



TRAINING CURRICULUM



TRADITIONAL FOOD PRESERVATION TECHNIQUES, STORAGE AND COOKING METHODS STUDY OF NUBA MOUNTAINS

Documented By:
Consultants: Ignatious Nguyo & John Nick
Participatory Development Centre (PDC)

JULY 2021

Foreword

Food is an important element which essentially consists of protein, carbohydrate, fat and other essential nutrients used in an organism's body to sustain growth and vital processes as well as to furnish energy. Food preservation is the science that deals with the processes of decay or spoilage of food for the food to be stored for future use. Cooking of food is the art, science and craft of using heat to make food edible.

This training curriculum is designed and organized to guide the trainer in facilitating community learning on traditional food preservation, storage and cooking methods with a clear outline of the general objectives, specific objective and learning activities.

We are grateful to the director and staff of Skills for Nuba Mountain (SNM), Nuba Relief and Rehabilitation Development Organization (NRRDO) and its partners and the regional office for education for the Nuba Mountains.

For the development of this curriculum, considerable involvement and support was received from various resourceful people of Nuba Mountains including relevant government official, community groups, key informants, local leaders, payam administrators and elderly men and women.

Special appreciation goes to the founder and director of Skills for Nuba Mountain Mr. Lazim Suleiman, Madam Sakina Hamad Deain Gender and development, NRRDO), Mr. Magbula Jibreil (national minister for gender and social development), Budur Kalo (regional minister for mother and child welfare), Zuhur Shajar Peter (regional minister for social development), Nuba Relief and Rehabilitation Development Organization (NRRDO) and its partners and the regional office for education for the Nuba mountains. And all the people of Nuba mountains.

We acknowledge and appreciate the guidance and support provided by our senior Consultant – Peter Kilonzo in the document of this training curriculum. To many others who may not be individual mentioned here yet they made a significant contribution; we are very grateful.

John Nick Omondi & Ignituous Mutua
Associate Consultants
Participatory Development Centre (PDC)



TABLE OF CONTENTS

Foreword.....	ii
PREAMBLE.....	iv
1.0 INTRODUCTION.....	1
1.1. Overview.....	2
A. Purpose of the curriculum.....	2
B. Audience.....	2
C. Learning objectives.....	2
D. Curriculum.....	2
E. Facilitators.....	3
F. Agenda.....	3
G. Materials.....	3
H. Preparation.....	3
2.0 PART I: TRAINING METHODOLOGY.....	4
A. The trainer.....	4
B. Training approach.....	4
C. Training methods.....	4
D. Training design.....	5
E. Expected benefit of the training program.....	6
F. Post training reinforcement.....	6
G. Follow-up.....	6
3.0 PART II: TRAINING SESSIONS AND GUIDE.....	7
3.1. SESSION 1: INTRODUCTION.....	7
3.2. SESSION 2: CROPS GROWN IN NUBA MOUNTAINS.....	2
3.3. SESSION 3: TRADITIONAL FOOD STORAGE.....	4
3.4. SESSION 4: FOOD PRESERVATION TECHNIQUES IN NUBA MOUNTAINS.....	7
3.5. SESSION 5: TRADITIONAL FOOD RECIPES IN NUBA MOUNTAINS.....	10
3.6. SESSION 6: ACTION PLAN PRESENTATIONS.....	12

PREAMBLE

Food plays an important role for the survival of any living organism. There is no life without food. Food contains essential nutrients used in an organism's body to sustain growth and vital processes as well as to furnish it with energy for the normal metabolic activities in a living system. Our ancestors had their own ways of acquiring food but notably farming was the main means of getting food. Other activities which were used to get food included hunting and gathering (for the animals and wild fruits) which were very rich in variety of nutrients.

The traditional methods of acquiring food especially farming are still being practiced today although they have been devised, improved and modernized for efficiency. This has helped in coping with demand for food due to increase in population over time. With increased population, the landmass for cultivation has also reduced significantly. The advent of industrialization has also reduced the availability of arable land for agriculture.

However the rate of industrialization and modernization of farming to make a population food secure has been a challenge especially in Africa. This has been mainly contributed by wars, tribal clashes and bad leadership and management.

The United Nations' sustainable development goals (UN-SDGs) number two which is zero hunger is a crucial element which aims at providing food and humanitarian relief, and establishing sustainable food production. Traditional foods play important role in supporting this goal hence the need to train the youth on the same. This will equip the whole population especially in times of war or other calamities in situations where humanitarian aid or relief may not be accessible or sufficient. Besides, the traditional foods have medicinal benefits and therefore able to secure the health status of the population.

1.0 INTRODUCTION

Skills for Nuba Mountains (SNM) is a non-profit organization whose main purpose is to improve the lives of the Nubian people of South Kordofan of the republic of Sudan. SNM is endeavouring to promote skills on food security, health and nutrition, education and research as well as technology with an attempt to make the living standards better for the Nuba people.

This curriculum will enable the trainer to train the youthful population on traditional food preservation, storage and cooking methods with a view of making the community food secure. It promote the trainer knowledge and skills on how to deliver the content and facilitate community workshops on food preservation, storage and cooking methods.

The curriculum is prepare the instructors to present information effectively, respond to questions from trainees / learners, and lead activities that reinforce learning. The guide also directs the trainers to supplement resources and reference material, lead discussions and make accurate observations, maintaining eye contact, maintaining positive attitude, audible and to maintain interest and dispel confusion.

