Pastoralist Field Schools
TRAINING OF FACILITATORS MANUAL

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Contents

Preface

The Pastoralist Field School (PFS) approach is an adaptation of the innovative, participatory and interactive learning approach; Farmer Field Schools (FFS). The FFS approach was developed by the Food and Agriculture Organisation of the United Nations (FAO) in South East Asia in 1989. It emerged as a way for small-scale rice farmers to investigate and learn for themselves the required skills for adopting Integrated Pest Management (IPM) practices in their paddy fields. The approach proved to be very successful and was quickly expanded to other countries in Asia, Africa, the Middle East and Latin America. In 1995, the FFS program began to broaden its scope beyond IPM to cover other types of agricultural production and incorporate various socio-ecological conditions.

While PFS activities continue in Kenya and Uganda the concept is now, as of 2012, widely applied also in Ethiopia, South Sudan and Djibouti as well as some West African countries.

In 2001, the International Livestock Research Institute (ILRI), with the support of FAO and the UK's Department for International Development (DFID), adapted the FFS methodology to livestock production systems in Kenya. ILRI worked with both smallholder dairy and extensive mixed farming systems in Kenya to develop and adapt FFS facilitation tools that formed the basis for the manual Livestock Farmer Field Schools – Guidelines for Facilitation and Technical Manual (FTM), published in 2006, the first manual of its kind for application of FFS in large livestock enterprises.

In 2006 ILRI, together with Vétérinaires Sans Frontières Belgium (VSF-B), embarked on piloting the adaptation of the FFS approach to the pastoralist situation in Arid, Semi Arid and conflict prone areas of Northern Kenya. The Pastoralist Field School (PFS) concept has caught the attention of development agencies in the Horn of Africa working in Uganda, Kenya, Ethiopia and South Sudan, and other places. Innovative aspects of the PFS approach include dealing with herds of livestock in extensive systems, mobile nomadic applications, addressing pasture and range management aspects on landscape level, dealing with Disaster Risk Reduction (DRR), incorporating more strongly conflict management and adapting tools for highly illiterate target groups.

Through a collaborative effort between FAO and VSF-Belgium under the Drought Preparedness Program funded by the European Commission's Humanitarian Aid Office (ECHO), the PFS approach was initially scaled up in the Horn of Africa. Later on the European Commission (EC) and the Swiss Agency for Development and Cooperation (SDC) were instrumental in expanding the initial PFS work in terms of both geographical scope and content. In Uganda, the approach has been mainstreamed among a large range of actors operating in the north of the country through Agropastoral Field Schools (APFS)[1] that blend cropping and livestock content.

Based on the original ILRI manual, a PFS facilitation guide was developed in 2009 as a guideline for PFS practitioners, inspired through

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1   For simplicity the term PFS is used consistently in this manual, however recognizing that this also encompass APFS as applied in Uganda and that the two variations in the approach have jointly generated and share much of the generic tools and processes described in this manual.

a series of field activities in Northern Kenya and Uganda. While PFS activities continue in Kenya and Uganda, the concept is now, as of 2012, also widely applied in Ethiopia, South Sudan and Djibouti as well as some West African countries. In order to respond to the increase in demand for Master Trainers in the PFS approach, FAO undertook in 2011 two 3-months long Master Trainer courses held in Ethiopia and Kenya to build capacity of NGOs, development actors and government officials on the approach. These courses led to a wealth of new PFS facilitation materials being generated that following a Writeshop event in 2012 led to the development of this Training of Facilitators manual.

It is our hope that this manual will assist the PFS and APFS community in expanding the approach in a harmonised manner with attention to quality and mainstreaming of generic tools and processes while still ensuring flexibility based on local contexts. It is hoped that the successful implementation of PFS will provide useful lessons on integrating emergency relief and sustainable development, and in empowering communities for drought preparedness and mitigation to reduce livelihood and livestock vulnerabilities.

About this Manual

This PFS training Manual is designed for use by Master Trainers (MTs) during the training of facilitators course. Each lesson/topic is complete in itself detailing the preparations to be made, the materials to be kept handy, the core message to be communicated, and the methods that can be used in communicating the messages. A few sessions may require the presence of a technical person as co-facilitator, but the rest can be handled by any person who has been trained as a PFS Master Trainer.

Organisation of the Manual

The topics and lessons in this manual are planned in two sections: an introductory section called Getting Started and the other Modules. The latter section is divided in four Modules:

Module 1: This module is specific to PFS methodology and its implementation.

Module 2: This module focuses on participative learning and facilitation.

Module 3: This Module looks at team building, group management and leadership.

Module 4: This module focuses on technical topics relevant to pastoral areas.

At the end of the four modules is a draft PFS TOF programme that can be adapted to specific training situations.

Design of the Modules

Each module consists of various topics. The topics are designed in a similar format starting with the topic background, followed by topic objectives, topic overview, method of facilitation, time, materials required, available handout and additional references if any. It then proceeds to the various learning activities. At the end of the learning activities there is a handout section.

The format used in each of the training topics is explained as follows:

(a) The **background** states the overall message that the topic intends to convey.

(b) The **learning objectives** state what participants should be able to explain or demonstrate by the end of the training topic.

(c) The **topic overview** describes the content of what the trainer intends to communicate to the participants on the given topic. Content may also include a message. At times the content also mentions the games, the exercises to be conducted or stories to be told during the session.

(d) The **method of facilitation** describes the methodology used to communicate the content.

(e) The preparations of **time and training materials** required by the topic facilitator are detailed.

(f) The **learning activities** describe the step-by-step way to conduct the session.

This manual should be used alongside other materials such as:

(i) PFS Guidelines for facilitation.

(ii) The Simplified PFS facilitator guide.

(iii) PFS Master Trainer resource materials.

(iv) PFS operational guidelines and standards.

(v) PFS Experimentation options manual.

Organisation of the Training of Facilitators Training Course

Introduction

The training of facilitators (ToF) course is an important step in the establishment of the PFS as it ensures that those involved in PFS start-up and management have acquired the right mind set (attitude change) to deal with the challenges and demands of the approach. The main objectives of the training of facilitators course include:

- Understanding the basic principles of the PFS approach.
- Developing facilitation skills.
- Understanding the core activities of PFS.
- Developing the skills how to establish and run a PFS group.
- Acquiring a general understanding of how to incorporate technical issues in PFS.
- Knowing how to develop action plan for implementation of PFS.

Duration

This manual has been adapted and designed for ToF course of 22 actual training days. The course can be conducted either continuously as one phase or divided into two phases (Phase 1: 12 days and Phase 2: 10 days). Daily sessions are programmed at 7 hours per day, with starting time and ending time dependent on local situation.

Participants

> …majority of the participants of the TOF should be those that will serve as the actual PFS facilitators charged with the day-to-day responsibility of facilitating group learning sessions

It is recommended to have a minimum of 15 and a maximum of 30 participants for each ToF training course in order to ensure maximum participation in practical activities. Majority of the participants of the ToF should be those that will serve as the actual PFS facilitators charged with the day-to-day responsibility of facilitating group learning sessions.

Suitable facilitators are those that reside in the local community, speak the local language, have some level of advanced skills in agriculture/livestock and have a dynamic and confident personality. Ideally the ToF should also be attended by a few extension supervisors/coordinators/managers of the project that will oversee the field implementation and support the trained facilitators.

It is important to note that this is a Training of Facilitators' course, as opposed to a Master Trainers Course (MTC). That is, the facilitators are trained for the day-to-day running and facilitation of learning sessions with PFS groups. However, the ToF will not qualify them to run subsequent ToF for other staff. This is because a season-long MTC is required to run a Training of Facilitators.

Trainers

A minimum of two Master Trainers on PFS/FFS methodology are recommended to conduct the ToF on a daily basis for the duration of the training course. A PFS/FFS Master Trainer is a person with thorough experience and training on PFS/FFS methodology, that has undergone a

season-long Master Trainer training course on the PFS/FFS methodology. Technical specialists should be invited on need basis.

Venue

The training venue should have suitable training facilities, flexibility in room layout, enough space for breakout groups and group exercises and farm/place for field practicals. It should be easily accessed by the participants. The venue should also, if possible be located near existing PFS groups for hands on experience. On the day before the training starts, it is important to visit the room in order to check the layout and its cleanliness.

Methodology and Content

The 22 days ToF course is designed to give participants an opportunity to engage in their own transformation to become PFS facilitators. The participants will by the end of the course develop season-long activities and PFS implementation guides for their programmes.

> The sharing of real examples from previous experiences is a vital contribution to the training. The facilitators aim is that the participants will be able to grasp skills and tools for facilitating learning by discovery.

The training will be facilitated by employing various participatory learning methods and the experiential learning cycle so that participants can effectively internalise the learning. A key strategy will be to stimulate reflections on what would be done in an actual PFS in the community setting as much as possible. The sharing of real examples from previous experiences is a vital contribution to the training. The facilitator's aim is that the participants will be able to grasp skills and tools for facilitating learning by discovery.

The training will be presented using various forms such as short presentations and discussions in both plenary and small groups. Other modes of training will include problem solving pictures, group exercises, games, simulations, demonstrations, role play, use of visual materials, field trips to existing PFS, innovative pastoralist and on- farm research activities in the region.

Training content will include among others: PFS methodology and its implementation; participative learning and facilitation; team building, group management and leadership, technical topics and cross cutting issues relevant to pastoral areas. See annex 1 for sample training programme.

During presentations/facilitation:

- State the objectives of the session.
- Emphasise backward and forward linkages between different sessions, as well as reference to overall programmes.
- Use visualisation techniques when appropriate.
- Keep to time, adapt content to fit the time available.
- Move focus of training around the room to keep audience's attention, use different parts of the room for different activities.
- Encourage more quiet members especially women of the group to make presentations in plenary.
- Use energises appropriately to keep people's attention.
- Observe group norms.
- Ensure mini wrap-up at the end of each session to highlight main learning points.

Field Visits

A minimum of three field visits during the course to ongoing PFS groups in the locality are recommended in order to equip the participants with hands on experience and for the participants to practise facilitating a PFS session. Ideally, this should be done once a week. On the first visit, the participants will get exposed to the PFS overview. On the second visit, the participants will visit any nearby groups to practice how to assess community problems using PRA tools. During the third visit, participants should practice how to facilitate a session.

Evaluation of the Training

Evaluation of the training will be conducted in a number of ways. Daily, participants will be given a chance to express their impressions about the day sessions and activities by employing various tools. The feedback will be presented the following day. Finally, they will also be asked to express their views on various aspects of the training at the end of the training to provide feedback to organisers and facilitators.

Follow up Support

To ensure quality of field activities the TOF should be accompanied by follow-up backstopping and on-job mentoring of the trained facilitators by the Master trainers and/or PFS experts. This is especially at group start up stage, at mid way stage and towards the end and/or when the need arises.

Introduction to Pastoralist Field Schools

Pastoralism and agro-pastoralism are the traditional and predominant livelihood systems in the drylands of the Greater Horn of Africa (HoA). However due to rapidly changing demographics, climatic and political situations these livelihood systems are facing increasing pressure to adapt to new contexts in order to avoid disasters. More support is needed to engage (agro) pastoral communities in locally driven disaster risk management efforts in order to combat future crises and build sustainable, drought resilient livelihoods.

The Emergence of Field Schools in Pastoral Contexts

The Pastoralist Field School (PFS) approach is an adaptation of the participatory and interactive learning approach; Farmer Field Schools (FFS). The FFS approach was developed by the Food and Agriculture Organization of the United Nations (FAO) in South East Asia in 1989. It emerged as a way for small-scale rice farmers to investigate and learn for themselves the required skills for adopting integrated pest management (IPM) practices in their paddy fields. The approach proved to be very successful in helping to control rice pests and was quickly expanded to other countries in Asia, Africa, the Middle East and Latin America. During its expansion the FFS programs began to broaden its scope beyond IPM to cover other types of agricultural production and incorporate socio-ecological aspects. In Africa, the FFS approach was introduced to Kenya in 1995 under the Special Programme for Food Security and thereafter quickly spread in the region. Over the years thousands of FFS groups have been implemented in the region and the approach taken up by a large number of development actors and Governments.

From 2011 the concept has expanded more widely in the region, much with assistance from SDC. While PFS activities continue in Kenya and Uganda the concept is now widely applied also in Ethiopia and initial piloting has been started in South Sudan and Djibouti, as well as in West Africa.

In 2001, the International Livestock Research Institute (ILRI), with the support of the FAO and the UK's Department for International Development (DFID), adapted the FFS methodology to livestock production systems in Kenya. Smallholder dairy and extensive mixed farming systems were the focus of this project and a number of Livestock FFS groups were implemented. Following the successful experience of the Smallholder dairy project ILRI and Veterinaires Sans Frontieres Belgium (VSF-B) embarked on piloting the adaptation of FFS to the pastoralist situation in arid and semi-arid parts of Turkana District, Kenya and coined the term Pastoralist Field School (PFS). PFS quickly caught the attention of several development agencies in Uganda and Northern Kenya, particularly under an ECHO and EC funded FAO project. From 2011 the concept has expanded more widely in the region, much with assistance from SDC. While PFS activities continue in Kenya and Uganda the concept is now widely applied also in Ethiopia and initial piloting has been started in South Sudan and Djibouti, as well as in west Africa. In order to respond to the increase in demand for Master Trainers in the PFS approach, FAO undertook in 2011 two 3-months long Master Trainer courses

held in Ethiopia and Kenya to build capacity of NGOs, development actors and government officials on the approach.

What a Pastoralist Field School is

PFS are essentially schools without walls that introduce new technological innovations while building on indigenous knowledge. Through experiential learning techniques applied in a group setting, with regular meetings over a longer time period, pastoralists learn how to analyse their situation and make informed decisions about their livelihood practices and resource use strategies.

The approach empowers pastoralists through the use of experiential and participatory learning techniques rather than advising them on what to do. The purpose of the PFS is to improve the decision-making capacity of participants and their wider communities and to stimulate local innovation. A PFS usually comprises a group of between 25 and 30 pastoralists (including elders, men, women and youths) who meet regularly over a defined period of time to make observations that relate livestock production to the rangeland ecosystem. A trained PFS facilitator, usually from or living in the local community, guides the learning process. Unlike some other extension approaches, PFS is more about developing people than developing technology. PFS training is hands-on and continues throughout the different seasons. Usually the PFS cycle starts before the onset of the dry season, continues through the migration during the dry season and carries on after the dry season ends, enabling participants to observe and asses their coping strategies at each stage of the cycle. In this environment, the PFS learning cycle typically takes about one-and-a-half to two years, and ends with the graduation of the group members.

> A PFS usually comprises a group of between 25 and 30 pastoralists (including elders, men, women and youths)

The PFS group provides animals and other resources to use in simple comparative experiments. These animals form the group's study herd, on which different, but not risky, treatments are tried and observations made. Changing environmental conditions and factors affecting the study herd, such as disease outbreaks, dictate the topics to be addressed each week during the PFS session. Folk media, including songs and storytelling, is used to disseminate information on technical and social issues. Tools such as illustrations, practical demonstrations and real-life exhibits are further used as learning aids adapted for illiterate group members.

Why the Pastoralist Field School Approach

Capacity building of rural communities has traditionally been seen by research and extension institutions as a mechanism to transfer technologies to land and resource users. This approach, however, has proved inadequate in complex situations where community members must frequently adjust their practices to changing conditions. Technology packages, delivered in a 'top-down' manner, have often been too complex, expensive or poorly adapted to peoples' needs.

The pastoralists' system of livestock production is complex, based on rich experience and culture that is passed down from one generation to the next. But new developments – climate change or emerging diseases – mean that pastoralists need to supplement their traditional knowledge and practices. This new knowledge and innovation can be realised through participatory learning approaches such as PFS.

The PFS approach, in contrast to most conventional extension approaches, strengthens the capacity

of local communities to analyse their livelihood systems, identify their main constraints and test possible solutions. By merging their own traditional knowledge with external information, pastoralists can eventually identify and adopt the most suitable practices and technologies to their livelihood system and needs to become more productive, profitable and responsive to changing conditions.

The specific objectives of PFS include to:

- Empower pastoralists with knowledge and skills to make them experts in their own context.

- Enable pastoralists' livelihoods to become more resilient and less vulnerable to disasters, such as drought.

- Facilitate pastoralist communities to learn new ways to solve problems and adapt to change.

- Sharpen the ability of pastoralists to make critical and informed decisions that strengthen their coping mechanisms.

- Help pastoralists learn how to best organise themselves and their communities.

- Provide platforms where pastoralist groupings and extension and research workers jointly test and adapt options within the specific local conditions.

GETTING STARTED

A. Climate Setting

Background

People, like plants, need the right kind of 'climate' to grow and it is the responsibility of a facilitator to develop such a climate in a group before starting training. This will enhance willingness to learn, to challenge their old opinion, and to share their thoughts and feelings.

Topic objectives

By the end of this topic participants will be able to:

- Identify the other participants and their backgrounds
- Share their expectations about the training with other participants
- Describe the objectives of the training
- Recognize what subjects and issues they are going to cover and what skills they are going to acquire in the training days

Topic overview

1. Getting know each other
2. Levelling Expectations
3. Course objectives and program overview
4. Host team formation and sharing responsibilities
5. Group norms

Method of facilitation

- Small group discussions
- Cards
- Interactive plenary

Time: 1 hour 30 minutes

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Coloured paper, Display board, Pre-prepared flip chart papers, Push pins.

Handout: A.1, A2

LEARNING ACTIVITIES

Activity 1: Getting to Know Each Other (20 minutes)

1. Explain to participants that because this is a participatory training and they will be learning from and sharing with each other, they should get to know each other.

2. Provide each participant with a sheet of flipchart paper and ask them to introduce their name, organisation, responsibility and their experience on PFS.

3. Use the introductory activity games, energisers and warm ups. These activities should be new to the participants so as to create an interest from the onset.

Example of a participatory introduction

Objective

To assist the participants get to know one another and build trust levels between each other.

Time: 20 minutes

Steps:

1. Ask the participants to identify a friend in the group that they have never met or don't know very well. Each participant will then interview his/her new friend and ask: what is your name and age? Where do you come from? What do you like and dislike? What are your dreams?

2. After five minutes of interviewing each other, the participants will introduce their new friend to the group, summarising the main information about him/her.

Activity 2: Levelling of Expectations (30 minutes)

1. Inform the participants that the expectations should be written on coloured cards. Explain the following points as you give the rules of writing on a card.

Card writing rules

- Use a half sheet of a dossier/ card/paper
- Write only one idea per card so that clustering of ideas is possible
- Write only three lines on each card and form blocks of words
- Use key words instead of full sentences
- Write large letters in both upper and lower case, if possible, so that your word can be read from 10 meters
- Learn to write legibly and use the broadcast side of the marker, not the point
- Apply two sizes of script to distinguish main points
- Use the different sizes, shapes and colours of cards to creatively structure the results of discussions

2. Ask the participants to return to their groups and start discussing their expectations which they have already presented in the introductory activity.

3 Ask the participants to sort out the expectations using the following questions.

Assessing expectations

- What are your interests and concerns about this training, which you hope to be addressed during this training?
- What specifically would you like to learn in this training?
- What processes or methods would facilitate your learning and enhance sharing of experiences?

4. Ask them to elect one person to take notes and be prepared to report the group's responses. The reporters should write on a half page coloured card.

5. Ask participants if they have any questions about the task?

6. Ask participants how much time they need. Compromise with the time.

7. Encourage them to draw on their own experiences, challenges, problems and lessons in making comments.

8. Ask each group reporter to post on a wall their expectations and needs.

9. Ask the participants to go through each of the posted expectations and sort them out in line with the course objectives. Ideas which are out of the course objectives should be moved to the other side of the wall.

10. Clarify and rewrite any unclear and general ideas that the participants have come across.

11. Mark a duplicate response, which is in line with the course objectives which is an indication of the importance of the session.

12. Ask participants to move all the relevant and amended expectations and post them to a visible place.

13. Tell the participants that you, together with them you will look at the expectations again in order to confirm whether their expectations have been achieved. This is to track the progress towards addressing the expectations. Assign responsibility for tracking the progress on the achievement of the expectation to three volunteers.

Activity 3: Course Objectives and Programme Overview (10 minutes)

1. Explain the objectives of the training to the participants, and then compare them with participants' expectations. If there are needs that are not covered in the training program, discuss possible ways to address the needs in the course objectives.

2. Explain the underlying logic of the training using a flow chart.

3. If you find that none of the expectations matches those of the training objectives, this could be due to one of the two problems:
   • The training was inaccurately described to participants
   • The participants were improperly selected or both. You need to address this problem either by adjusting the training program or by helping participants to better understand the purpose of the training. Do not sort this out in front of participants. Take a break and have a cup of coffee/ tea with the training team and come back with a tactful solution.

4. Distribute the timetable that you developed. Read through the timetable with participants, allowing for questions and clarifications.

5. Ask the participants to elect a day review team to review the day to day sessions and activities.

Activity 4: Host Team Formation and Sharing Responsibilities (10 minutes)

1. Form groups of 4 or 5 depending on the size of participants.

2. Ask the group members to brainstorm their motto and slogan. Explain the purpose of doing this activity.

3. Explain the purpose of the day review session as to assess participants' reactions, learning and to identify areas that need improvement in order to better the subsequent sessions and activities.

4. Remind the day review team to review and highlight the day sessions and activities for the following day.

(a) Day review: This group is expected to observe the ongoings for a day, then at the start of next session present summation of evaluation, mood of the group and highlights of major syntheses of learning. Participants will be responsible to develop an evaluation tool. This will give them an opportunity to interact and learn.

(b) Peer review: This will be done at the end of the day session. The peer review teams are drawn from participants and facilitators. It provides quick insights for facilitators and organizers and helps to address critical issues promptly.

(c) Motivators/organisers: This group keeps attendance, keeps time, oversees penalties, organises refreshments, get together, organises the cleaning of the training room, prepares and posts the day schedule by consulting the facilitator, and organises logistics.

5. Ask the participants to develop evaluation methods and to decide whom to involve in the evaluation. They can use the questions under other methods of evaluation on evaluating learning.

6. The outcome of the day review team will be presented on the following day.

Activity 5: Group norms (10 minutes)

1. Ask participants and facilitators what general behaviours they would like to experience in order for the training to run smoothly and effectively.

2. List all suggestions on a card or on a flip chart, or prepare visual illustrations.

3. Assign responsibility to the group in order to ensure ground rules are in place.

Example of group norms:

- Switch off/silent mobile phone

- Patience, don't jump on anyone else

- Everyone has the right to express their responses and opinions In the time available

- Only one person speaks at a time

- Everyone has the right to speak

- No side talking

It is good if participants decide on penalty for latecomers (like singing, dancing and preparing coffee.)

Handout A.1

Climate Checklist

The following lists include many of the elements necessary to develop a climate for adult learning. You might also wish to use a list like this much like an airline pilot goes through a checklist before takeoff.

Physical Surroundings	People Work	Organisation
Space	Welcoming	Structure
Lighting	Comfort setting	Who is coming?
Acoustics/outside noise	Informality	Meeting
Temperature	Warm-up exercise	
Ventilation	Democratic leadership	
Seating comfort/position	Interpersonal relations	
Seating arrangements group/ mobility rest/ change	Assessing needs	
Refreshments	Formulating objectives	
Writing materials	Designing and implementing activities	
Name tags or cards	Evaluating	
Rest rooms	Close on time (option to stay)	
Parking	Stimulus activities	
Traffic directions	Other:	

Audio visual Aids Checklist: _____
- Flipcharts   _____
- Markers   _____
- Overhead projector and screen   _____
- VCR and monitor (TV)   _____

Others:

_____

_____

_____

Climate check list

Handout A.2

Daily learning journal format

1. What did you learn from the day's session(s) that would be useful for your work (conclusion)

    (a) Content

    (b) Process

2. How could you apply this to your work? (Application)

3. What challenges might you encounter and how they may be overcome? (Application)

B. Pastoralism: Pastoral Production

Background

In sub-Saharan Africa, pastoralism is usually practiced especially in the arid lands where the climate is hot and dry with low and erratic rainfall and rugged terrain. The pastoralists are characterised by varying aspects of ethnicity and socio-cultural set ups, production forms and strategies of survival which include mobility and a degree of sedentarization. The pastoralists main mode of livelihood is livestock keeping where varied species are kept according to desire but the main species being Camel, sheep, Goats and Cattle. Pastoralism provides a significant contribution to gross domestic income in the countries where it thrives providing the majority of the meat consumed. Pastoralists are the custodians of the dry land environment and production and despite their good cause; pastoralists have the highest incidence of poverty and the least access to basic services. Though most pastoralists are mobile, different kinds of production systems/set ups have been identified and each has its economic contribution. This session will help participants understand pastoralism and issues revolving around it making them to really appreciate pastoralism and come to terms with it.

Topic objectives

By the end of this topic participants will be able to:

- Discuss pastoralism and the main issues revolving and related to it.
- Explain pastoralism as a viable means of production suited to the marginal areas.
- Describe the traditional and modern risk management systems in pastoral areas.

Topic overview

1. What is and why pastoralism.
2. Characteristics of pastoral areas.
3. The different types of pastoral set ups.
4. Issues and challenges related to pastoralism
5. Alternative livelihood sources in pastoral areas.

Method of facilitation

- Participatory presentation,
- Group discussions,
- Drawings
- Question and answer
- Brainstorming
- Drawing from power points

Time: 2 hours

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Coloured paper, Display board.

Handout: B1-5

Additional reference:

- Survival of the fittest – 116 OXFAM briefing paper
- Pastoralism demographics, settlement and service provision in the Horn and East Africa - REGLAP
- Policy framework for pastoralism in Africa: Securing, protecting, and improving the lives, livelihoods, and rights of Pastoralist communities – AU/IBAR - DREA

LEARNING ACTIVITIES

Activity 1: What is and Why Pastoralism (20 minutes)

1. Distribute two cards to each participant and ask them to answer the following questions in 5 to 10 minutes:
    - What is pastoralism?
    - Why pastoralism?

2. Collect the cards and pin them on a board and read the answers to the questions giving time for the participants to react. Thereafter come up with a common agreement on each question, this will help in understanding what and why pastoralism and enable them also to understand and come up with a logical definition of pastoralism.

Activity 2: Characteristics of Pastoral Areas (30 minutes)

1. Divide the participants into three or four groups and ask them to draw a picture or scenario depicting pastoralism. Give them about 20 minutes to do this and thereafter ask the participants to display the pictures.

2. Select one group member to explain the picture of their group. Repeat this for all the groups.

3. All the pictures are analysed and any missing item is added and wrong content corrected.

4. Together, look at the commonalities of the pictures and features that are characteristic of pastoralism and list them. This will help participants come up with characteristics of pastoral areas.

Activity 3: Types of Pastoral Set-ups (10 minutes)

In plenary, ask the participants to list the different types of pastoral set ups and pastoral production systems. After listing the set ups and production systems, have discussions in plenary and come to an agreement on the existence of the different types of pastoral set ups and production systems and why they exist.

Activity 4: Challenges and Issues Related to Pastoralism (30 minutes)

1. Divide the participants into two groups and give each group the following exercises
    - Group 1: To discuss and come up with issues and challenges affecting pastoral areas.
    - Group 2: To discuss and list the alternative livelihood sources in pastoral areas.

2. After the groups have discussed and written their materials, they present in plenary. In the plenary presentation other participants will input through comments and additions and this will help the participants address and understand the issues in question.

Activity 5: Alternative Livelihood Sources in Pastoral Area (20 minutes)

1. In plenary, ask the participants to list the alternative livelihood sources in pastoral areas and discuss each of the listed alternative livelihoods.

2. Fill up any gaps not mentioned

Wrap up (10 minutes)

Summarise the key points through question and answer sessions with the participants and put emphasis on the important points to remember.

Handout B.1

What is Pastoralism

Pastoralism is a way of living, a culture, a way of production, whereby there is normally migration of people and livestock from one place to another or even across international boundaries. This movement is occasioned by the search for water and pasture for livestock which comprise the main means of livelihood for the pastoralists. The degree of migration of the pastoralists depends on the season or climate of the area in question. During the rainy season, the degree of movement / migration is limited and during the dry season, the degree of migration tends to be enhanced with people and livestock settling in a particular area for only short periods of time. At the peak of the dry season, split herd management is usually employed in order to ensure the survival of the different species of livestock.

Why Pastoralism

Pastoralism is not only a cultural mechanism, but actually a coping and survival mechanism that ensures that the pastoralists and their resources are protected and survive during the difficult times such as drought. Pastoralism is also a way of ensuring that biodiversity is conserved and to an extent, ensures that the natural resource base is managed holistically. Conserving the biodiversity and managing the natural resource through the organised grazing ensures better vegetation and ground cover that is not only essential as human and animal food but also protects against surface runoff/erosion ensuring good water retention.

Definition of Pastoralism

Pastoralism can be defined as a finely honed symbiotic relationship between local ecology, domesticated livestock and people in resource scarce, climatically marginal and highly variable conditions. It presents a complex form of natural resource management, involving a continuous ecological balance between water, pastures, livestock and people.

Handout B.2

Characteristics of Pastoral Areas

Pastoral areas have certain distinct characteristics that they can be identified with. Though not all characteristics are similar across different pastoral areas, those that are not similar have very slight variations. Generally all pastoral areas have almost similar distinct characteristics as seen below:

1. Harsh climate and rugged topography.

2. Low erratic and unreliable rainfall that is poorly distributed.

3. Remoteness and far off from public and private sector centralised services.

4. Scarcity of water and pasture due to frequent drought.

5. Pastoralists have their own cultural values and morals that are not easy to change or erode.

6. Maintain traditional leadership structures as pillars of decision making.

7. Low stocking rates of some livestock species due to scarcity of water and pasture.

8. Insecurity due to civil conflict or cross border raids, which are mainly resource based.

9. Dependency syndrome especially on relief supplies.

10. Prone to droughts, floods, livestock and human diseases.

11. Despite the production of livestock, poverty and illiteracy levels are high.

Handout B.3

Kinds of Pastoral Set-ups

There are different kinds of pastoral set ups within the pastoral areas and though some may look isolated, they still are part and parcel of pastoralism.

1. **Nomadic/Mobile** – This is the set up where the pastoralists are mobile meaning they migrate depending on the season in question or the species of livestock affected most by the pasture availability. The mode of migration is varied amongst the different pastoral communities, with some opting to migrate with entire families while others stay at one point with small livestock while the larger herd migrates with the herders.

   Characteristics
   • Highly mobile/semi mobile (mainly transhumant)
   • Mainly keep livestock.
   • Migrate in search of water and pasture due to seasonal variations.
   • Can move across international boundaries.
   • Prone to livestock raids and livestock and human diseases.
   • Very hardy and conversant with the environment and local terrain.
   • Maintain strong traditional structures/institutions.

2. **Sedentary** – This kind of pastoral set up is mainly found in the interior of pastoral areas or alongside main roads. This kind of set ups emerge due to relief food distributions to families that have fallen out of pastoralism due to loss of livestock to drought, loss of livestock to raiding or people who have fallen out of pastoralism due to the loss of a spouse or those that have been ejected out of the pastoral system due to misconduct. Despite the set up being as it is, it is part of pastoralism since the community practices livestock keeping especially the small stock while undertaking other kinds of livelihood options.

   Characteristics

   • Pastoral drop-outs due to
   • Loss of livestock through disease, rustling, or drought.
   • Severe injuries sustained to raids.
   • Death of head of family.
   • Disagreements.
   • Eviction by traditional courts.
   • Related to food relief distribution centres.
   • May comprise of single parent families
   • Keep small stock, agriculture, charcoal, business etc

3. **Agro Pastoralists** – This kind of pastoralists are found living along main rivers that cut across pastoral areas. These pastoralists mainly practice livestock keeping, and agriculture either rain fed or irrigation. It is also worth to note agro pastoralism is not only practiced alongside river banks but in some areas when the rain ids good some pastoralists who are mobile but have permanent

homesteads also practice it. In extremely harsh pastoral areas agro-pastoralism is also practiced in the flood plains where mainly crops like sorghum are grown. Agro-pastoralists also practice other forms of livestock production such as beekeeping, and poultry keeping and of late have also resulted in fodder production.

Characteristics
- Rarely migrate unless under extreme circumstances.
- Part of the herd may migrate while the other remains especially the small stock.
- Settlements usually located in permanent area such as on hill slopes or close to permanent rivers.
- Combine livestock keeping and agriculture.
- Have other forms of livelihoods fishing, bee-keeping, mining, business, basketry and mats weaving.

4. **Peri- Urban** – This kind of pastoralists are mainly found in the peripheries of major towns or urban centres within the pastoral areas. They form the workforce of the urban population while some engage in small businesses, sand and stone harvesting or the selling of curios. They are referred to as pastoralists since they are part and parcel of the pastoralist community and majority of them have a small amount of livestock especially the small stock in their homes; some also keep traditional poultry that they sell to the urban community. Also note while some of these may be stay in the peri-urban areas they also can purchase livestock and take it for custody to their relatives who are mobile pastoralists.

Characteristics
- Live in the periphery of towns /around district or county headquarters.
- Some provide labour in the towns (Building, brick making) etc
- Small business in form of charcoal, firewood trade, building timber, selling of acacia pods and brewing of local alcohol etc
- Some may keep small stock like sheep, goats and chicken.
- Sell traditional artefacts, beads, basketry, mats, reeds for roofing
- Some are drop outs from the main pastoral system while others are in search of alternative livelihoods.

5. **Fisher folk Pastoralists** – These are pastoralists who are found close to Lakes or big water masses. Due to their vicinity within the lake or water mass, this type of pastoralists practice fishing and at the same time keep livestock. Since fishing forms part of their main pre-occupation, these pastoralists are normally referred to as fisher folk pastoralists. Though fishing is a main occupation, livestock keeping also forms part of their livelihood.

Characteristics
- Main livelihood depends on fishing.
- Live around lakes, water masses/rivers.
- Some own livestock especially the small stock.

- Involved in fish processing (flaying/drying).
- Involved in the fish business (buying and selling).
- Some act as guides for tourists who visit lakes.
- Some hire boats for rent to fishermen and visiting tourists.
- Some are involved in boat making and repair business.
- Others are involved in basket, mats and broom making.

Pastoralists can therefore be broadly classified into five categories namely agro pastoralists, nomadic pastoralists, sedentary, peri-urban and fisher folk pastoralists. In some locations all the five types can be found while in others two to three types can be found.

Handout B.4

Challenges and Issues Related to Pastoralism

1. Poverty (limited access to finance, services, markets)

2. Marginalisation (colonial and post colonial isolation)

3. Deprivation (quality of state services not up to date)

4. Repeated shocks such as climate change, drought and floods.

5. Natural resource depletion (increased settlements in the grazing areas)

6. Conflict (water and pasture, socio- cultural, poverty and limited economic integration, small arms proliferation).

7. Social cultural issues.

Most of the time, pastoralists strategise how to cope with these challenges and an understanding of the coping mechanisms can shape the design of interventions for these areas.

