</i>	Desert Date	? Malawi	Seed Oil
<i>Boscia salicifolia</i>		Mtakataka (Yao)	Seeds

Scientific	English	Malawi Names	Edible Parts
<i>Boscia senegalensis</i>	Aisen	Mpetu	Seeds
<i>Brassica juncea</i>	Mustard Mbewu	Mpiru Mbewu	Seeds
<i>Cajanus cajan</i>	Pea, Pigeon Oil	Nandolo Mafuta	Seed Oil
<i>Ceiba pentandra</i>	Kapok	Usufu	Seeds
<i>Celosia Argentea</i>	Cock's Comb	Ndangale	Seed Oil
<i>Celosia trigyna</i>		Kaphikaulesi	Seeds
<i>Citrullus lanatus</i>	Watermelon	Vwende	Seeds
<i>Cleome gynandra</i>	Cat's Whiskers	Luni	Seed Oil
<i>Cocos nucifera</i>	Coconut	Nkoko	Fruit
<i>Cucumis anguria</i>	Cucumber, Small Prickly	Chikanyanga	Seeds
<i>Cucumis melo</i>	Melon	Kayimbe	Seeds
<i>Cucumis sativus</i>	Cucumber	Mankhaka	Seeds
<i>Cucurbita species</i>	Pumpkin	Mthanga za msungu	Seeds
<i>Cyperus esculentus</i>	Tiger nut	Kauju	Root Oil
<i>Diospyros mespiliformis</i>	Monkey Guava	Msumwa	Seeds
<i>Elaeis guineensis</i>	Wild Oil Palm	Kanjindo (To)	Seed Oil
<i>Foeniculum vulgare</i>	Fennel		Seed / Oil
<i>Guizotia abyssinica</i>	Niger Seed		Seed Oil
<i>Helianthus annus</i>	Sunflower	Sanifulawa	Seeds
<i>Hibiscus sabdariffa</i>	Roselle	Chidede	Seed / Oil
<i>Hyphaene species</i>	Palm, Doum	Mgwalangwa	Seeds
<i>Lagenaria siceraria</i>	Gourd	Mphonda	Seeds
<i>Mangifera indica</i>	Mango	Mango	Seeds
<i>Momordica charantia</i>	Gourd, Bitter	Karela	Seeds
<i>Moringa oleifera</i>	Horse Radish Tree	Chamwamba	Seed / Oil
<i>Nymphaea caerulea</i>	Water Lily	Chikolwa	Seeds
<i>Oxytenanthera abyssinica</i>	Bamboo, Common	Nsungwi	Seeds
<i>Papaver somniferum</i>	Poppy Seed		Seed / Oil
<i>Persea americana</i>	Avocado Pear	Mapeyala	Fruit
<i>Persea americana</i>	Avocado Pear	Mapeyala	Seed Oil
<i>Portulaca oleracea</i>	Purslane	Matakoatsanu	Seeds
<i>Salvadora persica</i>	Toothbrush Tree	Mswache (Y)	Seed Oil
<i>Sclerocarya caffra</i>		Mufula	Seed / Oil
<i>Sechium edule</i>	Chayote	Ngowe	Seed Kernel
<i>Sesamum indicum</i>	Sesame	Chitowe	Seed / Oil
<i>Tamarindus indicus</i>	Tamarind	Bwemba	Seeds
<i>Treculia africana</i>	African Breadfruit	Njayi	Seeds
<i>Trichilia emetica</i>	Natal Mahogany	Msikitsi	Seed / Oil
<i>Trigonella foenum-graecum</i>	Fenugreek	Methi	Seed / Oil
<i>Ziziphus mauritiana</i>	Jujube	Masawo	Seed Kernel
Total Fats		48	

Fruits Food Group			
?	Honey	Uchi	Sap
?		Mpinjipinji	Fruit
<i>Acacia albida</i>	White Thorn	Nsangu	Fruit
<i>Acacia karroo</i>	Sweet Thorn	Mfungu	Gum
<i>Acacia polyacantha</i>	African Cachechu Tree	Mtete	Gum

Scientific	English	Malawi Names	Edible Parts
<i>Adansonia digitata</i>	Baobab	Mlambe	Fruit
<i>Aframomum angustifolium</i>	Cardamom, Wild	Nhungula	Fruit
<i>Allophylus africanus</i>		Kandula	Fruit
<i>Ampelocissus</i> sp.		Mbeleshya (Y)	Fruit
<i>Anacardium occidentale</i>	Cashew Fruit	Mbibu Zipatso	Fruit
<i>Ananas comosus</i>	Pineapple	Nanasi	Fruit
<i>Anisophyllea pomifera</i>		Machilikiti	Fruit
<i>Annona senegalensis</i>	Custard Apple, Wild	Mposa	Fruit
<i>Annona</i> sp.	Custard Apple	Mphosa	Fruit
<i>Antidesma venosum</i>		Mpungulira	Fruit
<i>Azanza garkeana</i>		Matowo	Fruit
<i>Balanites aegyptiaca</i>	Desert Date	? Malawi	Fruit
<i>Berchemia discolor</i>	Plum, Bird	Mtata	Fruit
<i>Borassus aethiopum</i>	Palm, Fan	Magwede, Ngwanlangwa	Sap
<i>Borassus aethiopum</i>	Palm, Fan	Magwede, Ngwanlangwa	Fruit
<i>Boscia salicifolia</i>		Mtakataka (Yao)	Fruit, Young
<i>Boscia senegalensis</i>	Aisen	Mpetu	Fruit, Young
<i>Bridelia micrantha</i>		Mpasa	Fruit
<i>Cadaba kirkii</i>		Nswadji	Fruit
<i>Canthium crassum</i>		Mnonga	Fruit
<i>Carica papaya</i>	Pawpaw	Papaya	Fruit
<i>Carissa edulis</i>	Plum, Wild	Mpambulu	Fruit
<i>Ceiba pentandra</i>	Kapok	Usufu	Fruit
<i>Chrysophyllum magalismontanum</i>	Wild Plum	Chiyera	Fruit
<i>Cissus cornifolia</i>	Water Root	Mbulunbunji	Fruit
<i>Cissus integrifolia</i>		Mtambe	Fruit
<i>Citrullus lanatus</i>	Watermelon	Vwende	Fruit
<i>Citrus aurantifolia</i>	Lime	Ndimu	Fruit
<i>Citrus aurantium</i>	Sour Orange		Fruit
<i>Citrus limon</i>	Lemon	Mandimu	Fruit
<i>Citrus paradisi</i>	Grapefruit		Fruit
<i>Citrus reticulata</i>	Tangerine	Nachi	Fruit
<i>Citrus sinensis</i>	Orange	Malalanje	Fruit
<i>Cleistochlamys kirkii</i>		Nkalango (Y)	Fruit
<i>Coccinia adoensis</i>		Fwifwi	Fruit
<i>Conopharyngia elegans</i>	Toad Tree	Kakope	Fruit
<i>Cordia abyssinica</i>		Mwabwa	Fruit
<i>Cordyla africana</i>	Plum, African	Mtondo	Fruit
<i>Cucumis hirsutus</i>		Mkuwikuwi	Fruit
<i>Cucumis melo</i>	Melon	Kayimbe	Fruit
<i>Cucumis metuliferus</i>		Kangamkhwani	Fruit
<i>Cussonia kirkii</i>	Deadman's Fingers	Mwabwa	Fruit
<i>Cussonia spicata</i>	Umbrella Tree	Chandimbo (Y)	Fruit
<i>Cyphostemma buchananii</i>		Namwalicheche	Sap
<i>Cyphostemma buchananii</i>		Namwalicheche	Fruit
<i>Detarium senegalense</i>	Sweet Dattock		Fruit
<i>Diospyros mespiliformis</i>	Monkey Guava	Msumwa	Fruit

Scientific	English	Malawi Names	Edible Parts
<i>Dombeya rotundifolia</i>	Wild Pear Tree	Naduwa	Fruit
<i>Dovyalis abyssinica</i>	Key Apple	? Malawi	Fruit
<i>Dovyalis caffra</i>	Wild Apricot	Ng'amba	Fruit
<i>Ehretia species</i>	Cape Lilac	Ng'amba	Fruit
<i>Ekebergia benguelensis</i>		Mabere ya ng'ombe	Fruit
<i>Fadogia odorata</i>		Mlumbakumba	Fruit
<i>Fagara sp</i>	Fagara	Mlunguchulu	Fruit
<i>Ficus carica</i>	Fig, Common	Mkuyu	Fruit
<i>Ficus sp.4</i>	Fig, Wild	Nkhuvu	Fruit
<i>Ficus sur</i>	Fig, Cape	Mkuyu-pasi	Fruit
<i>Ficus sycomorus</i>	Fig, Sycamore	Chikujumba	Fruit
<i>Flacourtia indica</i>	Plum, Indian	Nthudja	Fruit
<i>Fragaria ananassa</i>	Strawberry	Sitobele	Fruit
<i>Friesodielsis obovata</i>		Mfulafula	Fruit
<i>Garcinia livingstonei</i>	Low veld mangosteen	Mphimbi	Fruit
<i>Grewia inaequilatera</i>	Bastard Silver Raisin		Fruit
<i>Grewia micrantha</i>	Golden Raisin	Tensa	Fruit
<i>Hibiscus sabdariffa</i>	Roselle	Chidede	Fruit
<i>Hirtella bangweolensis</i>		Mphungumutu	Fruit
<i>Hoslundia opposita</i>		Chanzi	Fruit
<i>Hyphaene species</i>	Palm, Doum	Mgwalangwa	Sap
<i>Landolphia kirkii</i>	Rubber Vine	Mpila	Fruit
<i>Landolphia parvifolia</i>		Kapwati	Fruit
<i>Landolphia petersiana</i>		Matutungwa	Fruit
<i>Landolphia sp.</i>		Makombe	Fruit
<i>Lannea discolor</i>	Livelong	Sidyatungo	Fruit
<i>Lannea edulis</i>	Grape, Wild	Mdyakamba	Fruit
<i>Lannea sp.</i>		Kitongomilo	Fruit
<i>Lannea stuhlmanni</i>		Chirusa	Fruit
<i>Lantana trifolia</i>		Nakasonde (Y)	Fruit
<i>Litchi chinensis</i>	Litchi		Fruit
<i>Maclura africana</i>		Mkolonsato	Fruit
<i>Malus dom./Pyrus mal.</i>	Apple	Apulo	Fruit
<i>Mangifera indica</i>	Mango	Mango okwima	Fruit
<i>Mimusops zeyhera</i>	Red Milkwood	Mterekezi	Fruit
<i>Morus alba</i>	Mulberry, Wild	Mabulosi	Fruit
<i>Morus nigra</i>	Mulberry	Mapulesi	Fruit
<i>Musa paradisiaca</i>	Banana	Nthochi	Fruit
<i>Myianthus hostii</i>		Chiwele	Fruit
<i>Olea africana</i>	Wild Olive	Nakatimba (Mg)	Fruit
<i>Opuntia ficus-indica</i>	Prickly Pear	Kaloga	Fruit
<i>Oxalis acetosella</i>	Sorrel	Katakula	Fruit
<i>Pachystela brevipes</i>		Mpimbi	Fruit
<i>Pappea capensis</i>	Plum, Wild	Mkungula	Fruit
<i>Parinari capensis</i>	Plum, Wild	Mungungajati	Fruit
<i>Parinari curatellifolia</i>	Hissing Tree	Mbula	Fruit
<i>Parinari excelsa</i>	Plum, Rough-skinned	Muula	Fruit
<i>Parkia filicoidea</i>	Bean, African Locust	Mkundi	Fruit

Scientific	English	Malawi Names	Edible Parts
<i>Pasiflora edulis</i>	Passion Fruit	Magalagadeya	Fruit
<i>Phoenix dactylifera</i>	Palm, Date		Fruit
<i>Physalia peruviana</i>	Gooseberry	Jamu	Fruit
<i>Piliostigma thonningii</i>	Camel-foot	Chitimbe	Fruit
<i>Prunus armeniaca</i>	Apricot	Epulokoti	Fruit
<i>Prunus persica</i>	Peach	Pichesi	Fruit
<i>Pseudolachnostylis maprouneifolia</i>		Msolo	Fruit
<i>Psidium guajava</i>	Guava	Gwafa	Fruit
<i>Punica granatum</i>	Pomegranate	Chimanga chachizungu	Fruit
<i>Pyrenacantha</i> sp.		Mchende	Fruit
<i>Rhoicissus tridentata</i>		Mpeza	Fruit
<i>Rhus natalensis</i>		Mapirankukute	Fruit
<i>Rothmannia manganjiae</i>		Mfukula	Fruit
<i>Rubus</i> spp.	Blackberry	Mpandankhuku, Mulunguzi	Fruit
<i>Saccharum officinarum</i>	Sugar Cane	Mzimbe	Stem
<i>Salvadora persica</i>	Toothbrush Tree	Mswache (Y)	Fruit
<i>Sclerocarya caffra</i>		Mufula	Fruit
<i>Securinega virosa</i>		Mpombona	Fruit
<i>Solanum scabrum</i>	Sunberry		?e Fruit Wild
<i>Sorghum bicolor</i>	Sorghum	Misale	Stem, Shoot
<i>Sorindeia madagascariensis</i>		Sasola	Fruit
<i>Strychnos innocua</i>	Monkey Orange	Mkaye, Maye	Fruit
<i>Strychnos spinosa</i>	Kaffir Orange	Mateme	Fruit
<i>Syzygium cordatum</i>	Water Boom	Nyowe	Fruit
<i>Syzygium guineense</i>	Water Berry	Mbunguzi	Fruit
<i>Syzygium owariense</i>		Mafuwa	Fruit
<i>Tacca leontopetaloides</i>	African Arrowroot	Dinde	Fruit
<i>Tamarindus indicus</i>	Tamarind	Bwemba	Fruit
<i>Temnocalyx obovatus</i>		Maso a ng'ombe	Fruit
<i>Terminalia catappa</i>	Indian Almond	Mkungu	Fruit
<i>Toddalia asiatica</i>	Cockspur Orange	Msangalusi (Y)	Fruit
<i>Tribulus terrestris</i>	Devil's Thorn	Ncheso	?e Fruit Wild
<i>Trichilia emetica</i>	Natal Mahogany	Msikitsi	?e Fruit
<i>Turraea nilotica</i>		Msindila	Fruit
<i>Uapaca kirkiana</i>	Loquat, local	Msuku	Fruit
<i>Uapaca kirkiana</i>	Loquat, foreign	Msuku cha chizungu	Fruit
<i>Uapaca nitida</i>		Kasokolowe	Fruit
<i>Uapaca sansibarica</i>		Mtoto	Fruit
<i>Uvaria</i> sp.		Ukonde	Fruit
<i>Vangueria infausta</i>	Wild Medlar	Msilu	Fruit
<i>Vangueria</i> sp.		Matembela	Fruit
<i>Vitex doniana</i>		Mpindimbi	Fruit
<i>Vitex mombassae</i>		Mpyimpya	Fruit
<i>Vitex</i> sp.3		Msungututu	Fruit
<i>Ximenia americanna</i>	Sour Plum	Mtengere	Fruit
<i>Ximenia caffra</i>	Sour Plum	Mpinji	Fruit
<i>Xymalos monospora</i>	Lemon Wood	Nakaswaga (Y)	Fruit