The curriculum has two main components. The first component describes the training methodology including the soft skills a trainer should have such as high motivation, excellent communication skills, dedication, commitment and integrity. The second component of the curriculum is the detailed session guide for the training traditional food preservation, storage, recipes and cooking methods.

1.1. Overview

A. Purpose of the curriculum

The main purpose for this curriculum is to train the youthful population of Nuba Mountains through presentations, workshops and other participatory activities on the traditional food preservation, storage, recipes and cooking methods.

B. Audience

The training is designed for the Nuba Mountain youths which will comprise of the following categories:

- i. Youth out of school,
- ii. Youth in the upper primary
- iii. Youth in senior or secondary school leavers

C. Learning objectives

By the end of the workshop(s), the participants should be able to:

- a) Understand the traditional types of crops grown in Nuba mountains
- b) Demonstrate how the crops were harvested and stored
- c) Appreciate the importance of preserving and storing crops and food
- d) Explore how the traditional crops grown in Nuba mountains were being preserved before storage
- e) Know the types of traditional foods in Nuba mountains
- f) State the recipes for the traditional foods
- g) Explain how the traditional foods were prepared and served

D. Curriculum

The curriculum has two main components. The first component describes the training methodology which includes the soft skills a trainer should have such as high motivation, excellent communication skills, dedication, commitment and integrity.

The second component of the curriculum is the detailed session guide for the training traditional food preservation, storage, recipes and cooking methods. This is a guide for facilitators to use to conduct the training. For each session of the workshops, the guide includes the session title, objectives, content overview with suggested format and timing for each activity within a session, as well as any advance preparation and supplies needed to carry out the session. The guide also includes notes and specific instructions to guide facilitators to carry out all activities for each of the sessions. Throughout the guide, there is reference to suggested power point slides to either introduce an exercise or explain a topic.

E. Facilitators

It is suggested that a workshop for 30 participants be conducted by at least five facilitators. The facilitators should have experience with Food Science and Technology or Nutrition and should familiarize themselves with the training material in advance.

F. Agenda

The suggested agenda for the training is 1 to 2 weeks workshop because of the practical aspect of the training. This is appended in Appendix A. This proposed agenda may also be revised as needed based on discussions with participating organizations.

G. Materials

The participants should be provided with materials needed during and post training. They may also be provided with other necessities as deemed important during the training. The handouts in Appendix B may be distributed at the appropriate session or at the beginning of the training/workshop.

H. Preparation

It is important to conduct a pre-training survey to gauge the participants' interests and needs. All activities in the workshop should be based on the results of the survey. The workshop planners and facilitators should review the material section in each session so as to determine all the materials they will need. The facilitators can review the sample Power point slides in Appendix C and either improve it or adjust it as needed per session.

2.0 PART I: TRAINING METHODOLOGY

A. The trainer

The trainer is expected to play the following important roles:

- a) Understand the training needs of the trainees
- b) Develop the outline of the course content in accordance with the requirement of the training
- c) Prepare the subject matter
- d) Understand the principles and practices of training methods
- e) Arranging the training infrastructure
- f) Conducting the training
- g) Assessing the impact of the training
- h) Taking necessary follow-up action

B. Training approach

The use of a single most effective approach or combination of approaches promotes greater synergy and interaction between trainer and trainee. This in turn creates a positive and productive learning experience. Instructional and group participation methods should be emphasized. The group participation method employs various methods such as discussions, workshops, seminars, field trips and study tours

C. Training methods¹

Delivering the training by multiple methods reduces the monotony and increases productive knowledge transfer. The recommended methods of training include the following:

- **Brainstorming**
This is a first step in initializing interest and essential involvement in training activities. The trainer facilitates the sharing of ideas and ask questions without evaluation or judgment
- **Interactive talks**
Trainers are motivated to be inquisitive and anxious to know new things by asking questions and exploring alternatives
- **Illustrative talks**
This is a lecture method supplemented by proper illustrations using training materials including audio-visual aids. This can also be coupled by success stories and case studies

¹ The community mobilizer is expected to select the combination of the training methods suitable

- ***Group discussions***
This is an effective tool in participatory learning where the trainer acts as group advisor, group facilitator and a group mentor.
- ***Panel discussion***
In this method the role of the trainer is limited to coordinating and moderating the discussion while the trainees act as catalyst agents in the learning process
- ***Role playing exercises***
This is where the trainees put into action the skills acquired in the training. The trainees are assigned role to demonstrate the skills learnt in the process of training. The trainer only acts as a guide or director in the activity.
- ***Workshops***
This is used to promote participatory learning and to make use of the skills and talents of the trainee or participants. The trainees are arranged into several groups depending on their interest and area of learning. Each group is assigned a spoke-person to coordinate the discussions and present the decisions arrived at during the discussion

D. Training design

The training design to be done in the following steps:

Context analysis

It is important for the trainer to discuss and reflect on the potential advantages and challenges in training the youth on traditional food preservation, storage and cooking methods. The trainer should ask the following questions: What are the needs of the participants and Nuba society which the training seeks to address? Why is the training recommended for the youth? How is the training related to food security and culture? Who is mandated institutionally to decide on the importance of the training?

User analysis

This analysis seeks to determine who the training is relevant to, thus is the potential participants, the level of the participants' knowledge on the core content of training, the time the participants are able to dedicate for the training and the type of expertise and competency the trainer has.