Handout B.5

Alternative Livelihood Sources in Pastoral Areas

1. Sedentary pastoralists – dependent on small businesses, crafts, basketry, small amounts of livestock

2. Aqua/fisher folk pastoralism – dependent on fishing

3. Agro pastoralism – dependent on both crops livestock and bee keeping

4. Peri-urban pastoralists – small businesses, little livestock, crafts, timber for building, supply of acacia pods for goat feeding

5. Mining – Gold (mined and alluvial) and precious stones

6. Livestock trade

7. Small itinerant trading/business

8. Barter trade (livestock/livestock products and cereals)

9. Artefacts, baskets and mats

10. Hides and skins

11. Beekeeping/honey

12. Brick making and supply of reeds and local timber

13. Water selling

14. Charcoal burning and supply of fire wood

15. Hunting and gathering

16. Ecotourism

MODULE 1: PFS METHODOLOGY AND IMPLEMENTATION

1.1 PFS Overview

Background:

This session is intended to define the PFS approach and look into its history. What are pastoral field schools, how do they operate and why the pastoral field schools. In this session the participants will be able to understand what pastoral field schools are intended for and what effect they can have on the pastoral communities in order to create a positive impact and hence improve their livelihoods.

Topic objectives

By the end of this topic participants will be able to:

- Define the PFS approach and explain its history
- Explain the role of PFS in extension

Topic overview

1. Origin of PFS.
2. What is and Why PFS
3. Role of PFS in extension

Method of facilitation

1. Participatory presentation
2. Group discussions on extension

Time: 1 hour

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Coloured paper, Photos, Display board.

Handout: 1.1 and 1.2

Additional reference

- Pastoralist field school manual – Guidelines for facilitation
- Livestock farmer field school manual

LEARNING ACTIVITIES

Introduction

1. Introduce the session by climate setting in order to prepare the participants for the topic. Climate setting can be done by an exercise or by giving a brief story or scenario that will lead the participants into realisation of the topic they are being introduced to.
2. Introduce the participants to the objectives of the session.

Activity 1: Origin of PFS (10 minutes)

1. In plenary, ask the participants to explain what they know about the origin of PFS.
2. After the contributions are over, explain in a systematic manner the origin of PFS.

Activity 2: What is and why PFS (20 minutes)

1. In plenary, ask the participants what is PFS & why PFS, so as to have a feel of what the participants envisage about PFS.

2. Write each answer on a flip chart and after the contributions are over, the facilitator takes over to explain in a systematic manner orally and through the power point or the use of the cards.

Activity 3: Role of PFS in extension (20 minutes)

1. Through brainstorming ask participants what they understand by the term extension. Analyse the results and input on missing points while emphasising on important points.

2. Through question and answer form, ask the participants to list the models/examples of extension they know. The facilitator then goes through all the points presented giving additional inputs with emphasis on important points.

3. In question and answer session, ask the participants to explain that PFS is an extension method. The participants give their opinions, and to wrap up, the facilitator gives his/her version of PFS as an extension method and if possible cite real life situations

Wrap up (10 minutes)

Summarise key points through question and answer sessions with the participants and put emphasis on the important points to remember.

A typical PFS learning session

Handout 1.1

Origin of PFS

Farmer Field Schools: A Brief History

The Farmer Field School (FFS) approach was first developed in 1989 by the Food and Agriculture Organization of the United Nations (FAO). It was used to train rice farmers in Indonesia on integrated pest management (IPM) as part of their national IPM programme. The approach proved to be very successful in helping to control rice pests and was quickly expanded to other countries in Asia, Africa, the Middle East and Latin America. During its expansion the FFS programs began to broaden its scope beyond IPM to cover other types of agricultural production and incorporate socio-ecological aspects.

In Africa, the FFS approach was introduced in Kenya in 1995 under the Special Programme for Food Security and thereafter quickly spread in the region. Over the years thousands of FFS groups have been implemented in the region and the approach taken up by a large number of development actors and Governments.

The Emergence of Pastoralist Field Schools

In 2001, the International Livestock Research Institute (ILRI) developed and adapted the FFS methodology for livestock production systems in Kenya with support from the Animal Health Programme of the UK's Department for International Development (DFID) and FAO. Smallholder dairy and extensive mixed farming systems were the focus of this project and a number of Livestock FFS groups were implemented.

Following the successful experience of the Smallholder dairy project ILRI and Vètèrinaires Sans Frontières Belgium (VSF-B) embarked on piloting the adaptation of FFS to the pastoralist situation in arid and semi-arid parts of Turkana District, Kenya and thereby the development of the Pastoralist Field School (PSF) concept. PFS quickly caught the attention of several development agencies in Uganda and Northern Kenya, particularly under an ECHO and EC funded FAO project. From 2011 the concept has expanded more widely in the region, much with assistance from SDC. While PFS activities continue in Kenya and Uganda the concept is now widely applied also in Ethiopia and initial piloting has been started in South Sudan and Djibouti. In 2012 under VFS-B and FAO collaboration the concept was also introduced in West Africa, Niger. In order to respond to the increase in demand for Master Trainers in the PFS approach, FAO undertook in 2011 two 3-months long Master Trainer courses held in Ethiopia and Kenya to build capacity of NGOs, development actors and government officials on the approach.

What a Pastoralist Field School is

A PFS can be described as a 'school without walls', where groups of pastoralists learn through observation and experimentation in their own context, based on methods of adult education. This allows them to improve their management skills and become knowledge experts in their own resource use practices.

The approach empowers pastoralists using experiential and participatory learning techniques rather than advising them what to do. The purpose of the PFS is thereby to improve the decision-making capacity of participants and their wider communities and to stimulate local innovation. A PFS usually comprises a group of between 25 and 30 pastoralists (including elders, men, women and youths) who meet regularly over a defined period of time to make observations that relate to livestock production to the rangeland ecosystem. A trained PFS facilitator, usually from or living in the local community, guides the learning process. Unlike some other extension approaches, PFS is more about developing people than developing technology. PFS training is hands-on and continues throughout the different seasons. Usually the PFS cycle starts before the onset of the dry season, continues through the migration during the dry season and carries on after the dry season ends, enabling participants to observe and asses their coping strategies at each stage of the cycle. In this environment, the PFS learning cycle typically takes about one-and-a-half to two years, and ends with the graduation of the group members.

The PFS group provides animals and other resources to use in simple comparative experiments. These animals form the groups' study herd, on which different (but not risky) treatments are tried and observations made. Changing environmental conditions and factors affecting the study herd, such as disease outbreaks, dictate the topics to be addressed each week during the PFS session. Folk media, including songs and storytelling, is used to disseminate information on technical and social issues. Tools such as illustrations, practical demonstrations and real-life exhibits are further used as learning aids adapted for illiterate group members.

Why the Pastoralist Field School approach

Capacity building of rural communities has traditionally been seen by research and extension institutions as a mechanism to transfer technologies to land and resource users. This approach, however, has proved inadequate in complex situations where community members must frequently adjust their practices to changing conditions. Technology packages, delivered in a 'top-down' manner, have often been too complex, expensive or poorly adapted to peoples' needs.

The pastoralists' system of livestock production is complex, based on rich experience and culture that is passed down from one generation to the next. But new developments – such as climate change or emerging diseases – mean that pastoralists need to supplement their traditional knowledge and practices: this new knowledge and innovation can be realized through participatory learning approaches, such as PFS.

The PFS approach, in contrast to most conventional extension approaches, strengthens the capacity of local communities to Analyse their livelihood systems, identify their main constraints and test possible solutions. By merging their own traditional knowledge with external information, pastoralists can eventually identify and adopt the most suitable practices and technologies to their livelihood system and needs to become more productive, profitable and responsive to changing conditions

The specific objectives of PFS include to:

- empower pastoralists with knowledge and skills to make them experts in their own context

- enable pastoralists' livelihoods to become more resilient and less vulnerable to disasters, such as drought

- facilitate pastoralist communities to learn new ways to solve problems and adapt to change

- sharpen the ability of pastoralists to make critical and informed decisions that strengthen their coping mechanisms

- help pastoralists learn how to best organize themselves and their communities

- provide platforms where pastoralist groupings and extension and research workers jointly test and adapt options within the specific local conditions.

Handout 1.2

What Agricultural Extension is

Agricultural extension describes the services that provide rural people with the access to knowledge and information they need to increase productivity and sustainability of their production systems and improve their quality of life and livelihoods. It includes, but is not limited to, the transfer of knowledge generated by agricultural research. It has helped countries move towards meeting food needs, conserving natural resources and developing human and social capital.

The meaning of the term extension has changed over time and is moving away from the dominant emphasis on technology transfer (reflected, for example, in the training and visit approach) towards a much broader concept that includes developing the skills and management capacities of farming families (through the Farmer Field School approach, for example) and the learning capacity of both farmers and extension organisations. Extension has been recently defined as "systems that facilitate the access of farmers, their organizations and other market actors to knowledge, information and technologies; facilitate their interaction with partners in research, education, agribusiness, and other relevant institutions; and assist them to develop their own technical, organisational and management skills and practices".

There is no widely accepted definition of agricultural extension. The examples given below are taken from a number of books on extension published over a period of more than 50 years:

- 1949: The central task of extension is to help rural families help themselves by applying science, whether physical or social, to the daily routines of farming, homemaking, family and community living.

- 1965: Agricultural extension has been described as a system of out-of-school education for rural people.

- 1973: Extension is a service or system which assists farm people, through educational procedures, in improving farming methods and techniques, increasing production efficiency and income, bettering their levels of living and lifting social and educational standards.

- 1982: Agricultural Extension: assists farmers to identify and Analyse their production problems and become aware of the opportunities for improvement.

- 1997: Extension is the organised exchange of information and the purposive transfer of skills.

- 1999: The essence of agricultural extension is to facilitate interplay and nurture synergies within a total information system involving agricultural research, agricultural education and a vast complex of information-providing businesses.

- 2004: Extension is a series of embedded communicative interventions that are meant, among others, to develop and/or induce innovations which supposedly help to resolve (usually multi-actor) problematic situations.

> Extension is a learning process, more or so learning through doing and practice in order to have maximum retention of ideas. Extension is an educational process concerned with the idea of learning to create a change in a person's knowledge (ideas), practices (skills), and attitudes (feelings).

Models/examples of agricultural extension

Any particular extension system can be described in terms of both how communication takes place and why it takes place. It is not the case that paternalistic systems are always persuasive, nor is it the case that participatory projects are necessarily educational. Instead there are four possible combinations, each of which represents a different extension paradigm, as follows.

- **Technology transfer** (persuasive+paternalistic). This paradigm was prevalent in colonial times, and reappeared in the 1970s and 1980s when the Training and Visit system was established across Asia. Technology transfer involves a top-down approach that delivers specific recommendations to farmers about the practices they should adopt.

- **Advisory work** (persuasive+participatory). This paradigm can be seen today where government organizations or private consulting companies respond to farmers enquiries with technical prescriptions. It also takes the form of projects managed by donor agencies and NGOs that use participatory approaches to promote pre-determined packages of technology.

- **Human resource development** (educational+paternalistic). This paradigm dominated the earliest days of extension in Europe and North America, when universities gave training to rural people who were too poor to attend full-time courses. It continues today in the outreach activities of colleges around the world. Top-down teaching methods are employed, but students are expected to make their own decisions about how to use the knowledge they acquire.

- **Facilitation for empowerment** (educational+participatory). This paradigm involves methods such as experiential learning and farmer-to-farmer exchanges. Knowledge is gained through interactive processes and the participants are encouraged to make their own decisions. The best known examples are projects that use Farmer Field Schools (FFS/PFS) or participatory technology development (PTD) / Participatory Comparative Experimentation (PCE).

There is some disagreement about whether or not the concept of and name extension really encompasses all four paradigms. Some experts believe that the term should be restricted to persuasive approaches, while others believe it should only be used for educational activities. Some argue that the terms 'extension' and 'participation' are contradictory. There are philosophical reasons behind these disagreements. From a practical point of view, however, communication processes that conform to each of these four paradigms are currently being organised under the name of extension in one part of the world or another. Pragmatically, if not ideologically, all of these activities are agricultural extension.

PFS as an extension method

PFS is itself not a top-down approach that gives blanket recommendations but provides "A basket of options". Due to the PFS approach being more localised, it is much more flexible and able to cater for local requirements and avoids the problem bringing technologies that are not suitable and appropriate for the resource poor. PFS also will provide recommendations and links to market realities thus providing means of improving communication linkages amongst pastoralist farmers, the public, and the private sector extension service providers. PFS in the real sense links innovation and research for extension purposes. In most pastoral areas, extension agents are few or lacking and therefore the Pastoral Field School could be used to fill this gap as they are used as platforms for extension.

PFS as a method of extension is a learning process with a lot of discussions, analyses and syntheses of new ideas. Through the analyses and discussions the new ideas are put to scale and informed decisions and recommendations are made on the new ideas. The pastoral field schools can also be used as platforms for the extension of good new ideas through exchange visits, field days, and demonstrations and on-site training and learning visits.

> PFS as extension relies on the paradigm of facilitation for empowerment (educational + participatory). This paradigm involves methods such as experiential learning and farmer-to-farmer / livestock keeper exchanges where knowledge is gained through interactive processes and the participants are encouraged to make their own decisions.

1.2 PFS Principles

Background

This session is intended to look into the concepts, principles, practices and characteristics of the pastoralist field school as adapted in the pastoralist context. It is hoped that participants will be able to fully understand and explain the core principles practices and characteristics of PFS.

Topic objectives

By the end of this topic participants will be able to:

- Explain principles of PFS

Topic overview

1. Principles of PFS

Method of facilitation

1. Participatory presentation,
2. Group discussions,

Time: 1 hour

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Coloured paper, Photos, Display board.

Handout: 1.2.

Additional reference

- Pastoralist field school manual – Guidelines for facilitation
- Livestock farmer field school manual

LEARNING ACTIVITIES

Introduction

1. Introduce the session by climate setting in order to prepare the participants for the topic. Climate setting can be done by an exercise or by giving a brief story or scenario that will lead the participants into realisation of the topic they are being introduced to.
2. Introduce the participants to the objectives of the session.

Activity : Principles of PFS (50 minutes)

1. Introduce the session by climate setting in order to prepare the participants for the topic. Climate setting can be done by an exercise or by giving a brief story or scenario that will lead the participants into realisation of the topic they are being introduced to.
2. Introduce the participants to the objectives of the session.

Wrap up (10 minutes)

Summarise key points through question and answer sessions with the participants and put emphasis on the important points to remember.

Handout 1.2

Pastoralist Field School principles

PFS activities are guided by the following principles:

1. Learning by doing

Pastoralists do not change their behaviours and practices just because someone tells them what to do or how to change. They learn better through experience than from passive listening at lectures or demonstrations. Discovery-based learning is an essential part of the PFS as it helps participants to develop a feeling of ownership and to gain the confidence that they are able to reproduce the activities and results on their own.

"When i hear it, i forget!"   "When i see it, i remember"   "When i do it, i own it for life"

Pastoralists learn better through experience

2. Learner-led study

Participants decide what is relevant to them

Pastoralists, not the facilitator, decide what is relevant to them and what they want the PFS to address. This ensures that the information is relevant and tailored to participants' actual needs. The facilitator simply guides them through their learning process by creating participatory exercises that provide pastoralists with new experiences.

3. Learning from mistakes

Behavioural change requires time and patience. Learning is an evolutionary process characterised by free and open communication, confrontation, acceptance, respect and the right to make mistakes. This is crucial as more is often learned from mistakes than from successes. Each person's experience of reality is unique.

4. Learn how to learn

Pastoralists learn the necessary skills to improve their ability to observe and Analyse their own problems and make informed decisions. They also learn how they can educate and develop themselves further.

5. Problem-posing/problem-solving

Problems are presented as challenges, not constraints. Pastoralist groups learn different analytical methods to help them gain the ability to identify and solve any problem they may encounter in their daily life.

6. The herd and the landscape is the learning ground

The heard and the landscape is the main learning ground, around which all PFS activities are organised. Pastoralists learn directly from what they observe, collect and experience in their surrounding instead of through text books, pictures or other extension materials. Participants also produce their own learning materials (drawings, etc.) based on what they observe. The advantages of these home-made materials are that they are consistent with local conditions, inexpensive to develop, and owned by the learners.

Solving problems through team building

7. Facilitation, not teaching

The heard and the landscape is the main learning ground, around which all PFS activities are organised. Pastoralists learn directly from what they observe, collect and experience in their surrounding instead of through text books, pictures or other extension materials. Participants also produce their own learning materials based on what they observe. The advantages of these home-made materials are that they are consistent with local conditions, inexpensive to develop, and owned by the learners. .

8. Unity is strength

Empowerment through collective action is essential. Pastoralists united in coed groups have more power than individuals. Empowerment through collective action is essential. Pastoralists united in coed groups have more power than individuals. Also, when recognized as an active member within a group, the social role of individuals within a community is enhanced. The combination of two or more minds is often more successful than one mind on its own. The PFS expresses this as 1 + 1 = 3; that is, one mind + one mind creates a new, third mind.

Unity is strength

9. Every PFS is unique

PFS group presentation

Learning topics within the PFS should be chosen by the community and group members. Training activities must be based on existing gaps in the community's knowledge and skills and should also take into consideration its level of understanding. Every group is different and has its own needs and realities. As participants develop their own content, each PFS is unique.

10. Systematic training process

All PFS follow the same systematic training process. The key steps are observation, reflection, group discussion, analysis, decision making and action planning.

Past experience has shown that the best results are achieved with weekly meetings. Longer intervals can slow down the learning process. The length of the PFS cycle depends on the focal activity. With livestock, a full year cycle or more is usually needed to allow for all seasonal variations to be studied. PFS increasingly include marketing and income generation activities which may lengthen the PFS learning cycle.

1.3 Steps in PFS Implementation

Background

Successful implementation of the PFS steps is ultimately bound to deliver a successful PFS. This topic intends to introduce the participants to the processes involved in implementing a PFS. PFS implementation is undertaken in three phases; The preparatory phase, the implementation phase and the post-graduation phase. Each phase has a set of associative activities that need to be spelt out clearly and explained. The facilitator will emphasise on the sequencing of the set of activities to the participants. The implementation steps could be described as the foundation of the PFS. The strength of a PFS is firmly founded in the foundation. It is important that the logical sequencing of the activities under this topic be spelt out clearly and that at the end of the session, the participants should be able to describe all the steps in implementation.

Topic objectives

By the end of this topic participants will be able to:

• Describe all the steps required for the implementation of a successful PFS.

Topic overview

1. PFS preparation: Pre-condition survey; Identification and training of facilitators; General ground working; and Establishing the PFS.

2. PFS implementation: PFS sessions with core activities; Field days; Exchange visits; Graduation

3. PFS Post graduation activities: Follow up of PFS activities; Establishing PFS networks; Income generating activities; Setting up second generation PFS

Method of facilitation

• Participatory presentation

• Group discussions

• Question and answer

• Brainstorming

• Drawings

• Exercises

• Practical activities in sub groups

Time: 7 hours

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board, Photos.

Handout: 1.3.1, 1.3.2 and 1.3.3

Additional reference

• Pastoralist field School manual: Guidelines for facilitation

• Livestock farmer field school manual

LEARNING ACTIVITIES

Introduction

1. Introduce the session by climate setting in order to prepare the participants for the topic. Climate setting can be done by an exercise or by giving a brief story or scenario that will lead the participants into realisation of the topic they are being introduced to.

2. Introduce the participants to the objectives of the session.

3. Briefly explain the three phases and steps of PFS implementations using the flow diagram below:

Steps in PFS Implementation

Phase 1:
PFS Preparation

Phase 2:
PFS Implementation

Phase 3:
PFS Post Graduation

Steps

1. Pre-condition survey
2. Identification and training of facilitators
3. General ground work
   - Establish contact with the community
   - Awareness-raising meeting to introduce the PFS concept
   - Identification of the participants
   - Identification of the focal activity (PFS learning enterprise)
   - Identification of the learning site
4. Establishing the PFS
   - Participatory introduction of the participants
   - Levelling of expectation
   - Identifying the host team
   - Participatory planning of PFS activities
   a. Establishing the PFS group
   b. Problem analysing and ranking
   c. Identifying potential solutions
   d. Developing the learning programme
   e. Developing a detailed budget
   f. Submitting a grant proposal
   g. PM&E plan

Steps

5. PFS sessions with core activities
   - Comparative Experimentation
   - AESA/PESA
   - Topic of the day
   - Group Dynamics
   - PM&E
6. Field days
7. Exchange visits
8. Graduation

Steps

9. Follow up of PFS activities
10. Establishing PFS networks
11. Income generation activities
12. Setting up of 2nd generation PFS

Steps in PFS implementation

Activity 1: PFS Preparation (4 hours)

In this session participants will be able to understand the core preparation steps essential towards the successful implementation of the PFS. This session actually forms the key building requirements that are essential prior to the implementation of the PFS. These requirements are the pre-requisite steps that must be met for a successful PFS to be implemented and therefore cannot be skipped or underestimated. With the emphasis on the steps, it is hoped that the participants will be able to

understand, explain and appreciate the importance of these steps in the preparation of the implementation of a successful PFS.

1. Briefly explain to the participants the pre-conditions survey and identification, and training of facilitators steps in PFS implementation.

2. Through brainstorming and use of appropriate exercises, discuss each step of ground working emphasising on what, why and how to do it. Explain the steps in the simplest way possible and by the use of local examples to emphasise certain points.

3. Repeat the procedure above for the session on establishing the PFS

A village transect walk

After having gone through the session, summarise key points through question and answer sessions with the participants and put emphasis on the important points to remember.

Activity 2: PFS Implementation (2 hours)

After the preparation stage is done satisfactorily, what follows is the implementation stage. This is the phase whereby the PFS starts operating and things get moving through a series of activities and actions. In actual sense this stage forms the main core of the PFS activities that are undertaken on a weekly basis and it is the actual stage where learning takes place in various ways. This is a very important phase in the PFS process because the main determinants of success or failure are pegged in it. It is hoped that this session will help the participants understand, explain and apply the key steps required for the implementation of a successful PFS.

1. Using power point or Flip chart paper and drawings, systematically go through the PFS sessions with core activities step by step while allowing participants to interject with questions and also by asking a few questions to participants to gauge their understanding. Explain the PFS sessions and core activities emphasising on what, why and how to do it, in the simplest way possible and use local examples if possible to emphasise certain points.

2. Repeat the same procedure for field days, exchange visits and graduation. Choose the most appropriate methods from drawings, brainstorming, question and answer, or power point to enhance understanding.

Ranking excercise

Activity 3: Post graduation activities (1 hour)

Normally after a season long learning cycle that is followed by graduation, PFS members may think that all has come to an end. But this is not the end, it is the beginning of things to come and therefore the

PFS groups must be prepared for this critical period where things can either come to a standstill or if the group is well focused it can be a new beginning for better things to come. In many cases the PFS group expresses a need for more training, either in the same focal activity or in a different enterprise. However, the programme and the activities are different and the approach is aimed towards the sustainability of the group and the implementation and dissemination of the lessons learned. It is therefore essential that participants understand what comes after graduation and the importance of it not only to individual PFS groups but amongst the different PFS groups and how these activities can impact on the status of the graduated PFS groups.

1. Either in groups or individuals writing on cards, ask the participants to answer the following questions either individually in cards, through group discussions or brain storming.

    (a) How best can PFS activities be followed up?

    (b) What are PFS networks and how are they established?

    (c) What are income generating activities? List them and mention which are appropriate within the PFS set up.

2. After the questions have been answered, in plenary discuss the presented issues with the participants and later consolidate all the issues through a power point presentation or writing on cards. Remember to emphasise on important points.

Using local samples to understand PFS activities

3. Using power point or writing on Flip chart paper, systematically go through the setting up of second generation PFS activities while allowing participants to interject with questions and also by asking a few questions to participants to gauge their understanding. Explain what it means to have second generation PFS activities in the simplest way possible and use local examples if possible to emphasise certain points.

Wrap up (10 minutes)

Summarise key points through question and answer sessions with the participants and put emphasis on the important points to remember.

Handout 1.3.1a

PFS Preparation Phase

Step 1. Understand the pre-conditions (Pre-conditions survey)

Before establishing a PFS in a new region, a simple assessment should be performed by a PFS specialist to assess the conditions for PFS implementation. This will ensure that the environment is suitable for the PFS approach. Questions to be raised include:

- Is the pastoralist production system changing and is there a need for drought preparedness efforts to fill existing knowledge gaps?

- Is PFS the most suitable approach for tackling existing problems?

- Are there any cultural barriers to the PFS approach? Are peace-building efforts in place?

- Is the Ministry (agriculture/livestock) and other intervention actors supporting the PFS implementation? This is essential as PFS should be seen as an opportunity to test a new approach, not as a threat to existing systems.

- Are there any other PFS or similar programmes in the region, country or neighbouring countries? (It is important to link up PFS wherever possible.)

- Are there any PFS specialists or Master Trainers available in the region?

- Who are suitable PFS facilitators (government or non-government extension workers, pastoralists and Community Animal Health Workers (CAHW)? Are they willing to act as PFS facilitators?

- How many PFS can be guaranteed implementation after the first TOF course? Are there sufficient resources? Under which programme is the PFS going to be supported?

Results of the assessment will help assess if a PFS should be implemented in a particular region, and to determine the target communities. If authorities are supportive and a PFS has been recognized as a potentially appropriate method, the remaining results will help assess the costs and needs for external inputs to determine the level of difficulty in establishing the PFS.

Step 2. Identification and training of PFS Facilitators

PFS facilitators need to be identified and trained before commencing PFS activities. The facilitators should be individuals residing in or close to the target community, who speak the local language and have some kind of technical knowledge, such as for example CAHWs. It is also preferably, but not necessary, that the facilitators are literate. Often two facilitators (or more) are identified to run one PFS as a team and the facilitators are usually identified or selected by the target community.

It is crucial that the facilitators participate in a TOF prior to facilitating a PFS. The TOF, organised by experienced PFS Master Trainers, is a three-week (or longer) training programme to prepare participants in the principles and core elements of the PFS methodology and facilitation skills. Additional training on specific topics (technical and methodological) can be organised if necessary to further develop their capacity. The TOF should also be complemented by regular refresher trainings and on-the-job mentoring of the facilitators during PFS implementation.

Handout 1.3.1b

PFS Preparation Phase

Step 3. General ground working

Following participation in the TOF, facilitators, with assistance from the project staff, must first determine the actual needs of their community. Basic area information is collected using participatory tools to better understand the local livelihood system and enable future Monitoring and Evaluation (M.E). Activities should begin at least two months ahead of the planned start of the PFS. The following steps are recommended for this phase:

(a) **Establish contact with the community:** Initial contact with the community is needed to understand the area and characterise the livelihood systems. In most places, community and manyatta leaders should be contacted first to seek their advice and authorization. Following their approval, facilitators can plan an awareness-raising meeting to introduce the PFS approach to the community

(b) **The awareness-raising meeting:** A meeting with the community to introduce the PFS concept is necessary in areas where awareness is low. The facilitator needs to ensure that community members have a clear understanding of what they can expect from the PFS. Participants and the facilitator can then discuss how to move forward to plan the PFS implementation.

(c) **Identification of participants:** Through consultations with the community and the help of local leaders, 30–40 PFS participants should be identified (groups tend to shrink to 25–30 after the first few sessions). In the identification process the facilitator needs to be aware of gender relations and cultural practices within the community. Ideally the group should include a mix of men, women, youth and elders from a cluster of villages. In case of a nomadic pastoral community it is good if about half of the group is made up of permanent residents of the manyatta and the other half of members who seasonally migrate to kraals. If participants are drawn from several clans they should all migrate to the same kraals and share key grazing resources.

The Criteria for selecting participants are:

- Common interest (that is, all members have the same enterprise interest – cows, goats and fodder production.

- The enterprise is the main source of livelihood.

- The participant is a decision maker in his or her household.

- All participants are from the same socio-economic level, since the learning process can be hampered by influential personalities such as local chiefs who may impose their views and impede participation.

- The participants be of the same clan and share key resources and migrate to the same kraals.

- All participants should live within a relatively short distance of the PFS learning site, preferably the same village.

- There are no known conflicts between participants.

- The participant must aim to attend all sessions during the PFS cycle.

- The participant must be willing to work in a team and share ideas with others, including non-members.

- The participant must be willing to contribute financially, in material inputs or in personal time to the PFS work.

- The participant must be interested in learning and not expect material benefits.
- At least one participant must be willing to provide a herd, animal or field for group learning and experimentation.

(d) **Identifying the focal activity (PFS learning enterprise):** Sufficient time should be spent on identifying the focus of the PFS, to avoid involving pastoralists in activities that are not of interest to them. The selection of the PFS enterprise depends entirely on local peoples' needs and interest. For a cattles-focused PFS, the community's main enterprise should be livestock herding. It is therefore important during the initial stage for the facilitator to help in analysing the community, identify the components of its livelihood system and whether they have problems concerning this system.

(e) **Identification of learning site:** The PFS group will select a site to conduct meetings. A field and/or animal is also needed as a study object. Criteria for learning site selection are:

- The site or animal/herd must be suitable for the enterprise
- It must be representative of the problems in the area
- It must be central and accessible to group members and facilitators
- It should be democratically selected by the group members
- Site and animal/herd security should be ensured
- The meeting place should be spacious enough to hold a group of about 30 persons, and should prefferably be under a tree to provide shade. If possible the place should be fenced using locally available materials for protection from wind and dust.

Handout 1.3.1c

PFS Preparation Phase

Step 4. Establishing the PFS

(a) Participatory introduction of the participants: The PFS participants might already know each other, however to break the ice and get to know each other better a participatory introduction of all actors present is highly recommended.

(b) Levelling of expectations: In order to facilitate the learning process and avoid disappointment it is important to level the expectations of the participants and of the facilitator.

(c) Host team: The host team is the helping hand of the facilitator. In turns, sub-groups of PFS members are responsible for the day's activities and additional responsibilities in the (field/herd) tasks.

(d) Participatory planning of PFS activities

    i. Establishing a PFS group: The group of pastoralists responding to the criteria will officially establish their own PFS by:

- Choosing a name for their PFS and choosing a slogan (optional but recommended)

- Setting ground rules or a constitution also called 'Setting of learning norms'. The PFS members will set the learning norms to ensure a suitable learning environment and avoid interruptions and frustrations.

- Electing officials, e.g. a chairperson, secretary, treasurer

- Registering officially at the respective & relevant Government office

- Opening a bank or local savings account: each member will need to contribute money as a deposit for group activities; money withdrawals need to be supported by a letter explaining the purpose of the withdrawal, signed by PFS officials and some members

- Sourcing funds to finance their activities (even when a grant is provided it is recommended that the PFS looks for additional funds).

    ii. Problem analysis and ranking: The first PFS sessions will be used to Analyse the problems perceived by the pastoralists in the focal activity/enterprise of their choice. These problems will be defined and prioritized and will direct the learning programme of the PFS.

    iii. Identifying potential solutions: The main problems need to be Analysed intensively. PFS group brainstorming sessions aim to develop options that can be tested and evaluated.

    iv. Developing the learning curriculum/ schedule: Once the PFS group is established, the facilitator develops a programme the curriculum for the PFS, based on the main problems identified–. In collaboration with the group, the facilitator decides what activities need to be undertaken to further explore the problems, test the solutions and identify what kind of outside assistance is needed. Key activities to facilitate learning in the PFS are the PESA, field comparative experiments and special topics, where group discussion and short- and medium-term learning exercises are conducted. Field trips or exchange visits with other PFS groups are also useful methods to enhance learning and participants' motivation. A curriculum defining the PFS season and outlining dates of meetings and the topics of discussion needs to be drafted on a flip chart and made accessible to all.

v. **Developing a detailed budget:** Having identified which activities the PFS will perform, the group will establish a budget. An overview of the budget required for the PFS needs to be drafted (especially when the PFS group wants to apply for a grant or loan). This loan enables the PFS to do things as mentioned below;

- Purchase stationery (flip charts, pens, markers.)
- Purchase inputs for the learning activities and experiments (livestock, feed, seeds, veterinary drugs.)
- Purchase management tools (weigh bands, castration tools, rain gauge.)
- Organise field days and Monitoring & Evaluation activities.
- Organise exchange visits (seed money to compliment members own contribution).
- Organise for graduation (displays, transport, certificates.)
- Facilitation allowance/motivation of the facilitator (both the main facilitator and potential external 'special topics' facilitators).

vi. **Submitting a grant proposal:** To enable a PFS group to test alternative solutions and risk experimenting with new technologies, a learning grant is often made available by the implementing agency to cover all or part of the PFS budget. The implementing agency should have a system in place to effectively process grant proposals and rapidly deposit the funds to the PFS group's bank account, or in a local savings account. These funds are then managed exclusively by PFS members, empowering them to achieve the goals set out in their activity plan. A delay between the grant application and fund allocation might discourage participants. However, if there is a delay, the facilitator should promote low cost or income generating activities in the meantime to maintain cohesion within the group. There are many advantages in allocating the PFS budget as cash directly to the group rather than purchasing and distributing the required items on project level. By managing the funds the group members get an opportunity to practically learn aspects such as financial management, simple book keeping and where/how to source inputs and products. With the group paying the facilitator allowance the facilitator feel directly accountable to the group rather than to the project office. Having an active bank account in place, well managed, may also facilitate access to other funding sources in future.

It is necessary that the groups consider any external funding as a 'seed for learning' that should complement the groups own resource mobilisation. Ways that the group can save or raise money for learning include; regular savings, establish income generation activities such as marketing of livestock, sale of agro-veterinary inputs or provision of specialised community services.

vii. **Participatory monitoring and evaluation plan:** This needs to be planned to ensure that the objectives of the PFS group are met and progress can be tracked. The data generated in the problem analysis need to be well recorded as they provide baseline information for evaluation. A Participatory Monitoring & Evaluation can then be developed describing why evaluations are done, what is being evaluated, who is evaluating, when and where the evaluations should be done and what resources are needed.

Handout 1.3.2

PFS Implementation Phase

Step 5: PFS Sessions with core activities

Enrolled PFS members agree with the facilitator when the learning programme will start, the frequency of meetings and the length of the cycle before graduation. In general, the PFS group meets for a half-day session once a week and the members agree to join the PFS for a full year to enable the implementation of medium-term field comparative experiments and learning exercises related to livestock issues such as feeding and animal health. The learning cycle should cover a full seasonal cycle, from when the rainy season starts, continuing through the dry season and back to the next rainy season, giving hands-on experience at all stages. In the case of a nomadic community the learning should start in the manyatta and when the group splits during the seasonal migration the learning sessions continues in the manyatta and kraal in parallel.

Since many participants are likely to be illiterate illustrations, practical demonstrations, exhibits of real-life examples and folk media such as songs and storytelling are used. All sessions are conducted in the appropriate local language.

An important component of the PFS group is the host team. These are a small subgroup chosen from the larger PFS group who take on a number of responsibilities, including: (a) assisting the facilitator (b) preparing the PFS programme and venue for each session (c) running the group dynamic activities (d) introducing visitors (e) keeping attendance records (f) acting as time keepers. The table below indicates a typical PFS session:

A Typical PFS Session Schedule

Time	Activity	Objectives	Responsible persons
7.30–8.00	Opening – someone blows the horn to call members to the session Roll call and brief recap of last session: could be in form of song or role play	- Alert members that the session is about to begin - Record who is present - Reinforce the learning achieved in the last session	Host team
08.00 - 08.30	General observation of the condition of the animal herd	- Improve observational skills and detect any problems, changes or opportunities	All
08.30 – 09.00	Pastoral-ecosystem analysis (PESA) – systematic observation and analysis of comparative field/livestock trials	- Monitor progress of trial by collecting data	Subgroups
09.00 – 09.30	PESA analysis and discussions in subgroups	- Sharpen analytical skill and data analysis	Subgroups
09.30 – 10.00	- Presentation of PESA results and decision making by whole group (followed by release of study animals for grazing)	- Results and subgroups' discussion points shared with whole group	Facilitator and host team
10.00 – 10.30	Group dynamics	- Develop songs and other aids for memorization of key information - Energise the group and build team spirit - Enhance participation	Facilitator and host team

10.30 – 11.30	Special topic	- Widen knowledge and skill base responding to felt needs of group - Promote discussions and introduce new ideas and concepts	Facilitator or guest specialist if appropriate
11.30 – 11.40	Review of day's activities	- Reinforce the day's learning and evaluate the group's achievements	Facilitator
11.40 – 11.50	Planning of follow-up activities and next session	- Plan follow-up activities that will take place outside the PFS session - Plan activities for the next session	Host team
11.50 – 12.00	Roll call Announcements Thanks Close	- Record late-comers - Share news and announcements - Thank everyone for their efforts - Bring the session to a timely close	Host team

Table 1: Typical PFS Session Schedule

Step 6. Field days

Field days provide an opportunity for non-participants and the larger community to be exposed to the PFS group's lessons and the skills and knowledge gained in the process. In addition, they provide the PFS members with an opportunity to display and share their experiences, for example. the experimentation results and learning activities, including group dynamics. Field days also reinforce the PFS cohesion and raise awareness among the community, the government and other organizations in the area, creating support and new demand for PFS.