Scientific	English	Malawi Names	Edible Parts
Zanha golungensis		Mkwidio	Fruit
Ziziphus mauritiana	Jujube	Masawo	Fruit
Ziziphus mucronata	Buffalo Thorn	Kankhande	Fruit
Total Fruits		151	
Legumes & Nuts Food Group			
Acacia albida	White Thorn	Nsangu	Seeds, CARE
Adansonia digitata	Baobab	Mlambe	Seed
Anacardium occidentale	Cashew Nut	Mbibu	Seed Nut
Arachis hypogaea	Groundnuts	Mtedza	Seed Nut
Borassus aethiopum	Palm, Fan	Magwede, Ngwanlangwa	Seed Nut
Cajanus cajan	Pea, Pigeon	Nandolo	Legumes
Canavalia ensiformis	Bean, Jack	Kalongdoda ??	Legumes
Cicer arietinum	Chick Pea	Nchana	Seed
Glycine max	Bean, Soy	Soya	Legumes
Lablab purpureus	Bean, Hyacinth	Mkhunguzu	Legumes
Lens culinaris	Lentil	Masar	Legumes
Macadamia	Queensland Nut		Seed Nut
Mucuna pruriens	Bean, Buffalo	Kalongonda	Seeds, CARE
Parinari curatellifolia	Hissing Tree	Mbula	Seed Nut
Parkia filicoidea	Bean, African Locust	Mkundi	Legumes
Phaseolus aconitifolia	Bean, Tepary		Legumes
Phaseolus lunatus ?	Bean, Lima, local	Kabaifa?	Legumes
Phaseolus spp	Bean, Common	Nyemba	Legumes
Pisum sativum	Peas, Mature	Sawawa	Legumes
Prunus dulcis	Almond		Seed Nut
Sphenostylis marginate		Nkhunga	Legumes
Stizolobium aterrimum	Bean, Velvet	Kalongonda ??	Legumes
Telfaria pedata	Oysternut	Matandu	Seed Nut
Terminalia catappa	Indian Almond	Mkungu	Seed Nut
Vigna radiata	Bean, Mung	Mphodza	Legumes
Vigna unguiculata	Pea, Cowpea	Khobwe	Legumes
Vigna subterranea	Bambara Groundnut	Nzama	Legumes
Lupinus sp.	Lupinus	Kantedza	Seeds, CARE
Total Legumes & Nuts		29	

Staples Food Group			
Ensete ventricosum	False Banana	Chizuzu	Root
Eragrostis tef	Tef	Chimanganga	Cereal Grain
Abrus precatorius	Crab's Eyes	Ntimbua	Roots
Adansonia digitata	Baobab	Mlambe	Bark
Adansonia digitata	Baobab	Mlambe	Roots
Anthericum		Sawawa	Roots
Carica papaya	Pawpaw	Papaya	Roots
Carissa edulis	Plum, Wild	Mpambulu	Roots
Coccinia adoensis		Fwifwi	Roots, CARE
Colocasia esculenta	Coco Yam	Coco	Roots
Cyperus esculentus	Tiger nut	Kauju	Roots

Scientific	English	Malawi Names	Edible Parts
Cyphostemma buchananii		Namwalicheche	Roots
Dioscorea bulbifera	Air Potato	Fikengere (Nk)	Roots
Dioscorea sp.2		Chilazi mpama	Roots
Dioscorea sp.3		Mpama wam'thengo	Roots
Dioscorea sp.4		Dzinyanya	Roots
Disa sp.		Chinaka	Roots, CARE
Eleusine coracana	Millet, Finger	Mawere, Lipoko	Cereal Grain
Eriosema nutans		Chinkwisi	Roots
Eriosema shireense		Kabomola	Roots
Eriosema sp.3		Kambumkire	Roots
Euphorbia sp		Chikhawo	Roots
Ficus sur	Fig, Cape	Mkuyu-pasi	Roots
Habenaria walleri		Chinaka	Roots, CARE
Ipomoea batatas	Sweet Potato	Mbatata	Roots
Lightfootia abyssinica			Roots
Lotus sp.		Mpeta	Roots
Mangifera indica	Mango	Mango awisi	Fruit, young
Manihot esculenta	Cassava	Chinangwa	Roots
Manihot spp	Cassava, Tree	Mpira	Roots
Margaretta rosea		Nchenche	Roots
Musa paradisiaca	Banana	Nthochi	Fruit, young
Nymphaea caerulea	Water Lily	Chikolwa	Roots
Oryza sativa	Rice	Mpunga	Cereal Grain
Oxalis sp.		Shawawa	Roots
Panicum miliaceum	Millet, Common		Cereal Grain
Pennisetum americanum	Millet, Pearl	Machewere	Cereal Grain
Plectranthus esculentus	Kaffir Potato	Buye	Roots
Polygonum senegalense		Nkonkho (Tu)	Roots
Ranunculus multifidus	Buttercup	Khobedi	Roots
Satyrinum sp.		Chinaka chikande	Roots
Sechium edule	Chayote	Ngowe	Roots
Solanum tuberosum	Potato, Irish	Kachewere	Roots
Sorghum bicolor	Sorghum	Mapila	Cereal Grain
Sphenostylis stenocarpa	Yam Bean	Chinkhoma	Roots
Tacca leontopetaloides	African Arrowroot	Dinde	Roots, CARE
Thylachium africanum		Mkalachulu	Roots, CARE
Triticum aestivum	Wheat	Tirigu	Cereal Grain
Typha sp.	Bulrush	Kanjeza	Pollen
Vigna fischeri		Mukho	Roots
Zea mays	Maize	Chimanga	Cereal Grain
Total Staples		52	

Vegetables Food Group			
*various scientific names	Mushroom	Bowa	Fungus
Abrus precatorius	Crab's Eyes	Ntimbua	Leaves
Acacia macrothyrsa		Nafungwe	Leaves
Achyranthes aspera	Rough Chaff Flower	Ngwirisi ndi kakose	Leaves

Scientific	English	Malawi Names	Edible Parts
<i>Adansonia digitata</i>	Baobab	Mlambe	Flowers
<i>Adansonia digitata</i>	Baobab	Mlambe	Leaves Shoots
<i>Adenia gummifera</i>		Mlozi	Leaves
<i>Aeolanthus myrianthus</i>		Ninde	Leaves
<i>Aerva leucura</i>		Chidyonko	Leaves
<i>Aframomum angustifolium</i>	Cardamom, Wild	Nthungula	Spice
<i>Afzelia quanzensis</i>	Pod Mahogany	Msambamfumu	Leaves
<i>Allium cepa</i>	Onion / Shallot	Anyezi	Shoot, Root
<i>Allium porum</i>	Leek		Shoot, Root
<i>Allium sativum</i>	Garlic	Adyo	Shoot, Root
<i>Allium schoenoprasum</i>	Chives / garlic chives		Shoot
<i>Alternanthera sessilis</i>		Kandudwa	Leaves
<i>Amaranthus hybridus</i>	Amaranth	Bonongwe	Leaves
<i>Amaranthus sp.4</i>	Wild Blite	Bonongwe	Leaves
<i>Amaranthus spinosus</i>	Spiny Pigweed	Bonongwe wa minga	Leaves
<i>Amaranthus thunbergii</i>	Poor Man's Spinach	Mberekete	Leaves
<i>Annona senegalensis</i>	Custard Apple, Wild	Mpoza	Flowers
<i>Annona senegalensis</i>	Custard Apple, Wild	Mposa	Leaves
<i>Annona sp.</i>	Custard Apple	Mpoza	Flowers
<i>Annona sp.</i>	Custard Apple	Mphosa	Leaves
<i>Anthericum</i>		Kaluwatete	Flowers
<i>Arachis hypogaea</i>	Groundnuts	Mtedza	Leaves
<i>Argemone mexicana</i>	Mexican Poppy	Doza	Leaves
<i>Asparagus officinalis</i>	Asparagus	Katsitsimzukwa	Shoots
<i>Asparagus sp.2</i>	Asparagus, Wild	Katsitsimzukwa	Shoots
<i>Astragalus atropilosulus</i>		Nachilare	Leaves
<i>Asystasia gangetica</i>		Nasungwi	Leaves
<i>Balanites aegyptiaca</i>	Desert Date	? Malawi	Flowers
<i>Balanites aegyptiaca</i>	Desert Date	? Malawi	Leaves
<i>Basella alba</i>	Spinach, Ceylon	Mdele	Leaf, shoot
<i>Bidens pilosa</i>	Blackjack	Chisoso	Leaf, shoot
<i>Bidens schimperi</i>		Mbilidzongwe	Leaves
<i>Bixa orellana</i>	Annatto	Kari	Dye
<i>Borassus aethiopum</i>	Palm, Fan	Magwede, Ngwanlangwa	Leaves
<i>Boscia salicifolia</i>		Mtakataka (Yao)	Leaves
<i>Boscia senegalensis</i>	Aisen	Mpetu	Leaves
<i>Brassica chinensis</i>	Chinese Cabbage	Chinesi	Leaves
<i>Brassica juncea</i>	Mustard, Indian	Mpiru	Flowers
<i>Brassica juncea</i>	Mustard, Indian	Mpiru	Leaf, shoot
<i>Brassica napus var. oleifera</i>	Rape	Mpiru wotuwa	Leaves
<i>Brassica oleracea var. acephala</i>	Kale	Kale	Leaves
<i>Byrsocarpus orientalis</i>		Ntandanyerere	Leaves
<i>Cajanus cajan</i>	Pea, Pigeon	Nandolo	Leaves
<i>Cajanus cajan</i>	Pea, Pigeon	Nandolo	Pods
<i>Canavalia ensiformis</i>	Bean, Jack	Kalondoda ?	Pods
<i>Canna bidentata Bertol.</i>	Canna, Wild	Gontha	Spice
<i>Canthium sp. ?C. huilense</i>		Chisunkunthu	Leaves

Scientific	English	Malawi Names	Edible Parts
<i>Capsicum annum</i>	Chillies	Tsobola	Fruit
<i>Cardiospermum halicacabum</i>	Heart Seed	Msendechere	Leaves
<i>Carica papaya</i>	Pawpaw	Papaya	Flowers
<i>Carica papaya</i>	Pawpaw	Papaya	Fruit Immature
<i>Carica papaya</i>	Pawpaw	Papaya	Leaf, shoot
<i>Cassia mimosoides</i> L.	Tea senna	Ngwalangwalate	Leaf, shoot
<i>Cassia occidentalis</i> L.	Coffee senna	Mjoka	Flowers
<i>Cassia occidentalis</i> L.	Coffee senna	Mjoka	Leaves
<i>Cassia occidentalis</i> L.	Coffee senna	Mjoka	Pods
<i>Cassia petersiana</i>	Monkey Pod	Mpatsachokolo	Pods
<i>Cassia petersiana</i>	Monkey Pod	Mpatsachokolo	Leaves
<i>Cassia singueana</i>		Mpatsachokolo/Kadete	Leaves
<i>Cassia singueana</i>		Mpatsachokolo/Kadete	Pods
<i>Ceiba pentandra</i>	Kapok	Usufu	Leaves
<i>Ceiba pentandra</i>	Kapok	Usufu	Pods
<i>Celosia Argentea</i>	Cock's Comb	Ndangale	Leaf, shoot
<i>Celosia trigyna</i>		Kaphikaulesi	Leaf, shoot
<i>Ceratotheca sesamoides</i>		Chewe	Leaves
<i>Ceratotheca</i> sp.		Tilingane	Leaves
<i>Ceropegia papillata</i>		Fwafwalingo	Leaves
<i>Ceropegia</i> sp.		Chang'ombe	Leaves
<i>Cicer arietinum</i>	Chick Pea	Nchana	Leaves
<i>Cicer arietinum</i>	Chick Pea	Nchana	Pods Young
<i>Cissus bucanii</i>		Namwalicheche	Leaves
<i>Cissus cornifolia</i>	Water Root	Mbulunbunji	Leaves
<i>Cissus cornifolia</i>	Water Root	Mbulunbunji	Fruit Immature
<i>Cissus integrifolia</i>		Mtambe	Leaves
<i>Cissus jatrophioides</i>		Mnuwakemunda	Leaves
<i>Cissus rubiginosa</i>		Mpelesi (Yao)	Leaves
<i>Citrullus lanatus</i>	Watermelon	Vwende	Flowers
<i>Citrullus lanatus</i>	Watermelon	Vwende	Leaves
<i>Cleome gynandra</i>	Cat's Whiskers	Luni	Leaf, Shoot
<i>Cleome gynandra</i>	Cat's Whiskers	Luni	Flowers
<i>Cleome gynandra</i>	Cat's Whiskers	Luni	Pods
<i>Cleome monophylla</i> L.		Njerenjedza	Leaf, shoot
<i>Cleome monophylla</i> L.		Njerenjedza	Flowers
<i>Coccinia adoensis</i>		Fwifwi	Leaves
<i>Coccinia grandis</i>	Ivy Gourd	Fwifwi	Leaves
<i>Coccinia grandis</i>	Ivy Gourd	Fwifwi	Fruit
<i>Colocasia esculenta</i>	Coco Yam Leaves	Ntembe Masamba	Leaves
<i>Commelinia species</i>	Spiderwort	Kasungwi	Leaf, shoot
<i>Commiphora africana</i>		Khobo	Leaves
<i>Corchorus aestuans</i>		Chamalawi	Leaves
<i>Corchorus olitorius</i>	Jute	Chilenzi	Leaf, shoot
<i>Corchorus trilocularis</i>		Denje	Leaves
<i>Cordeauxia edulis</i>	Ye-be	Denje	Leaves