Content analysis

This analysis seeks to determine who the training is relevant to, thus is the potential participants, the level of the participants' knowledge on the core content of training the new knowledge and skills required to fill the gap as well as the indigenous resources. It also analyzes the general

learning styles of the participants and the approaches and methodologies suitable for the content and learning style of the participants

Training suitability analysis

This determines the training link of the topic under study to food security, whom to share the curriculum with for feedback, cost benefit analysis and the budget provision and limitations.

E. Expected benefit of the training program

The training activities were designed and developed to meet the following objectives:

- a) To equip the youth of Nuba mountains with the traditional skills of food storage, preservation, recipes and cooking methods
- b) To know the traditional crops grown in Nuba mountains
- c) To know the traditional types of storage used to store crops in Nuba mountains
- d) To know the types of preservatives used to preserve crops in the stores
- e) To familiarize the youth of Nuba mountains with the traditional their traditional foods and meals
- f) To develop recipes on traditional foods of Nuba mountains
- g) To be cognizance of Nuba traditional cooking methods

F. Post training reinforcement

The post-training reinforcement of interest and competencies in the training is essential in sustaining the benefits of the training. This is achieved through frequent visits of the place of training to assess the training skills, organizing formal groups with participants, holding regional meetings and experience-sharing workshops as well as continuous feedback through regular correspondence and questionnaires.

G. Follow-up

There should be a feasible plan of action to ensure meaningful follow up of training through visits and mentorship.

3.0 PART II: TRAINING SESSIONS AND GUIDE

3.1. SESSION 1: INTRODUCTION

Objectives

- Provide an overview of the 2 week workshop
- Introduce participants
- Define the overall workshop objectives
- Establish norms and expectations

Overview

Topic	Format	Timing
Workshop overview	Plenary presentation	15 minutes
Brief introduction	Plenary presentation	15 minutes
Overall objective	Plenary presentation	15 minutes
Norms and expectations	Plenary presentation	15 minutes
Total time		60 minutes

Materials

Prepare in advance

1. Copies of handouts
2. Power point slides

Supplies

1. Flip charts and markers
2. LCD projector
3. PA system if necessary

Facilitators notes for session 1

The goal of the workshop is to train the youth of Nuba Mountains through presentations, workshops and other participatory activities on the traditional food preservation, storage, recipes and cooking methods. Participants are expected to attend the entire workshop, to present the sessions and to provide guidance for the participants.

1. Workshop Overview

A suggested 2-weeks schedule for the workshop is presented in the Appendix A and in the slides in appendix C. You may adapt the schedule as needed and provide this outline to the participants.

2. Brief introduction

Go around the room and ask participants to provide brief introductions about themselves. The participants can respond to the questions presented on the slide.

- i. What are your names?
- ii. Where are you from? (County, Payam, Boma)
- iii. What are you happy about and what are you not happy about in our current situation?
- iv. What are your expectations for this workshop?

3. Overall objectives

The overall objectives are shown in the slide. Explain that by the end of the training or workshop, the participant will have increased awareness on:

- a. the traditional skills of food storage, preservation, recipes and cooking methods of Nuba mountains with
- b. the traditional crops grown in Nuba mountains
- c. the traditional types of storage used to store crops in Nuba mountains
- d. the types of preservatives used to preserve crops in the stores
- e. To familiarize the youth of Nuba mountains with the traditional their traditional foods and meals
- f. To develop recipes on traditional foods of Nuba mountains
- g. To be cognizance of Nuba traditional cooking methods

Distribute the checklist and handouts to the participants. Explain that this checklist can be used as a resource throughout the workshop and for developing action plans. Encourage participants to thoughtfully complete the checklist and explain that it will help them during the duration of training. Explain that it will be used on Day 2, and you need to tally the results in advance.

Norms and expectations: Lead a quick exercise with participants to make sure that there is agreement on some of the basic rules to help the workshop run smoothly

(Suggested) Instructions for Expectations

1. Post the following (pre-written) information on three flip charts.
2. Ask participants if they agree with these expectations and allow them to add theirs. Record their additions on the flip charts.

The facilitator is expected to:

- Start and end on time
- Engage participants in variety of different participatory activities and provide time with colleagues and reflect on ways to improve current programming
- Use daily feedback to make necessary adjustments

The participants are expected to:

- Come on time, Participate actively and ask questions and Do assignment given

3.2. SESSION 2: CROPS GROWN IN NUBA MOUNTAINS

Objectives:

- Identify the types of food crops grown in Nuba Mountains
- List the food crops grown in Nuba Mountains
- Explain the conditions for growth of the food crops
- Know how to harvest the food crops grown in Nuba Mountains

Overview

Topic	Format	Timing
Food crops grown Nuba mountain	Plenary presentation	20 minutes
Listing of food crops	Group exercise	20 minutes
Growth of food crops	Plenary presentation	45 minutes
Harvesting of food crops	Group discussions	45 minutes
Post-harvest handling	Group discussion	30 minutes
Develop an action plan	Plenary discussion	120 minutes
Total time		280 minutes

Materials

Prepare in advance

1. Copies of handouts
2. Power point slides

Supplies

1. Flip charts and markers
2. LCD projector
3. PA system if necessary

Facilitators notes for session 2

Food crops grown in Nuba Mountains

Facilitators should use their background knowledge and information provided in the handouts and slides to identify traditional food crops grown in Nuba mountains.