Step 7. Exchange visits

Exchange visits are educational tours to another PFS, agricultural institution or innovative communities. They encourage PFS members to compare the activities of other groups with their own and to exchange tested technologies and unique innovations. It may not be possible for all PFS members to go on the visit: in this case a few representatives can be chosen by the group who will then report back on what they learn at the next PFS session.

Step 8. Graduation

PFS members with a good record of attendance (75% of sessions) can graduate for the specific activities completed during the PFS learning cycle. The graduation is organised by the group and the facilitator and involves an official ceremony to which community members, (government) officials, programme staff and neighbouring communities are invited. Participants are awarded a certificate by the supporting agency/programme to recognise their efforts and celebrate their achievements. At the same time, other community members will be attracted and the event marks the end of an official learning period.

Handout 1.3.3

PFS Post graduation Phase

Step 9. Follow-up of PFS activities

At the end of a learning cycle and after the graduation ceremony, the PFS normally continues. With help from the facilitator, the group evaluates the PFS and develops an action plan based on the evaluation of what has been learned and what the gaps are. In addition, new sessions (different topics or more in-depth learning of the specific topics), implementation of commercial activities, and linkages with researchers, extension workers and other PFS are planned.

Step 10. Establish/create PFS networks

When there are several PFS in a region, PFS networks should be encouraged. Networking is a sustainable mechanism to support economic activities and support the development of existing and new PFS. It initiates commercial ventures in all affiliated PFS, facilitates fundraising and helps to coordinate marketing activities.

Step 11. Income generating activities

When the PFS groups have graduated it is not the end of learning. In order to enhance continuity in learning, PFS groups can engage in income generating activities to support the initiation of new PFS groups or support further learning through new focus enterprises that have been identified and deemed fit for the PFS group. The income generating activities can be directly derived from the focal enterprise or may be closely related to pastoral livelihood options. In order to enhance the growth of income generating activities within the PFS group it is essential to link the group to microfinance or credit institutions or even VICOBA groups. In this regards business skills and management becomes a vital element for the PFS groups in order to assist in the management of the income generating activities.

Step 12. Set up of second generation PFS

The PFS facilitator and participating members identify a few PFS members willing to play the role of facilitator and who have the potential to be trained further. The individuals selected will start by assisting the current facilitator, and will learn the basics. When ready, he/she can thereafter conduct a PFS on his/her own in the same or a neighbouring community. The so-called second generation PFS is backed up by the originally trained facilitator. The facilitator can oversee many second generation PFS groups, helping to scale up the methodology.

Lessons learned in preparation and implementation of PFS

- The support and goodwill of the authorities at various levels is essential, especially that of community leaders, programme staff and supervisors of the PFS facilitators.

- PFS cannot operate in a vacuum. Clear understanding of the PFS concepts and procedures should be established and effective linkages formed between stakeholders.

- The PFS can effectively integrate with other participatory methods and this should be encouraged to enhance the overall outcome.

- The PFS curriculum is very demanding on the facilitator and, in general, a PFS requires at least one day per week of his/her time.

- To enhance learning among illiterate participants, learning tools based on drawings and pictures should be encouraged. Technical information should also be memorized in the form of songs and drama to ensure retention of the knowledge gained.

- Technologies tested and applied in the PFS should be locally available for pastoralists to practice them in their own situation

- The PFS concept and implementation should be flexible enough to be modified to fit with local conditions.

- Facilitators should have both local knowledge and more 'modern' knowledge of the topics under study, including knowledge on the terminologies used for example pests and diseases.

- The PFS facilitators need to be well trained in the PFS methodology.

- Internalising facilitation skills among PFS facilitators takes time and, in general, facilitators need regular support and mentoring from a PFS Master Trainers during the whole PFS implementation process.

- Adequate resources and logistical support are key first steps. Financial resources should be in place prior to the start of PFS activities.

- Distribution of learning grants directly to PFS groups is highly encouraged.

- Balance of sexes should be encouraged as it enhances the whole learning process for all participants and encourages communication between men and women.

- Built-in M&E methods are needed to assess the PFS's impact on participants' lives and livelihoods.

- Sustainability mechanisms should be started from the onset of the PFS. Income generating activities such as the sale of local products ensures a financial base for the group. Also regular contributions by individual PFS participants are useful for ensuring financial sustainability of the group.

- The process and results should be well documented by the group and facilitator.

1.4 PFS Core Activities

Background

PFS core activities are the main activities that facilitate the learning process. These activities are usually repeated in each PFS Session to provide the framework for learning. They include: Comparative Experiments; Pastoral ecosystem analysis (PESA); Topic of the day; Group dynamic exercises; and Participatory monitoring and evaluation (PM and E).

Topic objectives

By the end of this topic participants will be able to:

• Describe the key PFS core activities

Topic overview

PFS core activities

Method of facilitation

• Participatory presentation,

• Brainstorming

Time: 30 minutes

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Coloured paper, Photos, Display board.

Handout: 1.4

Additional reference

• Pastoralist field school manual – Guidelines for facilitation

• Livestock farmer field school manual

LEARNING ACTIVITIES

Introduction

1. Introduce the session by climate setting in order to prepare the participants for the topic. Climate setting can be done by an exercise or by giving a brief story or scenario that will lead the participants into realisation of the topic they are being introduced to.

2. Introduce the participants to the objectives of the session.

Activity : PFS Core Activities (20 minutes)

1. In plenary, ask the participants what the core activities of PFS are so as to have a feel of what the participants envisage about the issue in question. Either have the participants answer aloud in plenary or give cards for each participant to write their answer.

2. After the contributions are over, take over to explain in a systematic manner either orally, through the power point or the use of the cards, the PFS core activities.

Wrap up (10 minutes)

Summarise key points through question and answer sessions with the participants and put emphasis on the important points to remember.

Handout 1.4

Pastoralist Field School core activities

Five core activities are repeated in each PFS session to provide the framework for learning. These include:

- Comparative experiments.

- Pastoral-ecosystem analysis (PESA).

- Topic of the day (special topic).

- Group dynamic exercises.

- Participatory monitoring and evaluation (PM & E).

1.4.1 Experimentation in PFS

Background

Experimentation in PFS is usually carried out with the aim of determining the comparative effects of certain actions. It is a process of collective investigation with the purpose of initiating activities or testing solutions to solve local problems. The main basis for experimentation in PFS is to create a learning process through which pastoralists, through their group sessions, test, monitor and evaluate new ideas, technologies or innovations for improving productivity or sustainability of the pastoral livelihood systems. Comparative experiments in PFS are implemented to empower participants with observational and analytical skills to investigate the cause and effect of major production problems. Common practices are tested and compared with other available options to solve an identified problem. Analysing the results allows the pastoralists to decide which solution (technology and/or practice) is best suited to their own situation. Comparative experiments are also used to demonstrate new production opportunities and to help pastoralists diversify. Experimentation is a follow-up process to the problem diagnosis stage in the PFS process, but with the main objective of addressing selected pastoralist constraints. The main actors in the experimentation process include PFS members, facilitators and researchers who have complimentary roles in the experimentation process.

It is important to note that Comparative experimentation in PFS is seen primarily as a learning strategy for empowering participants and only secondarily as producing research results in conventional sense.

Topic objectives

By the end of this topic participants will be able to:

• Describe the principles and steps of experimentation in PFS

• Design a variety of experiments at group level

Topic overview

1. What is and why experimentation in PFS

2. Principles of experimentation in PFS

3. Types of experiments in PFS

4. Steps in experimentation in PFS.

5. Development of sample experiments at PFS level.

Method of facilitation

• Participatory presentation,

• Group discussions,

• Bucket exercise,

• Practical activity in sub groups

Time: 1 hour

Materials: Five buckets (three of the same size, two of different sizes), 30 stones, Flip charts Photos, A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board.

Handout: 1.4.1.1, 1.4.1.2, 1.4.1.3 and 1.4.1.4

Additional reference

• PFS Experimentation option guide

• Pastoralist field School manual: Guidelines for facilitation

LEARNING ACTIVITIES

Activity 1: What is and Why Experimentation in PFS (20 minutes)

Brainstorm with the participants what is and why experimentation in PFS.

Activity 2: Principles of experimentation (1 hour)

1. Start by asking the participants if they have experimented before and if they have ask them to give examples. Discuss the examples participants give.

2. Play the stone throwing game

3. Ask for three volunteers and explain that these people represent three things you want to compare (see table on pages 39-40 for the corresponding key principles in experimentation and throwing stone exercise).

4. Explain to the group that the competition is meant to find out who is the best at throwing stones in a bucket. Each person is given 10 stones and the one who gets the most stones in the bucket will be the winner.

5. Ask the rest of the group to vote on who they think is going to win

6. Place the three different sized buckets, one in front of each volunteer so that they are all the same distance from the buckets, and give each one of them 10 stones. Ask them to throw as many stones as they can into their bucket. Count the number of stones in each bucket. Give participants the 'results' and ask them who they think is the winner. Then ask: "Was this a fair competition?" Of course it wasn't fair, because it is much easier to get the stones into the biggest bucket.

7. Ask how the game can be made fairer. It can be made fairer to provide a uniform situation i.e. everybody has the same size bucket.

8. Play the game again, give the results and ask again who the winner is. This time the results seem fair – but now ask the participants whether they think the same person will win if they play more times? Play the game once or twice more – enough times to show that people don't always have the same scores. This demonstrates the importance of repeating treatments to make sure your results are reliable. Work out the average score for each person and then declare the winner.

9. Ask the three volunteers to pick the bucket and stones of their choice and explain how they made that choice. Explain that people are not always objective and may be biased without knowing. This can influence the results; therefore it is important to give the treatments and the location of the experiment an equal chance of being chosen, hence randomisation).

10. Ask some of the participants who did not play the game: "Did they vote for the right person?" Ask if it was difficult to guess who would win, since they had never seen these people throwing stones before. Then ask the same participants: "Do they consider themselves better or worse at throwing stones?" Everybody must have an idea on how to scale themselves or maybe a good friend. If you have someone participating in the game whose capacity of throwing stones you know, then you have a point of reference (also called control) to value the scores of the others.

11. You can stop the game here or repeat the process with different participants to increase understanding.

12. Explain that to set up a good comparative experiment you need to think about: the objective, treatments, uniformity, replication, randomisation and pastoralists practice/control to make sure
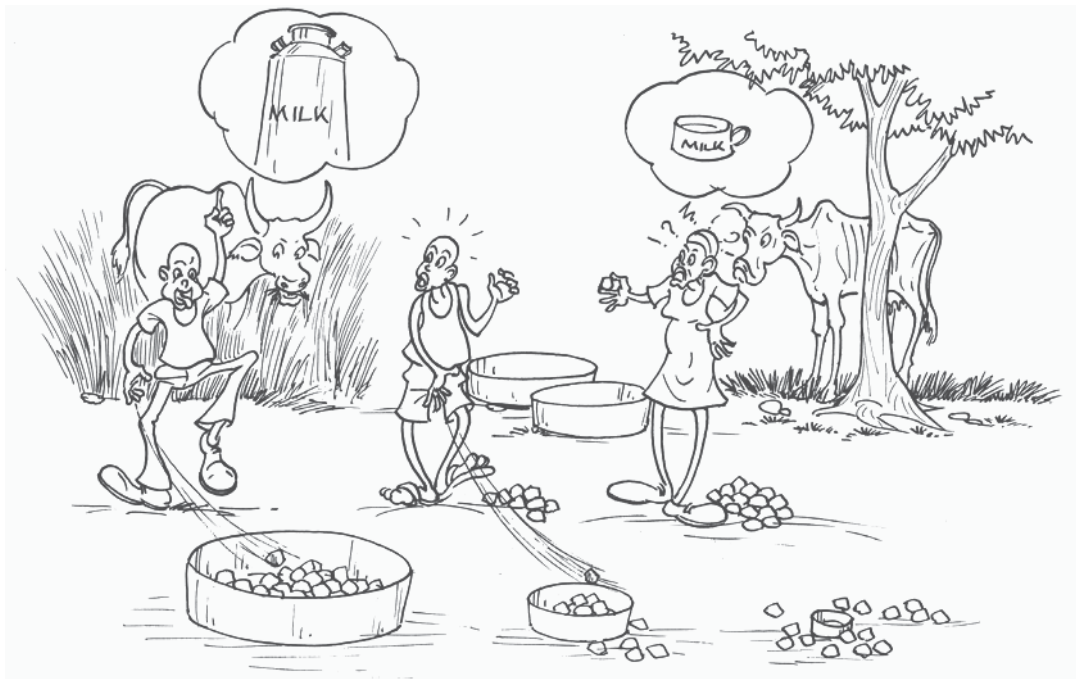
you have a good quality experiment. Every comparative experiment should consider these elements. Furthermore, keep the following principles in mind:

- Experiments should be based on the community priority problems.
- Experiments should be developed with the participation of the whole group. The process has to be owned by the participants, so they should design and implement the experiment, keep the records, perform the analysis and draw their own conclusions.
- Use locally available materials.
- The experiment should not be complicated.
- It should be cost effective.

Principles of experimentation: How the Throwing Game Relates to Key Principles in Experimentation

Key principles in experimentation	"Throwing stones' exercise"	Applicability in the PFS
Treatments/Subject	Three volunteers.	Options, practices, for comparison to find out which works best
Objective	To find out which of the three volunteers is the best at throwing stones	To find out which of the practices/options yield the best and most feasible results
Hypothesis	Vote on who do they think is going to win	It is an assumption [what the farmer's think is the best option]– which is either proved [validated] or disproved by carrying out the experiments
Uniform situation	Buckets are of the same size. Distances from the volunteers to the buckets are similar validate	Just as all the players needed a uniform playing ground in order to gauge their abilities well, we also need to have experiments conducted under a uniform situation for such as animals same breed of animals, within same geographical location; could also be same state for certain experiments like milking, calving, or same size of plot for crops and same variety.
Replication	Repeat game to give the volunteers another chance to win because the volunteers did not always have the same score.	In the herd, while the animals may live under similar conditions, there are factors like health condition, genetics etc that may influence the results of the experiment. In a crop field, the layout of the field, the soil fertility/structure, the slope/gradient are not the same at all points, etc; therefore, repeating the treatment reduces chances of error and provides opportunity for realistic conclusions
Randomisation	Account for bias (the volunteers did not decide on the bucket but were given a bucket randomly).	There should be no "pre-conceived' order of which experiment should come first, second, or whose animal to use for experimenting. Give equal chance to all.
Point of reference: i.e. control or normal local practice	Ensure participation of yourself or someone whose skills in throwing stones you know.	In the PFS, farmers have their "traditional" way of managing problems either in their livestock or crop fields. Also in extension, there are pre-determined practices that are deemed best practices for managing certain problems. The control may thus represent either this 'farmer's practice" or the recommended 'extension practice'. It will form the basis to evaluate the other practices that were derived from the GAP process, which we are going to test through experimentation. At the end we should be able to make appropriate conclusions about each practice

Table 2: Principles of Experimentation

The stone throwing game

Activity 3: Types of Experiments in PFS (30 minutes)

Brainstorm the different types of experiments that can be set up in PFS.

Activity 4: Steps in Designing Comparative Experiments in PFS (4 hours)

Using one common problem within the community as an example, discuss step-by-step the various steps in designing and implementing an experiment in PFS (Handout 1.4.1.4).

Activity 5: Development of Sample Experiments at PFS Level (1 hour 50 minutes)

Ask participants in sub-groups to identify any one problem based on their field experiences that needs to be addressed in the PFS and then design a participatory comparative experiment using the steps discussed in activity 4.

Wrap up (10 minutes)

Summarise key points through question and answer sessions with the participants and put emphasis on the important points to remember.

Handout 1.4.1.1

What is and Why Experimentation in PFS

Comparative experimentation is a collective investigation process to solve local problems. Simple experiments or trials are carried out to enhance pastoralists' observational and analytical skills to investigate the cause and effect of major production problems. They help individuals become experts and to design simple and practical experiments to test and select the best solution to their problems.

Experiments also encourage the testing and adaptation of new technologies or practices. In this case, the experiments compare local practices with a set of available solutions presented either by the facilitator, researchers or group members. By analyzing the results and developing recording skills, pastoralists are able to decide which solution (technology or practice) is best suited to their situation. Each experiment should include a simple cost–benefit analysis using the data recorded during PESA/AESA exercises. Assessing the economics of each option improves decision-making skills for livestock health and production activities as pastoralists often do not know whether they operate at a profit or loss. Through the exercise participants can better understand the difference between various options to determine the efficiency of their own systems.

Besides recording and analysing the financial costs and benefits of the options tested in the experiment, other indicators to validate the results of the experiment should be identified by PFS participants example labour needs, socio-cultural appropriateness, length and speed of growth and accessibility. Record keeping of indicators is required to monitor and evaluate the performance of a treatment or technology.

Handout 1.4.1.2

Principles of Experimentation

Pastoralists are continuously experimenting and trying out new things. They may test and experiment with new practices introduced to them by external people, but they also test their own or their neighbours' ideas. However, they may not consider they are doing experiments and they may not plan in the same way as a scientist. Experiments do not need to be complicated or risky to be helpful and pastoralists do not need a scientific education to carry them out. It is important to remember that PFS experiments are tools for learning and an opportunity for pastoralists to test different options for themselves. In order to fairly be able to compare different options experimented in PFS, some basic principles of experimentation are important to avoid making wrong conclusions or decisions for future management.

Key principles in experimentation include:

- Objective,
- Treatments,
- Uniform situation,
- Replication,
- Randomisation
- Hypothesis, and
- Pastoralists practice/control

Handout 1.4.1.3

Types of Experiments in PFS

Experiments in PFS can be classified into four categories as follows:

1. Classical Participatory comparative experiments: This involves setting up of experiments with different comparative options and control group.

2. Comparing ongoing pastoralist practices such as pastoralists do carry out a wide range of different practices in relation to livestock management which are well known, can be identified observed and evaluated without having any responsibility or trial design. This is particularly useful for experiments that have a high risk or cost implications or for an aspect for which wrong perceptions have been held for a long time such as

    (a) Tick control: comparing efficacy of different acaricide and/or different application regimens.

    (b) Vaccination efficacy: comparing incidence of disease in immunized and non-immunized animals using participatory methodologies.

    (c) Overstocking/underfeeding; establishing incidences of inadequate feed supply among herds with the same availability of land but under different pasture land management practices.

    Observation and analysis of such experiments can be undertaken by PFS groups visiting neighbours or neighbouring communities within and outside the PFS group to evaluate existing and new herd management practices.

3. Comparing non PFS or past experience: PFS practices can be compared with past experience with non PFS member's practices. In these experiments, all PFS members' animals receive a positive treatment (for example vaccination or deworming) with the objective of improving the overall status of the herd. The pastoralists then compare the results with their own past records (Written or memory) or with non-PFS communities in the same area who are not using the treatment. Participatory exercises can be used to evaluate the people's perception of the impact of the treatment.

4. Stop and go trials: The 'stop and go' method applies a positive treatment then it is stopped and then re-introduced. This is repeated several times and the effect of the treatment is demonstrated by what happens when the treatment is stopped. In this case, each animal on trial is the treatment and the control. This method cannot be used to compare multiple treatments, but it is useful to demonstrate the effect of a single treatment (for example the impact of supplementary feeding in livestock.

Handout 1.4.1.4

Steps in PFS Experimentation

Experimentation usually involves a range of steps including planning, design, implementation and evaluation of experiments. Good planning is the basis for systematic experimentation which involves a range of steps. This include:

1. Identification and prioritisation of problem or opportunity.

    *   Clear understanding of the problem is the basis for setting the learning and experimentation theme.

    *   This should be based on identified and prioritised constraints and opportunities (pair wise ranking tool can be used).

    *   One experiment should only test one topic/problem at a time.

2. Identification and prioritisation of solutions

    *   Come up with all possible solutions or options to solve main problem identified in step 1. The problem – solution analysis format may be a valuable tool

PROBLEM/SOLUTION- ANALYSIS TABLE				
Problem	**Indicator**	**Root cause**	**Copying stragegy**	**Solutions**
Inadequate water	Long trekking of animal to water points Reduced milk yield in dry seasons	No boreholes Silted points No permanent river	Provide little water to animal. Digging shallow wells	Construct water tanks Desilt existing dams
Lack of quality Artificial Insemination (AI) services	High incidence of breeding diseases Poor quality dairy cattle in terms of milk production	Inadequate capital Lack of education or AI services	Use of local bulls Illegal use of other peoples bulls	Start AI services Education on AI Use

Table 3: Problem/solution analysis table

*   Analyse and rank the solutions using PRA tools such as group discussion and pair wise ranking for prioritisation.

3. Selections of options/treatments to experiment. [Use the options assessment table].

    *   This should include a mixture of local/traditional practices and "new" options (such as practices introduced by research/extension staff).

    *   Criteria that can be considered in option selection include:

    (a). The degree of probability that the technology will address the identified constraint;

    (b). Potential benefits in terms of profitability, reduced risks, equitability, and sensitivity to gender issues;

    (c). Ease of adoption, that is, compatibility with the pastoral system; and,

    (d). Ease of experimentation with the selected technologies in terms of resource requirements and management.

(e). Principle of a "no risk zone". The high economic value of animals does not allow any experiment involving risk or even medium-term loss of productivity. Animals involved in the experiments should at no time be under any health risk. This precludes the use of control groups if conditions will put animals at risk

4. Define learning objective

- An experiment needs to have clear objectives as a basis for learning

- Define a clear objective of the experiment to be conducted. What is to be tested and what result do we expect?

- This should be linked to the previously identified local priority problem

- The objectives of the comparative experiment(s) or study field are jointly formulated with all the PFS members, facilitators and researchers in some cases.

5. Determine the treatments to test

- The optimum number of treatments is usually 2-5 per experiment. Too many or too few treatments will not result in useful information. Having more than five treatments/options makes the experiment too complex.

- The treatments should be kept as simple as possible by minimising the number of factors and/or factor levels (having only one factor under study at a time is recommended). If an experiment has too many variables it will be difficult to evaluate which one is responsible for the results. Similarly, if the treatments are very similar it will not be possible to see any difference.

- First, determine a control treatment, which could be a standardized practice with known results, such as pastoralist practice, or the standard recommendations of the extension service

- The other treatments contain variations from the control.

- Apart from the different studies selected all other factors should be kept the same for the various treatment plots.

Generally there are two ways of designing experiments; as single factor trials or in a stepwise manner. In a single factor trial different solutions are tried in relation to a specific study objective for example, different types of feed, various ways of conserving fodder and ways of managing pasture land.

In such type of trials all the treatments can be compared to the control since there is only one variable varying between the treatments.

See example below.

Control	Treatment 1	Treatment 2
Goat No. 1 is not given a de-worming treatment	Goat No. 2 is given local herbs used for treatmen of worms according to traditional knowledge	Goat No. 3 is given commercial de-worming treatment according to veterinary recommendations
All other management aspects of the three goats remain the same, that is feeding, grazing, housing, and treatment of disease		

Example of a single factor trial on deworming in goats

Sometimes treatments complement each other or work best hand in hand, that is to see the full effect of one treatment; another complementary treatment is also needed. In such cases trials can be designed in a stepwise manner, where one gradually adds on variables to be tested. See example below. In this case not all treatment groups can be compared to each other. For example in the example below one cannot compare the control with Treatment 2 since there are two variables that vary. However, one can compare the control with treatment 1 and treatment 1 with treatment 2.

Control	Treatment 1	Treatment 2
Goat No. 1 is kept with the herd according to normal customs	Goat No. 2 is kept with the herd according to normal customs, **(1)** + also receives supplementary feeding of acacia pods and grass in the evenings.	Goat No. 3 is kept with the herd according to normal customs, **(1)** + also receives supplementary feeding of acacia pods and grass in the evenings. **(2)** + is also given commercial feeding concetrates (minerals and vitamins)
All other management aspects of the tree goats remain the same, that is, grazing, housing, treatment of disease.		

Example of a stepwise trial on supplementary feeding goats

6.   Determine the variables or parameters to measure

- Identify indicators required to monitor progress

- Indicators are variables that allow one to identify and measure change during the experimentation process

- The indicators selected for monitoring an experiment depend upon the objective of the experiment.

- It is important that the whole group is involved in the decisions about which indicators are to be monitored and that all PFS members understand exactly what will be monitored and how.

- Inputs from extension staff and researchers are often useful in this process

7.   Decide on the field layout

- To ensure reliability of the experiment, there should be proper layout of the experiment, replication and randomisation.

- The more replications, the surer one can be that the final results are valid and that correct conclusions can be drawn. However, too many replications make the experimental design complicated and difficult to implement in the field (two or three are recommended).

- When deciding where to locate the trial or whose animals to use, do not be influenced by personal bias. Instead, try to allocate the treatments randomly. An exercise to facilitate randomisation is to put cards with all the treatments in a bag or a hat and pick the treatments one by one; this will dictate the order of the set up.

- For crop based experiments, prepare a field with plots for each replication at a size of at least 10m × 10m each.

8. Decide on the monitoring and evaluation of the experiment

- Regular observations of the experiment will help the PFS to identify the reasons why a certain technology is performing a certain way

- A discussion should be initiated on the frequency of making observations in order to agree on a regular, systematic way of monitoring using the indicators already identified for the theme of the study.

- Usually monitoring involves data collection, which when analysed indicates progress or constraints during the experimentation process.

- Before the start of the experiment a plan should be made on how the experiment is going to be monitored, and who will be responsible for what

- When a PFS carries out an experiment with several treatments it is recommended that each treatment be allocated to sub-groups who will be responsible for the implementation, record keeping and analysis. Each sub-group will inform the other participants about the progress of their experiment during the regular PESA/AESA presentation.

9. Evaluation of the experiment

- At the end of the experimental cycle an evaluation is conducted to seek the answers to three main questions: Has the experimental process achieved its objectives? What factors account for the level of performance of the technologies under study? and the economic analysis: is the best option the most feasible option [affordable in terms of cost to the farmer]. A combination of these, lead to an informed decision/conclusion of what is appropriate for the farmer in their state.

- Evaluation includes data processing, analysis, interpretation, conclusion and recommendations.

10. Sharing of the results

Comparative experiments should be:

- SMART: Simple, Measurable, Achievable, Realistic, Time bound.

- Ethical.

- Safe.

- Technically correct.

1.4.2. PESA/AESA in PFS

Background

This is the cornerstone of the PFS methodology and aims to enhance observational, analytical and decision making skills of those undertaking the experimentation. When applied on crop it is known as Agro-ecosystem Analysis (AESA) and when applied in Pastoral context it is known as Pastoral-ecosytem Analysis (PESA). PESA/AESA is a tool for gathering information about a particular ecosystem and understanding the interactions between living and non living organisms and is usually linked to an ongoing participatory comparative experiment and is carried out at every PFS session. The purpose of using PESA/AESA is for pastoralists to learn to make regular observation of the livestock-herd-pasture–ecosystem, Analyse problems and opportunities encountered and to improve decision making skills regarding land or herd management. By carrying out PESA/AESA regularly in the PFS, participants develop a mental checklist of indicators to be observed when monitoring their land or herd practices.

Topic objectives

By the end of this topic participants will be able to:

- Explain the concept of what is this? What is that?
- Explain the concept of ecosystem
- Describe the rationale and steps of PESA/AESA
- Design PESA/AESA formats for a variety of experiments in PFS

Topic overview

1. Concept of what is this? What is that?
2. Concept of ecosystem
3. What is and Why PESA/AESA?
4. Steps in conducting PESA/AESA
5. Development of Sample PESA/AESA formats

Method of facilitation

- Participatory presentation
- Group discussions
- Field practical (crop and animal based)
- Practical activity in sub groups

Time: 7 hours

Materials: A ball of wool or string, Measure tape, Crayons, Drawings, pictures, A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board.

Handout: 1.4.2.1, 1.4.2.2, 1.4.2.3 and 1.4.2.4

Additional reference

- PFS Experimentation option guide
- Pastoralist field School manual: Guidelines for facilitation

LEARNING ACTIVITIES

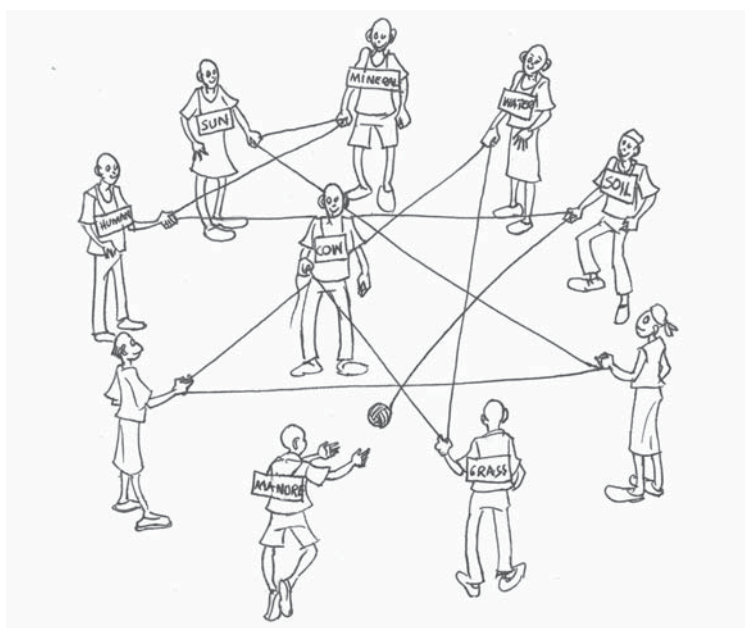**Activity 1:** What is this? What is that? Learning by Discovery (1 hour)

This is a role-play.

1. Assign the following roles to the different participants: Pastoralist and facilitator.

2. The 'pastoralist' should focus on something in their pastoral system (tick, disease, plant.) and ask: "What is this?"

3. The 'facilitators' should instead of supplying a direct answer, respond with one of the following type of probing responses: "Where did you find it?" what was it doing? "have you seen it before?" "what do you think it is?" what do you normally do when you see this?" "what do others do?" (Keep asking questions).

4. Never provide the direct answer to a question – that kills curiosity. The question is a valuable chance to learn!

5. After the members have taken their turns in each role, process experiences and lessons learned through a plenary discussion.

Activity 2: Concept of the Ecosystem (1 hour)

1. Discuss what is an ecosystem?

2. Before the session, prepare for the exercise by taking the same number of cards as there are participants and writing the name of a component of the ecosystem on each card (e.g. cow, grass, water, soil, sun, ticks etc.).

3. Ask participants to go to an open field/livestock in mini groups, identify and list all the living and non-living things that they see.

4. All participants gather and list all the living and non-living things that they have identified. The facilitator hands out the prepared cards (one card for each participant) as the participant name the elements. (Write new cards if new elements are added).

5. The participants form a circle and each participant fixes the card on his/her body so all can see it.

6. The participant who picked the card showing "cow" stands in the middle of the circle holding the ball of wool or string.

7. The participant who represents the cow says: "I am a cow and I relate to X because of Y" ("I relate to grass because I eat it and it gives me energy"). The "cow", keeping hold of the end of the string, then throws the ball to the person with the "grass" card.

8. The person receiving the ball does the same and this is repeated until all participants are connected. Each card or person can be visited more than once.

9. The participants are asked why they are connected, what they can learn from the exercise, and how this exercise relates to their knowledge of their pastoral livelihood system

10. The facilitator takes a few examples of elements in the system and asks what happens if that element disappears or is destroyed, in what ways does that affect other parts of the ecosystem?

11. The facilitator then introduces the concept of an ecosystem.

Concept of ecosystem

Activity 3: What is and Why the PESA/AESA (15 minutes)

Discuss with the participants what is and why PESA/AESA in PFS

Activity 4: Steps in Conducting PESA/AESA (30 minutes)

Explain and discuss the steps in conducting PESA/AESA

Activity 5: PESA/AESA formats (2 hour 30 minutes)

* The actual parameters for observaton and analysis in PESA/AESA vary depending on the study topic. In the following exercises three examples of PESA/AESA formats are presented, one for study of animal health/feeding, one on grazing land management and one on a typical crop AESA sheet. The actual PESA/AESA format for a PFS group needs to be adjusted according to the learning topic and the comparative trials undertaken by the group.

Introducing the PESA/AESA Format (1 hour)

1. The facilitator asks the participants to identify one focal activity that the PFS can/needs to address.
2. Ask the participants what needs to be observed and what kind of information needs to be collected to measure performance and to be able to compare the various options against each other.
3. Based on this information, the PESA/AESA format is developed by the group asking participants what they need to know to enable appropriate management decisions to be taken.
4. The parameters identified should be categorised into those that need to be captured only once for example date of birth of the animal, those that need periodic updating like pregnancy status and those that need frequent measurements such as body weight, health status.
5. An PESA/AESA format is then developed on a flipchart including the defined information and including a drawing of the study subject. See examples below of a crop AESA format, PESA format for goat management and PESA format for pastoral rangeland management.

Example of a typical format of crop AESA Sheet

Name of PFS	Location
AESA NO: SUB GROUP NO: PLOT NO: PROBLEM ADDRESSED/OBJECTIVE:	DATE: WEEK NO:
General Information	**Parameters**
Variety: Date Planted: Age of Crop: Spacing: Fertilizer: Weather: Time of observation: Plant Population: Germination:	Length of leaves: Width of leaves: No. of leaves: No. of diseased leaves: No of dead Leaves: Length of plant: No of pods:

Insect Pest	Plant Drawing	Natural Enemies
Pest observed:		Natural Enemies observed:

Observation	Recommendation
Soil Moisture: Diseases: Insect pest: Plant Health: Deficiency: Weeds: Predators:	What management practices should be applied:

Example of a PESA format for goat management

Name of PFS		**Weekly Recording**
Location...		Body weight...
PESA Number......................................		Body measurement..............................
Sub-group name..................................		Daily Milk Yeild ....
Date...		Feeding Routine...................................
Problem addressed/Objective		
General Information		**Observation**
Weather conditions		Hair/coat condition ....
Time of Observation............................		Name..
Breed..		Movement ....
Name...		Date of last mating ....
Birth date and age...............................		Presence of parasites/insects..............
Date of last mating		Injuries ....
Pregnancy Status................................		Activity level ....
Number of off springs		General Health condition....................
Types of treatment given (drug, feed, grazing, supplement etc).....................	**Recommendations**..	