Scientific	English	Malawi Names	Edible Parts
<i>Coriandrum sativum</i>	Cilantro	Masala	Spice-leaves
<i>Coriandrum sativum</i>	Coriander	Masala	Spice-seed
<i>Crassocephalum rubens</i>		Chinusi	Leaf, shoot
<i>Crotalaria anthyllopsis</i>		Chiwasa	Leaves
<i>Crotalaria cephalotes</i>		Chisunkhuthu	Leaves
<i>Crotalaria natalitia</i>		Thusya	Flowers
<i>Crotalaria natalitia</i>		Thusya	Leaves
<i>Crotalaria ochroleuca</i>		Zumba	Leaves
<i>Crotalaria sp.5</i>		Bwayaya	Leaves
<i>Crotalaria sp.6</i>		Mdyakanjobvu	Leaves
<i>Crotalaria sp.7</i>		Kapuka	Leaves
<i>Crotalaria sp.8</i>		Chimphako	Leaves
<i>Cucumis anguria</i>	Cucumber, Small Prickly	Chikanyanga	Fruit
<i>Cucumis anguria</i>	Cucumber, Small Prickly	Chikanyanga	Leaves
<i>Cucumis hirsutus</i>		Mkuwikuwi	Leaves
<i>Cucumis melo</i>	Melon	Kayimbe	Leaves
<i>Cucumis metuliferus</i>		Kangamkhwani	Leaves
<i>Cucumis sativus</i>	Cucumber	Minkhaka	Fruit
<i>Cucumis sp.</i>	Cucumber, Prickly	Chipwete	Fruit
<i>Cucurbita species</i>	Pumpkin	Dzungu	Fruit
<i>Cucurbita species</i>	Pumpkin Flowers	Chiluwe	Flowers
<i>Cucurbita species</i>	Pumpkin Leaves	Mnkhwani	Leaf, shoot
<i>Curcuma domestica</i>	Tumeric	Manjanu, Kari	Roots
<i>Cymbopogon citratus</i>	Lemon Grass		Leaves
<i>Cynanchum schistoglossum</i>		Mpuludwa	Leaves
<i>Cyphomandra betacea</i>	Tree Tomato;Tamarillo		Fruit
<i>Dolichos b Buchananii</i>	Bully Beef Plant	Nthupa	Flowers
<i>Dolichos sp.</i>		Chiluwe cha chitimbwisi	Flowers
<i>Dolichos sp.</i>		Chitimbwisi	Leaves
<i>Dombeya tanganyikensis</i>		Mnyangale	Shoot/Stem
<i>Ectadiopsis oblongifolia</i>		Bwazi	Leaves
<i>Eleusine coracana</i>	Millet, Finger	Mawere	Shoots/Plant
<i>Emilia coccinea</i>		Chinguwo	Leaves
<i>Ensete ventricosum</i>	False Banana	Chizuzu	Flowers
<i>Ensete ventricosum</i>	False Banana	Chizuzu	Shoot/Stem
<i>Ensete ventricosum</i>	False Banana	Chizuzu	Corm/Rhizo
<i>Fagara sp</i>	Fagara	Mlunguchulu	Leaves
<i>Ficus sp.4</i>	Fig, Wild	Nkhuvu	Leaves
<i>Ficus sur</i>	Fig, Cape	Mkuyu-pasi	Leaves
<i>Ficus sycomorus</i>	Fig, Sycamore	Chikujumba	Leaves
<i>Foeniculum vulgare</i>	Fennel		Leaves/Stems
<i>Foeniculum vulgare</i>	Fennel		Bulb
<i>Galinsoga parviflora</i>		Mwamuna aligone	Leaves
<i>Glycine wightii</i>		Yembe	Leaves
<i>Gnidia chrysantha</i>		Kazinda	Leaves
<i>Hibiscus acetosella</i>		Limanda	Leaves
<i>Hibiscus articulatus</i>		Chamakande	Leaves
<i>Hibiscus cannabinus</i>	Hemp, Bombay	Sonkhwe	Flowers

Scientific	English	Malawi Names	Edible Parts
Hibiscus cannabinus	Hemp, Bombay	Sonkhwe	Leaves
Hibiscus diversifolius		Chatata ?Kathamphwi?	Flowers
Hibiscus esculentus	Okra	Thelele lobzyala	Fruit
Hibiscus esculentus	Okra Leaves	Chithanda	Leaves
Hibiscus physaloides		Thelele thengo	Flowers
Hibiscus rosa-sinensis	Rose of China	Losi	Leaves
Hibiscus rosa-sinensis	Rose of China	Losi	Flowers
Hibiscus sabdariffa	Roselle	Chidede	Leaves
Hibiscus sp.		Chimkakala	Leaves
Hyphaene species	Palm, Doum	Mgwalangwa	Seed Sprout
Indigofera		Denje	Leaves
Ipomoea aquatica	Spinach, Water, Wild	Lilowolowo	Leaves
Ipomoea aquatica	Spinach, Water	Kholowa	Leaves
Ipomoea batatas	Sweet Potato	Kholowa	Leaves
Ipomoea eriocarpa		Kholowa thengo	Leaves
Ipomoea sp.		Chikalandembe (Lo)	Leaves
Jussiaea abyssinica			Leaves
Justicia sp.1		Kalokola	Flowers
Justicia sp.1		Kalokola	Leaf, Shoot
Justicia sp.2		Kangena	Leaves
Justicia sp.3		Kanyelenyezi	Leaves
Kaempferia aethiopica		Manjanu	Roots
Lablab purpureus	Bean, Hyacinth	Mkhunguzu	Pods
Lablab purpureus	Bean, Hyacinth	Mkhunguzu	Flowers
Lablab purpureus	Bean, Hyacinth	Mkhunguzu	Leaf, Shoot
Lablab purpureus	Bean, Wild Hyacinth	Nkhusa	Leaves
Lactuca sativa	Lettuce	Letesi	Leaves
Lagenaria siceraria	Gourd	Mphonda	Fruit
Lagenaria siceraria	Gourd	Mphonda	Leaf, Shoot
Lagenaria sphaerica		Chipuzi	Leaves
Lens culinaris	Lentil	Masar	Pods
Lightfootia sp.2		Chisiso	Leaves
Luffa aegyptiaca	Loofa	Masponge	Fruit
Luffa aegyptiaca	Loofa Leaves	Masponge	Leaves
Lupinus		Kantedza	Leaves
Lycopersicon esculentum	Tomato	Matimati	Fruit
Mangifera indica	Mango Leaves	Mango	Leaf, Shoot
Mangifera indica	Mango Skin young	Mango Khungu Osakwima	Skin young
Manihot esculenta	Cassava Leaves	Chigwada	Leaves
Manihot spp	Cassava, Tree Leaves	Chigwada	Leaves
Melochia corchorifolia		Chipondavu (Y)	Leaves
Mentha sp.	Mint		Leaves
Momordica charantia	Gourd, Bitter	Karela	Fruit
Momordica charantia	Gourd, Bitter Leaves	Karela	Leaves
Momordica foelida		Tungwi (Mi)	Shoots
Moringa oleifera	Horse Radish Tree, Flowers	Chamwamba Maluwa	Flowers

Scientific	English	Malawi Names	Edible Parts
<i>Moringa oleifera</i>	Horse Radish Tree, Leaves	Chamwamba Masamba	Leaves
<i>Moringa oleifera</i>	Horse Radish Tree, Pods	Chamwamba	Pods
<i>Morus nigra</i>	Mulberry, Leaves	Mapulesi	Leaves
<i>Nesaea</i> sp.		Kwete	Leaves
<i>Nidorella resdifolia</i>		Sungubuwa (Tu)	Leaves
<i>Nymphaea caerulea</i>	Water Lily, Flowers	Chikolwa	Flowers
<i>Ocimum canum</i> Sims	Basil, Local	Mpungabwe	Leaf, Seed
<i>Origanum majorana</i>	Marjoram		Leaves
<i>Ormocarpum</i>		Phuluphulu	Leaves
<i>Oxalis</i> sp.		Ntedza wa kwangala	Leaves
<i>Oxygonum sinuatum</i>		Kalasaweni	Leaves
<i>Pavonia urens</i>		Chatata, Thoni	Flowers
<i>Pentanisia schweinfurthii</i>	Rhodesian Forget-me-not	Ngulungundi	Leaves
<i>Pentarrhinum insipidum</i>		Chindewe (He)	Leaves
<i>Pentarrhinum insipidum</i>		Chindewe (He)	Fruits
<i>Pentarrhinum</i> sp.		Kafungo	Leaves
<i>Phaseolus aconitifolia</i>	Bean, Tepary Leaves		Leaves
<i>Phaseolus aconitifolia</i>	Bean, Tepary young pods		Pods
<i>Phaseolus lunatus</i>	Bean, Lima Leaves	Kamumpanda Leaves	Leaves
<i>Phaseolus</i> spp	Bean, Common Leaves	Khwanyanya	Leaves
<i>Phaseolus vulgaris</i>	Bean, French pods	Mbwanda	Pods
<i>Phaseolus vulgaris</i>	Bean, French leaves	Mbwanda	Leaves
<i>Physalis peruviana</i>	Gooseberry Leaves	Jamu Masamba	Leaves
<i>Pisum sativum</i>	Peas, Green young	Sawawa osakwima	Legumes
<i>Polygonum plebeium</i>		Kasabwe	Leaves
<i>Polygonum salicifolium</i>		Nsendeka (Y)	Leaves
<i>Polygonum setosulum</i>		Chikungu ufa	Leaves
<i>Portulaca oleracea</i>	Purslane	Matakoatsanu	Leaf shoot stem
<i>Psychotria eminiana</i>		Chisunkunthu	Leaves
<i>Ranunculus multifidus</i>	Buttercup	Khobedi	Leaves
<i>Rumex bequaertii</i>	?Sorrel, Dock	Gakazea	Leaves
<i>Salvadora persica</i>	Toothbrush Tree	Mswache (Y)	Leaves
<i>Secamone</i> sp.		Bwazi	Leaves
<i>Sechium edule</i>	Chayote	Ngowe	Fruit
<i>Sechium edule</i>	Chayote	Ngowe	Shoots
<i>Securidace longepedunculata</i>	Tree Violet	Bwazi	Leaves
<i>Sesamum angolense</i>		Chewe	Leaves
<i>Sesamum indicum</i>	Sesame	Chitowe	Leaf, Shoot
<i>Sida alba</i>			Leaves
<i>Smithia elliotii</i>		Kadzulo	Leaves
<i>Solanum americanum</i>	Nightshade	Knadzi, Mnadzi	Leaves
<i>Solanum americanum</i>	Nightshade	Msaka	Fruit
<i>Solanum macrocarpon</i>	Eggplant, African	Mabilingani	Fruit
<i>Solanum melongena</i> /	Eggplant, Foreign	Mabilingani	Fruit

Scientific	English	Malawi Names	Edible Parts
aethiopicum			
Solanum sp. 07		Nthula	Fruit
Solanum sp. 08		Madwanzi	Fruit
Solanum sp. 09		Imphwa, Nthula	Fruit
Solanum sp. 10		Mbwanyanya, Zimphwa	Fruit
Solanum sp. 11		Matungwi, Nthulazazikulu	Fruit
Solanum sp. 12		Mtungwi, Nthulazazing'ono	Fruit
Solanum sp. 12		Malanza	Leaves
Solanum sp. 13		Makwenda, Malanza	Fruit
Sonchus oleraceus	Sow Thistle	Chinguwo	Leaves
Sphenostylis marginate		Mlali	Flowers
Sphenostylis marginate		Nkhunga	Leaves
Spinacia oleracea	Spinach	Spinichi	Leaves
Sterculia appendiculata		Njale	Leaves
Sterculia sp.2		Chiwawani (Lo)	Leaves
Strychnos spinosa	Kaffir Orange	Mteme (masamba)	Leaves
Talinum caffrum		Mlelamvula	Leaves
Tamarindus indicus	Tamarind	Bwemba	Flowers
Tamarindus indicus	Tamarind	Bwemba	Leaves
Tamarindus indicus	Tamarind	Bwemba	Pods
Tetragonia expansa	Spinach, New Zeland	Spinichi	Leaves
Thunbergia lancifolia		Mwanaluni	Leaves
Thunbergia oblongifolia		Mwanakazi	Leaves
Trichodesma zeylanicum		Dungumwamba	Leaves
Trigonella foenum-graecum	Fenugreek	Methi	Leaf, Shoot
Triumfetta annua		Khatambuzi	Leaves
Tulbaghia cameronii		Katsopi	Flowers
Tulbaghia cameronii		Katsopi	Leaves
Tylosema fassoglensis		Mphandwapansi	Pods
Urena lobata	Bun Ochra	Msapatonje (Y)	Flowers
Vernonia sp.		Dambwe	Leaves
Vigna radiata	Bean, Mung	Mphodza	Pods
Vigna reticulata		Chamaweya (Tu)	Leaves
Vigna sp.6		Mtambe thengo	Leaves
Vigna subterranea	Bambara Groundnut	Nzama	Leaves
Vigna unguiculata	Pea, Cowpea	Khobwe	Pods
Vigna unguiculata	Pea, Cowpea	Mtambe	Leaves
Viola abyssinica		Katongolola	Leaves
Vitex doniana		Mpindimbi	Leaf, Shoot
Wormskioldia longepedunculata	Rhodesian Pimpernel	Katambala	Leaves
Zea mays	Maize, Green	Dowe	Cereal Grain
Zingiber officinale	Ginger		Roots
Ziziphus mauritiana	Jujube	Masawo	Leaves
Zornia pratensis		Kandudwa	Leaves
Total Vegetables		278	

Scientific	English	Malawi Names	Edible Parts
Animal Foods Food Group			
	Antelope	Nyiska	Meat
	Black noisy flying insect	Nkhululu	Insect
	Birds	Mblame	Meat
	Bird's egg	Mazira	Eggs
	Buffalo	Njati	Meat
	Caterpillar 1	Dzinthondo	Insect
	Caterpillar 2	Mphalabungu	Insect
	Caterpillar 3	Mapala	Insect
	Chickens	Nkuku	Meat
	Chicken's Eggs	Mazira	Eggs
	Cow	N'gombe	Meat
	Cow's Milk	Mkaka	Milk
	Crickets	Nzerenzere	Insect
	Ducks	Baka	Meat
	Duck's eggs	Mazira	Eggs
	Goat	Mbuzi	Meat
	Goat's Milk	Mkaka	Milk
	Grasshopper 1	Tsokonombwe	Insect
	Grasshopper 2	Sadyamchere	Insect
	Grasshopper 3	Gomphanthiko	Insect
	Grasshopper 4	Mkhwiyo	Insect
	Guinea Fowl	Nkanga	Meat
	Guinea Fowl Eggs	Mazira	Eggs
	Guinea Pig	Mbira	Meat
	Hippopotamus	Mvuu	Meat
	Lake Flies	Chikumbu	Insect
	Mice	Mbewa	Meat
	Pig	Nkhumba	Meat
	Pigeons	Nkunda	Meat
	Pigeon Eggs	Mazira	Eggs
	Porcupines	Nungu or Kanungu	Meat
	Rabbits	Kalulu	Meat
	Rats	Mbira	Meat
	Sheep	Nkosa	Meat
	Termite 1	Ngumbi	Insect
	Termite 2	Mafurufute	Insect
	Wild Pig	Ngulube	Meat
Total Animal Foods		37	

- end of list -

Getting to know your plant, trees and animals

This table is a combination of information from the Permaculture Nutrition Manual (2004 version) by Kristof & Stacia Nordin, the Positive Living materials (2004 version) by David Patient, the FAO Home Gardening Manual (2004 pilot) by FAO Malawi, and personal experience. This is only a general guide and should be updated in the future. Getting to know your plants and trees is fun! Don't get too caught up in measuring exact distances – remember to let nature guide you!