Note: Major traditional food crops identified in Nuba mountains include: Sorghum (*dura, mele, maju*), maize (*sheriff, magimas, majemasi*), croundnuts (*thuthkubu, ful*), pumpkin (*nyakuru*), beans (*madi*), sesame (*mamari*), soyabeans (*dhuthkumadi*), cucumber (*tibish, ajur*), sweet potato (*bombe*),

cassava (*bafra*), hibiscus (*karkadei, koko*), sorghum, (*maju*), millet(*dhoon, dukon*), egyptian beantomato (*ori*), okra (*thesis*), calabsh (*when younh*), baobab leaves, mango, lemon (*lemo*), watermelon (*tingiti*).

Conditions for growth of food crops in Nuba Mountains

Nuba mountains and South Kordofan has two main seasons thus is the warm/wet and hot/dry seasons. Therefore the climatic conditions only favour growth of crops once in a year during the wet season which run between June and December.

Traditionally, seed for planting were prepared in advance to be available during the wet season for planting. Most of the crops including wild fruits and vegetables were only available during the wet season therefore they had to harvested or acquired and preserved in stores for r use throughout the seasons.

Facilitators may use their background information on climatic conditions of Nuba Mountains or review the information in the handouts to guide the participants.

Harvesting of traditional food crops in Nuba Mountains

The facilitator to actively engage the participants in discussion of harvesting of traditional food crops in Nuba Mountains. The facilitator and participants should review the handout and slides for discussion of traditional harvesting methods and preparation of the harvested crops for storage.

Harvesting of traditional food crops was well organized and facilitated activity among the Nuba people. Because the activity was cumbersome and time consuming, members of the community would work as a unit. Simple tools were used in harvesting the sorghum although much of the harvesting was by hand.

Post-harvest handling of traditional food crops

The participants should work in small groups under guidance of a facilitator to discuss post-harvest handling of crops. The appended handout can guide the discussion on the same item.

- i. Post-harvest handling is the stage that follows immediately after harvesting of the crops and it involves cleaning, sorting and grading, packaging, disinfection or treatment, packing, and temperature regulation.
- ii. Post-harvest handling helps in maintain food quality, reduction of loss between harvest and consumption as well as food safety.

Action plan

At the conclusion of the session, the participants should be able to develop an action plan for newly introduced food crops, condition for their growth and mode of harvesting, preparation and storage.

The action plan should have the following sections:

- Newly introduced crops in Nuba mountains
- Conditions for growth of the newly introduced crops in Nuba mountains
- Harvesting of newly introduced crops
- Post-harvest handling of the new crops
- Importance of the new crops in relation to food security

3.3. **SESSION 3: TRADITIONAL FOOD STORAGE**

Objectives:

- Define store/storage
- Outline the importance of food crop storage/store
- Explain types of storage methods used in Nuba mountains
- Illustrate the construction of traditional food crop stores used in Nuba mountains
- Develop an action plan on improvement of traditional stores to make them more efficient and effective

Overview

Topic	Format	Timing
Definition of food store	Plenary presentation	15 minutes
Importance of food crop store	Group exercise	45 minutes
Types of traditional food stores used in Nuba mountains	Group exercise	60 minutes
Construction of traditional food stores	Group discussions	300 minutes
Develop action plan	Plenary discussion	120 minutes
Total time		540 minutes

Materials

Prepare in advance

1. Copies of handouts
2. power point slides
3. Materials for construction of traditional stores as indicated in the handout/manual

Supplies

1. Flip charts and markers
2. LCD projector
3. PA system if necessary

Facilitators notes for session 3

Definition of food store/storage

Facilitators should use their background knowledge and information provided in the handouts and slides to define food storage. The definition should be very clear to bring out the difference between food storage and food preservation.

Note: Food storage is defined as the act of keeping the food (both cooked or raw) in a suitable and safe conditions or facilities for future use.

Importance of food store/storage

Participants to work in small groups with assistance of the facilitators for 20 minutes to discuss the importance of food storage. The facilitator should explain to the participants that they should review the handout and slides for the same. Food storage is important for the following reasons:

- Prevents food spoilage
- Prevents loss of nutrients
- Economical
- Economic crisis
- Convenience
- For emergencies
- Natural and man & man-made disasters
- Health benefits

Traditional food stores in Nuba mountains

Participants to work in small groups to discuss the traditional types of food crop stores found in Nuba mountains. Through the assistance of their facilitator, the participants should be in a position to illustrate the features of all given traditional stores. The operation of each traditional food storage facility should be clearly explained. The facilitator should explain to the participants that they should review the handout and slides for information on traditional food stores.

Major traditional food stores in Nuba Mountains

- Traditional granary (*sweba/sibeba, ndala, thale, thesemo*)
- Pots (*bulma, sala*) - For storing crops such as groundnuts, sesame
- Gourds (*boksa, thegwete*)
- Racks/Sheds (*roguba, sala*) - temporary store to allow drying before transferring to ndala or thela

Constructional of traditional food stores

This is a practical activity which will require more than 5 hours with allowance of time to enable drying process for some of the suggested stores. The participants are required to work in groups through the assistance of a group facilitator. Illustrations and guidance on construction of traditional stores are outlined in the handouts and slides appended in this curriculum. The participants should review for the same. All materials and tools for construction or moulding should be availed to the participants.

Action plan

At the conclusion of the session, the participants should be able to develop an action plan for strategic improvement of the traditional stores in Nuba mountains.