Example of a PESA format for pastoral rangeland management

Name of PFS		**Weekly Recording**
Location...		Body weight...
PESA Number......................................		Body measurement..............................
Sub-group name..................................		Daily Milk Yeild ....
Date...		Feeding Routine...................................
General Information		
Time of Observation............................		**Observation**
Land use		Pasture condition.................................
Resident livestock, approx no		Condition of trees/shrubs ....
Type of ground vegetation		Body condition of livestock herds ......
Types of trees/shrubs		Health condition of livestock herds ...
Wildlife Present		Health conditions of humans ....
Water sources......................................		
Weather conditions	**Recommendations**..	
Types of treatment given (grazing, scheme, erosion control etc)	....	

Regular Implementation of PESA/AESA (1 hour 30 minutes)

The following is an example of the implementation of PESA

1. The group is divided into smaller groups usually the same groupings as for host teams. Each sub-group goes to a (or their) unit under study (that is a goat, a cow, a poultry unit and a landscape view point) for 30 minutes to collect data according to the agreed PESA format, and then returns to the learning site.

2. Each sub-group then analyses the data collected and prepares the PESA format (see examples on page 42) on a flip chart (allow 20–30 minutes). A major drawing in the middle of the sheet should be included illustrating the unit of study. In the case of many illiterate participants the PESA parameters should also be noted down in the form of drawings rather than text. All drawings should be simple and reflect the field conditions/observations.

3. Each sub-group presents its results in a plenary session and receives feedback from the other sub-groups. Make sure that the task of presenting rotates among the various sub-group members each occasion the exercise is done.

4. The results of the various sub-groups are then compared and the whole group comes up with a consensus that forms the basis for future management decisions. The facilitator can probe the discussion though questions such as; "What changes can be observed since the last PESA monitoring?", "What management implications do these observations imply?"

Wrap up (10 minutes)

Summarise key points through question and answer sessions with the participants and put emphasis on the important points to remember.

Handout 1.4.2.1

What is this? What is that?

The goal of discovery-based learning is to provide an opportunity for participants to learn through curiosity and by experimenting and discovering, rather than by memorising facts. One way of stimulating a critical thinking is to ask questions that allow the participants to develop their own analysis and understanding. When a participant asks a question, instead of answering the question directly, the facilitator directs the participant towards the answer by asking probing questions. In this way, participants are given the opportunity to learn by themselves and come up with their own solutions.

Handout 1.4.2.2

ECOSYSTEM

What is an ecosystem?

An ecosystem is a natural system of interactions between living (biotic) and non-living (abiotic) things in a particular environment. These interactions are dynamic, meaning that nutrients and energy move throughout the system. For example, as animals die and decompose, their bodies provide nutrients for other living things and the soil. Their energy is transferred to the soil, which transfers it to plants. It is important for the PFS to study the various interactions within the local ecosystem where it works. Different interactions affect the environment differently. Some interactions are good for pastoralists because they lead to an increase in productivity. Other interactions lead to losses in productivity. If pastoralists understand these interactions, they can maximise positive effects and minimise negative ones through proper landscape management.

Within an ecosystem there are:

LIVING ELEMENTS	NON-LIVING ELEMENTS
• Plants	• Weather elements (temperature, relative humidity, wind, sunshine, rain).
• Animals	• Soils
• Insects	
• Micro-organisms	

Ecological relationships

Each element in the ecosystem has special characteristics which influence the distribution and population of living organisms. For instance, only plants have the ability to convert solar energy into forms that can be consumed by other living things through photosynthesis. Yet the same plants will require water and nutrients to complete the process. On the other hand, micro-organisms facilitate the decomposition process, which is important for the release of nutrients back into the soil. All these relationships are strongly linked. Thus, any disturbance affects the balance of the whole ecosystem.

Ecosystems are complex. There are several levels of interaction. A typical ecosystem has roughly four distinct levels of organisms:

1. Primary producers: such as crops, grass and weeds which, produce organic materials.

2. Primary consumers: These are animals and other organisms that feed on plants for example ,insects, rodents, sheep, goats, cattle, poultry, virus and fungi.

3. Secondary consumers: They feed on primary consumers. They include the parasites and predators. There are two types of predators, those who destroy crops or attack livestock (wildlife) and those who attack organisms that could become pests, they are called "pastoralist friends" or "natural enemies".

4. Decomposers: for example, bacteria, fungi and insects that feed on dead parts of the ecosystem.
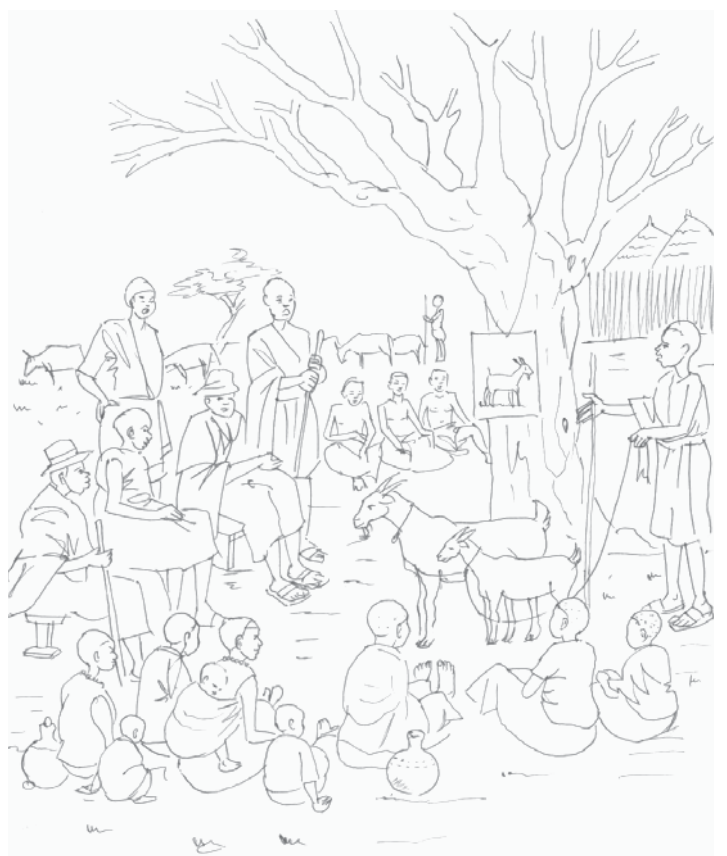
Handout 1.4.2.3

What is and why PESA/AESA

The PESA/AESA is one of the core activities of the PFS and aims to enhance pastoralists' observational, analytical and decision-making skills. It's a tool for gathering information about the components of a particular ecosystem and for understanding interactions. The purpose of using PESA/AESA is for pastoralists to learn to make regular observation of the livestock-herd-pasture–ecosystem, Analyse problems and opportunities encountered and to improve decision making skills regarding land or herd management. By carrying out PESA/AESA regularly in the PFS, participants develop a mental checklist of indicators to be observed when monitoring their land or herd practices. The PESA/AESA is usually carried out at every PFS session and is linked to an on-going comparative experiment.

PESA/AESA is the cornerstone of the PFS approach and is based on the ecosystem concept, in which each element in the pastoral system has its own, unique role. It involves making field observations, data collection and analysis, and finally come up with recommendations. Data is collected based on key factors observed to help put a process in place for decision-making. The analysis is performed in sub-groups of four to six members to enhance participatory learning. Each sub-group presents their observations and recommendations in plenary sessions for collective decision making on management actions.

PESA/AESA exercises improve decision-making skills by:

- Enhancing observational and analytical skills.

- Developing record keeping skills by drawing and visualisation.

- Generating discussions and sharing of member-to-member experience.

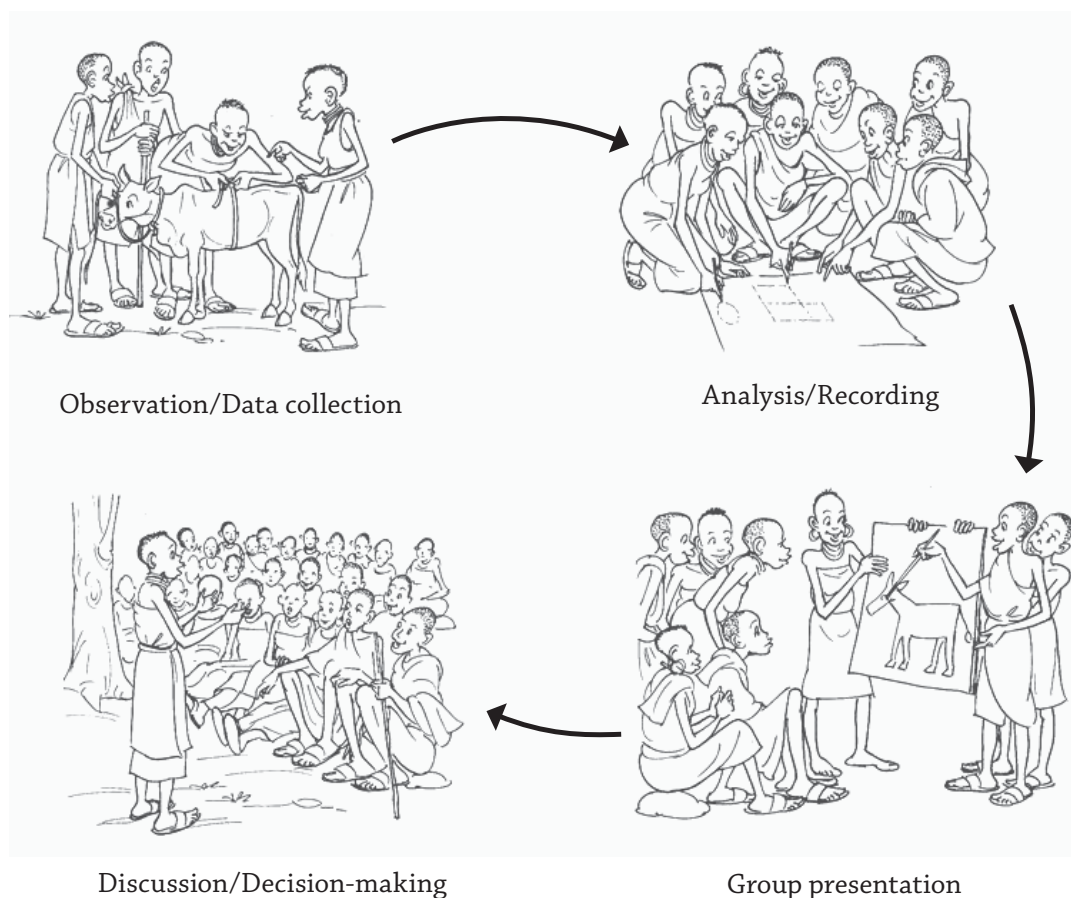- Developing presentation skills to promote communal decisions.

Typical PESA/AESA session

Handout 1.4.2.4

Steps in PESA/AESA

The main steps in PESA/AESA include:

1. **Making observations and collecting data:** In sub-groups, pastoralists make observation in the field based on a range of predetermined monitoring indicators related to the specific theme of study. The sub-groups are usually formed so that each of them can be assigned one unit of a comparative trial or experiment.

2. **Analysis and recording of data:** Each sub-group prepares a brief of their findings in a structured recording format comprising summary data, pictures and drawings of the field situation and decisions and recommendations of the sub-group.

3. **Group presentations:** Following the discussion in sub-groups a group plenary session is held where the sub-groups present their results and conclusions. The presentations by participants strengthen communication skills since the sub-group members are required to defend their decisions.

4. **Discussion and decision-making:** The plenary analysis and presentations followed by discussion contribute to making decisions on management actions required to address constraints observed in the field. All the ideas emerging from the different sub-groups are synthesised in a process of consensus building and making agreements on the next course of action to take regarding management practices.

Observation/Data collection

Analysis/Recording

Discussion/Decision-making

Group presentation

Four steps of PESA/AESA

1.4.3 Topic of the Day

Background

It is increasingly recognized that adult learning is best achieved through a "learning-by-doing" approach where new knowledge is acquired through hands-on experience. Nevertheless, basic information is usually needed before any hands-on learning activity can be implemented to help people understand what they have to do and to avoid risk. Also some information could implicate risk if they were to be experimented.

Topic of the day can be mandatory topics (Concerning study enterprise) or topics outside the study enterprise but important and relevant subject to participants. This gives participants the chance to learn about anything they feel is important to their livelihood.

Topic objectives

By the end of this topic participants will be able to:

- Describe the concept of the topic of the day

Topic overview

1. What is and why topic of the day
2. How to Identify topic of the day
3. How to Present topic of the day
4. Sample examples

Method of facilitation

- Participatory presentation,
- Group discussions,
- Practical activity in sub groups

Time: 1 hour 30 minutes

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board.

Handout: 1.4.3

Additional reference

- Pastoralist field School manual: Guidelines for facilitation

LEARNING ACTIVITIES

Activity (1 hour 30 minutes)

1. Divide participants into four groups and ask each group to explain one of the following guide questions:
   - What is a "topic of the day" in PFS?
   - Why the "topic of the day" in a field school?
   - How do you identify topic of the day in PFS?
   - How should the topic of the day be presented during the PFS sessions?
2. Ask the groups to present their output.
3. Wrap up by filling in any gaps in group presentations.

Presenting topic of the day

Handout 1.4.3

What is a topic of the day

A topic of the day is an activity undertaken during the PFS learning session that is used to widen the scope of knowledge/skill. It can also be used to introduce technical information. It is facilitated by a competent person (May be FFS facilitator or external facilitator) and usually lasts for approximately 1 hour.

Why topic of the day

- Provides opportunity to give theoretical inputs needed for a general understanding of the subject before any activities can be carried out.

- Enhances the pastoralist technical knowledge and builds on existing knowledge.

- Ensures pastoralist have access to the information they need at the required time.

- Enable pastoralist interaction and sharing of information and knowledge.

- Ensure a demand-driven learning process since it is provided on request.

- Promote interaction between pastoralist, extension officers and scientists.

- Provides information on topics which do not require setting up of PCE,s.

- Respond to emerging issues- disease/pest outbreak.

- Enable levelling of knowledge amongst the participants.

How to Identify topic of the day

- Demanded by the Pastoralists

- Arise from Study field (PCEs)

- During Action planning

- Arise from Observations (PESA/AESA)

- Common issue/Emergency situations in the community- for example, an outbreak of a disease/pest- outbreak of army worms/cholera

- Arise from exchange visit

Presentation of topic of the day

Different participatory approaches are usually used to facilitate topic of the day in the PFS such as

- Focus-group discussions, where Sub-group of PFS participants are asked to answer questions followed by a plenary discussions

- Brainstorming(question and answer)

- Short plenary sessions using subgroups answering different questions followed by simple demonstration

- Participatory learning exercises. Short and medium term exercises to introduce technical topics and experience them together

- Any other method as long as it is participatory or guarantees full and active participation of the farmers

> Avoid lecture method- teacher-student relationship

External facilitators should be briefed on FFS approach well in advance before they come to facilitate

The following is an example of how to present the topic of the day:

1. Prepare one set of questions on the subject of the day. For example, if mastitis is the topic of the day, questions could be as follows:

    (a) What is mastitis?

    (b) What are the causes of mastitis?

    (c) How do you recognise mastitis?

    (d) How do you control/treat mastitis?

2. Form 4 sub-groups and allocate one question per group for them to discuss and answer the questions within an allocated time.

3. Each group then presents their respective discussion/answer to other members, perhaps using the flipchart.

4. Comment and feedback with all participants/members.

5. Final comments on the subject by the facilitator (wrap-up).

Note that

• A topic of the day can take one session or a long time (in other words several sessions)

• It should be facilitated by a competent person may be a PFS facilitator or external facilitator who is a specialist in the subject.

1.4.4 Group Dynamics

LEARNING ACTIVITIES

Activity : (1 hour 30 minutes)

1.   Divide participants into four groups and let each group answer one of the following guide questions:
     *   What is "Group Dynamics" in the PFS context?
     *   Why have group dynamics? (the purpose they serve)
     *   List types of group dynamics stating their usefulness.
     *   When should group dynamics be used? (When are they most appropriate?)
2.   Ask each group to present their output.
3.   Fill up any gaps emerging from the presentations.
4.   Ask each group to prepare a dynamic and present to the entire group.

5. Discuss and synthesis the dynamics presented in terms of what they observe, the learning, and applications.

Examples of group dynamics exercises are provided in annex 1.

Group dynamics

Handout 1.4.4

1. What is group dynamics?

It is a variety of exercises, games, activities, quizzes, employed during training for developing team building skills, organizational skills, breaking the ice, re-energizing, refreshing and mind teasing. They may be in the form of role plays, body exercises, puzzles (questions), stories, songs and proverbs.

2. What is the purpose of doing Group dynamics in PFS?

The purpose of doing Group dynamic exercises is to create a pleasant learning environment, facilitate learning and create space to reflect and share. They also enhance communication skills, problem solving and leadership skills. The principle emphasis is on creating an environment in which individuals and the group feel free to experience, reflect and change.

In particular, Group dynamics are valuable for:

- Relaxing the participants
- Illustrating a lesson
- Rejuvenating the group
- Making the group alert
- Stimulating the flow of communication between strangers
- Bringing private expectations and group reality closer
- Encouraging everyone to participate and learn
- Rounding off or introducing a session
- Developing new skills
- Exposing participants to new ways of judging their own actions, particularly in relation to the impact on group work
- Developing participants into a closer knit team
- Establishing a learning climate that is enjoyable as well as fruitful.
- Helping participant's experience what can be accomplished by working together as a team.

To apply group dynamics properly, the facilitator should keep the following in mind:

- Be clear about what you want to achieve with the exercise
- Be aware of the appropriate moment, for example, do an exercise to energise people when they are feeling tired, or tackle conflict if you see one arising.
- Plan and prepare the exercises (reserve time for them in the programme) and always add a "head" and a "tail" (introduction and analysis). Discuss with the participants what they have learned out of it.
- Good exercises involve everyone in the group
- Exercise should be adapted to local and cultural conditions and should not offend people or make them feel embarrassed.
- Vary the type and use of the exercises- do just energizers
- Treat group dynamics exercises as a toolbox – Do not become trapped in a fixed formula. Remember that each PFS is unique and the exercises should be modified for each specific PFS.
- Each group dynamic can serve multiple purpose.

3. Types of Group Dynamics

(a) Group Dynamics to energise participants

These games and exercises enhance the participatory learning process by energising participants: making them laugh, relaxing and calming them and refreshing their minds. They also enhance concentration and attentiveness. These energizers are used during and after a long or difficult session, when the group has become tired or tense or when the pace of the session needs to be changed.

Examples include: Stretching, Jokes, Songs such as the time to be happy is now, nine dots (think outside the box), the plane is crashing', Claps, Avocado song and Writing with the body.

(b) Group Dynamics to enhance participation

This type of Group dynamics creates an atmosphere where participants feel free to share and exchange experiences and discusses views. They are also designed to help participants respect each other's opinions. Exercises to enhance participation should be included from the beginning of the PFS to break the ice and create a pleasant learning environment where participants respect each other's opinion and contributions.

Examples include: Knotty problem, Folding paper game, How many squares, Talking object and Song with all words and certain letters left out for example''I will make – fishers of men'',

(c) Group Dynamics to strengthen a learning topic

In this type facilitators should convert technical information into practical exercises and field activities and avoid lecturing or conventional forms of training. The aim is to ensure participation by all and to make the learning situation entertaining and effective.

Examples include: Who collects more variety (Leadership), Stone throwing game (Experimentation), Leadership style exercise (Leadership).

(d) Group Dynamics to strengthen group work and cohesion

To increase interaction, dialogue and consensus which also improves exchange of information. Good group work enhances exchange of information, reflection and learning. In participatory processes, the different capabilities of different people complement one another. A group can only become a team when all the members are interdependent. With constructive interaction, dialogue and consensus, aspects such as cooperation and team work increases. Group dynamics exercises to strengthen group work and cohesion are designed to encourage such dialogue and to reflect on the nature and process of teamwork.

Examples include: Drawing together, Making a web, Carrying water (in hands to fill buckets), The 'plane is crashing', Building Towers/bridges, List as many as you can remember.

(e) Group Dynamics to solve conflicts

Where there are people, conflict can occur. Conflicts arise out of different perceptions, varying views, intolerance and prejudice. Conflicts hamper learning and should be tackled before they break up a group. This type of group dynamics assists in discussing the causes and effects of conflict and provides a start for problem solving. A well facilitated PFS creates dialogue and encourages understanding and should not fear the management of conflicts.

Examples include: Greedy cats and the Monkey story, The tea cup (Perception Game), Looking through tinted glasses.

4. Points to watch while using Group Dynamics

- Problems may arise if what the participant learns about him is distasteful to him. They may 'opt-out' if they feel turned off by the searching examination on motives.

- It is important that problems arising within the group are resolved before the group breaks up.

- It is important that problems are shared-problem and not particular individual problem. However do not target an individual while using group dynamics.

5. Conclusion

- To get most out of group dynamics, PFS participants should evaluate, each one discussing what they learned from the exercise.

For a group dynamic to be useful, it must be appropriate for the issue being addressed.

1.4.5 Participatory Monitoring and Evaluation

Background

Reflecting on and interpreting experiences and achievements creates new insights and allows PFS groups to improve what they are doing. Accidental learning happens all the time, however if the learning is structured it can more systematically lead to improved ways of doing things. As PFS members learn to try out new ideas it is equally important that they learn how to assess the impact and achievements of those experiences.

Topic objectives

By the end of this topic participants will be able to:

*   Describe what and why participatory monitoring and evaluation

*   Develop and implement a simple monitoring plan.

*   Apply a range of tools and methods for gathering information

Topic overview

1. Why monitor and evaluate

2. Defining the goal

3. Selecting what to monitor

4. Developing a monitoring plan

5. Choosing a method to collect the information

6. Sample tools: evaluation wheel and village mapping

Method of facilitation

*   Participatory presentation

*   Group discussions

*   Exercises among PFS groups

*   Practical activity in sub groups

Time: 7 hours

Materials: Flipchart and marker pens, PFS practice groups (if available).

Handout: 1.4.5.1, 1.4.5.2, 1.4.5.3, 1.4.5.4 and 1.4.5.5

LEARNING ACTIVITIES

Activity 1: Why Monitor and Evaluate (30 minutes)

A PFS is typically involved in a range of activities with the aim of achieving certain objectives and goals, such as increased food security or improved living standards. Each group usually also has rules specifying how the group operates. However, how can you know if you are achieving those objectives and moving towards your goal? And how can you know if the rules and routines applied are effective? To answer these questions, you need a system that allows for reflection and analysis of experiences, and that helps improve future activities and actions. Participatory monitoring and evaluation (PM&E) that involves everybody provides the basis for such a system.

1. Divide the participants in subgroups of about five persons each.

2. Ask each group to think about why we should keep checking on what we do; that is monitor, evaluate, and write or draw responses on the flipcharts.

3. After 15 minutes allow each group to explain their main points of discussion.

4. Wrap up the exercise by repeating or revising the main points and fill in any gaps.

5. Conclude by explaining that monitoring and evaluation is a way of learning from experience and improving future action, (see Handout 1).

Why should we monitor and evaluate?

Some responses commonly given by participants:

• To share experiences.
• To suggest corrective actions.
• To check if our resources are well used.
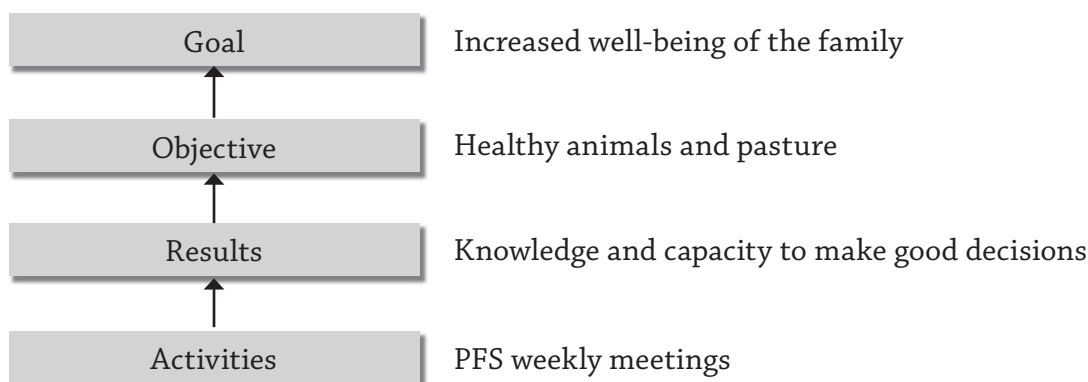• See if our effort has been worthwhile.
• To help us make batter plans for the future.
• To make activities more effective.
• To see what has bee achieved.
• To see where I am going.
• To measure progress.
• To evaluate our own performance.
• To learn from lessons.

Group reflection on reasons for monitoring and evaluation

Activity 2: Defining the Goal - Dream visioning (1 hour 30 minutes)

To be able to identify what should be monitored and evaluated, it is important that everybody is clear on what strategy is being applied to reach the goals of the group or individual members, and what the steps on the way to reaching this goal are. Without having a clear vision of where one is heading, it is not possible to define what should be observed and analysed. This exercise helps people to think in terms of a longer-term vision, beyond the immediate daily problems. It provides a good basis for planning as it builds on people's own dreams. Working from a vision helps to open up people's minds to other ways of overcoming problems.

1. Explain to the participants that they will be required to describe how they would like things to be in three years time from now. The dreams/visions should relate to the person's livelihood and life as a pastoralist.

2. Allow 15 minutes for personal reflection before sharing in sub-groups or directly in plenary until a single common future is created from the individual reflections. Guiding questions might be; "What are the characteristics of the ideal situation we wish to achieve here in the long term?" Or ask them to complete the sentence; "I know that my vision for this situation has been achieved when I see…." It is also possible to generate the discussion by asking the group to imagine they are giving a presentation at a community meeting in three years time describing why their project has been successful. Ask the participants what they would present as the successfully achieved future?

3. Ask the participants to write down their dreams or make a drawing of it, and then discuss the dreams in the larger group. In the discussion the dreams can be specified further with clear timeframes for achievements.

4. Once articulated and discussed, the dreams can become the indicators that are being monitored as they are being realised.
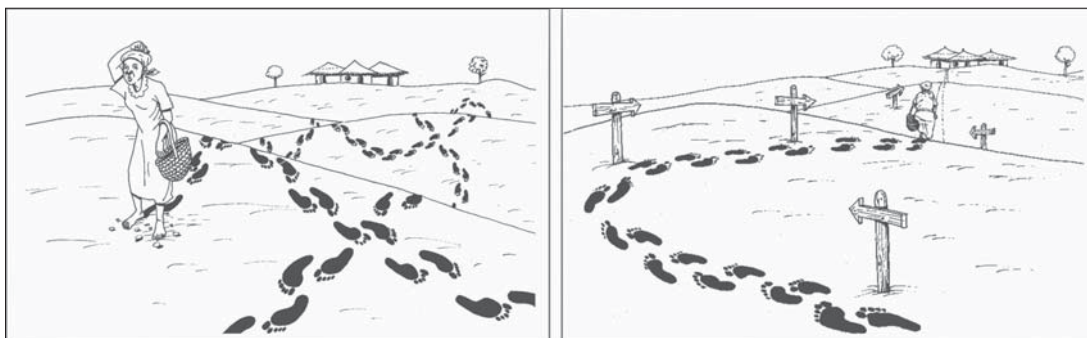
5. Except when the exercise is done for the first time, the discussion should include a comparison of the current dreams with those articulated during a prior monitoring event. It is essential to also discuss why these changes occurred and to want extent they were caused by project activities or by other external factors.

6. Explain that the sequence of steps to reach the overall goal should be linked to the problem analysis the PFS group carried out at the start of the PFS. This process ensures that the problems identified as the core issues correspond to the objectives of the group. Similarly, the activities should tackle the causes and reasons of the core problem. You might be involved in several activities aimed at reaching various results and objectives. However, all objectives should contribute to the same overall goal.

Goal	Increased well-being of the family
Objective	Healthy animals and pasture
Results	Knowledge and capacity to make good decisions
Activities	PFS weekly meetings

Activity 3: Selecting what to monitor - indicators(30 minutes)

1. In plenary, pose one or several of the following questions and ask participants to discuss responses with their neighbour.

   • If the PFS is heading for failure, how will you know? (Translate these failure indicators in the positive and you will know what you want to see change.)

   > An indicator is a measurement that allows one to track changes in relation to a defined impact question

   • What do you mean when you say "improved food security"? (or whatever goal, objective, result you are discussing)

   • How do you notice when an impact has occurred?

   • Can you give a concrete example of how you observe an impact?

2. Ask a few of the pairs to share their responses with the larger group. Note or draw the responses on a flip chart.

3. Summarise the exercise and explain the idea of indicators.

Indicators are like markers, they show you where you are, whether you are on course, what progress you have made, and how far you still have to go.

Activity 4: Developing a Monitoring Plan (4 hours)

You may handle this in two sessions of about two hours each when done with PFS groups in the field. Also it may be covered in an hour when done in TOF as familarisation practise.

1. In groups of about 5-6 persons discuss, ask participants to identify aspects of what they would like to know in order to be able to measure success both in the group activities and among individuals. Write or draw each aspect on cards.

2. Through plenary discussion, aspects are then clustered into similar topics and rewritten into clear questions that Summarise the various topics. Make sure to get consensus in the group about the suggested questions.

3. Break into new groups of about 5-6 persons. For each aspect identify indicators which can be used to measure the parameter.

4. Select a representative from each group to present the results of your work. Fix the list of measurements and respective indicators on the wall so all can see.

5. Look at the indicators and identify the ones that are most suitable and easy to measure, i.e. SMART: specific, measurable, attainable, relevant and timely.

   Depending on the time elapsed continue with the next steps or break for the day and continue during another session.

6. Divide up the parameters with the defined indicators among the sub-groups. Each group is then to discuss which tools to use to measure the indicator (HOW), WHO should be responsible, WITH WHAT and WHEN and document their decisions in a table as below.

HOW?	WHO?	WHERE?	WITH WHAT?	WHEN?
Indicators	Tools			

7. Through a plenary discussion review the results of the groups with special emphasis on the following questions.

Some suggested questions for processing discussion

- Is the monitoring plan realistic and can it be achieved by the PFS group without being overloaded with monitoring and evaluation tasks?

- Does the monitoring plan have cost implications? If so, where will the necessary funds come from?

- Does the group have enough knowledge to carry out the defined monitoring tasks or is there a need to involve resource persons? If so, who?

- Does the group require training on some of the tools and methods mentioned in the plan?

The following points should be considered when designing the monitoring plan:

- The learning process - the discussion - is just as important as the product – the plan.
- Everybody should participate actively in the whole process.
- Avoid using the plan as a blueprint to try and exert control over the project.
- Keep it clear, brief and concise.
- Be prepared to refine and revise the plan as new information comes to light.
- Prepare the first plan as a draft, which will require reworking.
- Do not place too much emphasis on details of the plan during the planning stages.

Activity 5: Choosing a Method to Collect Information (1 hour 30 minutes)

1. Pick a few of the indicators developed in the previous exercise, and brainstorm in plenary among participants for ideas of HOW this information could be collected. Write or draw responses on a flipchart.

2. Ask participants for examples of how they track change in their daily life or other methods they are familiar with.

3. Review the main categories of methods outlined below and in the hand-out 3 and 4, and refer to the examples given in the preceding brainstorm.

4. Go through and review any standard or project specific PFS records forms available.

Some of the available methods include:

• Measurement, like weight of harvest, size of animal, amount of income.

• Written questions, such as those asked in questionnaires, tests of knowledge and skills.

• Verbal questions, such as those asked in interviews or during group discussions.

• Observations of photographs and drawings of customs and practices.

• Written information, such as records, reports, registers, minutes of meetings.

• Stories and analogies as presented through drama, theatre, and poetry.

Take care not to gather more information than you can handle

Activity 6: Sample Tools for Evaluation:

A.   The evaluation wheel for assessment of knowledge (45 minutes)

This monitoring tool allows participants to reflect on their knowledge gaps and display the result in a visual manner, and to measure changes over time. The facilitator can thereby ensure that the training curriculum is adjusted according to participants' preference.

This exercise can be applied at regular intervals such as every 2-3 months in order to assess further training needs.

1. Conduct a brainstorm in the group on the main learning topics that they wish to acquire knowledge on during the training. Avoid going into detail and try to focus on general concepts and issues.

2. In plenary list the identified concepts/issues and discuss, review and cluster the concepts/issues in order to establish 4-5 final ones.

3. The selected topics are then arranged in form of a wheel on a large piece of paper, with each topic being on "spoke" as on a bicycle wheel. The indicators can be represented by words, symbols or drawings. See drawing below.

4. Ask the participants on individual basis to reflect upon their own knowledge level of the identified topics and rate his/her knowledge on a scale of 1-5 (0=nothing, 1=poor, 2=fair, 3=average, 4=good, 5=very good).

5. Ask each participant to make a tick with a pen on the evaluation wheel at the point of their rating on each spoke, that is close to the centre if 5-very good and far out towards the edge if 0-nothing.

The evaluation wheel for assessment

6. Summarise the result and visualise an average score on each aspect evaluated. Discuss and review the outcome of the exercise.

- What knowledge gaps have been identified?
- What adjustments and revisions should be made to the learning schedule and curriculum based on the identified needs?
- Should any special topics be held or resource persons invited to respond to the identified needs?

B.   Village map for analysis of changes (45 minutes)

A village sketch is a useful exercise for identification of change in land use and livestock practices following PFS participation. It is also entertaining and suitable for illiterate farmers. The exercise should be done at the start of the PFS in order to create a 'base' map. The 'base' map can then be modified or redrawn at later stages such as at end of each growing season.

1. Divide the participants in smaller groups of 5-6 persons.

2. Ask the groups to draw the village and the surrounding locality, including houses, grazing land, herds, water points etc. Participants can decide how they want to represent this – on paper or using local materials such as sticks, stones or seeds. However, you will always need a paper-based copy to enable comparative analysis for later point in time.

3. Now ask the groups to add more details to their maps, indicate women, men, youth and their main roles, practices (inputs, treatments, feeding etc.) applied on the crop plots or among the animals or on the pasture lands.
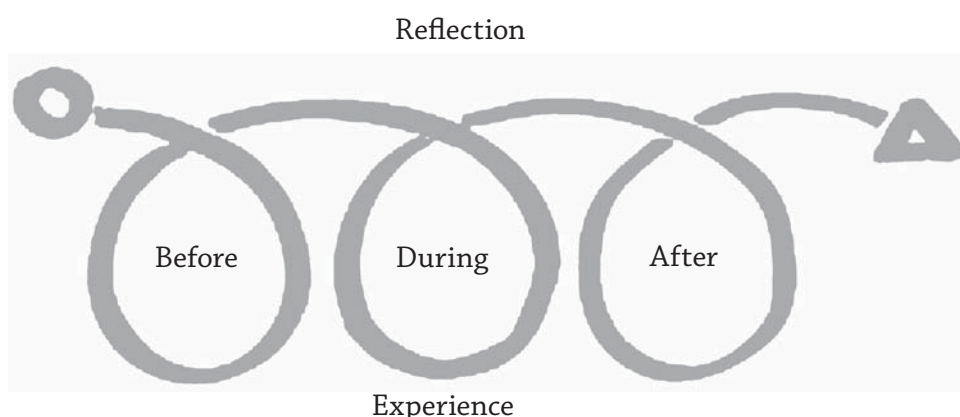
4. Several modifications to the map may be needed before those involved are happy with the final result. Include additional written comments such as quantities that are of interest (if necessary).

5. Once a "base" map has been made, subsequent sessions can provide opportunities to modify the map, and include new information or indicate changes.