The table lists Each group is listed with the fastest bearers first, but don't let this fool you, look at how long the perennial varieties last.

Food	Food Group	Soil Food	Groundcover	Climber	Supporter	Digger	Protector	sun	shade	wet	dry	Planting choices	*Seed Depth	Space needed	Starts to sprout in:	Ready to use in:	Single plant bears for:	Perennial	Number to include per adult	Hints
VEGETABLES																				
Amaranthus, many types (Bonongwe)	veg				sup			sun	sha	wet	dry	direct	scatter 1 cm	30 cm	7 days	30 days	1-2 months		1	Keep trimming for more leaf growth. Some grow over 2 meters tall.
Eggplant (mabilinganya)	veg				sup			sun		wet		direct or Nursery	1 cm	50 cm	14 days	80 days	many years	per	2	Small bush. Lasts many years if roots aren't disturbed, other creepers can grow under/on it.
Herbs such as lemon grass, mints, local basil (mpnugabwe)	veg		gc				pro	sun	sha	wet	dry	direct or nursery	scatter, cuttings	10-30 cm	14 days	30 days	many years	per	2	Many different types of herbs available. Great for inter-planting everywhere!
Hibiscus leaves (Limanda or thelele)	veg				sup			sun		wet	dry	direct, nursery or cuttings	scatter 1 cm	90 cm	14 days	30 days	many years	per	1	Large bush that light climbers can use for support.
Leaves, edible (masamba)	veg							sun	sha	wet	dry	scatter, direct or nursery	scatter 1 cm	25 cm	7 days	30 days	4-6 months		5	Many indigenous leaf vegetables. Keep trimming and they produce leaves longer.
Onions (Anyezi)	veg				dig	pro		sun		wet		direct or nursery	1 cm	10 cm	14 days	30 days leaves 180 days bulbs	1-3 months leaves, once bulbs		70	Good insect repellent to protect leafy vegetables and fruits.

Food	Food Group	Soil Food	Groundcover	Climber	Supporter	Digger	Protector	sun	shade	wet	dry	Planting choices	*Seed Depth	Space needed	Starts to sprout in:	Ready to use in:	Single plant bears for:	Perennial	Number to include per adult	Hints
Peppers (Tsabola)	veg				sup			sun	sha		dry	direct or nursery	scatter 1 cm	35 cm	21 days	90 days	many years	per	2-5	Grows into a small bush, other creepers can grow under/on it.
Pumpkin (maungu)	veg		gc					sun		wet	dry	direct	2.5 cm	10 m crawls around	10 days	30 days leaves 120 days fruits	leaf 1-2 months, fruit once		2-3	Plant around things that the pumpkins can't crush. Likes to cover 10 m area!
Tomato (matimati)	veg			clim				sun			dry	scatter, direct or nursery	1 cm	30 cm	14 days	120 days	1 month	5	Trim side shoots to encourage fruit growth	

Food	Food Group	Soil Food	Groundcover	Climber	Supporter	Digger	Protector	sun	shade	wet	dry	Planting choices	*Seed Depth	Space needed	Starts to sprout in:	Ready to use in:	Single plant bears for:	Perennial	Number to include per adult	Hints
FRUITS																				
Banana (Ntichi)	fru				sup dig			sun	sha	wet		suckers	30 cm	2 m	immediate	1 year	1 year but plant multiplies!	per	5	Nice to make a banana circle around a compost pit.
Cape Gooseberry (Jamu)	fru				sup			sun	sha	wet dry		scatter, cuttings or nursery	scatter 1cm	90 cm	30 days	90 days	1-5 years	per	4	Grows into a bush that will re-sprout every year. You can trim the dead parts off in the dry season if you wish.
Citrus (Ndimu)	fru				sup dig			sun		wet		direct or nursery	4 cm	5 m	30 days	4-6 years	Many!	per	1 for 5 people	
Custard Apple (mphoza)	fru				sup dig			sun		wet dry		direct or nursery	3 cm	5 m	21 days	2-3 years	Many!	per	1 for 5 people	
Guava (gwafa)	fru				sup dig			sun		wet dry		direct or nursery	scatter 1 cm	5 m	21 days	2-3 years	Many!	per	1 for 5 people	Other things can be planted underneath these trees to use the space (pineapples, coco, climbers, etc)
Loquat (Masuku)	fru				sup dig			sun	sha	wet dry		direct or nursery	5 cm	5 m	30 days	4-6 years	Many!	per	1 for 5 people	
Mango	fru				sup dig			sun		wet dry		direct or nursery	10 cm	10 m	30 days	5-7 years	Many!	per	1 for 5 people	
Monkey Orange (maye, mateme)	fru				sup dig			sun	sha	wet dry		direct or nursery	5 cm	10 m	30 days	3-5 years	Many!	per	1 for 5 people	
Mulberry (mulbulosi)	fru				sup dig			sun		wet dry		direct or nursery	cuttings	1 m	14 days	1 year	3-5 years or more	per	2	Makes a great supporter
Papaya	fru				sup dig			sun		wet dry		direct or nursery	scatter 1 cm	1 m	21 days	1 year	3-5 years or more	per	2	Makes a great supporter
Passion Fruit (Magalagadeya)	fru			clim	dig			sun	sha	wet dry		direct or nursery	scatter 1cm	30 cm	21 days	1-2 years	3-5 years or more	per	2	Excellent climber for walls, fences and other strong supporters
Snot Apple (Matowo, African bubble gum)	fru				sup dig			sun	sha	wet dry		direct or nursery	5 cm	5 m	21 days	1-3 years	Many!	per	1	Other things can be planted underneath the tree to use the space (pineapples, coco, climbers, etc)

Food	Food Group	Soil Food	Groundcover	Climber	Supporter	Digger	Protector	sun	shade	wet	dry	Planting choices	*Seed Depth	Space needed	Starts to sprout in:	Ready to use in:	Single plant bears for:	Perennial	Number to include per adult	Hints	
Sorrel (Chidede)	fru				sup			sun		wet	dry	scatter or nursery	scatter 1cm	60 cm	21 days	90 days	1-5 years	per	10	These easily spread themselves by seed. Don't remove the stem and root, it will grow again.	
Melon, watermelon (mavwende)	fru		gc					sun		wet	dry	direct			14 days						
Melon, local (kayimbe)	fru		gc					sun													

Food	Food Group	Soil Food	Groundcover	Climber	Supporter	Digger	Protector	sun	shade	wet	dry	Planting choices	*Seed Depth	Space needed	Starts to sprout in:	Ready to use in:	Single plant bears for:	Perennial	Number to include per adult	Hints	
BEANS & NUTS																					
Beans, bush types (nyemba)	leg veg	soil						sun		wet		Direct	4 cm	10 cm	10 days	70 days	30 days		10-15	These interplant well with other plants.	
Beans, climbing types (khungudzu, chimbamba, kalongonda, etc.)	leg veg	soil	gc clim					sun	sha	wet	dry	Direct	3 cm	15 cm	10 days	90 days	30 days	per	3-10	Plant near a supporter. There is a lot of variation in yield, some bear a lot like khungudzu or chimbamba and you need less plants.	
Soybeans (soya)	leg	soil						sun		wet		Direct	2.5 cm	20 cm	10 days	70 days	30 days		20	Good as an interplanted legume	
Pigeon Pea	leg veg	soil			sup			sun			dry	Direct	3 cm	60 cm	21 days	120 days	1-5 years	per	5	Great support for other plants.	
Nsawawa (Peas)	leg veg	soil						sun		wet		Direct	3.5 cm	45 cm	21 days	130 days (leaves 30)	30 days		10	Plant some each month if you water.	
Mtedza (Peanuts)	leg	soil						sun	sha	wet	dry	Direct	3 cm	50 cm	7 days	140 days	once		20	Planting on a 'mound' of soil encourages nut growth.	

Food	Food Group	Soil Food	Groundcover	Climber	Supporter	Digger	Protector	sun	shade	wet	dry	Planting choices	*Seed Depth	Space needed	Starts to sprout in:	Ready to use in:	Single plant bears for:	Perennial	Number to include per adult	Hints
STAPLES																				
Cassava (Chinangwa)	sta veg				sup	dig		sun	sha	wet	dry	direct cuttings	20 cm	60 cm	14 days	365 days roots 30 days leaves	30 days		20	Plant in a place you can dig up the roots
Maize / Corn (Chimanga)	sta				sup			sun		wet		direct or nursery	4 cm	30 cm	10 days	85 days	30 days		20	Don't plant too many!
Millet (mawere, mchewere)	sta							sun		wet	dry		scatter 2cm		7-14 days	80-100 days	30 days			Very hardy plants.
Potato, irish type (kachewere)	sta					dig		sun	sha			direct	10 cm	30 cm	10 days	100 days	60 days			Tends to like cooler elevations
Potato, local type (buye)	sta					dig		sun	sha			direct	10 cm	30 cm	10 days	100 days	60 days			Tends to like cooler elevations
Potato, sweetpotato (Mbatata)	sta veg		gc			dig		sun	sha	wet	dry	direct cuttings	10 cm	30 cm	7 days	150 days roots 14 days leaves	many if managed well	20	Don't put in too much manure – the leaves and stems will grow a lot, with little root growth.	
Sorghum (Mapila)	sta				sup			sun		wet	dry	direct or nursery	scatter 2 cm	30 cm	10 days	85 days	1-3 years or more			Don't remove roots, will keep growing for years.
Yams, air potato (chikowa)	sta			clim				sun	sha	wet	dry	direct	10 cm	10 cm	10 days	100 days	years			Under-utilized but fairly well-known
Yams, climbing (cilazi mpama)	sta			clim		dig		sun	sha	wet	dry	direct	10 cm	60 cm	10 days	100 days	years			Under-utilized but fairly well-known
Yams, cocoyams (coco)	sta veg					dig		sun	sha	wet		direct or suckers	10 cm	60 cm	10 days	100 days	years			Under-utilized but fairly well-known

Food	Food Group	Soil Food	Groundcover	Climber	Supporter	Digger	Protector	sun	shade	wet	dry	Planting choices	*Seed Depth	Space needed	Starts to sprout in:	Ready to use in:	Single plant bears for:	Perennial	Number to include per adult	Hints
FATS																				
Avocado (mapeyala)	fat				sup	dig		sun		wet	dry	Direct	10 cm	10 m	21 days	7-10 years	many years!	per	1 tree for 10	Leave can be used within 60 days of planting as medicinal tea to add iron and folate to the diet.
Sesame (Chitowe)	fat	soil			sup			sun		wet	dry	Direct	1.2 cm	60 cm	7 days	140 days	once		20	Great supporter for light climbers (tomatoes, beans, climbing spinaches)
Sunflower (mpendedzuwa)	fat				sup			sun		wet	dry	Direct	1.2 cm	60 cm	7 days	140 days	once		20	Great supporter for light climbers (tomatoes, beans, climbing spinaches)
Vegetable oilseeds: * Pumpkin seeds * Bonongwe seed *	fat																			
Fruit oilseeds: * Sorrel * Melons, water * Melons, local	fat																			

Food	Food Group	Soil Food	Groundcover	Climber	Supporter	Digger	Protector	sun	shade	wet	dry	Planting choices	*Seed Depth	Space needed	Starts to sprout in:	Ready to use in:	Single plant bears for:	Perennial	Number to include per adult	Hints
ANIMALS																				
Fish	ani soil							sun	sh	wet		in a pond								
Chickens	ani soil						prot	sun	sh	wet	dry	cage / roam								
Rabbits	ani soil							sun	sh	wet	dry	cage / roam								
Bees	fru						prot					hive								
Pig	ani soil											cage / roam								
NON-EDIBLE																				
Thatch																				
Flowers																				

-- end of list --

Model development sites & Potential trainers

The following organizations and individuals took part in developing and testing this model. The table aims to give you a brief description of each model, their level of implementing the ideas, who are potential advanced trainers, and how to find each site for field visits. All sites can be found via World Food Programme Food Aid Monitors in the model districts, or through the respective government support offices. During the project, the consultant collected all contact details for every organization and support staff in each of the districts – it is 20 pages long and too detailed to be a part of this manual. Contact World Food Programme Country Office for a complete contact list of phone numbers and e-mails. (see contact information for WFP at the front of this manual).