The action plan should have the following sections:

- Current status of traditional stores in relation to food security
- Desired status for the traditional stores
- Proposed changes to improve traditional food stores
- Action steps for implementing suggested improvement
- Communication strategy for improvement of traditional stores
- Monitoring strategy
- Performance indicator
- Timelines

3.4. SESSION 4: FOOD PRESERVATION TECHNIQUES IN NUBA MOUNTAINS

Objectives:

- Define food preservation
- Outline the role and importance of food preservation
- Explain techniques and methods of traditional food preservation
- Explain principles of traditional food preservation
- Develop an action plan on improved simple techniques and principles in food preservation

Overview

Topic	Format	Timing
Definition of food preservation	Plenary presentation	15 minutes
Importance & role of food preservation	Group exercise	25 minutes
Techniques and methods of food preservation	Plenary presentation	120 minutes
Principles of food preservation	Group discussions	180 minutes
Action plan on devised and improved techniques of food preservation	Plenary presentation	120 minutes
Total time		450 minutes

Materials

Prepare in advance

1. Copies of handouts
2. Power-point slides
3. Samples of traditional food preservatives

Supplies

1. Flip charts and markers
2. LCD projector
3. PA system if necessary

Facilitators notes for session 4

Definition of food preservation

Facilitators should use their background knowledge and information provided in the handouts and slides to define food preservation and preservatives. The definition should be very clear to bring out the difference between it and food storage since both terms are synonyms on importance.

Note: Food preservation is defined as a science that deals with the process of preventing food spoilage or decay to make it fit for storage for future use.

Importance & role of food preservation

Participants to organize small discussion groups with help of a facilitator then exhaustively outline the role and importance of food preservation. The participants should review the handout and slides for the discussion.

Role of food preservatives in food preservation:

- Extend shelf life of food for storage
- Decrease hazards from microbial pathogens
- Decrease spoilage of food (both microbial and enzymatic activities)
- Ensure availability of seasonal foods
- Food safety
- Prevents wastage of surplus
- Optimizes storage of various foods
- Maintains food quality

Techniques and methods of traditional food preservation

The facilitator should use background information on food preservation. The facilitator can also review the handout, power-point slides and food technology texts.

- Chemical techniques (salting, fermentation, use of ash, special tree leaves). Special tree leaves (dhular tree leaves, kullang, biling, bulinyi -used to preserve cereals. Ash placed in gourds and pots to preserve cereals. Fermentation e.g of milk in gourds and pots
- Physical techniques (drying, smoking, boiling). Drying e.g crops, meat cut into slices then dried in sun or hang over the fire in the kitchen. Smoking of meat by hanging over fire to kill germs. Boiling of fresh cereals before drying them for future use as well as to maintain freshness. Total closure of door with clay to prevent entry of pests

Principles of Food Preservation

Participants are required to work in groups through assistance of facilitators. By reviewing the handouts and slides, the participants should discuss principles applied in preserving traditional food crops.

Note: Principles of food preservation:

- Delay of microbial decomposition
- Temperature regulation (use of low and high temperature)
- Inactivation of food enzymes
- Anti-oxidation

Action plan on devised and improved techniques of food preservation

At the end of this session, each participant is expected to develop an action plan on how to merge or improve the traditional techniques of food preservation. This may require use of simple techniques such as:

- Blanching
- Hurdle technology
- Salting
- Sugaring
- Pasteurization of milk and fruits juices
- Pickling

3.5. SESSION 5: TRADITIONAL FOOD RECIPES IN NUBA MOUNTAINS

Objectives:

- Define food recipe
- Identify common foods in Nuba Mountains
- Explain cooking methods used in Nuba Mountains
- Production of traditional foods in Nuba mountain (Practice)
- Develop an action plan for improved methods of cooking traditional food

Overview

Topic	Format	Timing
Definition	Plenary presentation	15 minutes
Common foods in Nuba mountain	Group exercise	20 minutes
Cooking methods traditionally used	Group discussion Practice	300 minutes
Action plan for improved methods for preparing traditional food	Group discussions	120 minutes
Total time		450 minutes

Materials

Prepare in advance

1. Copies of handouts
2. Power-point slides
3. Recipes for sampled staple traditional foods and beverages
4. Cooking stoves/source of fire/cooker
5. Cooking utensils (traditional), tools and equipment

Supplies

1. Flip charts and markers
2. LCD projector
3. PA system if necessary

Facilitator's notes for session

Definition of terms

Facilitators should use their background knowledge and information provided in the handouts and slides to define recipe and cooking (food preparation).

Note: Recipe is defined as a set of instructions for preparing a particular dish, including a list of the ingredients required

Common foods in Nuba Mountains

Participants are required to work in groups through assistance of facilitators. By reviewing the handouts and slides, the participants should identify common traditional foods in Nuba mountains.

List of common foods in Nuba mountains

Asida/posho (different types), *belia* (different types), sauces (*okra, tamarind soup, ner, nakuru, doho, lalop leaves, laluba vegetables, moleta*), *medida, merisa, fruit juices (tamarind, hibiscus, kerkete, kongoles/baobab)*, fermented milk.