Handout 1.4.5.1

Learning From Experiences

Planning of activities, monitoring and evaluating achievements and learning from the experience should be strongly linked. Experience of previous initiatives should serve as the basis for planning new activities, building on and improving positive aspects and preventing previous mistakes from happening again.

Data gathered is of no use unless you analyse and reflect critically on their experiences and use this as basis for planning for future goals and activities. Making analysis 'critical' means asking questions such as "Why is it happening?"So what are the implications for the project?", "Now what do we do next?" This requires an attitude of curiosity and questioning. Without

Reflection

Before   During   After

Experience

Reflection helps in evaluating changes

reflection it is difficult to evaluating the changes that have occurred as a result of programme initiatives, since there might be other factors apart from the project that contributed to the outcome and these might not be taken into consideration without reflection and discussion or monitoring outcomes. When planning, action, observation and reflection is carried out by everybody in the group it gives it a sense of ownership.

Learning for improved action

Monitoring and evaluation requires that data collected is reflected upon in order to ensure that lessons and insights gained during implementation lead to decisions on how to improve actions for future activities. Therefore, it is very important that you try to summarise the information you have managed to gather and ask yourself the following questions;

| What occurred? | → | How good or bad was it? | → | Why did it happen like this? | → | So what does this mean for us? | → | Now what will be our next step? |

Also, you will need to decide who the information is for and how is it going to be presented. Are the results of interest only to the PFS group involved in the exercise or could other people or groups benefit from this information?

Handout 1.4.5.2

Indicators

The first step in developing a monitoring plan is to identify key questions that you need to answer for each activity, result, objective and goal. These questions make it easier to decide on what to monitor and evaluate and thereby avoid gathering lots of unnecessary information. An example of such a question may be: What has the change in health among livestock been among PFS members?

> The lists of indicators below should not be seen as a blueprint.
> The group should jointly generate the actual indicators it will use.

Once you have identified a list of questions, the next step is to identify what information is needed to answer the question. When asking yourself how you can see if things change in the way you want, or how you can judge the results of your activities, you are looking for indicators. Indicators provide a standard against which one can measure, or show progress. Some of the indicators to be monitored in relation to group trials might include productivity, yield and improved land characteristics. Indicators related to improved living conditions might include type of housing, family assets and income levels. The actual selection of indicators depends on the kind of information members of the group desire and how they want to measure change. Sometimes suitable indicators may be difficult to find. Pastoralists often have their own indicators assessing changes that are relevant to them. It is important that the whole group is involved in decisions about which indicators to monitor and that everybody understands exactly what will be monitored and how

Since the desired impacts sometimes take long to be realised, it is also useful to measure the direct effects of an activity i.e. the steps on the way to reach the goal.

PFS process indicators are aimed at measuring the activities and means which contribute to the realisation of the goal of the group. For example, in PFS a typical process indicator is the attendance rate of members. High attendance is not a goal in itself, but if there is a high attendance among pastoralists it is more likely that the group members will reach their goal of increased knowledge. Such process indicators are often measured continuously through PFS records.

Example: PFS Process indicators (focus on the PFS learning activities)

Impact Questions	Indicators
Are members participating in learning activities?	• Attendance rate/drop-out rate • Number of PFS sessions held • Number of PESA/AESAs carried out
Are members developing self-confidence and collaboration?	• Number of group dynamics per session • Self-confidence among members to present in front of the group • Number of poems and songs developed
How is the PFS facilitator performing?	• Participants' satisfaction at end of each PFS session

Trial indicators relate to the PFS trial or experiment and since these are the main learning ground for PFS a range of indicators are usually defined to monitor and evaluate the trials in detail. Trial indicators are often monitored through the PESA/AESA exercise.

Example: Trial indicators (focus on the PFS group trials)

Impact Questions	Indicator
How are the animals performing?	• Survival rate • Growth • Symptoms of diseases or pests
How healthy is the pasture?	• Signs of erosion • Amount and quality of grass
Impact Questions	Indicator
What are the costs and benefits of the tried practice?	• Input requirements, including labour (cost and ease of access) • Income from selling produce • Pastoralists preference of trial options

Impact indicators are aimed at measuring if the PFS is reaching its objectives and goals. The impact can both be related to the achievements of the PFS group or among individual PFS members. Since the impact usually needs to be compared to the situation before the activity from which the change is anticipated it might be necessary to establish a baseline. This means measuring a specific indicator at the start of the PFS and again halfway or towards the end of the PFS activity. In this way the information obtained at the beginning and later on can be compared and the impact evaluated.

Example: Impact indicators

(Impact among individual PFS participants)

Performance Questions	Indicators
How has the wellbeing of households changed?	• Number of livestock (cows, goat, sheep) • Number of children attending school • Perception among members on their quality of life
Has the food security changed in the members' households?	• Number of food-secure months/year • Amount of stored food
Have members become empowered?	• Number of PFS members attending community meetings • Perception among members on their involvement in decision making
Is conservation of land and water resources increasing?	• Attempts to protect water holes. • A functioning grazing plan in place
What is the level of adoption of improved practices?	• Number of animals treated • Number of members practicing improved technologies

(Impact at group level)

Has the group generated income?	• Level of group savings
To what extent has the group led communal activities?	• Evidence of communal action

Handout 1.4.5.3

Developing a monitoring plan

Without regular observation, reflection and corrective measures, you cannot be sure where you are heading. Further, to determine whether some practice tested in the PFS is better than others, it is important to monitor and observe differences between the various practices. However, activities in a group are often complex and nobody feels responsible for monitoring. Certain rules have to be introduced for the monitoring to take place. Thus, a monitoring and evaluation plan has to be developed.

A monitoring plan is created based on the strategy pastoralists identified to reach their goals and gives an overview of how the monitoring and evaluation is going to de done. The plan demands that you be as clear as possible about what you are trying to achieve and how it will be achieved. The first step in putting in place a monitoring system is to identify what you need to know in order to establish if you are achieving your objectives and how you will measure change.

Following that, you are ready to go one step further and develop a full monitoring plan, which will guide you in the planning and implementation of Participatory and Monitoring and Evaluation activities. The monitoring plan will provide you with information and guidance on:

How you are going to monitor the identified issues and which tools or methods you are going to use to gather the desired	**Who** should carry out the monitoring and what will be the roles and responsibilities of various persons?	**Where** will the monitoring take place; at group level or at household level?	**With what** resources will the monitoring be done, financial, facilities and materials, manpower and expertise?	**When** will the monitoring take place, when will it start and finish in relation to the PFS cycle and how often should the monitoring be repeated?

Figure 1: The four Ws and one H in a monitoring plan

Handout 1.4.5.4

Data collection methods

There are many kinds of methods and tools that you can use for gathering information. A reliable evaluation method is one that can be trusted to give a good quality result and if used repeatedly, can give the kind of result that can be compared with one another. This can only be done if the methods used to obtain the results were the same. However, reliability of measurements also depends on the technique used. So whenever presenting results you need to be clear under which circumstances the information was gathered, taking the potential error in consideration, otherwise your results will be unreliable

Data collection methods and tools in PFS monitoring and evaluation are: PFS record books, written questions, interviews, record keeping and participatory group exercises.

PFS records

Recording and reporting formats can be very useful in recording regular information related to the performance of the group or individuals. Every PFS should have a record book where basic information about the PFS learning sessions and group activities are recorded. This information can then be used to evaluate changes that have occurred during the PFS cycle and establish patterns of for example, attendance or cash flow.

Example of a PFS record sheet:

PFS session record format

Date............   PFS session no ....

Attendance: Male ....   Female ....   Total ....   Facilitator: yes ☐ no ☐

Special guests: ....

PESA/AESA no:

Key observations: ....

....

....

Special topic held: yes ☐ no ☐   Title of special topic

Other events carried out since last PFS session (field days, tours):..

Cash balance in PFS financial account: ....

Expenditures since last meeting: ....

Income since last meeting: ....

Networking activities on-going with other groups:..

Written questions

Information related to the individual PFS members is often gathered through written or printed questions, either through a questionnaire where the individuals provide answers to a set of questions in a face to face situation, or through a recording format where information is documented by the PFS group or by the facilitator.

The questions should be structured in a logical and systematic way. Information received can be questioned

To be able to evaluate impact it is often important to establish the starting point; therefore the same kind of information needs to be gathered at the start and at one or more later stages.

further and new findings documented. When the same kind of information is gathered from a large number of people, it is called a survey. Surveys are often carried out before programme activities start, in order to find out more about the members of the PFS groups or the community in general, their livelihood practices and living conditions. This is called a baseline survey since the aim is to establish the situation before the activities start. A baseline survey may also be part of the initial problem identification and may be done to establish entry points for the activities in the PFS. If a survey is carried out at the end of a project, it is known as an evaluation and the aim is then to answer the question of "what is the situation after the project?". In this way it is possible to compare the situation before and after the project, or between PFS members and non-members, and thereby come to some conclusions about the impact of the project.

The following is an example of written questions that can be recorded to establish impact among both individual PFS members and the PFS group:

Name of PFS participant:	At start of PFS	1 year later	2 years later
• **Livelihood / food security information**			
Number of children in school			
Number of animals (cows)			
Yearly income			
No of food secure months during the last year			
Number of meals/day during the last month			
• **Livestock practices**			
No of sick animals in the last year			
No of animals dewormed			
No of kids born			

Table 4: Example of a PFS member record sheet

Interviews and discussions

Many aspects can be monitored by obtaining people's opinion about them. In PFS, verbal questions can be posed through interviews (questions to an individual) or during group discussions (questions to a group). Interviews are good for obtaining personal views, preferences and prejudices, thereby suitable for collecting personal attitudes and interests, or to share experiences between group members. A group discussion on the other hand facilitates information on how people act and think collectively, strengthens group cohesion, improves problem solving skills and is often used to discuss a specific topic in detail and probe people's feelings, opinions and perceptions of the topic. Questions can be Structured (by using questionnaires) or Unstructured (open-ended questions or by having a checklist). Here are some examples:

• So in relation to what you said about the conflict, how does it impact on your life? (informal)

• Now let's focus on the benefits of the neem tree, what uses does it have here? (unstructured but guided)

• Did you vaccinate any of your animals last year and which ones in such case? (semi-structured)

• How many meals have you consumed per day during the last week? (structured)

Handout 1.4.5.5

Participatory Tools and Exercises

Tools that allow full participation by the whole group, even the illiterate and that are entertaining and interesting to carry out by the participants are powerful means of gathering information at the same time as they allow reflection and analysis among participants. A good participatory tool should serve the purpose, be well understood, be enjoyable, facilitate visualisation, provoke reflection and encourage discussion. It is important that it is carried out in such a way that the participants do not feel intimidated or manipulated. Data collection through participatory tools can be carried out during regular PFS sessions. Some of the tools that can be used for PM&E in PFS include:

An example of PM & E tool

Maps and sketches— The information obtained in a map drawn of an area such as a village, field or pasture at the start of the FFS can be compared and discussed with drawings made during or after the PFS. This makes it possible to identify and analyse the location, and changes that have occurred. Maps are especially useful when working with illiterate pastoralists.

Drama and role-plays—Allows a topic to be explored with a group in a relaxed, creative and expressive way. It also facilitates sharing of experiences among group members. For M&E purposes, participants are requested to respond to a question by preparing a role play on that specific topic, expressing their opinions and knowledge in the drama.

Photographs—Can be used to monitor changes at the landscape level or on individual households. By taking shots of the same spot at two or more different points in time, changes can be identified and discussions generated about the causes of the changes, if they are positive or negative, and what management decision they will boil down to.

Transect walk—Serves as a cross-section through a landscape or village to capture information on land use patterns, resources, livestock herds, land degradation and opportunities.

Proportional piling—Describes the use of locally available materials for example, bricks, stones or sticks to show changes in production or use of inputs before and after the PFS.

Pictorial self-assessment matrix—To gather the groups' feelings/moods (very happy, indifferent and unhappy) of the impact of an intervention, problems or resource situation.

Matrix scoring/ranking—To compare peoples' preferences for a set of options or outcomes. The ranking can be used to establish any changes in priority needs and opportunities in the group. The most commonly used ranking exercise is 'pair-wise ranking'.

Evaluation wheel or spider web—This tool can be used to evaluate both social and technical indicators for change. Each spoke in the wheel represents an indicator (identified by the target group). The target group then decides on the score to give to the indicator and chooses a location of the dot on the spoke for example, either close to the centre or towards the border indicates the value.

1.5 Development of PFS Learning Schedule

Background

A PFS is a learning forum that is expected to stimulate adoption of adaptive technologies that have been tested by pastoralists in their own working context. The process is supposed to contribute constructively to the three PFS pillars: group organisation, pastoralists skill enhancement and discovery based approach to learning. The process therefore requires a high degree of order and commitment from the PFS members, community facilitator and an external facilitator. Order and organisation is a derivative of proper planning. To achieve high level of order, PFS sessions must be scheduled to flow in a logical sequence. Since several sessions will have to be convened by the PFS so as to attain minimum threshold for graduation, it is therefore important to schedule all the weekly sessions cumulatively for the number of sessions required in a PFS cycle. While scheduling a session program, the PFS need to consider several factors including duration of a session, when to start and content to be covered. Adequate time should be allocated to enable the PFS members develop in group organisation, skill and knowledge development and in experiential learning. A learning curriculum can then be designed to address the challenges constraining improved production of the focal enterprise. While developing the PFS schedule, the participants should be informed of the critical components involved. These are time, activity, objective for each activity and responsible persons. Notable is the sense of focus engrained in having an objective stated for each activity. At the end of the session, the participants should not only be able to identify the key components of a PFS but be able to simulate the development of a typical PFS schedule.

Topic objectives

By the end of this topic participants will be able to:

- Practice how to develop a PFS learning schedule at group level.

Topic overview

1. What is and why learning schedule
2. Steps & process in development of the learning schedule

Method of facilitation

- Participatory presentation,
- Group discussions,
- Practicals using participatory tools such as seasonal calendar etc
- Development of sample learning schedule in sub-groups

Time: 7 hours

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board, samples of PFS schedules.

Handout: 1.5

Additional reference:

- Pastoralist field School manual: Guidelines for facilitation

LEARNING ACTIVITIES

Activity 1: What is and why Learning Schedule (20 minutes)
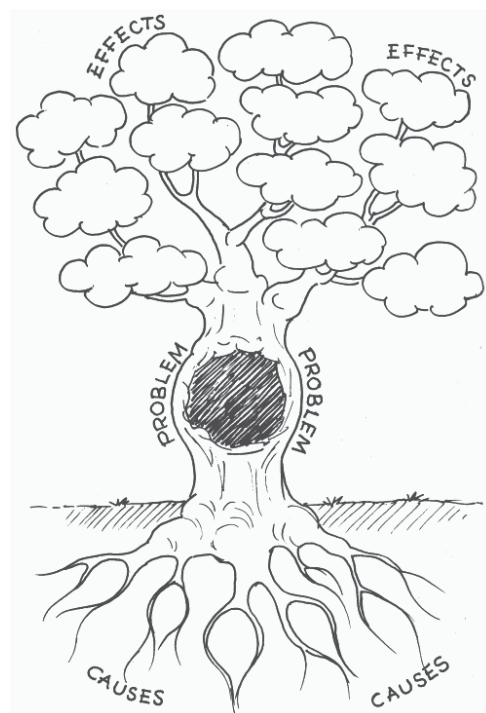
In plenary and through brainstorming discuss with participants what is and why learning schedule.

Activity 2: Steps and process in Development of Learning Schedule (6 hours 30 minutes)

Whatever the participants perceive as a priority or of importance to them should be the subject of a follow-up activity, such as a field comparative experiment, participatory learning exercise or topic of the day in PFS. The learning curriculum should link activities to objectives and put them in a logical order that works towards addressing priority problems in the field. To ensure that all key topics are dealt with in the PFS cycle, the topics for learning derive logically from the participatory planning of activities. To assist the development of a learning programme, logical steps and guidelines are provided below.

1. Problem Analysis and Ranking

(a) Prepare a seasonal calendar on a large sheet of paper with the main seasons (wet and dry) as headings on top of the paper, covering in total one year.

(b) In the plenary, ask the group to list down all the problems they face in each season (identification of all the problems)

(c) Analyse each problem by discussing why it is a problem. Problem tree tool for example can be used. (Analysis of the problem)

(d) Record all the responses. At the end of the analysis there should be a list of indicators (reasons why it is a problem) for each problem.

(e) Prioritise and rank the problems to initiate planning of the PFS learning process: Ranking methods such as Pair wise ranking for example can be used (Ranking of problem)

(f) Participants then decide which or how many of these problems the PFS can realistically address.

Problem tree

Example of pair wise ranking

- Choose 2 named problems (represented as name cards or objects). Show this pair of problems to the pastoralists and check that they understand the meaning of the name cards or objects.

- Ask them which of these two problems is the most important. The participants will discuss among themselves and choose one of the problems.

- Ask them why that problem is more important than the other. The participants will provide a list of reasons why they consider the problem to be important. Record these reasons.

Note: In participatory methods, the 'reasons' given by pastoralists are usually called 'indicators'. When you have asked the two questions above, you should have a list of indicators. For diseases, indicators could be diarrhoea, coughing, morbidity and mortality.

- Record all the responses and repeat until each problem has been compared. At the end of the pair-wise comparisons, you should record a long list of indicators besides the matrix.

- The standardised matrix is implemented step by step. The scoring is calculated and then the problem having the highest score is marked as the most pressing problem. The second highest score can be seen as the second most pressing.

Example of a pair- wise matrix ranking four identified problems

Problems	Inadequate livestock feeds	Animal Disease	Lack of water	Lack of good diary breeds	Score	Rank
Inadequate livestock feeds		Inadequate livestock feeds	Lack of water	Inadequate livestock feeds	2	2
Animal Disease			Lack of water	Animal disease	1	3
Lack of water				Lack of water	3	1
Lack of good diary breeds					0	4

Table 5: Example of pair-wise matrix

2. Identification of Solutions

(a) Come up with the list of options to solve the main three of the four problems.

(b) Analyse the options. Each of the solutions can be assessed by looking at the following characteristics:

- Sustainability
- Productivity
- Time Factor
- Equitability
- Cost
- Social acceptability

(c)   Selection of the best option.

3. Development of the Curriculum

This entails listing down the topics to be covered and the methodology to be used based on the main problems and solutions identified.

(a) Display the list of priority problems identified or discussed in previous learning sessions per season.

(b) Each priority problem is discussed in order. The PFS group in collaboration with the facilitator decides what types of activities need to be undertaken to further explore the problem and test the solutions.

(c) Each PFS core activity is discussed and the PFS group decides which is most appropriate for each problem. Sometimes a series of different activities can be planned, for example the implementation of a comparative experiment or, consulting the calendar. Plan in which session's key topics (topic of the day) need to be addressed.

(d) Prepare a matrix including all the key topics and activities required to address the problem identified.

Example

Topic	Sub-topic	Training methodology	Time
PFS process	Background of PFS Basic concepts & characteristics Steps in PFS implementation AESA	Participatory discussions and field exercises	2 days
Livestock	Poultry production Rabbit production Shoats production	Participatory discussions & exercises	1 day 1 day 1 day

4. Development of the Schedule of Activities

This entails development of a programme outlining dates of meetings and the topics of discussion in a matrix. Field days, field exchange trips, invitation of innovators/experts etc should also be planned. The schedule covers topics such as when the PFS will start and when the graduation will take place. The group should also discuss when the sessions will begin and end, which dates and when each host team is on duty. The programme should also include PM&E activities.

The programme is not fixed but should be regarded as a flexible guideline that tracks the progress of the PFS and enhances learning and participation. The developed programme should be made available for all to consult whenever needed.

Example

Week/ Session	Date	Activities	Topic of the day	Resource required
1	02/04/12	Site layout & PCE setting	PCE Establishment	
2	09/04/12	Planting	Planting fertiliser application	
3	16/04/12	AESA	AESA	

5. Development of the Detailed Budget

Having defined which activities the PFS will perform, the group should establish a detailed budget. Participants will have to investigate what is available locally and at what price. Alternatives using local materials and affordable solutions should be promoted by the facilitator. Equipment and materials are best purchased by the group without external help. This is to ensure that participants realize they can reproduce whatever the group achieves. Purchases should benefit the PFS group as a whole, not just a few individuals. Facilitation costs should not exceed 50% of the total budget. Cost of external facilitators

invited for a special topic session should also be included.

Example of a detailed budget

Requirements	Cost (in local currency)
Field inputs Young stock for example	
Stationery (give all details) Flip charts, felt pens, masking tapes, manila papers, registers, etc.	
General tools used across all activities Weigh bands, castration tool, vaccine carrier bag, scale and thermometer,	
Field comparative experiments For each experiment separately detail all equipment and materials needed: Exp 1: Exp 2: Exp 3:	
Field days Minimum one field day. Give date and costs	
Graduation Invitation, certificates, transport, food/drinks, stationery	
Exchange visits Transport, although if possible this should be financed from members' contributions or other funds.	
Facilitation Number of PFS sessions and facilitation cost per session. Amounts and type of motivation (i.e. cash, gifts, in-kind payment etc.) for the facilitator need to be agreed upon by the group and facilitator. Total costs for facilitation should not exceed 50% of the total group budget. Costs for external guest facilitators and visiting experts should also be included in the budget	
PFS participant contribution and commitment This can be in cash (amount per session) or in kind (material, field, animal, litre of milk per week,)	
Total	

Wrap up (10minutes)

Summarise key points through question and answer sessions with the participants and put emphasis on the important points to remember.

Handout 1.5

Example of a learning curriculum

See Annex 2

1.6 Field Practice/Group Visit

Background

During the implementation of the ToF, it is important that the participants are exposed to hands-on learning in the actual PFS group. The ToF participants need to get time to practice facilitating a PFS session by visiting existing groups where applicable, and participating in the sessions.

During the ToF training, one day per week should be set aside for the participants to visit a PFS group and participate in the session and practice facilitating a PFS session. On the first visit the participants will get exposed to the PFS overview. On the second visit the participants will visit any nearby groups to practise how to assess community problems using PRA tools. During the third visit participants should practise facilitating a session.

Topic objectives

By the end of this topic, participants will be able to:

- Interact with and witness hands-on experience of an actual PFS group.
- Describe the pastoral production systems and associated livelihood challenges by employing PRA tools;
- Prepare learning curriculum based on the analysis of pastoral production systems
- Practise how to facilitate a PFS session

Topic overview

1. PFS Overview
2. Field practice on PRA tools
3. Practice on facilitating a PFS session

Method of facilitation

- Discussions,
- Observation,
- Practice
- Participants presentation

Time: 3 days (1 day per week)

Materials: Coloured cards, Flip charts, markers, Cards, Note book, Pens, Ruler, Masking tape, Display board, push pins.

Handout: 1.6.1 and 1.6.2

LEARNING ACTIVITIES

Activities for each field practice day should include:

1. Preparation for field visit
2. Field practice
3. Sharing of field findings and process of the fieldwork

Activity 1: PFS Overview (Field practice week 1)

1. Clarify the objective of the fieldwork, expected outcome and the process.
2. Give a brief overview about the field visit (field visit area, distance, logistics arrangement, materials required for the field practice, duration of the practice, time of departure, process of the field practice,

report outline and time allocated for field findings sharing.

3. Where applicable divide participants into groups of 4-5 participants and assign each group to visit one PFS group.

4. Give each sub-group a checklist for participants to use as a guide and for giving feedback when back from the field visit (Handout 1.6.1).

5. Allow time after the participants are back to the training venue for each group to prepare and share their experience in the plenary and input as appropriate.

Activity 2: Field practice on PRA tools (Field practice week 2)

Field practice preparation (classroom session) (1 hour 30 minutes)

1. Clarify the objective of the fieldwork, expected outcome and the process;

2. Give brief overview about the field visit (field visit area, distance, logistics arrangement, materials required for the field practice, duration of the practice, time of departure, process of the field practice, report outline and time allocated for field findings sharing.

3. Form four groups (depending on the size of the group) with mixed professional experience on PRA and disciplines.

4. Ask the groups to share responsibilities among themselves. That is, one facilitator who will facilitate the discussion, one or two reporters who will record, and one person who will be an observer of the discussion).

5. Give sufficient time for the participants to share responsibilities among the group members.

6. Distribute to the group members the attached checklist to prepare themselves on key learning activities with the community members;

7. Make sure the checklist and appropriate tools to employ are clear to all of the group members;

8. After discussing the checklist with group members, ask the group members to prepare field action plan, for example, who are the key informants, seating arrangement, how to start the discussion, how to wrap up the discussion and duration of the discussion.

9. Inform participants that the checklist is a guide and thus is flexible to accommodate arising issues from community members. For example, if crop production is not a common practice, they can skip or add some other issues which are not included in the checklist.

Field practice (6 hours)

1. Introduction by group members and community (objective of the visit, getting to know each other)

2. Ask the community questions relating to (refer the attached checklist for details):
   - Physical characteristics of the area.
   - Livelihood activities.
   - Socio-economic structure.
   - Livestock production.
   - Water, pasture and rangeland.
   - Crop production.
   - Major challenges, opportunities and solutions.

3. Prepare learning curriculum based on the findings of the study.

4. After the field practice, participants need to get time for analysing the information and preparing the presentations for sharing.

5. It is recommended to use the presentation outline based on the attached checklist.

Sharing of field findings and process of the fieldwork (1 hour 30 minutes)

1. Each group will present their findings (15 minutes per group) and their observations on the field work process.

2. Feedback and discussion.

3. Review the fieldwork by asking participants to score the team's facilitation skills out of 5 (1=low, 5=high) and give reasons for their score with reference to the following questions:

   • How was the interaction among team members before, during and after the meeting with the community?

   • How was the interaction between the team and the community?

   • What was the level of participation of men and women during the discussion with the community?

   • How did you encourage the quieter community members to participate?

   • How did you manage dominant talkers?

   • How can you improve your facilitation skills?

Activity 3: Practice on facilitating a PFS session (Field practice week 3)

1. Clarify the objective of the fieldwork, expected outcome and the process.

2. Give brief overview about the field visit (field visit area, distance, logistics arrangement, materials required for the field practice, duration of the practice, time of departure, process of the field practice, report outline, and time allocated for field findings sharing.

3. Where applicable divide participants into groups of 4 - 5 and assign each group to visit one PFS group.

4. Give each sub-group a checklist for participants to use as a guide and for giving feedback when back from the field visit (Handout 1.6.1).

5. Allow time after the participants are back to the training venue for each group to prepare and share their experience in the plenary and input as appropriate.

Handout 1.6.1

Checklist for Field Practice (Week 1 and 3)

PFS Group activity weekly report					
Date			Name of the Group		
Name of Facilitators					
Starting Time		Ending Time		No. of Members Present	F- M-
Programme of the day (Schedule of activities)					
AESA/PESA and other activities (Stage, major observations and recommendations)					
Topic of the day (Which one, relevance, presentation etc)					
Group dynamics (Which type? Level of Participation? What was the message?)					
Plan for Next week					
Participatory Monitoring and Evaluation activity done an results					
General Observations / Comments					

Table: Checklist for field practice

Handout 1.6.2

Checklist for Analysing The Situation Using PRA Tools

1. **Understanding the local situation of the area**

    1.1 General description of the area

    - Topography (SSI)
    - Soil and soil fertility (SSI, ranking)
    - Vegetation cover (SSI)
    - Rainfall (Seasonal calendar)

    1.2 Socio-economic structure

    - Human population (proportional piling)
    - Institutions (formal and informal) (Venn diagram)
    - Traditional beliefs and customs (SSI)
    - Education (SSI)
    - Infrastructure (SSI)
    - Income and expenditure (proportional piling)
    - Marketing (Seasonal calendar)
    - Livelihood activities (SSI, pair wise ranking)

    1.3 Livestock production

    - Herd composition (proportional piling)
    - Management practices (SSI)
    - Migration (mobility map)
    - Constraints and solutions (pair wise ranking)
    - Progeny history

1.4 Water, pasture and rangeland (SSI)

- Constraints and solution (pair wise ranking)

1.5 Crop production

- Main crops and varieties (proportional piling)
- Crop calendar (seasonal calendar)
- Cropping systems (SSI)
- Agricultural inputs (SSI)
- Research and extension activities (SSI)
- Major constraints and solutions (pair wise ranking)

2. Problem analysis

- Identify problems
- Prioritise problems
- Analyse the cause and effect
- Suggest alternative solutions

3. Prepare learning curriculum

(See annex 3)

MODULE 2: PARTICIPATIVE LEARNING AND FACILITATION

2.1 Adult Learning in PFS

Background

Adults learn differently from children. Participatory and experiential learning processes have been and are particularly significant for adult learners. Experiential learning within a group provides people the opportunity to share knowledge and problems with others and work together to find solutions. PFS facilitators should follow the basic principles of adult learning in designing, facilitating and implementing PFS learning events.

Topic objectives

By the end of this topic, participants will be able to:

- Identify characteristics of adult learning
- Differentiate between adult learning and teaching
- Explain adult learning principles and its application in the PFS context

Topic overview

1. Characteristics of adult learning
2. Adult learning and teaching
3. Adult learning principles
4. Application of adult learning principles in the context of PFS

Method of facilitation

- Participatory presentation,
- Group discussions,
- Drawings,
- Role play

Time: 2 hours

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board, Colour paper, Pre-prepared flip chart papers, Push pins.

Handout: 2.1.1, 2.1.2, 2.1.3, 2.1.4 and 2.1.5

Additional reference

- TJ Bembridge. Practical guideline for Agricultural Extension workers. A field manual
- Gender mainstreaming in integrated water resources management training of trainers package
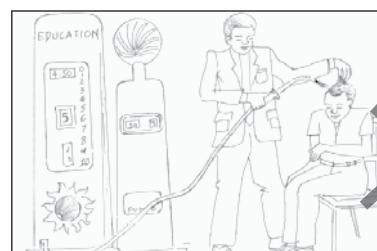
LEARNING ACTIVITIES

Activity 1: Characteristics of Adult Learning: Drawing (40 minutes)

1. Explain that the session's objective is to differentiate between adult learning and child education.
2. Ask participants to form three to four groups depending on the number of participants.
3. Distribute sheets of paper and markers to the groups
4. Ask participants to draw two drawings representing how they learn in primary school and how they learn in training?
5. Ask the group further to post similar drawings on a wall and compare the two pictures.

6. Ask participants to look at the pictures and identify the similarities and differences.

7. Tell the participants to construct a matrix to compare child education and adult learning by using the following parameters:
    - Relationship between trainer and trainees, teacher and students
    - role of learners,
    - motivation for learning,
    - choice of content,
    - Methods focus.

8. Summarise the session by emphasising adult characters as:
    - Adult have their own immediate needs for learning
    - Adults learn best by sharing their experiences
    - Adults learn throughout their lives
    - Adults have multiple roles and responsibilities in learning
    - Adults' participation in learning is voluntary
    - Adults exhibit diverse learning styles
    - Adults like their learning to be problem oriented, to have immediacy of application, and to be directed towards their own specific situations

8. Ask participants to discuss which kind of learning (adult learning or child learning) is more relevant for PFS learning events. Answer: Adult learning.

Activity 2: The Difference Between Adult Learning and Traditional Teaching Role-Play (40 minutes)

1. Point out to participants that up until now they have been exploring the characteristics of adult learning.

2. Tell them that now they are going to work in role-play to show the difference between adult learning and traditional teaching.

3. Ask them to elect six volunteers to participate in role plays on traditional teaching and adult learning.

4. Tell the volunteers to share responsibilities. In the first role-play, one of the participants acts as a teacher and the others as students. The students should not allow any participant to speak. They should only respond to questions. In the second role to play, one participant acts as an adult educator (facilitator) and the others as participants.

5. Ask the volunteers to act out the role-play turn by turn in front of the rest of the participants.

Adult learning versus conventional learning

6. Facilitate a plenary discussion based on the role plays by using the following questions:
    - Are there any differences in the style of the person leading the discussions in traditional teaching and adult learning?

- • How was the level of participation in the two role plays?
- • How was the relationship between teacher and students, adult educator and participants?
- • Which of the role play illustrates the type of interaction we would like to have with the community in PFS learning?

7. Lead the group in developing a list of the differences between adult learning and traditional teaching. Write this on different colour cards. Display the cards accordingly on a visible wall.

8. Distribute Handout 2.1 and compare with the list in the handout.

Activity 3: Principles of Adult learning: Group discussion (40 minutes)

1. Using the same group in the previous activity, ask participants to discuss and respond to the following questions as a group:
    - • What factors made a positive learning experience for adults?
    - • What factors made a difficult learning experience for adults

2. Ask participants based on the above discussions how adults learn best?

3. Distribute Handout 2.1.3, principles of adult learning, and discuss.
    (a) Give the participants time to read and discuss.
    (b) Ask one volunteer to brainstorm adult learning principles on a flip chart.
    (c) Let them compare their ideas.

4. Ask participants to think about how they will apply these principles in PFS learning.

Activity 4: Application of Adult Learning Principles

5. What implication does it have for PFS facilitators knowing adult learning principles?

    Possible answer: Effectiveness of PFS learning depends on proper application of the principles of adult learning

6. Ask participants to look at principles of PFS and compare with Adult learning principles.

7. Wrap up the session.

Handout 2.1.1

Difference Between Top Down Teaching and Adult Learning[2]

	Top down teaching	Adult training
Basic assumption	Learner lacks knowledge	Learner has knowledge which can be shared
Strategy/approach	Teacher must fill the knowledge gap using a top down approach	A two-way learning process
Identification of learning needs	Teacher as an expert identifies the learning needs and develops content	Both the facilitator and the learners identify needs in a participatory manner
Use of learning aids	Learning aids are close-ended – intending to educate.	Learning aids are open-ended – subject to reflection and interpretation.
Scope for learner involvement	Learner is usually a passive receiver of information	Participants are involved in learning as the process is shared between them and the facilitator
How do you measure Assimilation /learning	Teacher will decide either through oral or written exams	Learning can be measured by qualitative indicators
Advantages	Teacher remains focused Takes a short time Gives a lot of information in a short space of time Gives a lot of information in a short space of time	Retention level is high There is sustainability of information – what is learned will be remembered May lead to behavioural change
Constraints	Limited suitability for behaviour change	Takes more time, effort and resources

Table 6: Difference between top down teaching and adult learning

Handout 2.1.2

How Adults Learn

In terms of PFS, learning is the process by which pastoralists acquire new knowledge which helps them to improve their level of farming and human development. Adult learning takes place in the natural community setting, as well as in the formal instruction setting such as Pastoral Field School. In the natural community setting, learning results from the day to day experiences such as reading, listening to radio or television, exchange visits, and participation in group activities. In the formal instruction setting, learning occurs under the guidance of a trainer or extension workers based on the identified needs.

Systematic learning occurs in the formal setting as a result of the pastoralists participation in a specific training course or learning experience in which certain learning methods and techniques are used by the extension worker to achieve certain results.

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2   Gender mainstreaming integrated water resource management Training of Trainers package

Remember the Chinese proverb, "I hear and I forget, I see and I remember, I do and I understand". Adults learn through auditory, visual and kinaesthetic modes. Generally, people learn through all three modes, but individuals vary in their preferences for each mode. To maximise learning in training, it is important to use many learning styles to accommodate the different learners in the group.

For adults, learning occurs best when it is motivated, and not coerced or forced. The participants' motivation comes from the context, relevance and involvement in the level of work. The work's context should be clear, understood and agreed to. Why is the work being undertaken? Does the rationale make sense? How does the work fit into the organisation's bigger picture? How does it fit into the participants' personal interests and jobs?

For participants, it is important that a task be guided by their needs, objectives and preferences.