Model Development sites & Potential trainers						
Models	Organization	Contact info & location	Participants	number using the model	Model Rating	Rating Description
				4098	TOTAL	estimation of those using model during development and testing
KASUNGU						
all sites are 20 mk from Nkhamenya						
Model	1. James Munthali Model Village	15 km west of Nkham. Find via MoA Nkhamenya office. Box 261, Nkhamenya	1. Abinery T. Munthali (group's secretary)	50	high	<ul style="list-style-type: none"> Highly supportive environment with reduced sweeping and increase use of local resources spreading to most households very quickly. Yields much improved with better designs both around village and in community dambo area using less input. Using mulching, inter-planting and use of animal resources. Very skilled at diet diversification concepts (at least when we are there!). Area is full of indigenous food diversity that they prepare. Changed from treadle pumps to integrating low input irrigation channels, and fish ponds. <p>*** Potential Trainers: Several Chichewa trainers & training site.</p>
Model & Personal Model (Ndownera)	2. MoH Nkhamenya Mission Hospital	1 km west of Nkham. trading centre Box 2, Nkhamenya	2. Martha Mandalazi (Nurse) 3. Evaristo Garbriel Ndownera (Garden)	10	high	<ul style="list-style-type: none"> 2-year site now greatly improved, breaking free from high input. Implementing concepts in garden, and around the hospital (grey water, reduced sweeping, using more waste). Hospital seems supportive – great potential for using wasted resources. Site has the potential to be amazing! Many resources still unused. <p>*** Potential Trainer – Ndownera already training, potential to advance</p>
Personal Model	3. Plan International	Chisemphere at the sec. school. P/Bag 98, Kasungu 09-245-181 (t.p.)	4. Theresa J.K. Phiri (CDP)	30	high	<ul style="list-style-type: none"> Incredible changes around home, moved garden to borehole, reduced sweeping, recruited relative to learn ideas and applying, mulching and protecting area. Also using food preparation and diversification in home and in work. <p>*** Potential Trainer: Already a trainer, potential to advance</p>

Model Development sites & Potential trainers						
Models	Organization	Contact info & location	Participants	number using the model	Model Rating	Rating Description
Personal Model	4. Staff of COOPI / MALEZA	In MoA Nkhamenya staff house COOPI KU 01-253-463 kasungu@coopi.org 08-346-227 / 09-415-593 (c.s)	5. Christopher Singini (Coor. Nkhamenya)	1	high	<ul style="list-style-type: none"> • Superb applications around home, capturing all wasted resources, including human! • Met with some adverse reaction by community at first, but near the end of the project as yields improved neighbors were grasping ideas. <p>*** Potential Trainer: Already a trainer, potential to advance</p>
Model	5. Kavikula Shool	15 km west of Nkham. Find via Kasungu Education office or ask in Nkhamenya. Box 79, Nkhamenya	6. Osphin Nyirenda (Vol. Teacher) 7. Clement Mwalizuku Mnyayi (school comm.)	100	<i>medium</i>	<ul style="list-style-type: none"> • Applying ideas to borehole area and starting to spread to other resource-rich areas around the schoo. Yields have highly improved with less input. • Mixed support with some community organization issues that will need to be worked on. Head teacher and several other teachers very supportive of the ideas. Potential to be great!
Model	6. Khakulajino HBC	5 km east of Nkham. Find via Kaluluma Health Centre or mission hosp. Box 66, Nkhamenya	8. Wellington Lutepo (group member)	50	<i>medium</i>	<ul style="list-style-type: none"> • Active group with varying level of understanding. Needs more work on design, site assessment and using resources in dambo and around homes. • Site is full of water with lots of potential, has supportive mentors from mission hospital and resources
Model & Personal Model	7. Yesaya irrigation	7 km east of Nkham. Find via MoA Nkhamenya office. Box 27, Nkhamenya	9. Griffin J. Mapala (group vice secr.)	100	<i>medium</i>	<ul style="list-style-type: none"> • Community starting to grasp ideas and slowly changing from very high input project to inter-planting, mulching, water management. • Started implementing ideas personally around homes and a bit beyond • A lot more resources to capture!
Personal Model	8. Chimoorfai (Chidumula Model Organic Farming Initiative)	20 km East of Nkham. in Empheni, Mzimba. Find via MoA Nkhamenya office. Box 199, Nkhamenya	10. K.J. Chidumula (director)	1	<i>medium</i>	<ul style="list-style-type: none"> • Started using organic farming in 1999, primarily maize. • Uses masses amounts of compost through using all organic matter available in area – not low input yet, but excellent all the same! • Working on reducing labour and using all wasted resources. • Has at least 6 organic farming clubs <p>*** Potential Trainer: Already trains in compost / organics, potential to advance</p>
Working towards Model	9. CCAP Livingstonia	10 km north of Nkham. in Lojwa. Find via CCAP Livingstonia Box 137, Champhira	11. Anderson E. Palkena (Zone Dev Officer)	20	-	<ul style="list-style-type: none"> • Attended Kasunug workshop, starting to integrate ideas into work • Group visit to Lojwa, a currently high input dimba garden run by Dalison Mziya. Interested in low input organic, already testing ideas and showing that organic matter soil does much better. Also doing crop rotations.
Working towards Model	10. CADECOM	Find via CADECOM KU or LL Box 71, KU, 01-253-202 09-321-384 (w.k.)	12. William Kawenda (KU Proj Coor)	100	-	<ul style="list-style-type: none"> • Working towards integrating the ideas into a typical high-input irrigation / maize / vegetable project.

Model Development sites & Potential trainers						
Models	Organization	Contact info & location	Participants	number using the model	Model Rating	Rating Description
Working towards Model	11. MoAIFS, Kasungu	Box 62, Nkhamenya	13. Mark Moyo (AEDO for James Munthali) 14. Patricia Kanyika Sinyangwe (AEDO Yesaya)	2	-	<ul style="list-style-type: none"> Supporting two of the model sites Unable to assess their level of low input knowledge
Working towards Model	12. WFP, Kasungu	Office in Kasungu boma Find via District Assmely kasungu.FAM@wfp.org 01-253-242 08-859-451 (s.t.)	15. Sellina Tengatenga (Food Aid Monitor)	1	-	<ul style="list-style-type: none"> Grasped ideas very well *** Potential Trainer: Already has good training skills, potential to advance
Workshop Cooks	Kondwani Restaurant (?)	Nkhamenya trading centre Box 215, Nkhamenya 09-403-249 (a.n.)	Ms. Dorothy Nyirenda Mr. Austin B. Nyirenda	0	-	<ul style="list-style-type: none"> Good understanding of low input food preparation and meal planning
MANGOCHI						
all sites are between the boma and 30 km east						
Personal Model	13. Permaculture Network in Malawi	7 km south of Monkey Bay. Take road to east just opposite Cape MacClear turnoff. Thanthwe, Box 46, Monkey Bay 01-587-656 junewalker@africa-online.net	16. June Walker (Founder & Patron)	1	high	<ul style="list-style-type: none"> Applying ideas since about 1994, founded Permaculture Network, wrote booklet in English and Chichewa to guide others Provides training and field visits to home, spreads ideas to community Assisted in writing food preparation book on traditional and modern foods. *** Potential Trainer: already does many trainings
Model	14. Chitula Mitumbu Chigwirizano VAC Project	Group supported by Namwera AIDS Coordinating Committee	See NACC, Mangochi	50	medium	<ul style="list-style-type: none"> Community gardens (munda and dimba) were struggling for 2 years. Started mulching, inter-planting, live fencing, and improving designs in gardens. Working toward improving inter-planting designs. Using local foods, making mud stoves based on ones used in this project.
Model	15. Majuni Community Irrigation	Stop at Majuni bus stop, on the south side of the road. Find via Majuni MoA office, or ask at Majuni School.	17. Ali Dickson (Community Vol.)	50	medium	<ul style="list-style-type: none"> Core member group of about 15 really understanding concepts and applying in garden area. Mulching, redesigning to use land better, inter-planting, getting higher yield with less input. Started as Food for Work for fish ponds integrated with fruit trees Dealing with problems of goat, cattle and thieves. Not using ideas in lives around homes as far as I could see
Model	16. Malindi Orphan Care	In Malindi, just south of mission hospital. East side of road. Box 50, Malindi 09-210-482 manager malindi_obharcare@yahoo.com ;	18. LH Lhulunga (Manager) 19. MC Mkata (Field Asst)	100	medium	<ul style="list-style-type: none"> Excellent use of mulch and natural recipes for insect repellent. Needs to work on information sharing, status/power, interplanting, supporting independence, decreasing labour and decreasing reliance on donor when local resources are available.

Model Development sites & Potential trainers						
Models	Organization	Contact info & location	Participants	number using the model	Model Rating	Rating Description
Model	17. MoH Mangochi District Hospital	Located in Mangochi Boma Box 42, Mangochi mjawati@yahoo.com ; 09-928-624 m.j.	20. Nutritionist – M. Jawati	10	medium	<ul style="list-style-type: none"> Brand new site, hospital staff vary in level of support of the ideas, small core group of staff that really understand Not (yet) tapping into the resources that are available (organic matter, labour, water) – lots of potential! Small garden area started and using the concepts pretty well, will need encouragement and ongoing lessons to staff at all levels to continue
Personal Model	18. NACC Namwera AIDC Coordinating committee	Located in Namwera Boma P/Bag 52, Namwera saeedwame@yahoo.com ; 01-586-006 08-362-319 s.w.	21. Director: Saeed Wame 22. HBC OVC Officer– Mariam Afio	2	medium	<ul style="list-style-type: none"> NACC already doing some tree planting, discussing capturing more resources (water, labour, organic matter) around office. Saeed started designing at house to use grey water, increased mulching, great start with many more resources to capture. <p>*** Potential Trainer: Already has good training skills, potential to advance</p>
Personal Model	19. Staff Emmanuel International	North side of Mangochi Boma on road to Monkey Bay. 08-393-141 a.n	23. Relief - Andrew Ngulube	1	medium	<ul style="list-style-type: none"> Reducing sweeping and labour and increasing use of wasted resources. Laid out design with bricks and started converting kitchen area gardens. <p>*** Potential Trainer: potential to advance</p>
Model	20. MoE Masongola 1 Full Primary School	Namwera Boma, ask anyone Box 13, Namwera 01-586-034 or 09-261167 f.k.	24. Felix Kwakwala (Head)	5	low	<ul style="list-style-type: none"> Started at borehole, but stopped. Unsure why
?	21. MoAIFS, Mangochi	(transferred to Chilipa, 09-348-037 g.m.	25. AEDC – G.S. Mahame	1	-	<ul style="list-style-type: none"> Unsure of implementation
?	22. MoE, Mangochi	Majuni at Secondary School Box 40, Namwera, 09-366-254 a.c. or 08-310-391 a.c.	26. PEA – Adrian Chilumpha	1	-	<ul style="list-style-type: none"> Unsure of implementation
?	23. MoNR, Mangochi	Box 221, Mangochi, 01-594-425	27. FA – R. Zande	1		<ul style="list-style-type: none"> Unsure of implementation
?	24. NASFAM, Mangochi	P/bag 1, Namwera 08-504-256 e.k.	28. Mang Mgr – Elisha Kakhabwe	1		<ul style="list-style-type: none"> Unsure of implementation
?	25. Total Life Care	Harold lives in Chowe Box 404, Mangochi	29. Agric Com Dev. Fac – Harold J. Chipale	100		<ul style="list-style-type: none"> Unsure of implementation – using ideas with TLC, need update. Supporting Majuni Community Irrigation. Sharing open-pollinated seeds with others.
?	26. WFP, Mangochi	Mangochi.FAM@wfp.org; 09-953-909 w.n. or 01-593-377	30. Food Aid Monitor – Willy Ng'ambi	1		<ul style="list-style-type: none"> unsure of implementation
Workshop Cooks	Neptune Resthouse, Restaurant and Bar	Namwera Boma	Mrs. Dias & family	0	-	<ul style="list-style-type: none"> Good understanding of low input food preparation and meal planning
MULANJE				0		
all sites are near the <i>boma</i> and to the west						

Model Development sites & Potential trainers						
Models	Organization	Contact info & location	Participants	number using the model	Model Rating	Rating Description
Model	27. Likhabula CCAP House	About 4 km west of boma take road to Phalombe for about 10 km. Or, ask either in Boma or at Chitakale. Box 111, Mulanje 01-467-762, 09-336-593 e.m	31. Manager – Edna Mwale 32. Gardener – Fedson W. Ng'amina	10	high	<ul style="list-style-type: none"> Highly supportive environment for concepts Garden improved tremendously, in lowering input and increasing yields, starting to spread to other areas around the site Arrange cooks for the low input menu and meals High potential for trainers and training site Greatly improved, breaking free from high input Implementing concepts in garden, in life and around the hospital (grey water, reduced sweeping, using more waste) Hospital seems supportive – much potential for spreading, especially if they can combine energy with the school Has the potential to be amazing! Many resources still unused Some staff starting to live the ideas personally, *** Potential Trainer: Bitter & Felix already trainers with potential to advance
Model & Personal	28. MoH Mulanje Mission Hospital	About 6 km west of boma take road to south for 3 km to hospital. Box 45, Mulanje mmh@malawi.net ; 01-467-044/095, 09-265-842 e.g., or 08-869-782 b.k	33. PHC Nurse – Ebbie Gumbi 34. Garden – Bitter Steve Kalunga (left) 35. New Garden Officer: Felix Mkwate	100	high	<ul style="list-style-type: none"> Understands concepts well and teaches well – potential trainers and training site if concepts are applied to all settings. Starting to capture local resources, more to use Needs a bit more experience with design Using the ideas personally in life *** Potential Trainer: already a trainer, potential to advance
Model & Personal Model	29. Tambala Model Village	Difficult to give directions, take someone from MoA or OXFAM, or ask at Mulanje Mission Hospital. Box 221, Mulanje	36. VDC Chairman – Simoni Kafodya	100	high	<ul style="list-style-type: none"> Started at borehole to use water and reduced sweeping the grounds (forests). Doing very well at borehole but need to apply concept to other areas. Working on water management and soil health and could very easily extend to other areas One committee member doing at home – Mr. Saidi Brand new site, implementing basic ideas and starting to really understand. Has many other people to consider at the hospital, but environment seems supportive Both nurses live the ideas personally at home. *** Potential Trainer: Both have potential
Model & Personal Model (Mr. Saidi)	30. MoE Ulongwe Model School	About 4 km south of Mulanje Mission Hospital. Box 112, Mulanje 09-334-123 j.v.	37. Head Teacher, Jimmy Villiera	200	medium	<ul style="list-style-type: none"> Implementing a lot in the villages, many sites are old sites that are improving Not doing much at office, many resources to capture there Already had small garden using similar ideas, not sure of implementation progress.
Model & Personal Models (2)	31. MoH NRU	NRU is at the old hospital, near prison and MoA offices. Box 227, Mulanje 01-466-211,01-466-295 09-255-651 m.k., 08-521-041 a.d	38. CHN – Margaret Kamdende 39. CHN – Annie Dillah	10	medium	
Model	32. Nachimango AIDS CBO	About 15 km (?) east of Luchenza on Mulanje Road on south side of road. Sign posted. Box 112, Luchenza	40. Coordinator – Gedson Namanya	200	medium	
Personal Model	33. Staff MoE	Box 43, Mulanje 01-466-322 or 08-385-024 m.z	41. PEA – Mary Zimba	1	medium	