Cooking techniques/methods in Nuba Mountain

- Boiling
- Steaming
- Roasting

Action plan for improved methods for preparing traditional food

3.6. SESSION 6: ACTION PLAN PRESENTATIONS

Objectives:

- Discuss the lessons learned in the workshop
- Allow participants to share the action plan they have been developing throughout the workshop
- Discuss the emerging issues in food preservation, storage and cooking methods in relation to food security

Overview

Topic	Format	Timing
Knowledge acquired from the workshop	Plenary presentation	20 minutes
Action plan presentation	Plenary presentation	240 minutes
Emerging issues in food security	Plenary presentation	120 minutes
Wrap-up evaluation	Plenary presentation	60 minutes
Total time		420 minutes

Supplies

1. Flip charts and markers
2. LCD projector
3. PA system if necessary
4. power point

Facilitators notes for session 6

The participants to present the action plan they have been developing throughout the training workshop. Allow participants to share ideas and to provide feedback on one another's plan of action.

APPENDICES

APPENDIX A: SAMPLE SCHEDULE FOR TRAINING WORKSHOP

WEEK 1		
DAY	ACTIVITY	TIME
1		
2		
3		
4		
5		

WEEK 2		
DAY	ACTIVITY	TIME
1		
2		
3		
4		
5		

APPENDIX B:

**FOOD PROCESSING AND PRESERVATION MANUAL ON TRADITIONAL FOODS
OF NUBA MOUNTAIN (HANDOUT)**

(Training manual is attached as separate document)

APPENDIX C: RECIPES OF COMMON FOODS IN NUBA MOUNTAIN

ASIDA (POSHO BREAD)

1. Unfermented asida

Preparation:

- ✓ Place a pot with water on fire to boil
- ✓ Introduce the sorghum flour into the boiling water
- ✓ Mix and turn for 15 minutes to cook
- ✓ Scoop into a calabash

Ingredients:

- *Sorghum flour*
- *Water*

2. Fermented asida from sorghum

Preparation:

- ✓ Ferment sorghum flour in a pot or gourd for a day
- ✓ Boil water in a pot then add the fermented sorghum flour (ensure the water is not too much)
- ✓ Mix and turn with cooking stick till it cooks well
- ✓ Confirm if ready by dipping a finger. If not sticky, the asida is ready
Or can be sure by ensuring that the water for cooking asida has completely boiled before placing the flour

Ingredients:

- *Fermented sorghum flour*
- *Water*

3. Lalop asida

Preparation:

- ✓ Obtain lalop fruit then remove the cover and place in water for 1 hour

- ✓ Squeeze the fruit to get the juice and remove the seed
- ✓ Take the juice/fruit and put in water
- ✓ When boiling, add paste and allow to boil again
- ✓ Add the sorghum flour while turning till it forms the asida. It must produce oil to confirm it is ready.
- ✓ Scoop and serve in calabash

Ingredients:

- *Lalop fruit*
- *Water*
- *Sorghum flour*
- *Groundnut or sesame paste*

4. Groundnut (ful) asida

Preparation:

- ✓ Boil cowpea to cook (may or may not be used)
- ✓ Add sorghum or maize flour and mix/turn till fully cooked
- ✓ Add groundnut or sesame paste then mix and turn till oil forms
- ✓ Scoop and serve in calabash and allow to cool. Ready for eating

Ingredients:

- *Cowpea*
- *Sorghum or maize flour*
- *Groundnut or sesame*

5. Pumpkin Asida

Preparation

- ✓ Boil pumpkin for around 1 hr.
- ✓ Add sesame/groundnut paste and mix (dagwa) (2 minutes)

- ✓ Add sorghum flour as you stir to mix very well.
- ✓ Keep turning to ensure proper cooking of the asida (10 Minutes)
- ✓ You can now serve to the traditional plates

Ingredients:

- *Pumpkin*
- *Sesame or groundnut powder*
- *Sorghum flour*

6. Kudhokudho

Preparation

- ✓ Boil cowpeas for around 30 minutes
- ✓ Add sorghum flour then mix till very well mixed
- ✓ Cook as you keep turning/stirring for the flour to completely mix with this cowpeas until the water dries.
- ✓ Cook for 10 minutes as you keep turning for even cooking
- ✓ Add grounded sesame or groundnut (optional)
- ✓ Now your ugali is ready

Ingredients:

- *Cowpea*
- *Sorghum flour*
- *Water*
- *Groundnut or sesame paste (optional)*

7. Kisra

Preparation:

- ✓ Add water to sorghum flour and stir
- ✓ Allow to ferment overnight
- ✓ Take some of the fermented flour to make porridge

- ✓ Add porridge to the fermented sorghum flour
- ✓ Cook/fry on pan with little oil

Ingredients:

- *Fermented sorghum flour*
- *Fermented cooked porridge (medida)*
- *Oil*
- *water*

BEVERAGES AND DRINKS

8. Fermented milk

Preparation

- ✓ This is used together with asida
- ✓ Only men can pour the milk into the asida
- ✓ Preparation:
- ✓ Pour fresh milk into a gourd then close tightly and allow to ferment for 3 days
- ✓ The milk can last up to 10 years
- ✓ Other product from fermented milk is ghee. The ghee is obtained by pounding the fermented milk till fat forms

Ingredients:

Whole fresh milk

9. Tamarind juice

Preparation

- ✓ Soak the tamarind fruits in clean water
- ✓ Stir and remove the waste materials
- ✓ Sieve to obtain the tamarind juice, you may improve taste by addition of sugar

Ingredients:

- *Tamarind fruit*
- *Water*

10. Hibiscus juice

Preparation

- ✓ Obtain dried hibiscus flowers
- ✓ Soak in water and filter to obtain the juice
- ✓ You may improve taste by adding sugar

Ingredients:

- *Dried hibiscus flower*
- *Water*

11. Merisa (traditional wine)

Preparation

- ✓ Take about a quarter of sorghum flour and soak in water for a day
- ✓ Remove water from the sorghum
- ✓ Take some sorghum seed and allow for three days to germinate
- ✓ Remove and dry the germinated seeds after roots have appeared then grind to form flour
- ✓ Take about 6kg of dura (sorghum), then grind and divide into two parts
- ✓ Ferment one part for a day and cook asida from it
- ✓ Take the cooked asida and mix with water properly to form porridge
- ✓ Add half of the germinated sorghum flour (to act as yeast) and allow to ferment for a day
- ✓ After one day, cook asida from the unfermented dura (sorghum) flour then mix this asida with water together with the germinated sorghum flour

- ✓ Finally mix this with the first one and keep for a day then sieve.
- ✓ Add water to the desired thickness. The wine is ready for use.

Ingredients:

- *Sorghum*
- *Water*
- *Germinated sorghum seeds*
- *Germinated sorghum flour*

12. Sweet merisa

Preparation:

- ✓ Take sorghum flour depending on the quantity required
- ✓ Mix with water and put in a pot
- ✓ Leave for 2-6 day to ferment
- ✓ Cook it in open pan till it becomes powdery in form
- ✓ Remove then allow to cool, and mix with water then add germinated sorghum flour in ration of 5:1
- ✓ Leave for 1-2 days to ferment. Ready for use but can be left even for many days

Ingredients:

- *Sorghum flour*
- *Germinated sorghum flour*
- *Water*

13. Medida (porridge from millet)

Preparation:

- ✓ Obtain millet flour
- ✓ Boil water with little salt, add groundnut paste and stir till it boils
- ✓ Add the millet flour and continue to stir till it cooks

Ingredients:

- *Millet or sorghum flour*
- *Water*
- *Groundnut paste*

14. Medida (porridge from milk)

Preparation

- ✓ Boil fresh milk then add little salt and sugar
- ✓ Add sorghum flour, stir and allow to boil to fully cook

Ingredients:

- *Fresh milk*
- *Salt*
- *Sugar*
- *Sorghum flour*

15. Suruj

Preparation

- ✓ Add water into sorghum flour then mix
- ✓ Place in a pot on fire and stir as it cooks
- ✓ After forming a gel add sesame or sorghum paste and sugar. You may dry for future use
- ✓ It can be stored in gourd or pot or skin bag

Ingredients:

- *Sorghum flour*
- *Water*
- *Groundnut or sesame paste*
- *Sugar*

SAUCES AND SOUPS

16. Meat sauce

Preparation:

- ✓ Boil water in pot with onions
- ✓ Obtain and wash the meat then place the meat into the pot
- ✓ Let it boil till soft then add dry okra and leave for 15 minutes. You may cover the pot with the top layer of asida. The sauce is ready for eating

Ingredients:

- *Water*
- *Fresh meat*
- *Onion*
- *Dry okra*
- *Salt*

17. Tamarind soup

Preparation:

- ✓ Place clean tamarind in water then squeeze to obtain the juice
- ✓ Add cut onions into the juice and boil in pot for 15 minutes
- ✓ Place salt and okra to improve taste and flavor as well to thicken the sauce
- ✓ The soup is ready for eating

Ingredients:

- *Tamarind fruit*
- *Water*
- *Dry okra*
- *Salt*

18. Ner sauce (barnuk sauce)

Preparation:

- ✓ Obtain moldy sorghum tassle then place in water to obtain the black mould
- ✓ Pound luba (cowpea) and remove the hard cover then wash to remove any dust

- ✓ Add ash water to soften the luba
- ✓ Place the luba in the moldy sorghum water
- ✓ Add clean cut onions into the mixture and boil to cook
- ✓ Confirm to check if ready for eating

Ingredients:

- *Mouldy sorghum tassle*
- *Pounded cowpea*
- *Water*
- *Onions*

19. Nakuru

Preparation:

- ✓ Obtain dry pumpkin, cut and wash
- ✓ Then place in water to soften
- ✓ Obtain cowpea, wash, boil to cook (should be half cooked)
- ✓ Place the pumpkin into the half cook cowpea then boil for an hour
- ✓ Add groundnuts paste and mix well
- ✓ Scoop for serving

Ingredients:

- *Pumpkin fruit*
- *Water*
- *Cowpea*
- *Groundnut paste*

20. Doho (kawal)

Preparation:

- ✓ Obtain doho leaves, cut and wash

- ✓ Boil in water and allow to cook for 2 hours
- ✓ Obtain tamarind (ardhep) then dissolve in water then to the doho leaves and cook for 1 hour till dry
- ✓ Cool, ready to eat

Ingredients:

- *Doho leaves*
- *Water*
- *Tamarind*

21. Haar paste

Preparation;

- ✓ Grind roasted groundnuts together with fried sesame
- ✓ Mix well and grind again till it forms a paste
- ✓ Boil little water and add the paste and cook till oil forms
- ✓ Ready for use

Ingredients:

- *Roasted groundnuts*
- *Roasted sesame*
- *Water*

22. Lalop leaves (dhums)

Preparation:

- ✓ Obtain young soft leaves of lalop tree
- ✓ Clean and boil for an hour
- ✓ It can then be eaten with belila or asida
- ✓ The taste can be improved with groundnut paste and salt

Ingredients:

- *Young Lalop leaves*
- *Water*
- *Groundnut paste*

23. Laluba leaves as food

Preparation

- ✓ Get green fresh laluba leaves
- ✓ Wash and clean the leaves then add groundnut or sesame paste for taste
- ✓ You may also cook with sorghum

Ingredients:

- *Fresh laluba leaves*
- *Groundnut or sesame paste*

24. Gizzard sauce

Preparation:

- ✓ Obtain chicken gizzard from freshly killed bird
- ✓ Boil water in a pot then add okra
- ✓ Crush the gizzard with all its contents and add into the pot with okra then cook till ready. Add paste for taste
- ✓ Ready for eating

Ingredients:

- *Hen gizzard*
- *Water*
- *Okra*
- *Groundnut paste*

25. Sauce from ore vegetables

Preparation:

- ✓ Obtain ore fresh vegetables/leaves

- ✓ Wash and place in a pot with clean water to boil till water is finished
- ✓ Prepare ardhep (tamarind fruit) juice and add to the cooked ore leaves
- ✓ Leave for few minutes to absorb tamarind water
- ✓ The sauce is ready for eating

Ingredients:

- *Ore vegetable leaves*
- *Tamarind fruit*
- *Water*

26. Beans sauce

Preparation:

- ✓ Obtain clean beans
- ✓ Pound before boiling and remove the cover by blowing in the air
- ✓ Wash then place into a pot with clean little water.
- ✓ Obtain ash water to soften the for few minutes then boil to cook
- ✓ Obtain okra and mix with beans cook
- ✓ Add salt and paste for taste

Ingredients:

- *Beans*
- *Okra*
- *Salt*
- *Groundnut paste*

27. Pig meat sauce

Preparation

- ✓ Boil the pig meat, you may add ash to tenderize and take away the smell

- ✓ Fry or roast as desired
- ✓ Nb. Pig meat was very important in marriage

Ingredients:

- *Fresh pig meat*
- *Salt*

28. Okra sauce (*Munuru*)

Preparation:

- ✓ Harvested okra seeds
- ✓ Dry them in the direct sun light
- ✓ Grind them to make okra powder
- ✓ Put on water for sometimes (12 hours) to dissolve some special taste
- ✓ Boil again and okra powder for thickening the soup

Ingredients:

Okra seeds

29. Moleta leaves sauce

Preparation:

- ✓ Collect the leaves and wash
- ✓ Prepare groundnut paste until it produces oil
- ✓ Add the leaves then cook for a while

Ingredients:

Moleta leaves

Groundnut paste

Kaunyi sauce (cowpeas leaves with sesame/groundnut paste)

Preparation

- ✓ Cowpeas leaves were boiled and dried to the sun for some times
- ✓ Mix dried cowpeas leaves with sesame paste very well
- ✓ Cook for some time 5 minutes or less

Ingredients:

Dried cowpea leaves
Sesame or groundnut paste
Salt

Moleta leaves sauce

Preparation

- ✓ Collect moleta leaves and wash
- ✓ Prepare groundnut paste until it produces oil
- ✓ Add the leaves then cook for a while

Ingredients:

- ✓ *Moleta leaves*
- ✓ *Groundnut paste*
- ✓ *Salt*

FULL COMPLETE FOOD

Belila

30. Sheriff (maize) belila

Preparation:

- ✓ Boil maize in a pot till half cooked
- ✓ Add clean beans or cowpea then continue to boil till cooked
- ✓ Add groundnuts paste for flavor and taste
- ✓ Scoop for serving. In serving elderly men, place the groundnut paste first into the calabash then put the belila

Ingredients:

- *Maize*
- *Cowpea or beans*
- *Groundnut paste*

31. Gaunyo (Pumpkin belila)

Preparation

- ✓ Sorghum and cowpeas are cooked together for 30 minutes
- ✓ Then add fresh peeled pumpkin cut into small pieces
- ✓ Cook for two hours for the pumpkin to soften
- ✓ Add salt
- ✓ Wait for a few minutes and the food is now ready to take

Ingredients:

- *Sorghum*
- *Cowpea*
- *Pumpkin*
- *Salt*

32. Sorghum Belila

Preparation:

- ✓ Put water in the pot and place on fire to boil
- ✓ Clean the sorghum and add to the boiling water to boil for some time
- ✓ Add cleaned cowpea and cover well
- ✓ Cook for a while to get ready
- ✓ Add groundnut paste and mix very well
- ✓ Ready to serve to the family

Ingredients:

- *Sorghum*
- *Cowpea*
- *Water*
- *Groundnut paste*

Step by step on how to store on sweba.

1. Put fresh neem/kullang leaves at the sweba floor
2. Put sorghum till its half way
3. Put another level of neem/kullang fresh leaves
4. Fill your sweba with sorghum
5. Put the last layer of kullang fresh leaves
6. Cover your sweba with mad completely

Traditional Juices

- Tamarind juice
- Congolese (Baobab fruit) juice
- Kerkede Juice
- Karuf fruit juice

Other traditional food

Afe root

Preparation:

This is a poisonous root obtained from the forest

Preparation:

- ✓ The roots are placed in water for a day to remove poison (care is taken to avoid children coming into contact with the roots)
- ✓ Clean, peeled and cut into slices then placed in water again to soak consecutively for 3 days to remove poison
- ✓ The roots are then removed and dried in the sun. then can then be eaten or cooked together with belila, or asida or eaten with the groundnut paste

Ingredients:

- *Afe root*
- *Groundnut paste*