Handout 2.1.3

Learning Principles Related to Characteristics of Adults

1. Adults learn best when their vision and hearing are in the best possible condition and when the learning environment is supported with practice.

2. Adults do not learn productively when under severe time constraints. They learn best when they can set their own pace and when time pressures are kept to a minimum. The older they are, the more counterproductive time pressures become.

3. Adults tend to experience a need to learn quickly and get on with living. They are often reluctant to start learning about an activity or concept which does not appear to have immediate application within their lives.

4. Adult learning focuses on the problems of the present. The solution must come from the learners' experiences, expectations and potential resources rather than be prescribed by experts .

5. Adults motivation to learn is strongly influenced by the felt needs which the learner brings to the learning activity.

6. Adults are highly motivated to learn in areas relevant to their current development tasks and transitional phases.

7. Participation in the learning process is active, not passive.

8. The most effective learning is from experience; learners learn from each other, and the Facilitator often learns from learners.

9. Maximum learning from a particular experience occurs when a person takes the time to reflect back upon it, draws conclusions, and derives principles for application to similar experiences in the future.

10. Effective learning requires feedback that is corrective but supportive.

11. Mutual respect and trust between the Facilitator and the learner help the learning process.

12. A person who is hungry, tired, cold, ill or otherwise physically uncomfortable cannot learn with maximum effectiveness.

Handout 2.1.4
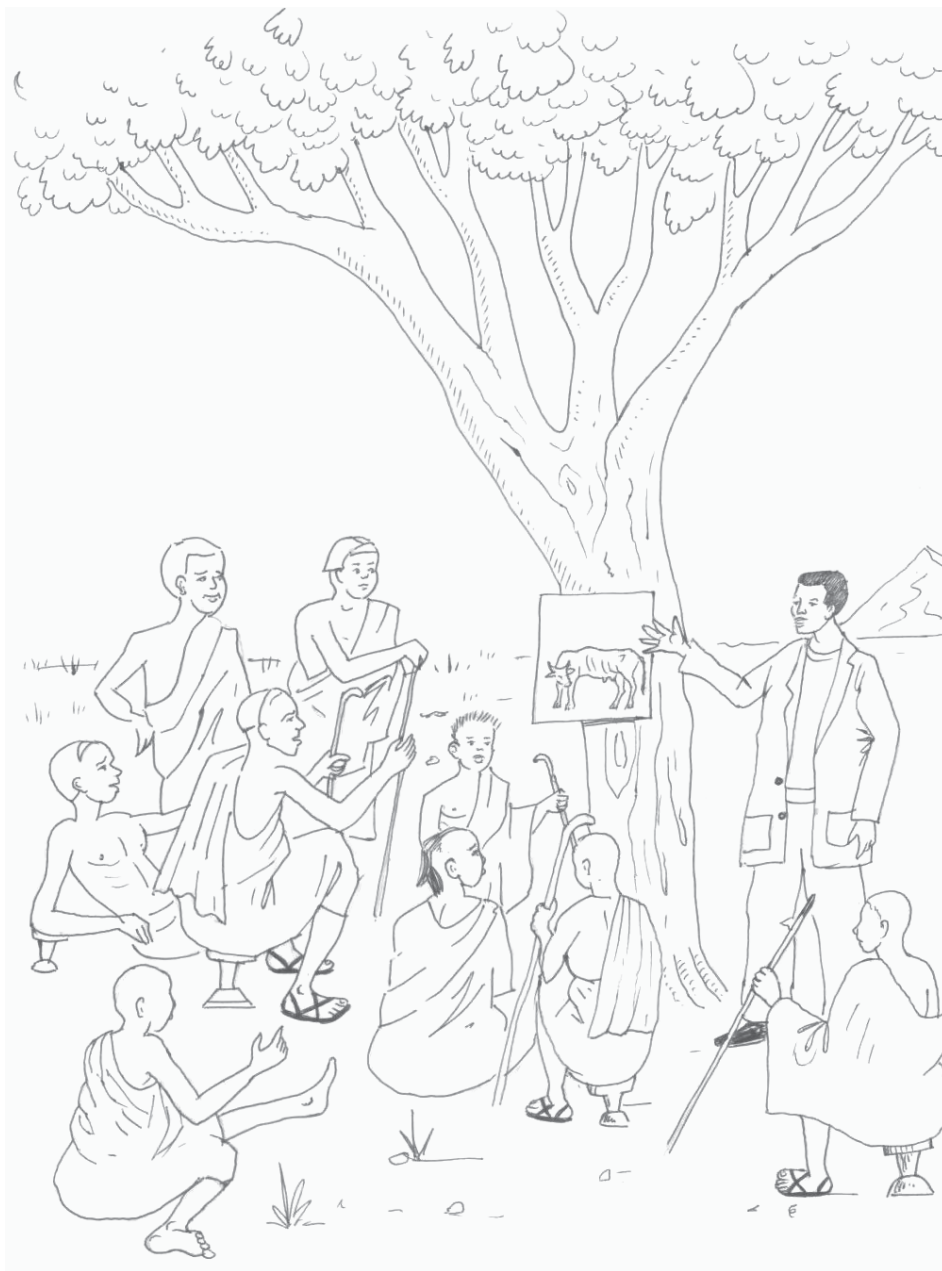
Application of Adult Learning Principles in PFS

The following are useful on applying adult learning principles in PFS[3]:

1. Involvement: Adults are more likely to remember a solution they have worked out for themselves rather than one which has been given to them by the facilitator. They are also more likely to act on decisions made by themselves rather than those made by the facilitator.

2. Readiness: Learning will take place more quickly if participants perceive the need for, and are ready to learn about a particular farming enterprises or practice.

3. Reinforcement: Adults learn more easily if given a meaningful practical exercise, and if they have success with their learning.

4. Rehearsal: Learners should have the opportunity to rehearse (repeat) the knowledge, skills, and attitudes to be learned. This does not have to be done by repeating the knowledge in the same way each time; rather, the learners should be given the opportunity to deal with the information in several ways.

5. Intensity: Intense, dramatic or vivid learning experiences are likely to make an impression by capturing attention and strengthening the impact of training, effective visual aids and demonstrations are important.

6. Association: Learning which is related to the experience and previous learning of the pastoralists (so that similarities and differences can be seen) is more likely to be remembered.

7. Similarity: If information to be learned is similar, it helps the learner to understand the similarities and differences more clearly.

8. Organisation: Learners should be helped to organise the material into ways which make sense to them.

9. Effectiveness: Learning is more likely to occur when it is pleasant and satisfying rather than annoying. Approval encourages learning.

10. Capacity: Most adults remain at a stage far below their real capacity for learning, working and achieving.

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3 TJ Bembridge. Practical guideline for Agricultural Extension workers. A field manual

Handout 2.1.5

Make PFS learning more effective

To make PFS more effective, PFS facilitators should consider the following:

1. A good way to start a learning session is to discuss objectives with participants. This will help to establish realistic learning goals.

2. People learn best when they actually do the activity, next best from what they see and then from what they hear and read.

3. Lecturing is an ineffective way of teaching adults, but can be made more effective if used in conjunction with other techniques such as practice, role play, models, demonstrations and field trips .

4. Reinforce the spoken word with visual aids and demonstrations.

5. A discussion group is an effective tool in adult learning. It works with small groups of about eight people.

6. Another way to stimulate learning is to divide participants into groups of two or three to discuss a particular topic or problem and get them to report back to the entire group.

7. Work hard at maintaining attention and interest by using a variety of methods, applying learning principles, creating good conditions for learning and drawing on experience.

8. Breakdown concepts into small learning units. For example, if a particular livestock enterprise is being taught, break the topic to each practice required in a logical order.

9. Allow sufficient practice time for becoming familiar with recently acquired skills and knowledge.

10. Make sure your audience is comfortably seated.

11. Use simple and clear language.

12. A course evaluation at the end of the session may be useful to provide feedback on the relevance and effectiveness of the techniques used and a chance to improve the subsequent sessions.

Adults learn best when seated in a comfortable position

2.2 Communication Skills

Background

There are numerous definitions of communication. In terms of PFS it can be defined as 'the meaning and results of a flow of information'. In PFS we need to concentrate on the results achieved by communication. These results include change in attitude, increase in pastoralist's knowledge and skills, change in observation, decision making and analytical skills of farming community and change in farming practices. In practice, much of the effort spent by extension workers on communicating messages to pastoralists produces minimum results because of communication barriers. This is often due to lack of knowledge and skills of communication on the part of facilitators.

Topic objectives

By the end of this topic, participants will be able to:

• Define communication

• Describe elements of effective communication

• Practice how to communicate in an interactive way

• Discuss common problems in communication

Topic overview

1. What is and why communication in PFS?

2. Elements/process of communication

3. Barriers of communication

4. Using appropriate non verbal behaviour for communication

Method of facilitation

• Warm up activity

• Role play

• Demonstration

• Plenary discussion

Time: 2 hours

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board, Pre-prepared flip chart papers, Push pins.
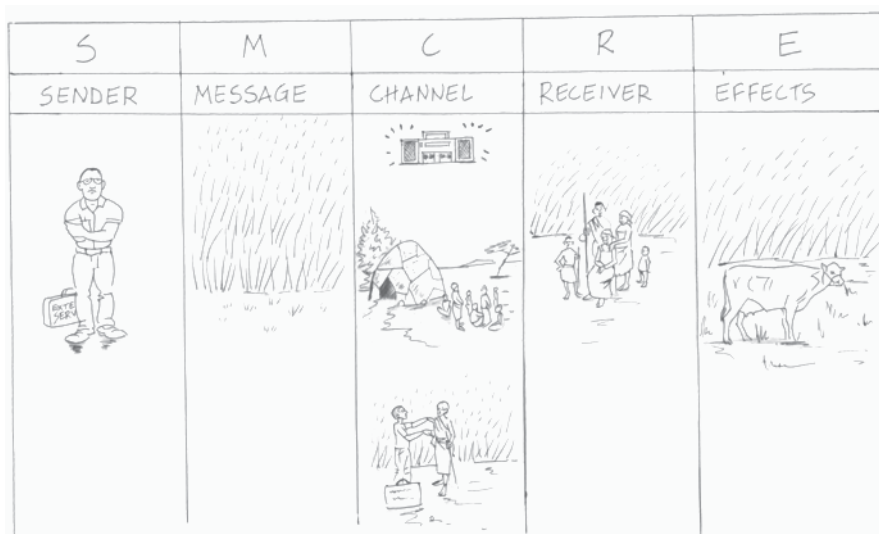
Handout: 2.2.1

LEARNING ACTIVITIES

Activity 1: What and Why communication (Warm up Activity) (30 minutes)

1. Explain that warm up activity is often used at the beginning of the morning session or after lunch. The purpose of the warm up activity is to increase participants' energy and to focus on their attention on the training. This warm up activity will demonstrate on communication skills.

2. Ask all of the participants to stand. Give each participant a piece of paper (preferably A-4 size).

3. Tell them that you are going to see how well they learn from you.

4. Tell them that they are going to do exactly what you say and do, and that they are not allowed to talk.

5. Note if anyone asks a question or asks you to repeat- just say: remember, no talking"

6. Ask participants to close their eyes. Say the following:
    *   Fold your paper in half.
    *   Now tear off the upper right hand corner.
    *   Fold it in half again and tear off the lower left hand corner.
    *   Without folding again, tear off the upper right hand corner.
7. Now say "open your eyes and open your papers. If you have learned well from teaching, your papers should look exactly like mine" (probably none will but there will be much laughter).
8. Begin the discussion with the following questions by using experiential learning cycle:
    *   What did they feel about this warm up activity?
    *   What happened to the message and why?
    *   What prevented you from learning?
    *   How could the learning process have been improved?
9. Possible answers:
    *   The communication did not give an opportunity to clarify or ask questions. It was one way;
    *   The information may have had nothing to do with listeners need;
    *   Message was not repeated;
    *   Listeners may be nervous because of closing their eyes;
    *   Learners were not able to observe what was happening

Activity 2: Elements of communication skills (45 minutes)

1. Explain that just because you told them does not mean they understood. This emphasizes the need for ensuring to what extent learners have learned from the experience by asking questions on their reflections, their conceptualism, and how they are going to put into practice what they have learnt.
2. Post and explain the following communication model, emphasising that communication is not completed if the following elements of communication are missing:

Elements of communication skills

3. Wrap up and summary: Based on the above warm up Activity:

  - PFS facilitator needs to have a good relationship with the community and good preparation before delivering any information.

  - The message should be simple and relevant; and key ideas should be repeated.

  - The more senses- sight, hearing, touch, smell, and taste- used to communicate a message, the greater the chances that it will be understood.

  - Use two way communication that is, observe, listen, discuss, and analyse.

Activity 3: Barriers of Communication: Role-play (20 minutes)

1. Ask two volunteers to act out a role play that demonstrates good and bad communication between a facilitator and a community member(s). Do the first 10 minutes with good communication and then with bad communication;

2. Ask participants to observe how information is exchanged between a facilitator and community member and observe What conditions either help or hinder communication in rural environment context;

3. Ask participants to write their responses in two columns on cards one column for helping factors and the other for hindering factors.

4. Ask participants to display the factors on cards by sticking on a wall. Move around the room to look at group's responses.

Wrap up (10 minutes)

5. Summarise the session by presenting key messages on principles of effective communication in PFS:

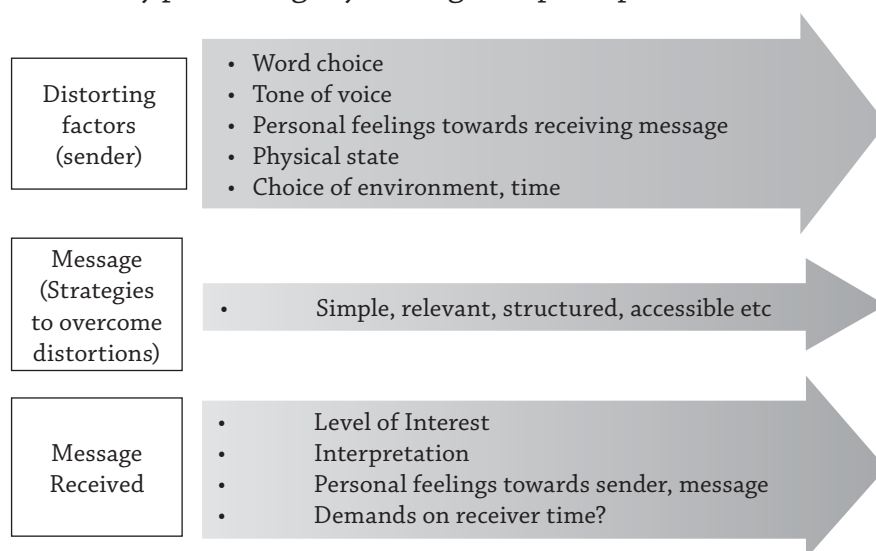| Distorting factors (sender) | • Word choice
• Tone of voice
• Personal feelings towards receiving message
• Physical state
• Choice of environment, time |
| Message (Strategies to overcome distortions) | • Simple, relevant, structured, accessible etc |
| Message Received | • Level of Interest
• Interpretation
• Personal feelings towards sender, message
• Demands on receiver time? |

Figure 2: Principles of effective communication

6. There are many explanations for inhibitors of communication between PFS facilitator and community members .These include:

  - Poor listening and communication skills.

  - Negative attitudes towards farming community.

  - Cultural differences between facilitator and community members.

- Low motivation and payments.
- Poor working environment.

Activity 4: Using Appropriate Non Verbal Behaviour For Communication: Demonstration (15 minutes)

1. Ask participants to form four or five groups.
2. Each of the groups will pick pieces of paper from a basket or bag. The paper will have written on it an emotion that the group will act out, without talking.
3. Each group should assign one person to act out or 'mime' the emotion. S/he may use facial expression, movements, body language, exaggerated if necessary but no words or sounds. Other participants try to guess the emotion or feeling.
4. After guessing the emotions, ask the group whether it was easy to communicate messages without words.
5. Point out that one of the most important communication skills is listening skills.
6. Listening is more than just sitting passively. It is not simply a case of paying attention to what is being said. It is also about being sensitive to the other person's:
   - Voice
   - Choice of words
   - Tone
   - Speed
   - Body language.
7. Indication of interest to hear more (with appropriate facial expressions) include:
   - Smiles
   - Raised eye brows
   - Head movements
   - Physical distance
   - Physical position
   - Eye contact.
8. Summarise communication skills from the previous sessions by putting key points on Handout 4.1
9. Ask participants what they feel they have learned from the session?
10. Ask what they are going to do if they conducted this session again? Why?
11. Are there any difficulties to translate these techniques in PFS learning sessions?

Handout 2.2.1

Communication skills

There are numerous definitions of communication. In terms of PFS it can be defined as the meaning and results of a flow of information'. In PFS we need to concentrate on the results achieved by communication. These results include change in attitude, increase in pastoralist's knowledge and skills, change in observation and analytical skills of farming community and change in farming practices. In practice much of the effort spent by extension workers on communicating messages to pastoralists produces minimum results because of communication barriers. This is often due to lack of knowledge and skills of communication on the part of extension workers.

Clearly, collection, storage and transmission of farming information with no results are not effective communication. The task of extension communication involves a skilful extension worker (communicator) sending a message which is beneficial and acceptable to farmers, through communication channels which will reach pastoralists. The message should designed such that it will be understood by a particular audience or group of community members who can use the message and will respond by finally adopting/adapting the knowledge or practice. In practice extension communication involves the interaction between extension workers and individual pastoralists either directly through word of mouth or indirectly through groups and mass media. Communication is incomplete without feedback on how the message was received or acted upon.

The following communication model is a simplistic view of communication when applied in the context of PFS. The following points are pointed out for effective communication in PFS.

Sender

- Build up a good relationship with pastoralists and communities
- Identify and understand current farming practices to ensure messages are relevant and acceptable
- Empower communities to observe, analyse their problems and to suggest alternative solutions

Messages

For PFS facilitator to gain credibility with pastoralists, consider the following when formulating messages:

- Relevance: to formulate a relevant message , you need background knowledge of their problems, concerns, and their interest. Make use of familiar words, simple and easy to understand.
- Simple: reduce ideas to the simplest possible terms. Avoid jargons (mixing local language with English). Learning by doing is the key characteristics of PFS. In addition, simple illustrations using visual aids and demonstrations are important.
- Repetition: Repeat the key concepts of messages. Restate key ideas, using examples and analogies.
- Structure: organise message into series of logical structures.

Channel of communication

- A communication channel is the means by which a message is transmitted from a source, usually the facilitator to audience. Successful channels of communication involve a combination of mass media, individual or personal contact and group method. The role of a communication channel is influenced by socio-economic factors. The important point to remember is that people can only receive communication through five senses: sight, hearing, touch, smell and taste. The more senses used to communicate a message, the greater the chance that it will be understood.
- All channels of communication are not equally useful in attaining a specific objective. The choice of channel of communication depends on the total communication situation. Who is trying to communicate with whom? What is the message? The more channels a PFS facilitator uses in communication, the greater the chances of the participants getting the message. No single channel can reach all people who need to receive a message. For example, written messages will not reach those who are illiterate.

Audience

The PFS facilitator should know the characteristics of the audience before communicating the message. These include:

- Educational background
- Prior knowledge about the subject
- Illiterate or literate
- Cultural taboos

Effect of communication/feedback

Communication is a two way process. Feedback means that the message is 'feedback' by the receiver to the source. Sending a message is only one third of the job. The other two thirds are finding out the effect of the message on the audience. Feedback helps the PFS facilitator to know whether the community members understood the message or not. This enables him/her where necessary to adjust the message and channel it to meet the needs of the community and the local situation.

2.3 Experiential Learning

Background

Experiential learning can be described as a process by which the experience of the learner is reflected upon, and from this emerge new insights or learning. David Kolb developed the most established model of experiential learning. In his model, the process begins with an experience (concrete experience), followed by reflection (reflective observation). The reflection is then assimilated into a theory (abstract conceptualization) and finally these new (or reformulated) hypotheses are tested in new situations (active experimentation). The model is a recurring cycle within which the learner tests new concepts and modifies them as a result of the reflection and conceptualisation.

Experiential learning can therefore be defined in PFS learning as learning beginning from a given experience followed by reflections of the experience, discussion, analysis and evaluation of the experience. This process will enhance participants' synthesis of learning, encourage discoveries, enhance analytical and observation and decision making skills.

Topic objectives

By the end of this topic, participants will be able to:

- Explain the phases of experiential learning
- Practice how to apply the experiential learning phases in the context of PFS

Topic overview

1. Concepts of experiential learning
2. Phases of Experiential learning
3. Application of experiential learning in PFS

Method of facilitation

- Participatory presentation
- Practice
- Practice

Time: 2 hours

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board, Colour paper, Pre-prepared flip chart papers, Push pins.

Handout: 2.3

LEARNING ACTIVITIES

Activity 1: Concept of Experiential Learning (20 minutes)

1. Set the learning climate by explaining the agenda of the session.
2. Ask participants the link between this session with adult learning and discovery based learning.
3. We know that learning is not as simple as receiving information.
4. Ask participants what they understand by experiential learning.
5. Explain that Experiential learning is one of the powerful and effective way of learning by employing experiential learning cycle.

6. Explain that the reason for employing experiential learning cycle in PFS learning is :

    (a) To assess major learning.

    (b) To get people think, that is, stimulating.

    (c) To facilitate learning from and with participants.

    (d) To motivate people for future actions.

Activity 2: Phases of experiential learning (60 minutes)

1. Draw the experiential learning cycle on a flip chart (see figure 2.2) as you will explain each phase: experiencing, reflecting, analysing and applying;

2. Point out that often people experience something without really learning from it. (Elicit examples.) For maximum learning to occur, the remaining phases must occur, with or without the help of a facilitator.

3. Experiential learning cycle requires the learner to progress through four different phases of the Learning cycle. Effective learning requires the ability to apply the things you learn in Phase 3, where you form principles based on your analysis in phase 2 of an experience you had at phase 1. This does not come easily for everyone, especially those who are used to learning from lectures. Adult learning requires the active participation of the learner in the learning process.

Figure 3: Phases of experiential learning

4. Explain to participants each phase of the learning cycle.

    (a) Experience represents learning event. Learning is most likely to occur when it is based on participants' experiences and meets their needs.

    (b) Reflection means considering participants' feelings; reactions towards the experience. This will help participants to create better understanding of the experience.

    (c) Conclusion means participants are helped to learn by being made to think. This could be by giving responsibility to participants to work out their own conclusions.

    (d) Application/action means participants are asked how they are going to apply the experience in their real situation. In most learning processes, participants fail to apply what they have learned. It is therefore very important to synthesise learning; how do they apply it in their real situations?

5. Ask participants which of the PFS and adult learning principles can be seen in the experiential learning cycle. Response: Adults learn by doing. Adults are given responsibility to make their own conclusion by encouraging learning in their situation, and learning from experience.

6. Ask participants the role of the PFS facilitator in the learning process of experiential learning cycle. The role of the facilitator is to help the learner through this process of learning. A good facilitator
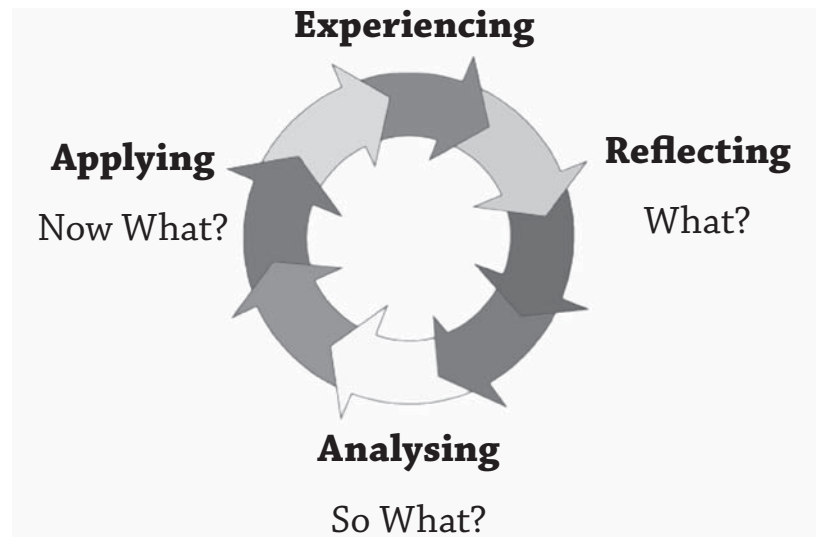
must have the competence to understand what goes on at each phase and to facilitate the learning process where adults move through all of the phases from experiencing to applying, in order to learn from an experience and apply the learning to future experiences.

7. The facilitator guides the process of learning by progressing through the phases. He/she will do it by asking provoking questions. The questions to be asked at each phase of the learning cycle include:

    Reflection phase: What did you observe? What did you notice? What was clear and unclear?

    Conclusion phase: What have you learned from this experience? What conclusions can you draw?

    Application phase: How can you use this learning in your working area? How do you adapt it?

Activity 3: Application of experiential learning (30 minutes)

1. Ask participants to work in groups with the following task:

2. Ask participants to present the possible questions to synthesise learning from the demonstration:

    Experience: Are there any questions on the demonstration?

    Reflection: What did you feel about the (some missing information) when you did the demonstration? What did you observe?

    Conclusion: What did you learn from the demonstration? What does this mean for you?

    Application: How can you apply this in your situation at home?

> Suppose you are facilitating a demonstration on a selected topic of PFS. Think of questions you will ask participants in facilitating the session through progressing all phases of experiential learning cycle by introducing the session and ending with synthesising application of learning.

3. Wrap up the session by explaining how they are to use experiential learning cycle in facilitating PFS learning and to relate with discovery based learning.

    PFS aims to enhance pastoralist observational skills, analytical skills and decision making skills. Thus, experiential learning cycle is more effective if participants are helped to learn by being made to think, participants are made to think by being given responsibility for working their conclusions, and participants learn by trying new practices against their own practices, feelings, and opinions. The learning cycle will be used in facilitating PFS LEARNING ACTIVITIES including experimentation, Pastoral Eco-system Analysis(PESA), and topic of the day.

Experiential learning

Handout 2.3

Discovery-Based Learning/ Experiential learning/ Learning-by-doing

The terms experiential learning/ learning-by-doing/ and discovery-based learning are used interchangeably. Experiential learning can be described as a process in which the learner reflects on a specific experience and from this reflection new insights or learnings that can then be tested emerge.The new experience can then be reflected on. This learning process is cyclical and therefore continuous in its nature. The four main elements of the experiential learning cycle are:

Experiential learning begins with 'an experience' followed by reflection, discussion, analysis and evaluation of 'the experience' and from this the creation of new experiences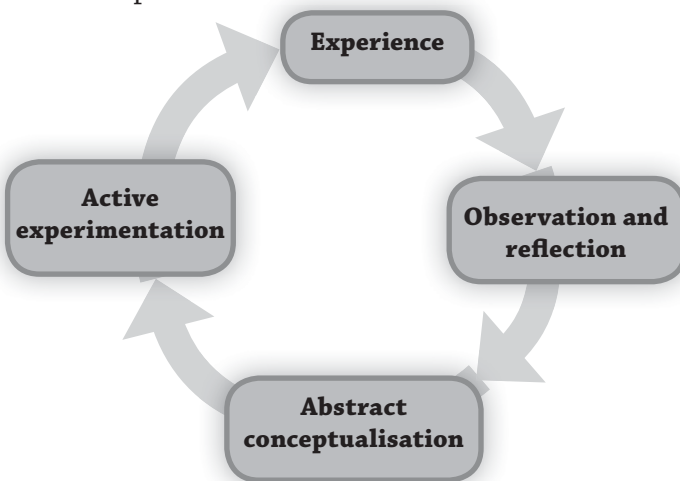. It builds on the assumption that we seldom learn from an experience unless we assess the experience, and in so doing assign our own meaning to it in terms of our own goals and expectations. By assessing the experience, we develop ideas for doing things differently and then test these ideas (experimentation) producing a new experience. The insights, discoveries, and understanding develop during this ongoing process, and the experience takes on added meaning in relation to other experiences. Since experiential learning processes develop from one's own experience of a situation or technique and one's own evaluation of it, the learner is empowered in solving problems and making decisions based on their own unique experiences, situations and needs.

Figure 3: Experimental learning cycle

Pastoral production systems are diverse and therefore helping farmers develop learning processes to improve them in their own specific agro-ecological and socio-economic situations is important. This approach also helps enhance the capacity of trainers (be they extensionists, NGO staff, researchers or consultants), so they learn to avoid prescribing blanket recommendations which are often not relevant to many of the pastoralists, who come from different geographical areas and different socio-economic situations. Instead these trainers can work with pastoralists in testing, assessing and adapting a variety of options within their specific local conditions and then leaving pastoralists to choose and keep on refining those that are useful to them. The emphasis of this approach is on learning, not on teaching.

Using a discovery-based learning approach to PFS training ensures that all participants are given the opportunity to practice experimenting with and developing the experience and skills to improve their observation, analysis and testing of new ideas. This is not linked to how many years they have spent in school or how wealthy they are, but to how well they observe, reflect, listen, compare, participate, experiment, practice and ask questions when they do not understand. These are skills many pastoralists have already developed during their years of life and taking care of their livestock and families; by grasping what is going on around them and creatively taking action to adapt to continuously changing situations. Experiential learning is a combination of finding out and taking action.

It is important that participants are encouraged to train their observation skills. Most people are weak observers and just use old imaginings, and therefore do not build up a picture of real-life observations over time and space. If participants are to learn experientially, they need to learn to observe carefully and over time, so that they pick up the dynamics and patterns in the processes they are studying as opposed to seeing things as unchanging fixed forms. Drawing, repeated observations, as well as group discussion of observations are useful techniques for training these skills.

The discovery-based learning process also involves thinking, feelings, attitudes and values which markedly affect the disposition of the learner. Although rarely acknowledged, these factors are found in all decision-making situations. Encouraging the participants to discuss the meanings of their feelings, intuitions, interpretations and imaginings regarding the subject (be it animal disease, or livestock marketing) can also help develop a deeper and more holistic understanding of the issues.

Key learning approaches used in discovery-based learning include: practical activities; group sharing and discussions; case studies; role play; storytelling; problem solving exercises; open-ended questioning, group dynamics; brainstorming and summarising. These approaches are discussed in more detail in learning methods. We hope that facilitators will experiment with incorporating them into their training programmes. Other approaches which may supplement discovery-based learning are exchange visit and topic of the day posters.

Whilst discovery-based learning approaches are usually more time consuming than the delivery of a lecture, they are acknowledged as being much more successful in generating real learning about specific topics. They also promote the development of learning processes that participants may continue to use throughout their lives to solve problems and to make meaningful decisions.

2.4 Concept of Participation

Background

Participation is something that goes on in all that we do in our daily lives. At most of the times participation goes unnoticed but in itself is an essential element that drives the things that we do at community and household level. The level of participation is a good determinant of the results we expect in all that we do. In this regard, participation should not be taken lightly but rather should be given the weight it deserves in community initiatives so as to realise the best possible desired outcomes.

Topic objectives

By the end of this topic participants will be able to:

* Explain what participation is.
* Explain the different types of community participation.
* Explain the positive outcomes of good participation.

Topic overview

1. What is participation.
2. Types of community participation.
3. The positive outcomes/results of participation.

Method of facilitation

* Participatory presentation.
* Group discussions, and plenary presentations.
* Question and answer.
* Role plays / folk media / story telling / real life examples/case studies.

Time: 1 hour 30 minutes

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board, Pre-prepared flip chart papers, Push pins, Measure tape.

Handout: 2.4.1, 2.4.2 and 2.4.3

LEARNING ACTIVITIES

Activity 1: What Participation is (40 minutes)

This is a crucial step in helping the participants understand what participation is and therefore give their ideas and opinions with regard to real life situations or scenarios.

1. Divide the participants into groups. Give each group a marker and a flip chart. After each group receives their materials, the facilitator asks the groups to make a drawing or a scenario that depicts participation. The groups are given about 15 minutes after which they are asked to display their drawings in plenary. Each group is then given time to explain its drawing.

2. After the drawings have been finalised and displayed in front and groups have explained, give the participants flash cards and ask them to use one word to describe the similarities in the drawings (note that this exercise can also be done in question and answer form). After they are through, pick the flash cards from the participants and pin them in front to see the similarities. The same

exercise is then repeated for differences between the drawings. After receiving the similarities and differences between the drawings, the facilitator goes in depth to explain the concept of participation using the similarities, differences and real life examples.

To finalise this session, emphasise that participation is a normal occurrence in life and its magnitude and use is what differs under different situations and circumstances. End by giving the definition of participation using some of the words captured in similarities and differences.

Activity 2: The Different Types of Community Participation (30 minutes)

Using the question and answer session, ask the participants different types of community participation as they know or understand. Write the responses on a flip chart as the answers come until there are no more responses. If the responses are not enough or some are not right, give more inputs and put emphasis on the right responses and as much as possible re- emphasise with real life examples.

Summarise the session by going through the types of community participation as they are. At this point emphasise on the type of participation that the FFS/PFS methodology operates or hinges on.

Activity 3: Positive Outcomes / Results of Participation (30 minutes)

In plenary through question and answer or by dividing the participants in groups, ask them to mention or list the positive outcomes of participation. After there are no more inputs or responses, add on the missing inputs and emphasise on the importance of participation especially in relation to the FFS/PFS methodology. Emphasise on the importance of participation through the use of case study in Handout 2.4.3.

Handout 2.4.1

What is participation?

From Aristotle's time, people participated by voting, paying taxes, holding office, attending meetings and defending the state. Citizenship required members to contribute towards the public realm. The concept of participation begun in the 40's and 50's gaining momentum in the 70's where it was referred to as "popular participation" or "active participation". ILO 1977 stated" Participation is by itself a basic need of people and must be included as a critical consideration in any development strategy".

The concept of participation grew out of the realisation that top down approaches had failed to answer community and people's problems and that alternative methods were needed if development projects were to be relevant to the community and its needs. The change was needed in order to learn from past mistakes. Participation emphasises building of an ongoing dialogue with the community, where the community leads the process, analysing issues and proposing courses of action. In addition, participation emphasizes the holistic approach of multi- disciplinary teams working together so that social, economic and cultural issues are tackled together with technical issues. Participation changes the common understanding of development from things towards people. Participation therefore includes people's involvement in the decision making processes, in implementing programmes, sharing in the benefits of development programmes and their involvement in the efforts to evaluate such programmes.

Exercise 1:

In the first exercise, participants are asked to make drawings that depict participation, the participants explain their drawings and at the same time Analyse in one word (use many one words as possible to describe the drawings) similarities and differences between the drawings. Through the similarities and differences participation can be interpreted.

The possible similarities:

A goal, an objective, people, organisation, contribution, activity, involvement, sharing, benefits, scenario

The possible differences:

Different scenarios, different goals, gender differences, different activities, different people, different goals, different objectives.

Interpretation of participation

Participation then can be interpreted as including people's organisation, involvement and contribution in the decision making processes to meet certain goals and objectives, in implementing activities/programmes, sharing in the benefits of development programmes and their involvement in the efforts to evaluate such programmes.

Participation can also be interpreted as empowerment, and this is participation that results in the development of skills and abilities which enable rural people to manage better, negotiate more effectively with development delivery systems and take actions they think are necessary for their development.

Handout 2.4.2

The Different Types of Community Participation

1. *Manipulative participation*: Community participation is simply pretence, with people's representatives on official boards who are un-elected and have no power.