Model Development sites & Potential trainers						
Models	Organization	Contact info & location	Participants	number using the model	Model Rating	Rating Description
?	34. ProBEC (Pro for Bio-mass Energy Conserv.)	Box 438, Mulanje ifspstaff@africa-online.net ; 01-466-279 or 08-894-744 v.c.	42. Food Trainer - Veronica Chimulambe	1	medium	<ul style="list-style-type: none"> Office started applying ideas on one side of building Veronica already doing some of the ideas at home, unsure of implementation progress. *** Potential Trainer: already a trainer, potential to advance
?	35. MoAIFS, Mulanje	Mulanje Boma near prison and old hospital Box 49, Mulanje 01-466-299/4, 08-383-671 s.m 09-221-202 h.m., 01-467-107 h.m.	43. AEDO – Harriet Magomero 44. AEDO – Samson S. Mulenga	2	-	<ul style="list-style-type: none"> Unsure of implementation progress, both AEDO's support models.
?	36. MoNR, Mulanje	At Likhabula Box 50, Mulanje 01-467-718	45. Forestry Asst. – Gertrude Maole	1	-	<ul style="list-style-type: none"> Unsure of implementation progress, hadn't started implementing at the time I visited her home.
?	37. WFP, Mulanje	Mangochi Boma 01-466-250, 09-952-154 l.c., 08-866-257 m.m	46. previous FAM – Martin Mphangwe FAM Lusungu Chitete	1	-	<ul style="list-style-type: none"> Unsure of both FAMs implementation progress.
NKHATA BAY						
all sites are 20-40 km south of the boma						
Model	38. Healthy Malawi / Kande Beach	Best to go to Kande Beach / Soft Sand Café and ask for someone to take you. While at Kande Beach visit Caroline and Timbo who are using permaculture at their home. sandraverbaan@planet.nl ; softsand@malawi.net ; softsand@africa-online.net ; 01-357-376 c.w. or 08-572-586 c.w.	47. Gardener – Simone Saka	50	high	<ul style="list-style-type: none"> Already a model started in 2003. Guilds around every building, harvesting water, inter-planting well, integrating animals, live fencing, etc. Advanced designs to feed the orphan children who come for food and school. *** Potential Trainer: already a trainer, potential to advance. Site is great venue for future trainings.
Model	39. MoE Sanga Primary	about 20 km south of Nkhata Bay turnoff, then about 5 km west of Sanga bus stage P/A Gong'otha, Sanga 09-371-122 r.p.	48. School Committee – R. Phiri	200	high	<ul style="list-style-type: none"> Excellent energy and support at school, some teachers using ideas personally at home Implementing 'edible landscaping', reducing sweeping, using sweeping pits for food production, planting at hand washing stations, using borehole runoff. Excellent diet diversification meals for us at least! *** Potential Trainer: probably more than one trainer from site
Model	40. Katongomala Model Village	Located in Tukombo just off of main road Chief lives just near the cell phone tower. Could ask at Banda's development org. P/A Tukombo, PO Kande	49. V.H. Katongomala – James Chirwa	100	medium	<ul style="list-style-type: none"> Applying ideas to own home, potential to be a high yielding area. Using diet diversification, at least when we are there! Just starting to spread ideas to community, potential to be great! *** Potential Trainer: already a leader and trainer, potential to advance

Model Development sites & Potential trainers						
Models	Organization	Contact info & location	Participants	number using the model	Model Rating	Rating Description
Model	41. NICE Farmer's Club	Located at Kapeska. Ask at bus stage. Road is at the bus stage, but not the one to Makuzi beach. Box 38, Chituka, Chinthече 01-352-206	50. Coordinator – W.K. Manda	10	medium	<ul style="list-style-type: none"> Brand new site, implementing basic ideas starting to really understand. Needs more practice and design *** Potential Trainer: already training small group, potential to advance
Model	42. Ripple Africa (Mwaya)	Just on the north end of Kachere. Sigh posted. Take road to east for about 5 km. c/o PO Box 75, Chinthече 09-383-645	51. Project Manager – Force Ngwira	100	medium	<ul style="list-style-type: none"> Implementing personally and beyond, Understands concepts well and teaches well, Needs a bit more experience with design Needs to, and can, break free of donor dependency and tap into local resources available. *** Potential Trainer: already training and organizing, potential to advance
Model & Personal Model	43. Sanga HBC	Located at Sanga bus stage. Ask for Davie Longwe, AEDO Kaonga, or Stevenia Mbewe Box 82, Nkhata Bay	52. Volunteer – D. Longwe	50	medium	<ul style="list-style-type: none"> Implementing personally very well in his marsh garden, but not using ideas at home yet Community garden still very high input thinking, needs support to implement ideas. Clearing grasses, making paths, and assessing area. Small forest spring located on site.
Personal	44. Staff MoAIFS	Kamanga: Ask at MoA office in Tukombo, P/A Tukombo, PO Kande, 01-357-236 a.k. Kaonga: Near Sanga bus stage, Box 132, Sanga.	53. AEDO (Tukombo) – A.M. Kamanga 54. AEDO (Sanga) – W. Kaonga	2	medium	<ul style="list-style-type: none"> Unsure about Kamanga's implementation progress. Kaonga is applying well at home, reducing erosion, covering soil, using wasted resources. Already was using some of the ideas before the project. *** Potential Trainer: Kaonga has potential to advance
Model & Personal Models (3)	45. VIBITAC (Vision Bible Training and Accommodation Centre)	Located on the main road, just north of Kande. Sign posted. Take road to east about 4 km. Box 29, Kande skansengwa@yahoo.co.uk; 01-357-383 s.k. or 09-204-883 s.k.	55. Director - Sidney Kansengwa 56. Gardener – Richard Phiri 57. Committee – Wadson Mambo Chirwa	100	medium	<ul style="list-style-type: none"> Started implementing ideas personally and a bit beyond, Struggling with project implementation at work. All using ideas personally in life- huge potential to tap into wasted resources! Arranged cooks for low input menu planning and preparation. *** Potential Trainer: Sidney and Richard have potential to advance. Venue superb for workshop accommodation, food, field visits and practicals.
Model & Personal Model	46. MoH Kachere Health Centre	Located right in the middle of Kachere on the main road. P/Bag 3, Kande	58. HSA – Dyzon V. Manda 59. Gardener – Grace Ndlovu	10	low	<ul style="list-style-type: none"> Site has struggled for years with organizing food production gardens, seems to be communication and structure issues. Much potential in terms of resources. Personally has started implementing at home which may spread
?	47. MoE. Nkhata Bay	Box 45, Sanga 01-352-224 nkby, 08-392-856 e.k.	60. PEA – E.K. Mwase	1	-	<ul style="list-style-type: none"> Unsure of implementation progress
?	48. MoG, Nkhata Bay	Sanga bus stage 01-352-297/231 (MoG Nkhata Bay)	61. SCDA (Sanga) – S.T.C. Mbewe	1	-	<ul style="list-style-type: none"> Unsure of implementation progress

Model Development sites & Potential trainers						
Models	Organization	Contact info & location	Participants	number using the model	Model Rating	Rating Description
?	49. WFP, Nkhata Bay	Located in Mzuzu at St. John's staff housing. Covers areas Chitipa to Nkhata Bay. Box 505, Mzuzu mzuzu.FAM@wfp.org ; mitendechipeni@yahoo.co.uk ; 09-265-165 d.n. or 08-395-333 d.n.	62. Field Monitor– Dominic Nyirongo	1	-	<ul style="list-style-type: none"> • Unsure of implementation progress
?	50. CADECOM	Located about halfway between Chintheche turnoff and Nkhata Bay Boma at Parish. Box 49, Nkabay 01-352-297/231	63. Zone Care Facilitator – P.J.B. Munthali	1	-	<ul style="list-style-type: none"> • Unsure of implementation progress
Other Districts						
Each Participated in Model development						
?	51. ADRA	contact via ADRA main office p/bag 951, LL, 01-758-077 adramalawi@malawi.net adrallongwe@malawi.net 08-370-192 (d.k.)	64. Crop Diver Faci – David Kankwatira	1	-	<ul style="list-style-type: none"> • Attended Kasungu workshop
?	52. CARE	contact via CARE main office p/bag A89, LL, 01-775-846/740 hazel@caremalawi.org 09-920-581 (h.k.)	65. Health & Nutr – Hazel Kantayeni	1	-	<ul style="list-style-type: none"> • Attended Kasungu workshop
?	53. World Vision International	contact via WVI main office Box 692, LL	66. Food Distributor – Esnat Nseula	1	-	<ul style="list-style-type: none"> • Attended Mulanje workshop
?	54. Concern Universal	contact via CU main office 01-623-761/262 samson.hailu@concern-universal.org ; jaykuyeli@yahoo.com ; 08-879-678 j.k.	67. Chiradzulu Coor. – Janet Kuyeli	1	-	<ul style="list-style-type: none"> • Attended Mulanje workshop
Model ?	55. GOAL	contact via GOAL main office Box 31807, BT3, 01-456-463 09-337-067 (d.s.)	68. Nsanje Garden Manager – Daniel Singano	50	-	<ul style="list-style-type: none"> • Attended Mulanje workshop
?	56. The Salvation Army	contact via TSA main office	69. Trainer – Elvis Mthyoka	1	-	<ul style="list-style-type: none"> • Attended Mulanje workshop
Model ?	57. Malawi Red Cross Society	contact via MRCS main office or Box 217, Salima, 01-262-800 mrscsfoodsallima@africa-online.net ; 09-404-134 (k.e)	70. FFW Officer– Kennedy Efeyani	2000	-	<ul style="list-style-type: none"> • Attended Kasungu workshop
?	58. MSF-Luxembourg	contact via MSF-L main office	71. Farm Home Asst – Ruth Jofflisi	1	-	<ul style="list-style-type: none"> • Attended Kasungu workshop
?	59. UniIMA Chancellor / Polytechnic	contact via Chancellor college	72. Nutrition Chemist - David Tembo	1	-	<ul style="list-style-type: none"> • Attended Kasungu workshop

Resource Organizations by technical topic

The organizations and resources listed below are arranged according to the type of assistance they offer related to this manual. Some organizations fit under several topics, but I have tried to choose what I felt was their primary technical topic, along with a few linkages under the various topics. The topics are:

* Agriculture	* Fish	* HIV & Food	* Nutrition
* Edutainment	* Food Security	* Irrigation	* Permaculture
* Energy Use	* Funding	* Land Use	* Trees
* Environment	* Herbal Medicines	* Local Plants	*

(Please note that all contact information is subject to change as organizations relocate, restructure, or update their communication systems)

Technical Topic	Organizational Resources:	Contact information	Comments
Agriculture	Bunda College	Mitundu, PO Box 219, Lilongwe.	Indigenous Foods, Land Resource Management, Nutrition, Seeds
Agriculture	Civil Society Agric Network	cisanet@globemw.net ;	Network for any person
Agriculture	COOPI	P/bag 67, LL. 01-751-851. lilongwe@coopj.org ;	Technical support / Development
Agriculture	COSPE	Area 3 TLC offices, dsg@malawi.net ;	Integrated food security project in Nkhhotakota
Agriculture	East and Southern Africa Small-Scale Farmers' Forum (ESAFF)	c/o PELUM Association Regional Desk, Independence Avenue 324, PO Box 320362 Woodlands, Lusaka, Zambia. +260-1-257115. Fax +260-1-257116. pelumrd@coppernet.zm , www.pelum.org.zm	ESAFF has offices in many countries in Africa.
Agriculture	Farmers Union of Malawi	City Centre, Nurses & Midwives Bldg, P.O. Box 30457, LL, 01-776-167	Support to member farmers nationwide
Agriculture	IFAD / Smallholder Flood Plains project	Area 3	Technical support / Development
Agriculture	Int'l Crops Res Inst for Semi-Arid Tropics (ICRISAT) / Consultative Group on In Ag Res (CGIAR)	Chitedze Ag Research. Station, ICRISAT, Box 1096, LL 01-707-057/67	Seed for semi-arid tropics
Agriculture	MALEZA	Area 4, P/bag 91, LL. 01-727-623, vezaint@malawi.net ;	Technical support / Development
Agriculture	Ministry of Agriculture, Irrigation & Food Security (MoAIFS)	Capital Hill, Box 30134, LL3. 01-789-033, techsec@malawi.net	
Agriculture	MoAIFS, Agricultural Research Dept	Chitedze Agricultural Research Station, Box 158, LL. 01-707-222 nasc@malawi.net	Genetic Seed banks provide Indigenous seeds

Technical Topic	Organizational Resources:	Contact information	Comments
Agriculture	MoAIFS, Farm Diversification Income Development Dept.	Capital Hill, Box 30134, LL3 farmincome@globemw.net	Diversification
Agriculture	MoAIFS, Gender and Development	Area 4 at Agricultural Communications Branch, 01-750-379 gadunit@schnp.org.mw ;	Gender
Agriculture	MoAIFS, Malawi Agricultural Sector Investment Program	Area 4, agro-economic survey building, Private bag 8, LL. 01-756-532	
Agriculture	OPAL – Optimistic Partners in Agricultural Livelihoods	opal@horizonmalawi.org ;	Development
Agriculture	Penal Reform International	01-770-141, fsandor@penalreform.org ;	Diversified agriculture
Agriculture	Rodale Institute / Organic gardening	www.organicgardening.com	Technical publications on organic farming and regenerative farming.
Agriculture	SARNET/IITA (Southern Africa Root network?)	Chitedze Ag Res. Station, Box 158, LL. 01-707-213	Seed
Agriculture	Sasakawa Global 2000	City Centre, Dev House	Reduced input maize growing
Edutainment	Polytechnic, Blantyre, Theatre for Development	Blantyre	
Edutainment	Story workshop	P/Bag 266, Blantyre. 01-621-657, 01-621-335. swet@malawi.net ;	Development
Energy use	Aprovecho	http://www.aprovecho.net/	Designs efficient, low emission, cooking and heating stoves
Energy Use	Legacy Foundation	Richard Stanley, rstanley@legacyfound.org	Briquette making, long history with working in Malawi, based in USA now.
Energy Use	ProBEC (Prog for Biomass Energy Cons. in Southern Africa) / Integrated Food Security Prog.	Box 438 Mulanje. 01-466-279, 01-466-435. ifspmulanje@malawi.net ; ifspstaff@africa-online.net	Trainers in improved stove designs of mud or metal Food security and HIV
Energy Use	Renewable Energy Industries Association of Malawi (REIAMA)	Area 3 Hashim bldg, Mandala Rd, near Total Land Care 01-750-551, reama@schnp.org.mw ;	Solar, Wind
Energy Use	Renewable Energy Policy Project, REPP	http://www.repp.org/	Great pages on all forms of improved energy. Discussion groups and terrific archives on making fuel efficient stoves of all types.
Energy Use	Solar cookers international, SCI	919 21st Street #101, Sacramento, CA 95814 U.S.A., T: +1 (916) 455-4499, F: +1 (916) 455-4498 info@solarcookers.org or http://solarcookers.org/basics/how.html	