2. *Passive participation (compliance)*: communities participate by being told what has been decided or already happened.

3. *Participation by consultation*: communities participate by being consulted or by answering questions. External agents define the problems and information gathering processes as well as the solutions.

4. *Participation for material incentives*: Communities participate by contributing resources such as labour, land in return for material incentives such as food and cash. Usually people stop the participation when the incentives end.

5. *Functional participation (cooperation)*: People participate by forming groups to meet predetermined project objectives usually set by external agents.

6. *Interactive participation (co-learning)*: People participate in joint analysis, development of action plans and formation or strengthening of local institutions. Participation is seen as a right, not just a means to achieve project goals. It is an inter-disciplinary approach with systemic and structured learning processes. Groups take control over local decisions and determine how available resources are used.

7. *Collective mobilisation*: collective action where people take initiatives independent of external institutions and change systems.

The FFS/PFS methodology is pegged on Steps 6 (co-learning) and 7 (collective mobilisation).

Handout 2.4.3

Positive Outcomes of Participation:

The principles behind participation were examined by using a case study of a draft animal programme. The case study is a review carried out by Pail Starkey (1988).

Case Study of the wheeled tool carrier – "Perfect but yet Rejected"

The wheeled tool carriers are:

Multi-purpose implements made for ploughing, cultivating, seeding, spraying, weeding and transport.

They are made of steel, are two wheeled and are pulled by oxen.

Pioneering work in Senegal	1955
British NIAE	1960s
ICRISAT major programme	1974 and on developed in research stations the world over:
• Found to be highly efficient technically	
• Economically profitable	
• 50 different designs – some made in UK and transported to research stations in Asia and Africa.	

Many reviews and evaluations produced good reports of on-station success. The news spread like wild fire.

In 1970s and 80s there was much interest among donors, aid agencies and research centres and money flowed in to produce wheeled tool carriers.

Thousands of wheeled tool carriers were produced and transported to various parts of the world, Angola, Ethiopia, Cameron, Mozambique, India, Mexico, Honduras, Brazil, Niger, Zimbabwe and elsewhere.

A total of US$40,000,000 was spent for the project. However, farmers did not adopt wheeled tool carriers. Most of them now lie abandoned or used just as carts. The wheeled tool carrier was perfect but yet rejected.

Ask participants to give possible reasons for its rejection

Possible reasons for rejection:

- High cost.
- Too heavy for local animals to pull.
- Not easily manoeuvrable.
- Inconvenient to operate on small irregularly shaped fields.
- Complicated to adjust as it was multipurpose.
- Difficulty to change implements.
- Lack of spares in case of breakdown.
- Many machines combined in one implement increasing risk to farmers and reducing flexibility on the farm.

Ask participants what went wrong?

Possible reasons of what went wrong?
- Donor driven, farmers were not involved in the planning and designing of the wheeled tool carrier
- Economic models were used
- No provisions for repairs for farmers were available
- Labour in research stations not a constraint (vague) maybe to read labour in research stations was a constraint
- Farmers were not consulted
- Researchers did not attempt to understand the farming systems
- Top down approach was used "you have an inefficient system of agriculture. We know the answer." Nobody consulted the farmer.
- The wheeled tool carrier was developed under optimum conditions
- No publications of on farm use and problems of using the wheeled tool carrier

On the farm, studies showed that for the same or lower cost, farmers can use single purpose implements to achieve better or similar results with greater convenience and less risk.

- Top down approach was used "you have an inefficient system of agriculture. We know the answer." Nobody consulted the farmer.

Lessons learnt:

- Involve farmers in all stages of exploring the problem, planning how to tackle it, implementing the proposed solution, follow up and evaluation.

- Avoid imposing technology onto farmers.

- Extensionists should learn from farmers, they know their environment best.

Importance of participation:

- It involves all people in development processes and decision making and evaluation.

- It is a means of sharing ideas and opinions.

- It is a way of making people organised.

- It guards against wrong decisions or ideas.

- It ensures the contributions of all are taken on board.

- It ensures that benefits are shared by all.

- It ensures that goals and objectives are well set and agreed upon by all.

- It ensures that planning; monitoring and evaluation processes are agreed upon and undertaken by all.

- Participation is the main driver of development.

2.5 Participatory Training Techniques

Background

Training techniques are the means trainer use to achieve learning objectives. These are the procedures, techniques, and processes trainers use to help learners acquire new knowledge, skills, and attitudes. The value of training techniques depends on how the facilitator is applies them.

Topic objectives

By the end of this topic participants will be able to:

- List commonly used participatory training techniques.
- Apply some of the participatory training techniques.

Topic overview

1. Common participatory techniques of training.
2. Application of some of the participatory training techniques.

Method of facilitation

- Small group discussions.
- Practice.

Time: 2 hours

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board, Pre-prepared flip chart papers, Push pins.

Handout: 2.5.1 to 2.5.8

Additional reference

- CEDPA, Training Trainers for Development. Conducting a workshop on participatory training techniques.
- Training Managers' Workbook, EDI Training Materials (680/008), IBRD, Washington.

LEARNING ACTIVITIES

Activity 1: Common Participatory Training Techniques (Small Group Discussion) (40 minutes)

1. Ask participants to define training techniques.

   Possible answer: Training techniques are designed to change people's behaviours by developing knowledge, skills, and attitudes.

2. Ask participants to narrate the training techniques most commonly used while they are facilitating PFS learning event and how they select them. The Possible responses: field practice, demonstration, observation, role-play, participatory presentation and brainstorming.

3. Divide participants into four groups (depending on the size of the group) and tell them to assign responsibilities(reporter and facilitator).

4. Distribute exercise 2.3.1 and ask participants to fill in the grid in a group. Clarify terminologies and any doubts. Allocate time for the discussion

5. Invite the reporter of each group to present the results of the group discussion to the audience.

6. Invite participants to discuss on the results and provide feedback on this exercise

7. Summarise the results and lessons learned

8. Ask participants which of the techniques are commonly used during their training events and why.

Activity 2: Practice How to Apply Training Techniques (Practice) (1 hour 20 minutes)

1. Divide participants into four groups.

2. Give a chance for the pairs to select two training techniques (listed in the handout).

3. Ask participants to select a topic and prepare a presentation by employing the selected training techniques.

4. Each pair needs to demonstrate the use of two training techniques.

5. Invite the pairs to present their presentations.

6. Brainstorm evaluation criteria for evaluating participants' presentations (for example: understanding of the techniques, clarity of the presentation, involvement of participants, logical sequence, appropriate selection of learning activities, timing)

7. Summarise the following points on selecting training techniques.

   (a) Before selecting a learning method, know the background of trainees:

   - Prior knowledge, skills and attitudes.
   - Age.
   - Similarities and differences.

   (b) The characteristics of trainers also need to be considered.

   - Qualification.
   - Technical skill and know-how.
   - Attitudes towards training.
   - Individual initiatives.
   - Numbers.

   (c) Other factors include: (Engage learners in meaningful operations, provide feedback, provide motivation, provide for individual evaluation, encourage structuring of data, provide for a variety of activities, respect learning hierarchies.

8. Wrap up the session by asking participants questions such as "How did you feel doing this exercise?" and "What did you learn?", "How are they going to make it different in the future?"

Handout 2.5.1

Training Techniques

Training techniques are the means trainer use to achieve learning objectives. These are the procedures, techniques, and processes trainers use to help learners acquire new knowledge, skills, and attitudes. The value of training techniques depends on how it applied. A good technique poorly applied, may less effective than mediocre techniques s used well. The efficiency of techniques depends on the motivation of a trainer in using it. Forcing a trainer to use techniques she or he dislikes or knows little about can produce poor results.

In principle, there are a wide variety of training techniques that trainers can employ to conduct their courses. In practice, however, choice is constrained by such factors as trainer's confidence and competence, and resources available for training.

Selection criteria of training techniques

Each training techniques has its own special features and when preparing a training activity the trainer has to make decisions about which techniques will be the most appropriate for that particular training event.

The selection of certain training techniques will depend on the results of his/her review of questions like the following:

Is this technique most effective in realising the objective of this training event?

Do I need a technique that is very effective in;

- Development of knowledge of facts and exposure to new ideas.

- Development of practical skills and experimentation with new behaviour.

- Development of attitudes and building up new orientations and commitments.

- Development of higher cognitive skills and participants capacity to analyse and solve problems.

Some techniques will be more suited to make participants aware of new ideas like lecture, seminar, Others will be more suited to develop specific skills practical instruction, in-tray exercises, and others are more apt to build new orientations (for example, role-play, simulation games).

Is this technique applicable with the resources available and is it most economic?

What are the resources (preparation time, implementation time; specific facilities, materials and equipment; specialised trainers, etcetera) that I have available and what are the resources requirements of the technique I want to apply? Is this technique most efficient in realising my objective under the present conditions?

Some techniques have high investment costs but have low implementation requirements for example, programmed self-instruction. A technique like the lecture is easier to prepare and implement for a trainer than for example, intensive small group work.

Does this techniques result in trainer and participant roles appropriate for this type of training, this group of trainees, this trainer?

Some techniques allow for intensive participation, promote the contribution of participants from their own experience, and make optimal use of their creative and rational capacities (discovery learning techniques; the trainer will mainly act as a facilitator). In other techniques the emphasis is on exposing the participants to new Ideas and information, demonstration and instruction (expository techniques: the trainer will mainly act as a resource person/instructor).

Accordingly, some techniques are more appropriate when the subject of the training event is part of or linked with participants experiences. When the subject of training is completely outside the experience/ of the participants expository techniques such as lecture, film and demonstration will be used to provide the students with the basic information. Also in the latter case discovery techniques can be applied for example, case-studies may be analysed in small groups to familiarise participants with new knowledge.

The choice of a technique may also depend on the ability of the trainers to handle such a technique and of the training style and expectations of the participants.

Hereafter we will review quickly the main characteristics of some Training techniques . However, one should always be aware that in practice the effects of certain training techniques will vary strongly with:

- The context in which it is applied (trainer, trainees, subject/objectives, training climate).

- The combination/variation of this technique with other techniques. The effect of certain Training techniques may change or be strengthened considerably when applied in combination with other techniques like lecture with audio-visuals and buzz-groups. Also variation of technique in the course of training will improve the impact of the individual technique.

Variation includes changes from passive to active, from abstract to concrete, from exploring new ideas to integration with existing knowledge, variation from plenary to small group work, from lecture to practical work. The different types of training techniques are those explained:

Exercise 2.3.1

Write your suggestions on training techniques in the right corner column of the table below for the functions specified in the left hand corner:

Functions	Most Appropriate training techniques
1 To present information	
2 To communicate objectives	
3 To motivate trainees	
4 To develop critical thinking	
5 To explain difficult concepts and problems	
6 To change attitudes	
7 To encourage originality and initiative	
8 To develop ability to solve problems	
9 To develop specific skills	

Training techniques by Type of Applications

Method	Applications
Presentation/Lecture	Sharing knowledge and experience, large number of trainees, introducing training modules/ objectives
Demonstration	Learning a skill ; Operating software, machines and instruments, Teaching calculation techniques
Structured discussion	Principles and theories, problem, planning, Strategy formulation, Controversial issues
Case study	Problem solving, decision-making, Analysis of a complex situation
Role play	Training to face conflicting and stressful situations, Teaching interpersonal skills , communication and negotiation skills, to encourage empathic behavioral patterns
Simulation	Management concepts, decision-making , Team building
Games	Management problems, decision-making , Team building

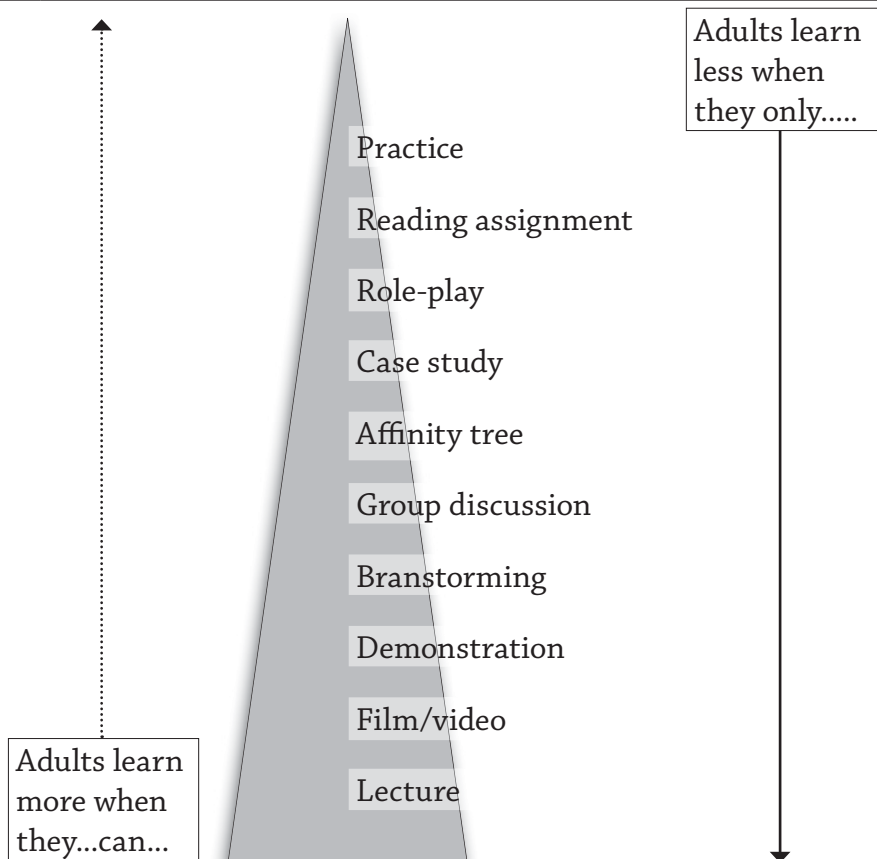| Method	Applications
Brainstorming	Problem solving Creative/innovative thinking, Providing refreshing break and creating group interest
Buzz Group	Reinforcing learning process, Providing a refreshing break in a lecture, Obtaining feedback , Problem solving Ability to think logically, Ability to work with other people
Field Trip/Visit	Action learning ,relating principles/concepts to real situations

Adults learn less when they only.....

Practice

Reading assignment

Role-play

Case study

Affinity tree

Group discussion

Branstorming

Demonstration

Film/video

Lecture

Adults learn more when they...can...

Figure 4: Training techniques

Handout 2.5.2

Training Technique: Affinity diagram

What is affinity diagram?

Affinity diagram is a technique to elicit and organise thoughts from a group of individuals who may have disparate points of view.

Why affinity diagram?

Some individuals are not comfortable in traditional brainstorming sessions. They need a supportive environment in which they do not perceive any risks connected to ideas they may share. Where can we use affinity diagram in practical situation? For example needs assessment, priorities of pastoralists, generating and sorting solutions.

How to do affinity diagram?

The Affinity Process is used to sort qualitative data (free-form responses) into naturally related groupings, and to identify the one theme, written on a header card, which summarises how each group is best defined (see the figure on page 122).

How to Use:

1. Assemble a group of three to eight people who bring varied perspectives

2. Explicitly state issue/question/problem being examined through the Affinity process.

3. Tell the participants to try individually and then group

4. Following brainstorming guidelines, give time limit of 6-8 minutes in which individuals work independently according to the following:

   - Write each response onto a card or self-stick note.

   - Use clear and complete phrases Ideas are recorded separately on index cards.

   - No one word cards are allowed.

   - Write clearly, large enough so everyone can see.

   - Follow general brainstorming rules.

5. Then put all the cards in a table. In group, sort the cards into related groupings: this is a silent process with all members participating. Continue to group and re-group until all members stop. Avoid duplicated ideas.

6. Create concise but complete header cards for each final group. The header should capture the essential link in all the cards below it.
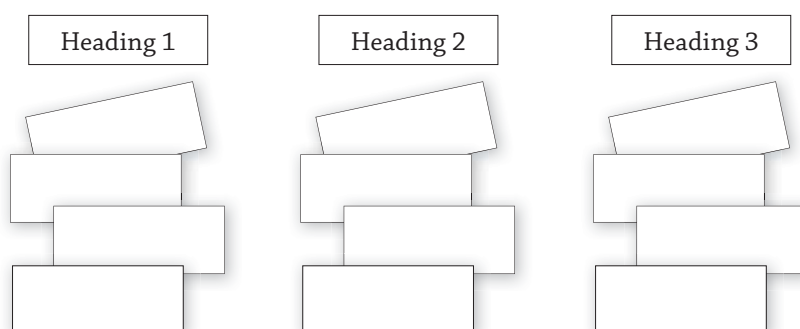

Figure 5: Sorting ideas through affinity process

Handout 2.5.3

Description

A presentation is an activity conducted by a resource specialist to convey information, theories or principles. Forms of presentations can range from straight lecture to some involvement of the learner through questions and discussion. Presentations depend more on the trainer for content than does any other training technique.

Uses

- To introduce participants to a new subject.
- To provide an overview or a synthesis.
- To convey facts, statistics.
- To address a large group.

Advantages

- Covers a lot of material in a short time.
- Useful for large groups.
- Can be adapted to any kind of learner.
- Can precede more practical training techniques.
- The lecturer has more control than in other situations.

Things to be aware of before you decide to use a lecture

- Emphasises one-way communication.
- Is not experiential in approach.
- Learner's role is passive.
- Lecturer needs skills to be an effective presenter.
- Inappropriate for changing behaviour or for learning skills.
- Learner retention is not as great unless it is followed up with a more practical technique.
- A presentation is common in more formal situations.

Process

1. Introduce the topic—tell the learners what you are going to tell them.
2. Tell them what you want to tell them—present the material using visual aids.
3. Summarise the key points you've made—tell the learners what you have told them.
4. Invite the learners to ask questions.

Handout 2.5.4

Training Technique: Demonstration

Description

A demonstration is a presentation of techniques for doing something.

Uses

- To teach a specific skill or technique.
- To model a step-by-step approach.

Advantages

- Easy to focus learner's attention.
- Shows practical applications of a technique.
- Involves learners when they try the techniques themselves.

Things to be aware of before you decide to use

- Requires planning and practice ahead of time.
- Demonstrator needs to have enough materials for everyone to try the techniques.
- Not useful in large groups.
- Requires giving feedback to learners when they try themselves.

Process

1. Introduce the demonstration—what is the purpose?
2. Present the material you're going to use.
3. Demonstrate.
4. Demonstrate again, explaining each step.
5. Invite the learners to ask questions.
6. Have the learners practice themselves.
7. Discuss how easy/difficult it was for them—Summarise.

Handout 2.5.5

Training Technique: Case Study

Description

A case study is a written description of a hypothetical situation that is used for analysis and discussion.

Uses

- To discuss common problems in a typical situation.
- Provides a safe opportunity to develop problem-solving skills.
- To promote group discussion and group problem-solving.

Advantages

- Learner can relate to the situation.
- Involves an element of mystery.
- The hypothetical situation does not involve personal risks.
- Learners are involved.

Things to be aware of before you decide to use

- The case must be closely related to the learners' experience.
- Problems are often complex and multi-faceted.
- There is not always just one right solution.
- Requires a lot of planning time if you need to write the case yourself.
- Discussion questions need to be carefully designed.

Process

1. Introduce the case.
2. Give learners time to familiarise themselves with the case.
3. Present questions for discussion or the problem to be solved.
6. Discuss all possible solutions/answers.
7. Ask the learners what they have learned from the exercise.
8. Ask them how the case might be relevant to their own environments.
9. Summarise.

Handout 2.5.6

Training Technique: Role-Play

Description

In a role-play, two or more individuals enact parts in a scenario related to a training topic.

Uses

- Helps to change people's attitudes.

- Enables people to see the consequences of their actions on others.

- Provides an opportunity for learners to see how others might feel/behave in a given situation.

- Provides a safe environment in which participants can explore problems they may feel uncomfortable about discussing in real life.

- Enables learners to explore alternative approaches to dealing with situations.

Advantages

- Stimulating and fun.

- Engages the group's attention.

- Simulates the real world.

Things to be aware of before you decide to use a role-play

- A role play is spontaneous — there is no script to follow.

- Actors must have a good understanding of their role for the role-play to succeed.

- Actors might get carried away with their roles.

Process

1. Prepare the actors so they understand their roles and the situation.
2. Set the climate so the observers know what the situation involves.
3. Observe the role play.
4. Thank the actors and ask them how they feel about the role-play be sure that they get out of their roles and back to their real selves.
5. Share the reactions and observations of the observers.
6. Discuss different reactions to what happened.
7. Ask the learners what they have learned and develop principles.
8. Ask the learners how the situation relates to their own lives.
9. Summarise.

Handout 2.5.7

Training Technique: Simulation

Description

A simulation is an enactment of a real-life situation.

Uses

- Allows learners to experience decision-making in "real" situations without worrying about the consequences of their decisions.
- A way to applying knowledge, develops skills, and examines attitudes in the context of an everyday situation.

Advantages

- Practical.
- Learners are able to discover and react on their own.
- High involvement of the learner.
- Immediate feedback.

Things to be aware of before you decide to use a simulation

- Time-consuming.
- The facilitator must be well-prepared, especially with logistics.
- A simulation is often a simplistic view of reality.

Process

1. Prepare the learners to take on specific roles during the simulation.
2. Introduce the goals, rules, and time frame for the simulation.
3. Facilitate the simulation.
4. Ask learners about their reactions to the simulation.
5. Ask learners what they have learned from the simulation and develop principles.
6. Ask learners how the simulation relates to their own lives.
7. Summarise

Handout 2.5.8

Training Technique: Small Group Discussion

Description

A small group discussion is an activity that allows learners to share their experiences and ideas or to solve a problem.

Uses

- Enhances problem-solving skills.

- Helps participants learn from each other.

- Gives participants a greater sense of responsibility in the learning process.

- Promotes team work.

- Clarifies personal values.

Advantages

- Learners develop greater control over their learning.

- Participation is encouraged.

- Allows for reinforcement and clarification of lesson through discussion.

Things to be aware of before you decide to use a small group discussion

- The task given to the group needs to be very clear.

- The group should be aware of time limits for the discussion.

- Participants should be able to listen to each other, even if they do not agree.

- Group discussion should not be dominated by any one or two people.

- Questions help guide the discussion.

- Everyone should be encouraged to participate.

Process

1. Arrange the learners in groups of four to seven.

2. Introduce the task that describes what should be discussed.

3. Ask each group to designate a discussion facilitator, a recorder, and a person to present the group's findings to the larger group..

4. Check to make sure that each group understands the task.

5. Give groups time to discuss—this should not require the trainer's involvement unless the learners have questions for the trainer.

6. Have one person from each group summarise the findings of the group (this could be a solution to a problem, answers to a question, or a summary of ideas).

7. Identify common themes that were apparent in the groups' presentations.

8. Ask the learners what they have learned from the exercise.

9. Ask them how they might use what they have learned.

2.6 **Facilitation Skills for PFS Facilitators**

Background

The word 'facilitation' has been used in different ways by different people. Facilitation comes from the Latin word 'facile' that means 'easy'. Facilitation is a process that makes it easier for people to learn new things. Facilitation is about empowering others. It involves letting go of control over the outcome of a process and giving that responsibility to the group. Facilitation is the art, not of putting ideas into people's heads, but of drawing ideas out. The facilitator's role is to draw out knowledge and ideas from different members of a group.

Topic objectives

By the end of this topic, participants will be able to:

• Discuss concepts of facilitation in the context of PFS

• Identify the role of the facilitator in the context of PFS

• Practice how to facilitate learning in an interactive way in the context of PFS

Topic overview

1. What is and why facilitation

2. Good qualities of facilitator

3. Role of facilitator

4. Verbal and non-verbal facilitation skills

Method of facilitation

• River code

• Drawing

• Fishbowl

• Participatory presentation

• Group discussion

Time: 2 hours

Materials: A4 sheets, cards, note book, pens, ruler, masking tape, display board, pre-prepared flip chart papers, push pins, pictures showing characteristics of good and bad facilitation.

Handout: 2.6.1 and 2.6.2

Additional reference

• Sam Kaner (1996). Facilitator's Guide to Participatory Decision, Making. New Society Publishers, USA.

LEARNING ACTIVITIES

Activity 1: What is and Why Facilitation (30 minutes)

1. Allow participants to experience the concept of facilitation and its difference with traditional teaching with the following role-play. (See exercise 2.5.1).

2. Ask four volunteers among the participants to act in the simulation exercise.

3. To conduct this play you will need two pieces of rope or branches to represent the banks of a river, some paper, stones or draw large circles on the ground to represent stepping stones by which to cross the rive; see Figures 2.5.1.

4. Ask the rest of the participants to observe the play attentively.

5. After the exercise, thank the volunteer actors;

6. Ask the participants to form 3 to 4 groups to discuss on the following questions using experiential learning cycle questions :

   - What does the play represent?
   - What do you understand by facilitation skills from the simulation exercise?
   - Why do you think facilitation is a useful tool for PFS?
   - What values and principles underpin facilitation?
   - What do you see as the role of a facilitator in PFS?

7. The reporters present the results to the audience. About five minutes are available for each presentation. After all the presentations, the facilitator invites the audience to have a brief discussion.

8. Summarise the activities based on the above simulation exercise:

   (a) The key element to the play is that the river represents challenge. Understanding the existing situation is the first step for a PFS facilitator.

   (b) The play involves two characters, two are community members and one person is the facilitator.

     - In the first case, the facilitator brings everything to the community member. This represents a PFS facilitator supplying the community with free inputs. However, after a time the facilitator gets too tired to continue. When this happens the community member is left stranded because s/he did not know how to get to the other side. S/he was being carried and when support was withdrawn s/he was unable to continue the same pathway. This might represents traditional teaching of community members.

     - In the second instance, the facilitator empowers the community member by guiding them through the river and very clearly shows the stepping stones that the community member needs to use to get to the other side. This time the community member is slower to cross but gets there by working with the facilitator. At this point the facilitator leaves. However, the community member has learnt how to cross the river. S/he can now return to where s/he was and most importantly, help others to cross the river. This represents the purpose of facilitation. This emphasizes the merits of learning by doing in PFS compared with supply driven solutions that can lead to dependency.

       - The facilitator should emphasise the merits of learning by doing (play 2) compared with supply driven (play 1) solutions that can lead to dependency.

       - The facilitator's role is also to encourage each member of the group to contribute to the best of their ability. Every member of the group has valuable knowledge but the people might not consider their knowledge as important. Sometimes people do not want to share their knowledge because it gives them a certain amount of power and advantage over others. The facilitator's role is to build trust and respect between the members of the group and to encourage dialogue and learning, from which the whole group will benefit.

     - The facilitator makes it easier for people by creating a learning environment that will enable them to speak up when they have problems, share responsibility for success, contribute their ideas and expertise, stimulate flow of communication, encourage to take initiatives, work with others, and make decisions.

Activity 2: Good Qualities of A Facilitator: Drawing (40 minutes)

1. Ask participants about their previous experience in facilitation. After a brief discussion of their experience, explain that in this activity, they will be covering some of the good qualities of a facilitator which are necessary for effective facilitation

2. Ask each participant to find a partner and give each pair a sheet of flip chart paper. Ask half of the pairs to draw a picture of what they would consider to be an effective PFS facilitator, illustrating the characteristics on their drawing.

3. Explain that they are to do this without using words. Since they will have only 20 minutes to complete the drawing, they should work quickly and not worry about being artistic. Their drawings should be big enough to be visible to all in the room.

4. Ask each pair to show their drawing. If possible, post all on the walls to encourage comparison of the group outputs.

5. Ask participants the following questions:

   (a) whether the drawing was fun.

   (b) to generate a list of similarities and differences among the drawings.

   (c) how they might use "drawings" in PFS learning.

6. Finally, ask which characteristics are more appropriate for PFS facilitators.

Possible responses

Good listener, good communicator, humble, more persuasive than sequential, more like a counsellor than a sergeant, more like a coach than a scientist, negotiating rather than dictating decision-making, willing to spend time in building relationships rather than always being task-oriented, creative to communicate messages.

7. Emphasise the following points:

   • A facilitator is like a conductor. Great music emerges when everyone is communicating together. Good communication, just like good music, is more about listening than talking. If everyone plays all the time, there is nothing but an unpleasant noise. It is the conductor's job to help each player to listen to others, to keep quiet until it is the right time for them to play.

   • A good facilitator is interested not only in whether an objective is achieved but how. The process is just as important as the product. The process of building local knowledge and skills is vital if the group is to gain the confidence and ability to initiate and sustain positive change.

   • Emphasise that facilitation is about getting a balance between these different characteristics for example, between being a good listener and a good communicator, between being patient and dynamic. Certain skills and techniques can be learnt and applied.

Activity 3: Role of Facilitator in PFS (30 minutes)

1. Tell them to work in pairs the role of facilitator in PFS. Link this exercise with river code exercise 2.5.1.

2. Emphasise that the role of the facilitator is to help the learner to progress by asking provoking questions. The provoking questions are phrased as: What? Why? How? Could you? etc

3. Wrap up the discussion by emphasising the following key points. The role of the facilitator in PFS is:

   • To encourage full participation The facilitator creates conducive environment for each member of the community to share their ideas freely.

   • A catalyst: The facilitator helps them to look seriously at the problem.

   • A helper in the process: The facilitator ask provoking questions so people can think through and analyse deeply the problem.

   • A resource person: The facilitator share his/her knowledge whenever there is a need; In addition, the facilitator has the opportunity and responsibility to teach group members how to design and manage an effective decision making process.

   • To promote mutual understanding: The facilitator helps the group realise that sustainable agreements are built on a foundation of mutual understanding.

   • To foster inclusive solutions: The facilitator knows how to help a group for innovative ideas that incorporate everyone's points of view.

Activity 4: Verbal and Von-Verbal facilitation Skills (Simulation Activity) (40 minutes)

1. Introduce the topic of the session.

2. Ask participants to think back to a particular facilitator they have come across whom they considered to be among the best. Ask them to close their eyes and try to see what that person did that made learning more effective.

3. Ask participants to list verbal and non verbal facilitation skills of the facilitator.

4. Explain to the participants that verbal and non verbal communications are critical for effective facilitation of PFS learning.

5. Ask participants to write their names on a piece of paper and put the peices of paper in a cap. Mix the papers and take back to the participants to draw out names randomly. Create four or five member groups based on the size of the group.

6. Ask each respective group to stand in a circle facing inwards.

7. Ask each group to show as many non verbal actions as they can demonstrate. All the other members of the group repeat the actions together at least once. Continue until the groups run out of ideas.

8. Finally, tell each group to categorise the non verbal actions into dominance, submissive and good behaviours. Ask participants to write on three different cards the dominant behaviours, the submissive behaviours and finally good behaviours expressed in non verbal cues.

9. Ask participants to sort out the cards on the ground by having the category of dominant, submissive and good behaviours.

10. Ask participants the following questions to synthesize learning:

    • How do you feel about the above experience?

    • What did you learn from the experience?

    • What does all of this mean to you?

    • How can you apply this in facilitating PFS LEARNING ACTIVITIES?

11. Wrap up the session by emphasising the following points:

- Our posture, gesture, physical distance , eye contact, mouth and voice have an impact on the way we express feelings, interests, affections, or relaxations. It is therefore important that the facilitator takes care of these in creating a good relationship with learners and should be cautious about culturally sensitive non verbal behaviours.

   - Maintain eye contact with everyone in the group as you speak.

   - Do not appear to favour certain people in the group.

   - Move around the room without distracting the group. Avoid pacing or addressing the group from a place where you cannot be easily seen.

   - Ask questions that encourage responses. For example, "What do you think about…," "Why…," "How…," "What if…,"

12. Distribute Handout 2.5.2 to all participants.

Exercise 2.5.1

The act of river crossing

River code

In the first act, two people attempt to cross the river. One person, representing a facilitator, tries to carry the other person across the river on his / her back. The couple really struggles and then the one carrying the person gets too tired to continue. S/he leaves the person being carried, in the middle of the river stranded and returns back to the original side of the river. The person who was being carried is abandoned to his/her fate; he/she receives no more help.

In the second act, the river crossing task is repeated with the same person, representing the service provider, leading another person. In this second act, the leading person does not carry the other but holds their hand and shows him / her, very clearly, where the next stone is positioned. The two people take some time to cross the river but by showing the second person where the next stone is located the two people manage to cross.

On reaching the other side of the river they celebrate. The person who showed the way then waves goodbye and leaves the play. The person who was shown the way returns back to the original side of the river.

In the third act, the person who was successfully shown how to cross the river takes one of the members of the audience and shows them again how to cross the river. Not holding their hand but by leading them to the edge and then showing them where to step. The role play ends when the two people have crossed for the last time.

Handout 2.6.1

Difference between facilitation skills and conventional teaching

Conventional teaching	Facilitation
Teacher brings extensive knowledge of the subject	Facilitator draws out and builds on the knowledge of the group, and knows where to find further information on the subject
Information flows in just one direction, from teacher to students	Information flows in many different directions between the facilitator and individual group members – a genuine exchange of ideas
Teacher is concerned with students understanding the right answer	Facilitator encourages and values different views
Teacher presents new information from the front	Facilitator uses practical, participatory methods, for example group discussion and activities in which all members of the group participate
Teacher has a formal relationship with the students, based on their status as a teacher	Facilitator is considered as an equal, and has relationships based on trust, respect and a desire to serve
Teacher starts from their own knowledge	Facilitator starts from the knowledge of the group
Teacher follows a pre-set curriculum	Facilitator addresses issues identified by the group or their community and adapts new ideas to the needs and culture of the group.

Handout 2.6.2

A. Non verbal facilitation skills[5]

The effect of non-verbal communication is much stronger than the verbal. If verbal and non-verbal are contradicting, then the latter will be believed. Feelings and/or the relationship between people is mainly expressed through non-verbal communication.

Non verbal	Do's and Don'ts
Appearance:	• People are judged by their appearance (stereo types). • Be appropriately dressed • Does you appearance support what you are saying? Not mixing the messages?
Posture	• expresses dominance, interest, affection, relaxation. • An open posture, upright, forward. Take a relaxed position, have your legs crossed. Be at the same height as the other person. • Do not cross your arms. • Do not put your feet on the table or slouch in your chair. • Do not hide behind a desk.
Gestures	• Put extra emphasis and show feelings, such as nervousness, anxiousness or unsteadiness. • Appropriate and not overbearing. • Do not point with one finger. • Do not appear tense and anxious.
Distance	• We have a personal zone (family, good friends), a social zone (business relations, acquaintances) and a public zone (unknown, non-sympathetic) • Not too near, in accordance with the appropriate zone. Not too far
Eye contact	• Eye contact expresses recognition, remembrance, influence, affection. • Look at the person. • Gaze openly and direct. • Maintain eye contact. • Do not look away or stare at one person.
Mouth	• Jaw relaxed. • Smile friendly. • Do not frown or scowl. • Do not chew pen or pencil
Voice	• The sound of the voice, the talking speed, the melody and silences tell something about inner feelings. • Speak interestingly. • Speak clearly and audibly. • Not too loud, sarcastic or sneering.

B. Verbal facilitation skills[6]

• Ask questions that encourage responses. Open-ended questions help: "What do you think about…," "Why…," "How…," and "What if…," If a participant responds with a simple "Yes" or "No," ask "Why do you say that?"

• Ask the other participants if they agree with a statement someone makes.

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5   Adapted from Patrick Boel, June 2006
6   CEDPA training of trainers manual

- Be aware of your tone of voice, and speak slowly and clearly.

- Be sure the participants talk more than you do.

- Do not answer all questions yourself. Participants can answer each other's questions such as "Does anyone have an answer to that question?"