Technical Topic	Organizational Resources:	Contact information	Comments
Environment	Coalition of Journalist for Environment & Ag, COJEA	City Centre – at TEVET cojjea@lycos.com ;	Media stories on the environment
Environment	Community Partnerships for Sust Resource Mgt in Malawi, COMPASS II	Able House - 1st Floor, 8 Hannover Avenue, Pvt Bag 20, Blantyre. 01-622-800	
Environment	Mulanje Mountain Conservation Trust, MMCT	Box 139, Mulanje	Many creative livelihood & protection programmes around the mountain, small plant and tree nursery
Environment	Ministry of Parks, and Wildlife	Capital Hill	Food Security via natural resources
Environment	Wildlife & Environmental Society of Malawi - Secretariat	Executive Director, P/Bag 578, Limbe, 01-643-428, fax 01-643-765	Seed, Mostly trees, but also some other perennials. Nurseries in Lilongwe, Blantyre and Zomba.
Fish	also see JICA, Concern Universal, and Bunda College		
Fish	Ministry of Natural Resources (MoNR), Fisheries	Capital Hill, Fisheries, Box 593, LL. 01-788-511/441	
Fish	World Fish Centre	Domasi, Zomba. inagoli@worldfishcenter.sdnpp.org.mw	Great library and laboratory
Food Security	Also see Ministry of Agriculture under Agriculture and Nutrition; ProBec under Energy Use; and all Permaculture organizations.		
Food Security	Action Against Hunger	Area 4, LL. 01-759-667, 01-758-992; hom@aahmw.org ;	Training
Food Security	Action Aid	Mchinji Roundabout. 01-757-500	Advocacy and food & nutrition trainers
Food Security	Adventist Development Relief Aid?, ADRA	Area 9 plot 102. P/Bag 951, LL.. 01-758-077 adramalawi@malawi.net ; adrailongwe@malawi.net ;	NGO
Food Security	AfriCare	Area 9	
Food Security	Canadian Physicians for Aid and Relief, CPAR	Box 30998, LL3. 01-757-811 office, 01-758-522 prog. cparrl@malawi.net ;	Technical support / Development
Food Security	CARE	City Centre, P/bag A89, LL. 01-775-846/740, 01-774-738	Technical support / Development
Food Security	Catholic Development Commission, CADECOM Natl.	Area 3, Box 2185, LL. 01-766-645 caritasmalawi@malawi.net ; nutfoodsec@malawi.net ;	Technical support / Development
Food Security	Catholic Relief Services, CRS	Area 3, Mchinji Roundabout. 01-7-55-534	Development
Food Security	CCAP Blantyre Synod	Box 413, Blantyre, btspjjects@globemw.net	Zomba integrated sustainable agriculture training site
Food Security	CCAP Livingstonia	Box 137, Champhira. synodev@sdnp.org.mw	Technical support / Development
Food Security	Christian Hospital Association of Malawi, CHAM	City Centre. 01-775-180. chamsec@malawi.net ;	Technical support / Development

Technical Topic	Organizational Resources:	Contact information	Comments
Food Security	Concern Universal, CU	01-623-761/262	Technical support / Development
Food Security	Concern World Wide, CWW	Area 4, LL	Community Therapeutic Feeding Food Security
Food Security	Emmanuel International, EI	P/bag 12, Zomba, 01-524-391. ei-malawi@malawi.net ;	Technical support / Development
Food Security	European Union Public Works Project	Area 3, Chilimbula	Gardens, irrigation, tree nurseries
Food Security	Family Health International, FHI	City Centre, Arwa house	Development HIV focused
Food Security	GOAL	Box 31807, BT3. 01-642-009	Technical support / Development
Food Security	I-LIFE consortium	Area 4 - H.B. House. 01-754-011, 01-754-012	Development
Food Security	Malawi Red Cross Society, MRCS	Area 14 Box 30096 LL3 mrcsfood@africa-online.net ; mrcsnutritionist@africa-online.net ;	Technical support / Development
Food Security	Management Sciences for Health, MSH	Area 4	
Food Security	MSF-Luxembourg	Box 219, Thyolo. 01-473-674/411. MSFL.Blantyre@brussels.msf.org ; Msfb-thyolo@brussels.msf.org ;	Technical support / Development
Food Security	National Association of Small-Holder Farmers in Malawi, NASFAM	City Centre, NASFAM house. 01-771-842 ceo@nasfam.org ; or nasfam@nasfam.org ;	Technical support / Development
Food Security	National Initiative for Civic Education, NICE - Main office	Area 4 HB house LL	Technical support / Development
Food Security	Natural Resources College	off Mchinji Road, 11 km west of LL.	Working toward low input food and nutrition security curriculum
Food Security	One Village One Product	City Centre, Eurpoa House	Development
Food Security	OXFAM	Box 213, BT. 01-620-813	Development
Food Security	Plan Int'l	City Centre. Box 2053, LL. 01-770-699	Development
Food Security	Polytechnic, Chemistry	p/bag 303, BT3	Food processing, food science
Food Security	Save the Children US	Area 4. 01-753-888	Development
Food Security	St. Gabriel Hosp.	P/bag 1, Namitete. 01-274-213, 01-274-263. stgabrieils@malawi.net ;	Development
Food Security	The Salvation Army	Box 51140, Limbe. 01-645-709. sa-projects@malawi.net ;	Development
Food Security	US Peace Corps	Area 3, Murray Road. PO Box 208, 01-757-157/667 cd@mw.peacecorps.gov	Development

Technical Topic	Organizational Resources:	Contact information	Comments
Food Security	VSO	City Centre, LL above British Council Library	Development
Food Security	World Food Programme - Country Office	City Centre. Box 30571, LL3. 01-774-372/666	
Food Security	World Vision International	Area 4. Box 692, LL	
Funding	CIDA	City Centre	
Funding	DFID	City Centre. 01-772-400	
Funding	European Union Commission	City Centre, Big glass bldg. 01-773-199	
Funding	EU Micro projects	City Centre, Dev. House. 01-774-977/975 micropjects@microprojectsmw.org ;	
Funding	FAO (Food and Agricultural Organization of the UN)	Area 13, Box 30750, LL3. 01-773-263, fao-mwi@field.fao.org	and technical assistance
Funding	JICA	City Centre, RAZA Plaza. 01-771-644. jicamw@jica.go.jp ;	Fish
Funding	SIDA	City Centre	
Funding	UNICEF	City Centre, PO Box 30375, LL 3, 01-770-788	
Funding	USAID	City Centre, Nico House	
Funding	World Bank	City Centre, Development House	
Herbal Medicines	Action for Natural Medicine (Anamed)	Schafweide 77, D-71364 Winnenden, Germany. Fax +49 7195-65367 anamed@t-online.de , www.anamed.org	Many superb print materials, training workshops and technical support.
Herbal Medicines	Chifundo Herbal Project	Montfort Mission, PO Box 280, Balaka	
HIV & Food	Dignitas International	PO Box 1071, Zomba. 01-525-420. www.dignitasinternational.org	Development
HIV & Food	NAPHAM – Nat'l Assn for People Living with HIV	City Centre, LL. 01-770-641. naphamed@malawi.net ; napham@malawi.net ;	Supporting and encouraging low input high output sytems
HIV & Food	National AIDS Commission	Area 14, Big Glass Bldg. 01-770-022	Supporting and encouraging low input high output sytems
HIV & Food	OPC, Nutrition & HIV	City Centre. P/Bag 301, LL3. 01-789-725	Policy direction
HIV & Food	UMOYO Network	Umoyo House, Victoria Ave BT. Private Bag 254, Blantyre. 01-622-517, 01-621-022/348, 01-624-680 networks@malawi.net ; Or in LL at: Amina House, Chilambula Rd	Development
Irrigation	Also see Land Resource Centre, Land Resource Conservation Department, and Total Land Care		
Irrigation	Agro-in Farming – water resource & irrigation development	Area 3. PO Box 1097, LL 01-758-620 home	Artesian wells

Technical Topic	Organizational Resources:	Contact information	Comments
Irrigation	Freedom Gardens	Lumbadzi, Dowa. 09-912-655 or 09-931-265	Permaculture-like designs, amazing water use designs.
Irrigation	MoAIFS, Irrigation Department	01-752-122	
Irrigation	Rainwater Harvesting Association of Malawi	Area 3 near Total Land Care. c/o Land Resources Conservation Dept (MoA), p/bag 49, LL	Training, technical assistance
Irrigation	WaterAid Malawi	Area 4, LL, Amina House	Composting Toilets
Land Use Design	Land Resource Centre	Area 3, Box 30291, LL3. 01-753-430, resourcecenter@malawi.net ;	Irrigation, agroforestry, local seeds
Land Use Design	Land Resource Conservation Department (MoAIFS)	Area 3, above Land Resource Centre Box 30291, LL3. 01-755-048. landcons@malawi.net	
Land Use Design	Ministry of Local Government (MoLG)	Capital Hill. Ask at each town or city assembly.	Designs for public works – buildings, roads, market, water and sanitation systems Almost every city council has a nursery.
Land Use Design	Participatory Ecological Land-Use Management	PELUM Association Regional Desk, Independence Avenue 324, PO Box 320362 Woodlands, Lusaka, Zambia. +260-1-257115. Fax +260-1-257116. pelumrd@coppernet.zm , www.pelum.org.zm	Produces Ground Up – a publication promoting sustainable agriculture and food security. Malawi also has a desk located at CURE, Blantyre
Land Use Design	Total Land Care	Area 3, LL. sdi@malawi.net ;	Seed, Trainers
Local Plants	also see topics: Permaculture and Herbal Medicines also see orgs: Land resource centre, Total land care, MoAIFS Agricultural Research, Wildlife and Environmental Society of Malawi		
Local Plants	National herbarium	Lilongwe in City Centre, Zomba near Government	Seed and seedlings
Local Plants	University of Malawi Chancellor	Box 280, Zomba. 01-527-133	Local Foods and nutrient composition
Nutrition	also see topics: Nutrition & HIV		
Nutrition	Ministry of Education (MoE) School Food & Nutrition Unit	Capital Hill. p/bag 328, LL3. 01-789-422	School Nutrition
Nutrition	Ministry of Gender (MoG) Nutrition Unit	City Centre. P/Bag 330, LL3. 01-770-411	Community Nutrition, Recipes
Nutrition	Ministry of Health (MoH) Nutrition Unit	Capital Hill. Box 30377, LL3. 01-789-400/8-201	Medical Nutrition
Nutrition	MoAIFS, Nutrition Extension	Area 4 at Agricultural Communications Branch. 01-755-522	Food Posters, Recipes

Technical Topic	Organizational Resources:	Contact information	Comments
Nutrition	Nutrition Society of Mal.	Bunda College Nutrition Department, Box 219, LL 01-277-222/436. Malawi-Nutrition@yahoogroups.com ;	Nutrition advocacy and professional development. Members in almost every district.
Permaculture	Food Gardens Foundation	Johannesburg, South Africa, unsure of contacts, sorry.	
Permaculture	Lukwe Permaculture Gardens	Leiza Dupreez, Box 20, Livingstonia, 08-204-515	Seed small-scale sharing, Training.
Permaculture	Mangochi Orphan Education and Training Centre (MOET)	Box 328, Mangochi, 08-873-270, moet_mwcharity@yahoo.co.uk	Seedlings, trainings
Permaculture	Maziko Amoyo Wabwino Organization	Box 34, Chapananga, 01-429-506	
Permaculture	Nordin Family	Chitedze Trading Centre, Post Dot Net X-124, Crossroads, LL. 01-707-213. Nordin@eomw.net	Seed small-scale sharing, Training, well-networked around the world
Permaculture	Pa Nthunzi	Nyambadwe, Blantyre. 01-623-980. walker@globemw.net ;	Seeds, Trainers, Landscape services indoor and outdoor
Permaculture	Permaculture Network in Malawi	PO Box 32587, Blantyre. permaculturemw@yahoo.com.au ; Membership and newsletter editors: Nordin, Post Dot Net X-124, Crossroads, LL. 01-707-213. Nordin@eomw.net	Members in every district of Malwi.
Permaculture	Walker, June	Thanthwe, PO Box 46 Monkey Bay. 01-587-656. junewalker@Africa-Online.net	Seed small-scale sharing, Training, well-networked around the world
Trees	Int'l Centre for research in AgroForestry(ICRAF). World AgrFor Centre / Future Harvest	Chitedze Ag Research. Station 01-707-332 http://worldagroforestrycentre.org	Seed locally sourced

Resources Print & Electronic by technical topic

The Print and Electronic Resources listed below are arranged by technical topic as related to this manual. The topics are:

* Agriculture	* HIV & Food
* Sustainable Development	* Local Plants & Animals
* Design	* Permaculture
* Food & Nutrition	* Trees

<i>Technical Topic</i>	<i>Print or Electronic Resources</i>	<i>How to access</i>	<i>Notes</i>
<i>Agriculture</i>	African Gardens and Orchards: Growing Vegetables and Fruits	MacMillan Education Ltd, 1989. Land and Life series. CTA Technical Centre for Agriculture and Rural Co-operation, Postbus 380, 6700 AJ Wageningen, Netherlands. http://www.cta.int/ Hugues Dupriez, Philippe De Leener. ISBN 0-333-49076-2 or 2-87105-008-2	Not completely low input, but a lot of good technical information on agriculture and some food processing. CTA has additional newer materials
<i>Agriculture</i>	Agriculture Crop Production Handbook	MoA. 2004?	Haven't seen personally myself, not sure how practical it is.
<i>Agriculture</i>	Better Farming Series	Food and Agricultural Organization of the United Nations, 1988. www.fao.org ISBN92-5-102583-5	
<i>Agriculture</i>	Centre for Information on Low External Input and Sustainable Agriculture (LEISA)	PO Box 64, 3830 AB Leusden, The Netherlands. ileia@ileia.nl www.ileia.org	Great for programme managers, most information needs adaptation to use directly with communities.
<i>Agriculture</i>	Dimba la Kumpana	June Walker. Permaculture Network in Malawi. (1990's) Out of print, contact June Walker or Stacia Nordin for photocopy	Nice step by step and practical tips for kitchen gardens.
<i>Agriculture</i>	Growing Positively: A Handbook on Developing Low-Input Gardens in Zimbabwe	Anna Brazier, John Snow International (Europe), June 2005. JSI website (www.jsieurope.org). For organisations that cannot download documents, they can write to: Information Officer, JSI Europe, 66 South Lambeth Road, Vauxhall, London, SW8 1RL, U.K.	Based on their development programme's experiences.
<i>Agriculture</i>	Low cost farming in the humid tropics: an illustrated handbook	Island Publishing House, Inc. Manila, PO Box 406, Metro Manila, Philippines. Paul Sommers ISBN 971-1007-02-9	

<i>Technical Topic</i>	<i>Print or Electronic Resources</i>	<i>How to access</i>	<i>Notes</i>
<i>Agriculture</i>	Principles Behind a Kitchen Garden: A resource and training manual With Drought in Mind materials: Many different booklets available: Water, Soil, Income generating, vegetable production	Food and Agricultural Organization of the United Nations / Malawi, pilot 2005. Isaiah Nyagumbo. * Swidish cooperative Centre;* SADC Centre of Communication for Development;* Smallholder drought mitigation programme. ISBN 0-7974-2057-6	Built on FAO and partner's experience since 2003 in implementing Kitchen Gardens in 18 NRUs and surrounding communities. NASFAM and MMCT have them in Malawi. All in English language.
<i>Design</i>	Holistic Resource Management	Allan Savory	MMCT Quite Detailed, but good for good english readers and scientific-minded people.
<i>Design</i>	One hundred and one technologies. Ottawa, Ont., IDRC, 1992. 231p.	International Research Centre, PO Box 8500, Ottawa, Ontario, Canada, K1G 3H9	
<i>Design</i>	The Humanure Handbook	Jenkins Publishing, 1999. PO Box 607, Grove City, PA, 16127 USA. www.jenkinspublishing.com ISBN 0-9644258-9-0	Superb, need a small booklet for training. Jenkins' copyright allows free information sharing for non-profit purposes.
<i>Design</i>	Where there is No Artist	Intermediate Technology Publications, 1997. 103-105 Southhampton Row, London WC1B 4HH, UK. Petra Röhr-Rouendaal. ISBN 1-85339-891-6. http://www.itdpublishing.org.uk/	Excellent, it would be great to have one Made for Malawi specific issues
<i>Fish</i>	Simple methods of Auquaculture CD	Chief, Inland Water Resources and Aquaculture Service (FIR), FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy or e-mail them to jiansan.jia@fao.org .	A compilation of fish farming manuals from the FAO Training Series.
<i>Food & Nutrition</i>	CD Food and Nutrition Library 3.0	Copies for non-profit dissemination can be obtained either free or at minimal cost to cover CD-ROM production and mailing costs either from: United Nations System Standing Committee on Nutrition, c/o World Health Organization, 20 Avenue Appia, CH 1211 Geneva 27, Switzerland, Telephone: +41-22-791 04 56, Fax: +41-22-798 88 91. scn@who.int , http://www.unsystem.org/scn Human Info NGO / Humanity CD, Oosterveldlaan 196, B-2610 Antwerp, BELGIUM, Tel : 32-3-448.05.54 - Fax : 32-3-449.75.74, humanity@humaninfo.org , http://www.humaninfo.org	

Technical Topic	Print or Electronic Resources	How to access	Notes
<i>Food & Nutrition</i>	Community Nutrition training manual for extension staff. & Poster sets	MoAIFS, Nutrition Extension, Area 4 at Agricultural Communications Branch. 01-755-522	Superb Posters, every organization working with ANY aspect of Food should have them, use them and promote them.
<i>Food & Nutrition</i>	Creative Cooking	Stacia Nordin, Malawi, 2001. nordin@comw.net	available for cost of copying electronically or print
<i>Food & Nutrition</i>	Dry It You'll Like it	www.dryit.com	Get one online - Could Adapt
<i>Food & Nutrition</i>	Early Childhood Development	MoG. 2004? City Centre. P/Bag 330, LL3. 01-770-411	Has small section on food and nutrition
<i>Food & Nutrition</i>	How to Grow a Balance Diet: A handbook for community workers	VSO Books, 1998. 317 Putney Bridge Road, London SW15 2PN, UK. www.vso.org Ann Burgess, Grace Maina, Philip Harris, Stephanie Harris ISBN 0-95090-50-6-2	Great info on different crops, basic nutrition, food preparation and growing plants. Only partially a low input approach.
<i>Food & Nutrition</i>	How to process and preserve fruits through drying	SADC-ISCAF Agroforestry Project (about 2000?). Makoka Agricultural Research Station, PO Box 134, Zomba. Alexandra Schomburg	Other materials probably available as well.
<i>Food & Nutrition</i>	Improving Nutrition through Home Gardening: A training package for preparing field workers in Africa	FAO, 2001. ISBN 92-5-104388-4 download from www.fao.org http://www.fao.org/DOCREP/003/X3996E/X3996E00.HTM (English) ftp://ftp.fao.org/docrep/fao/005/x3996f/x3996f00.pdf (French)	Very good manual, some low input ideas included.
<i>Food & Nutrition</i>	Malawi's Traditional and Modern Cooking	Chitukoko Cha Amayi m' Malawi (CCAM), 1992. Office of the President and Cabinet, Lilongwe, Malawi. ISBN 99908-0-000-6. Out of print - Contact Stacia Nordin to borrow mine to photocopy. June Walker has details of development and printing of book.	Needs to be put back into print!! Excellent, practical resource on preparing food.
<i>Food & Nutrition</i>	Recipes for Malawi	MoAIFS, Nutrition Extension, Area 4 at Agricultural Communications Branch. 01-755-522	
<i>Food & Nutrition</i>	Recipes for Malawi	MoG. 2004? City Centre. P/Bag 330, LL3. 01-770-411	
<i>Food & Nutrition</i>	Soyabean Cooking in Zambia	Department of Agriculture, Integrated Crop Management / Food Legume Project ZAM/92/003. Dave Wynne	Contact me for a copy.

Technical Topic	Print or Electronic Resources	How to access	Notes
<i>HIV & Food</i>	CD on PMTCT, Infant feeding, HIV and Food and Nutrition Security.	Academy for Educational Development, Global Health, Population, and Nutrition Group, 1825 Connecticut Avenue NW, Washington, DC 20009. Eleonore Fosso Seumo. This CD-ROM is free of charge. Send request to nutritionandhiv@aed.org with your name and complete mailing address. You can also visit AED's website at www.aed.org	Excellent. Some practical ready-to-use training and educational materials along with reports and other reading materials.
<i>HIV & Food</i>	Living Well with HIV/AIDS: A manual on nutrition care and support for people living with HIV/AIDS	Food and Agricultural Organization of the United Nations, www.fao.org	Very user friendly and written for personal use or field workers. A few minor errors, should be adapted with local foods when used.
<i>HIV & Food</i>	Positive Health Malawi Training of Trainers Edition	Working Group from different organizations adapted, compiled by Catholic Relief Services, CRS, Area 3, Mchinji Roundabout. 01-755-534	Based on Positive Health South Africa. CRS, and AAH held first training in 2005 with the materials, will be adapted after evaluation.
<i>HIV & Food</i>	Positive Health South Africa, 2005	Neil Orr and David Patient david@empow.co.za , or drp@mwweb.co.za	A DVD set is also available with training and advocacy materials.
<i>Local Plants & Animals</i>	Food from the Veld : Edible Wild Plants of Southern Africa Botanically Identified and Described, January 1982	Delta Books. Francis William Fox, Desmond Hallowes, Marion Memma Norwood Young. ISBN: 0908387202	MMCT Huge resource book that has many plants that are in Malawi, too. Includes medicines, beauty aids and other useful items. Must get for shelf.
<i>Local Plants & Animals</i>	Guide to Indigenous Plants of Southern Africa	Briza Publications, PO Box 56569, Arcadia 0007, Pretoria, South Africa. www.briza.co.za	MMCT Look at on-line for ideas
<i>Local plants & animals</i>	Herbs: The visual guide to more than 700 herb species from around the world.	DK Publishing Book, 1994. 95 Madison Avenue, New York, New York 10016 USA. Lesley Bremness and others. ISBN 1-56458-497-6	Superb, includes many Malawian species with great pictures and brief descriptions. Malawi needs to make its own just like this one!
<i>Local plants & animals</i>	People's Plants: A guide to useful plants of Southern Africa	Briza Publications, 2000. PO Box 56569, Arcadia 0007, Pretoria, South Africa. www.briza.co.za . Ben-Erik van Wyk, Nigel Gericke, Janine Smit, and others. ISBN 1-875093-19-2	Superb, Malawi needs its own.
<i>Local Plants & Animals</i>	The Larger fungi of South Central Africa	Baobab Books Box 567, Harare Zimbabwe. Supported by NORAD. L. Ryvarden, GD Pearce, AJ Masuka. ISBN 0-908311-52-4	MMCT has a copy in Malawi, we need more print resources like this one.
<i>Local plants & animals</i>	Traditional Food Plants	FAO Rome, 1988. www.fao.org . ISBN 92-5-102557-6	

<i>Technical Topic</i>	<i>Print or Electronic Resources</i>	<i>How to access</i>	<i>Notes</i>
<i>Local Plants & Animals</i>	Useful Plants of Malawi	Montfort press, Limbe, 1974 (earlier editions 1955, 1968, 1972 by Government Printer, Zomba). National Herbarium Zomba holds a copy.	Out of print, need advocacy to modernize with identification pictures and reprint.
<i>Permaculture</i>	Permaculture Magazine: Solutions For Sustainable Living & Permaculture Magazine E-news Group	http://www.permaculture.co.uk/Enews@permaculture.co.uk	Practical thought provoking articles on organic gardening, sustainable agriculture, agroforestry, eco-villages, alternative technology, eco-architecture and building, community development and much more, written by leading experts, plus useful tips from readers.
<i>Permaculture</i>	Permaculture Nutrition Training Manual, 2006 edition underway	Nordin@comw.net	Currently being adapted, should be ready mid-2006
<i>Permaculture</i>	Permaculture Teacher's Guide	Permaculture Association (Britain) / WWF-UK 2000. BCM Permaculture Association, London, WCIN 3XX. office@permaculture.org.uk , www.permaculture.org.uk	Also useful for international settings
<i>Permaculture</i>	Permaculture: A sustainable way of farming	Fambidzanai Permaculture Centre, 1995-1999. PO Box CY 301, Causeway, Harare, Zimbabwe. Stephen Mann. 1995	Very applicable to Malawi, but quite technically written.
<i>Permaculture</i>	Permanent Publications	http://www.permaculture.co.uk/PP/About.html	an independent publisher, was set up in 1990. Its mission is to publish information which encourages people to live more healthy, self-reliant and ecologically sound ways of life
<i>Permaculture</i>	The Permaculture Booklet: South Africa's first grassroots permaculture manual	Trees for Africa, Box 2035, Gallo Manor, Gauteng 2052 South Africa. (011)-803-9750 fax (011)-803-9604. Support form Eskom Community Development Fund. Michelle Nel	Great little manual covering the basics with good drawings. Many species also found in Malawi. Contact me or WFP for a photocopy.
<i>Permaculture</i>	The SCOPE Activity Book: from the Schools and Colleges Permaculture Programme	Anna Brazier, 2003. College Press Publishers Box 3041, Harare, Zimbabwe. SCOPE Box, CY 301, Causeway, Harare, Zimbabwe. ISBN 1 77900 463 X	Superb tool for anyone working toward food and nutrition security in school settings.

<i>Technical Topic</i>	<i>Print or Electronic Resources</i>	<i>How to access</i>	<i>Notes</i>
<i>Sustainable development</i>	Footsteps: A quarterly newsletter linking development workers around the world	PO Box 200, Bridgnorth, Shropshire, WV16 4WQ, UK. footsteps@tearfund.org , www.tilz.info	Superb for field workers. Free.
<i>Trees</i>	How to build a tree nursery & raise seedlings in Malawi	Department of Forestry/EU, Social Forestry Training and Extension and Project (SOFTE) 2003.	some low input ideas included
<i>Trees</i>	Nkhalango! A Social Forestry Model, Experiences from Blantyre City Fuel wood Projects in Southern Malawi	Randi Kaarhus, et al. Noragric - Agricultural University of Norway	NASFAM KU office has copies and likes them

Most of these references can also be found on the resource lists for organizations or print / electronic materials:

- ¹ Permaculture Nutrition Training Manual, Kristof & Stacia Nordin, 1999-2005 versions. 2006 draft version. nordin@comw.net
- ² FAO Training Series, Handbook on Small-scale Freshwater Fish Farming, From Simple methods of Aquaculture CD. Chief, Inland Water Resources and Aquaculture Service (FIRI), FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy or e-mail them to jianson.jia@fao.org.
- ³ Extension Aids Branch, Department of Extension and Training, Water Conservation for Everyone Lilongwe, Malawi: JN 12-6000-111-76. Contact MoAIFS, Nutrition Extension, Area 4 at Agricultural Communications Branch. 01-755-522
- ⁴ http://www.wagga.nsw.gov.au/home-garden/pdf/Waterwise_Salt_tolerant.pdf
- ⁵ Look in resources for: Ministry of Agriculture, Total Land Care, Land Resource Centre
- ⁶ Renewable Energy Industries Association of Malawi (REIAMA), Area 3 Hashim bldg, Mandala Rd, LL 01-750-551, reima@sdrp.org.mw.
- ⁷ Agro-In Farming– water resource & irrigation development Area 3. PO Box 1097, LL. 01-758-620
- ⁸ Food Garden Foundation, Johannesburg South Africa
- ⁹ Principles Behind a Kitchen Garden: A resource and training manual Food and Agricultural Organization of the United Nations / Malawi, pilot 2005. Area 13, Box 30750, LL3. 01-773-263, fao-mwi@field.fao.org.

~ The End of the Manual ~