- Paraphrase by repeating statements in your own words. You can check your understanding and reinforce statements.

- Summarise the discussion. Be sure everyone understands it and keeps it going in the direction you want. See if there are disagreements and draw conclusions.

- Reinforce statements by sharing a relevant personal experience. You might say, "That reminds me of something that happened last year...."

2.7 Facilitating Open Discussion

Background

Open discussion is the unstructured, conventional, familiar way of talking in groups. In PFS, open discussion serves many purposes. If someone raises an issue that is important to everyone, the entire group can discuss it. Sometimes a few individuals who are influential may dominate. Some may be quite. The role of the facilitator is to broaden participation and empowering people to voice their ideas freely and openly.

Topic objectives

By the end of this topic participants will be able to:

- Practice how to conduct open discussions by using different facilitation techniques in the context of PFS.

Topic overview

1. Facilitation techniques

2. How to conduct open discussions

Method of facilitation

- Fish bowl

- Practice

Time: 2 hours

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board, Pre-prepared flip chart papers, Push pins.

Handout: 2.7.1, and 2.7.2

Additional reference

- Sam Kaner (1996). Facilitator's Guide to Participatory Decision-Making. New Society Publishers. USA

LEARNING ACTIVITIES

Activity 1: Facilitation techniques (fishbowl)

1. Ask participants the role of a facilitator in open discussion.

2. Record responses on a flip chart. Explain that effective facilitation can help to increase the ideas expressed in acceptable ways.

3. Add the following if participants do not mention:

   (a) Help someone who is speaking in awkward or broken sentences.

   (b) Help someone who is being repetitious.

   (c) Address interruptions.

   (d) Make sure emotions do not block ideas.

4. Carry out the following activity.

   (a) Divide participants into four groups and tell them they are going to demonstrate the different techniques of facilitation to increase the involvement of participants and listening skilfully

   (b) Distribute the following facilitation techniques to the formed groups:

      - Brainstorming.

      - Paraphrasing.

- Drawing people out.
- Balancing.

(c) Tell to the participants that by using the reading Handout 5.6 Each of the group need to demonstrate how and when to use the techniques which distributed to them.

(d) The groups will have 30 minutes to prepare and will have 10 minutes to present.

5. After the group exercise ask each of the group to demonstrate how and when the techniques are being used.

6. Arrange the room into concentric circles. The inner circles should contain chairs to ¼ the number of participants.

7. After 30 minutes, one group to sit in the inner circle and the others in the outer. (This is fishbowl).

8. The inner circle will be demonstrating different facilitation techniques. The outsiders cannot speak during this time but observing.

9. After the fishbowl, they will be (5–7 minutes) discussion.

Ask outsiders

(a) What worked well?

(b) What were they demonstrating?

Ask insiders

(a) How did you do it?

(b) What might you do differently?

To all participants

(a) What are the strengths of the interventions?

(b) Weaknesses?

(c) What questions do you have on the interventions?

14. Discuss in plenary
- What might you do differently if you give a chance to demonstrate the techniques
- What did you learn from the session? How are you going to apply in your working environment?
- Wrap up and summarise

Activity 2: Facilitating Open Discussion :Practice

1. Ask participants to form four groups .

2. Distribute exercise 6.1 to the group members. One scenario for each group.

3. Tell them to read individually first and then in group .

4. Remind them to use the facilitation techniques while facilitating the discussion .

5. Ask the participants to simulate the scenario. Share responsibilities one facilitator and the others community members.

6. Ask participants to present the scenario in a simulation/role-play.

7. Distribute Handout 4.3 for providing feedback and discuss in plenary:

- How did the facilitator manage the difficult dynamics?
- Which facilitation techniques were used and which ones were appropriate?
- What did you most appreciate about the facilitators' overall style and delivery?
- Overall clarity of the session (purpose, directions)?
- Effectiveness of visual aids
- Use of group processing skills such as paraphrasing, mirroring, and summarising?
- Attempts to clarify and guide the group's discussion?
- Recognising appreciating, and managing differences within the group?
- Please make one helpful suggestion for the facilitator?

8. Wrap up the discussion by emphasising the points indicated in Handout 2.6.2.

Handout 2.7.1a

Technique 1: Brainstorming and Listing

Purpose: To examine the use of two different techniques of brainstorming and listing

Why brainstorming?

Brainstorming is divergent thinking process developed over thirty years ago by Psychologist. Divergent means that this process encourages us to broaden our range of thinking and ideas. Brainstorming is a creative thinking technique. To help establish a good climate for creativity, we need to follow the following four rules.

Process of brainstorming

1. Non- judgement ideas or non-evaluation for a certain period of time allows us to form new connections and perspectives on the ideas put forth. Withholding judgment and comment also encourages us to let our ideas flow more freely.

2. Quantity of ideas is important: the more ideas we have, the better the chance that we will have some good ones.

3. Building on other ideas is allowed. Sometimes we make an association from another's idea that enables us to refine our own or even go off in a different direction.

4. Crazy or unusual ideas are encouraged. It is often the unusual that we eventually come up with an idea that works, the solution we had been seeking but did not know it

5. After all understand the rules. Experiment a topic such as: How we could make this training more participatory

6. Assign someone else to record

7. Do not worry about duplication at this point. That takes people into judging mode and out of their freewheeling creative thinking mode.

8. Doing brainstorming is not enough. That is half work. Equally important is analyzing the ideas developed during brainstorming. This is the time judging is important. The ideas need to be developed into viable alternatives. From these viable alternatives the group can make decisions.

9. Begin this process by helping the group to do the following:

   - Eliminate duplicates
   - Cluster ideas under one idea, theme or topic
   - Come up with a list of ideas to examine, explore and develop further.

Listing

1. Explain the difference between brainstorming and listing.

2. Listing is a convergent thinking process where the group is trying to recall a limited set of responses. For example, if the group wanted to determine how many organizations in a given district provide maternal and child care services they would use listing process. This is a specific number of organizations providing such service. On the other hand if the group wanted to determine how to encourage new mothers to use the available services, the group would use a brainstorming process. There could be multitude of creative ways to interest mothers. Determining what originations provide the services can be researched and known as a convergent process. Determining how to interest mothers requires creative thinking- a divergent process,

3. Suggest situations where brainstorming would be appropriate and situations requiring listing

Handout 2.7.1b

Technique 2: Paraphrasing

Why

Paraphrasing is a fundamental listening skill. It is the foundation for many other facilitative listening skills, including mirroring, gathering, and drawing people out

Paraphrasing has both a calming effect and a clarifying effect. It reassures the speaker that his or her ideas are worth listening to. And it provides the speaker with a chance to hear how his/her ideas are being heard by others.

Paraphrasing is especially useful on occasions when a speaker's statements are convoluted or confusing. At such times, the paraphrase will help the speaker gauge how well his/her ideas are getting across.

In sum, paraphrasing is the tool of choice for supporting people to think out loud.

How

•   Use your own words to say what you think the speaker said,

•   If the speaker's statement is one or two sentences, use roughly the same number of words when you paraphrase it

•   If the speaker's statement is many sentences long, summarise it

•   Preface your paraphrase with a comment like one of these:

    "It sounds like what you're saying is…"

    "This is what I'm hearing you say…"

    "Let me see if I understand you…"

•   When you have completed the paraphrase, look for the speaker's reaction. Say something like, "Did I get it?" Verbally or nonverbally, s/he will indicate whether or not s/he feels understood. If not, keep asking for clarification until you understand what s/he meant

Handout 2.7.1c

Technique 3: Drawing People Out

Why	How
• Drawing people out is a way of supporting people to take the next step in clarifying and refining their ideas. It sends the speaker message, "I am with you, I understand so far. Now tell me a little more" • Drawing people out is particularly useful in two circumstances: 1) When someone is having difficulty clarifying an idea 2)When someone thinks s/he is being clear, but the thought is actually vague, or confusing to the listener • Drawing people out sends the message" Take your time and get your ideas all the way out" • When deciding whether to draw someone out, ask yourself this question "Do I think I understand the core of what s/he is trying to say? If the answer is "no" then draw the speaker out • Drawing people out is most effectively used along with paraphrasing not instead of paraphrasing	**Example ;** the speaker says, "I think it is fair to say that most people are pretty uncomfortable with change" The listener paraphrases, " So it sounds like you are saying that change is hard for most people" Then the listener asks, " Can you give me an example of what you mean?" • The most basic technique of drawing out is to paraphrase the speaker's statements then, asks open ended, non directive questions like: "Can you say more about that"? "What do you mean by….?" 'How so" • Here is less common method that also works well. First paraphrase the speaker's statement, then use connectors such as "so…" or " And" Example: "you are saying we should wait six more weeks before we sign the contract, because……"

Handout 2.7.1d

Technique 4 : Balancing

Why?

The direction of a discussion often follows the lead set by the first few people who speak on that topic. Using balancing, a facilitator helps a group round out its discussion by asking for other views that may be present but unexpressed.

Balancing undercuts the common myth that "silence means consent." In doing so, it provides welcome assistance to individuals who don't feel safe enough to express views that they perceive as minority positions.

Balancing not only assists individual members who need a little support at that moment; it also has strong positive effects on the norms of the group as a whole. It sends the message, "It is acceptable here for people to speak their mind, no matter what opinions they hold."

How

Here are some examples of balancing:

'Okay, now we know where three people stand; does anyone else have a different position?"

"Are there other ways of looking at this?"

"What do others think?*

"Does everyone else agree with this?"

"So, we've heard the Y point of view, and the 'y' point of view. Is there a third way of looking at this?"

"Let's see how many people stand on each side of this issue. We're not making a decision, and I'm not asking you to vote. This is just an 'opinion poll' to find out how much controversy we've got in the room. Ready? How many people think it would be good if…"

Handout 2.7.2

Facilitating Open Discussion

Your role during a group discussion is to facilitate the flow of comments from participants. Although it is not necessary to interject your comments after each participant speaks, periodically assisting the group with their contributions can be helpful. Here is a ten point facilitation menu to use as you lead group discussion.

1. Questioning: Questioning is a critical facilitation skill. There are two basic types: closed and open ended questions. Closed questions generally result in short yes/no or other one word answers. They should be used only when you want precise quick answers. Otherwise they inhibit communication. Whereas, open ended questions ask for more detailed information. How? What? and Why? Are examples of words that begin an open ended question?

2. Paraphrase what participants have said so that he or she feels understood and so that the other participants can hear a concise summary of what has been said. So, what you are saying is that you have to be very careful about asking applicants where they live.

3. Check your understanding of participants' statements or ask the participant to clarify what s/he is saying.

   Are you saying that this plan is not realistic? I am sure that I understand exactly what you meant. Could you please us again? repeat it to us again?

4. Compliment an interesting or insightful comment. For example,

   "That is a good point. I am glad that you brought that to our attention."

5. Elaborate on a participant's contribution to the discussion with examples or suggest a new way to view the problem.

   Your comments provide an interesting point from the employees' perspective. It could also be useful to consider how a manager would view this situation.

6. Energise a discussion by quickening the pace, using humour or if necessary, prodding the group for more contribution.

7. Disagree with participants comments to stimulate further discussion.

   Has anyone else had an experience that is different from Abebe?

8. Mediate differences of opinion between participants and relieve any tension that may brew. I think that David and Judith are not really disagreeing with each other but are just bringing out two different sides of this issue.

9. Summarise (record, if desired) the major views of the group. I have noted four major reasons that have come from our discussion as to why managers do not delegate (1) lack of confidence (2) fear of failure (3) comfort in doing the task themselves and (4) fear of being replaced.

2.8 Visual Aids

Background

Community members remember more of what they are told if the experience is multi-sensory, rather than just listening to spoken words or reading printed words on a screen. In most cases community members are illiterate and they need visualizing messages by using creating techniques for involving people in the learning process.

Topic objectives

By the end of this topic participants will be able to:

- Discuss the importance of visual aids in the context of PFS
- Practice how to develop visual aids

Topic overview

1. What are visual aids and why use them?
2. Use of visual aids
3. Guidelines for developing visual aids

Method of facilitation

- Box game
- Picture

Time: 2 hours

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board, Pre-prepared flip chart papers, Push pins.

Handout: 2.8.1 to 2.8.5

Additional reference:

- Susan Stewart (1995). Learning together. The agricultural participatory source book.
- Making Learning Easier – A guide for improving educational training materials', FAO, Rome, 1990, pp2-5.
- Training Development Trainers in Facilitation and presentation skills handout, October 20, 1997, IIRR.

LEARNING ACTIVITIES

Activity 1: What Visual Aids and Why Use Them (Box game) (40 minutes)

1. Explain the session objective and the link with previous session
2. Tell the participants to form a small group of 5-6 people in three groups.
3. Form a group of 'hearing',' feeling' and 'questioning'. Tell them to nominate a reporter.
4. Put the box in front of a table. Ask the first group to guess the sound by listening to the sound the box makes. Continue with the second group to guess by feeling the contents of the box. Ask also the last group to guess by asking questions answerable by yes or no.
5. Ask the respective groups to present their responses on a flip chart and ask a reporter to summarise the responses.
6. Ask participants what similarities and differences they observe from the game? Ask participants what they conclude from this game?

    Possible answer: It shows learners learn best by using more senses.

7. Point out that visual aids are an important determinant of training's ultimate effectiveness.

Activity 2: The Use of Visual Aids: Picture (30 minutes)

1. Explain that the other most important point is proper use of visual aids such as flip charts, posters and pictures.

2. Ask participants what the common problems in using visual aids are.

3. Explain one of the problem is when and how to use visual aids. The other point is when we look at the same picture or situation; we may see two entirely different things. This difference in perception can cause a total break down in communication. We may think we are talking the same thing, but we are not. It is therefore important to understand how we perceive a situation if we want a true open communication.

4. Tell the participants the following demonstration will clarify this point:

    (a) Post figure 4.1 picture on a board or show on an overhead projector

    (b) Ask participants the age of an old woman?

    (c) The responses could be a girl, a woman or both.

    (d) Ask who was right? Point out that all of the participants are right. See how easy it is for different people to see the same message differently.

5. Point out that people will realise that they are not always right. They can also make decisions to try to understand   the other person's point of view first, before trying to convince them of their own.

6. Wrap up by :

    • Considering the above picture, ask participants:

        – What problems does this cause when it happens in your organisation?

        – What can we do to overcome this problem?

        – How can we seek to understand the other person's point of view?

    • Emphasise that visuals have to be pre-tested in order to communicate the right message for the right audience.

    • Tell to the participants to read Handout 2.8.1, 2.8.2, 2.8.3 and 2.8.4 for better understanding.

Activity 3: Developing Visual Aids (30 minutes)

1. Ask participants basic principles of preparing visual aids.

2. Allow participants to experience how to develop drawings by trying to use the square method for copying drawings,

3. Follow the guideline on the below mentioned illustration:

4. Ask the group to display their drawings to the rest of the participants; If possible post all their outputs on a wall;

5. Ask participants how they feel while they are developing the visual aids.

6. Ask participants to what extent drawings are more appropriate for PFS learning that they will be doing. Encourage discussion. Possible answers: drawings, posters, models, flash cards, actual objects, displays and puppets.

7. Explain the square method for copying and enlarging drawings.

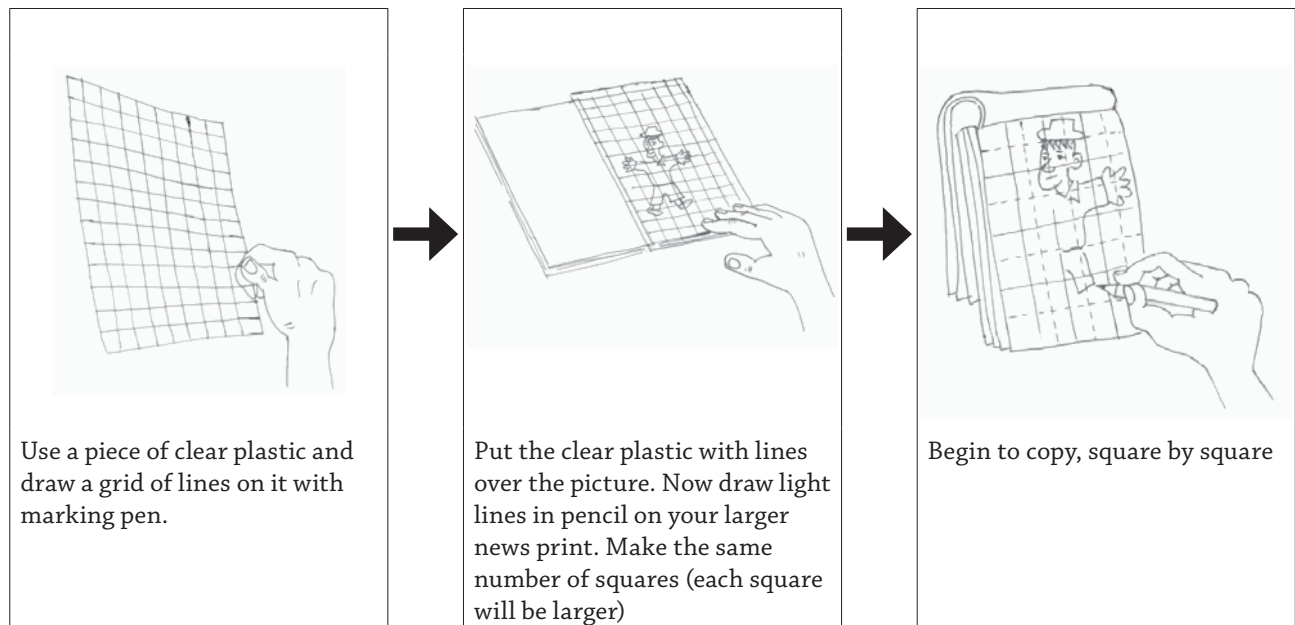**The Square method for copying and enlarging**

Use a piece of clear plastic and draw a grid of lines on it with marking pen.

Put the clear plastic with lines over the picture. Now draw light lines in pencil on your larger news print. Make the same number of squares (each square will be larger)

Begin to copy, square by square

Figure 6: The square method for copying and enlarging drawings

8. Wrap the session by summarising the following key points on pictures:

- Do not use written word especially if group members are to be included in areas where literacy is marginal
- Pictures or drawings should be simple, attractive and represent the local situation;
- Pictures or drawings should stimulate action
- Keep pictures or drawings as simple as possible
- Avoid making very small objects or animals too big
- Consider local acceptable colours
- Always test pictures before use
- Give ample time to show pictures for your audience and ask questions about the pictures

Handout 2.8.1

Why We Need Visual Aids

* Help to create an interest in the subject to keep the attention and increase the learning retention of trainees

* Help the trainer to communicate the message for the trainees to apply

* Clarify complicated points by focussing on the essential information, showing what is important and presenting it in a logical order, step by step

* Help the trainees to practice the skills they are being trained in through role-plays and case study.

* Help people learn by actively participating by doing (demonstration)

* Materials can help them remember information, a step towards the process of acquiring, practising a new skill

An effective visual aid(a) (Source: Posters design and production, special circular)

Handout 2.8.2

The Characteristics of Effective Visual Aids

* A clear purpose is stated: It would be useful to indicate how the Visual aids would contribute to achieving purpose.

* A specific target audience is identified: A specific group of target audience is identified whose knowledge, attitudes, skills and practice are expected to change as a result of the use of visual aids.

* Presentation is logical and systematic: The contents of the training are presented in a logical sequence and are systematically arranged to facilitate learning and understanding.

* The presentation is attractive and readable: Special attention is given to create an attractive format and layout and to use a style of writing that is too easy to read and understand. The level of content presentation and packaging should be tailored to the needs and level of the target audience.

An effective visual aid (b) (Source: Posters design and production, special circular)

Handout 2.8.3

Get Away From the Written Word

• Do not use written word especially if women are to be included in areas where literacy is marginal. There are many techniques which do not require writing skills. For example, games, puzzles, flannel boards, posters, ranking mapping etc techniques do not require writing.

• For example.

    o In a problem analysis community members are asked to put their priority problems

    o Then each member could find an object to symbolize that problem such as animal feed, crop disease.

    o The objects are placed on the ground at the centre where people can see.

    o After putting on the ground, they can explain their priority problems by showing on the ground to give more attention and participation by the rest of the participants.

    o In this way they can prioritize, suggest solutions and prepare an action plan.

OR

• The facilitator can ask the community members to draw the priority problems on a paper. The facilitator needs to motivate illiterate community members. They can do it.

OR

• People who are not literate have good memories. Therefore a song or sayings may be helpful for them to memorise the steps necessary to do something.

Handout 2.8.4

Guideline for Development of Visuals

• Letters and illustrations must be large enough to be easily recognised.

• Letters must be reasonably bold for good legibility.

• Keep pictures as simple as possible.

• Avoid making very small objects or animals too big.

• Consider local acceptable colours.

• Always test pictures before use.

• Give ample time to show pictures for your audience and ask questions about it.

Handout 2.8.5

SIZE

KEEP LETTERING LARGE	KEEP LETTERING LARGE

CONTRAST

GOOD CONTRAST	POOR CONTRAST

STYLE

GOOD READABILITY	POOR READABILITY

Development of visuals

2.9 Evaluating Learning Events

Background

Evaluation involves measuring the results of learning activity against the objectives. Creative learning should incorporate evaluation at all key stages of the learning cycle. Evaluation is an ongoing process for the benefit of the PFS facilitator and participants.

Topic objectives

By the end of this topic participants will be able to:

- Discuss the purpose of evaluating learning sessions during the PFS facilitation process.
- Describe methods of evaluating learning sessions in the PFS.

Topic overview

1. Need for evaluating learning sessions.
2. Methods of evaluation of learning sessions.

Method of facilitation

- Picture
- Large group discussion
- Small group discussion

Time: 2 hours

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board, Pre-prepared flip chart papers, Push pins, Pre-prepared picture on evaluation.

Handout: 2.9.1, 2.9.2, 2.9.3 and 2.9.4

LEARNING ACTIVITIES

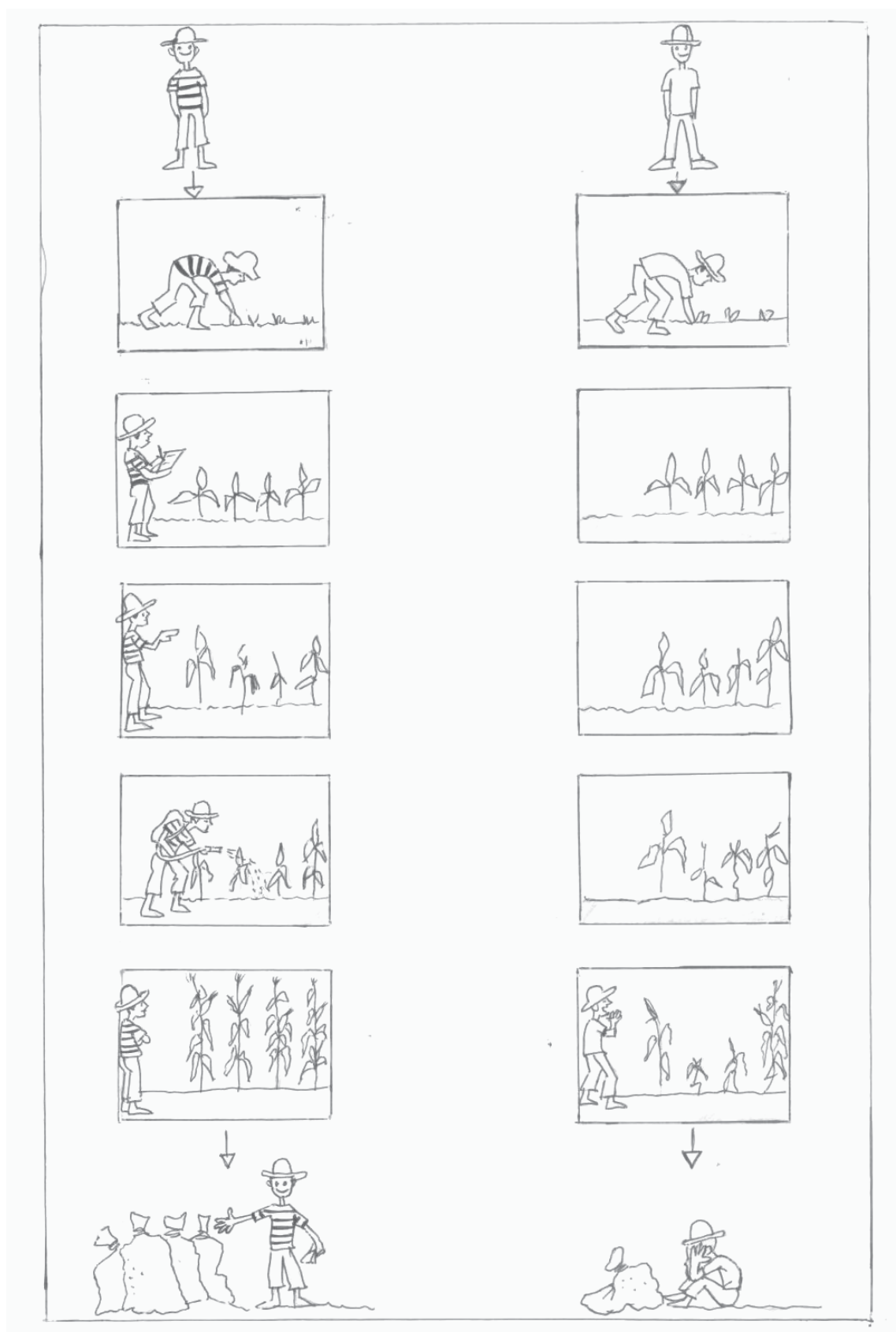**Activity 1:** Need for Evaluating Learning Sessions (30 minutes)

1. Write the session objectives on a card and ask one volunteer to read the session objectives.
2. Link with the previous session.
3. Write the question on the flip chart 'Why do we need to evaluate?
4. Distribute illustration on page 152 and ask participants the following questions:
   - What do you see from the two pictures?
   - What is the difference between the two farmers/pastoralists?
   - How do you relate the picture with monitoring of a training programme?
5. Point out that the picture shows the relevance and the need for Monitoring and Evaluation.
6. Facilitate a plenary discussion on the need for evaluating learning by relating the discussion with the figure.
7. Consider training as a system consists of various levels. Explain each level using overhead projector. The levels as indicated in the Handout show the reaction level, learning level, job behavior level and the level of impact.

8. Ask participants to decide which levels should be evaluated and what was their experience? Tell the participants that each level should be evaluated. However, the interest and extent of evaluation by the facilitator and the donors might be different. A facilitator may focus at reaction, learning and job behavioral level.

9. Ask participants what is to be evaluated at each level. The following points need to be stressed:

    • The reaction level: This level is sometimes referred to as the happiness or sadness index. The level focuses on trainees' reaction about facilitators, the method of presentation, usefulness and interest of the subject matter.

    • The learning level: This level deals with acquisition of knowledge, skills, and attitudes about the training. This level is sometimes referred to as the level of immediate outcomes.

    • The job behavior level: trainees apply this learning in the form of changed behavior back on the job. This level is sometimes referred to as the level of immediate outcomes.

    • The functional level: This changed behavior affects the functioning of the organisation. This level is sometimes referred to as the level of impact.

10. Ask which level of evaluation is the easiest, and which is the hardest to evaluate? The first two levels (reaction and learning) are the easiest while the level of impact is the hardest to evaluate. This is because it is difficult to identify other factors from the effect of the training.

11. Close the discussion by asking: "At which level of evaluation do you have,and at which level don't you have an experience?"

Activity 2: Methods of Evaluating Learning (90 minutes)

1. Ask participants when they evaluated their training. If they conducted evaluation only at certain stages of evaluation, why did they skip the others? What will be the implication for subsequent trainings if only a few levels of evaluation are evaluated?

2. Wrap up by giving a summary. Ask how they felt as they discussed time for evaluating training. What did they learn from the session?

3. Draw attention again to the Handout and ask participants what their experience is in evaluating training at different levels?

4. Divide the participants into four groups and ask each group to elect a reporter.

5. Each group discusses the methods of evaluation of training at reaction level, learning level, job behavior level and functional level.

6. Clarify any concerns they may have while working. Be sure to allocate sufficient time for discussion and sharing.

7. Remind participants to draw attention to the hierarchy of evaluation on Handout 2.9.1 and 2.9.2

8. After listing the methods of evaluation, ask participants to design each of the evaluation forms at different levels of evaluation hierarchy.

9. The reporters present their groups' results to the audience. Each reporter has about five minutes to present the results. Facilitate a discussion on each of the evaluation methods

10. Discuss similarities and differences between the groups' results.

11. At the end of this exercise, provide summary on different techniques of evaluation as discussed briefly in the handouts.

The following illustration shows the importance of monitoring and evaluation as portrayed by the two farmers growing maize:

The importance of monitoring and evaluation

Handout 2.9.1

Learning Evaluation

Purpose of learning evaluation

Evaluation techniques are used to find out:

- How much learning took place.

- How effective the training methods used were.

- How effective and useful each of the different sessions during the training were.

- How the facilitators can improve themselves.

- If the objectives were appropriate.

- If the participants enjoyed themselves.

- If the learning can be applied in the participants' job or other situations.

- If the training facilities were satisfactory.

How much have the participants learnt as a result of the training? Have they learnt what they were expected to learn? This type of evaluation involves assessing the knowledge, skills, and attitudes participants have gained through training; Its focus is on their learning rather than reactions and feelings.

How to do it:

- Open questions

- Learning journal

- Written tests or quizzes

- Performance tests

Handout 2.9.2

Hierarchy of Training Evaluation

Levels of evaluation

The above four questions can be related to four levels of evaluation as follows:

1. The Reactions Level-Trainees react to the training (form opinions about the trainer, the method of presentation, usefulness and interest of the subject matter, their own enjoyment and involvement This level is sometimes referred to as the "Happiness index."

2. The Learning Level-Trainees learn (acquire knowledge, skills, and attitudes) about the subject matter of the training. This level is sometimes referred to as the level of immediate outcomes.

3. The Job Behaviour Level-Trainees apply this learning in the form of changed behaviour back on the job. This level is sometimes referred to as the level of intermediate outcomes.

4. The Functioning Level-This changed behaviour affects the functioning of the firm or organisation (or the behaviour of individuals other than the trainees). This level is sometimes referred to as the level of ultimate or long-term outcomes.

For each of the above levels of evaluation, there are advantages and limitations, and, for each, decisions must be made as to what, when and how information will be collected. In each case, evaluation should be tailor-made to fit the situation.

Evaluation at Reactions Level

This is a short-term, subjective assessment of the trainees' reaction to the course. It gives an indication of the areas of the course which need immediate alterations. However, when used alone, it may not give enough information to indicate whether or not broader course objectives were actually met or what the long-term effects of the training will be.

One can evaluate reactions during the course for example, through evaluation of various topics or sessions as well as generally, at the end of the course, or some time later, to obtain long-term reactions or impressions. Methodology may include watching and listening for trainees' reactions, group discussions, or various questionnaires and rating scales.

Evaluation at Learning Level

At this level, the evaluation helps to assess or measure the amount of learning (in terms of knowledge, skills and attitudes) acquired during the course. It helps the trainer to establish base data and may also help the trainee to identify his own areas of need. However, it is limited in that it does not indicate whether or not the learning will be applied.

One can evaluate learning during the course, at the end of the course or even sometime later in order to test retention. It may also be necessary to get a basis for comparison by testing knowledge at the beginning of the training. Methodology may include before-after tests, after only tests, observations and discussions, or practical tests.

Evaluation at Job Behaviour Level

At this level, the evaluation measures the effectiveness of the training programs in terms of on-the-job behaviour. It is quite useful in discovering whether or not former trainees are using new learning acquired during the course. However, this type of evaluation does not measure whether or not this change in job behaviour is having an effect on the organisation. Furthermore, it tends to be more difficult and time consuming than "reactions" or "learning" levels.

One can evaluate change in job behaviour after the trainees return to the job, the amount of delay depending on the nature of the training and the job. The methodology could include use of observation, self-diaries, observer diaries, appraisal by superiors, self appraisal, or questionnaires or interviews designed specifically for the purpose. It is sometimes helpful to ask trainees to develop a plan of action at the end of the course to guide the evaluation of change in job behaviour, particularly where the trainees are a heterogeneous group.

Evaluation at Functioning Level

At this level, the evaluation measures the effects of the trainees' new job behaviour on the productivity or efficiency of their departments/organizations or on the morale of their subordinates. This helps to assess the ultimate impact of the training. It should be done some time after the trainees have been back on the job. Methodology would include collection of data from organizational records, questionnaires, or interviews. However, such evaluation can be time-consuming and it is difficult to know how much of the improvement can be directly attributed to the training programme.
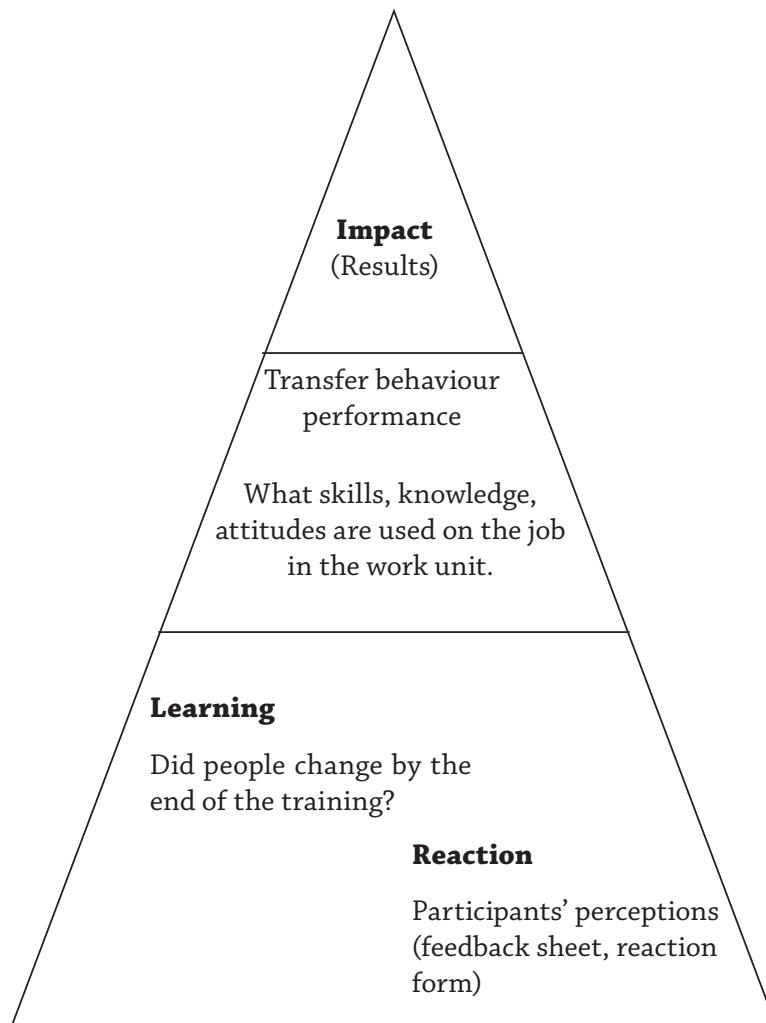
Hierarchy of training evaluation

Figure 7: Hierarchy of training evaluation

Handout 2.9.3

Techniques of Evaluating a Training

(a) Pre training evaluation

This level of evaluation involves assessing training during its development stage. Its purpose is to pre-test the adequacy, scope and coverage of training program under preparation as well as the methods and media to be used. Rather than wait until the end of the training, pre training evaluation aims to check out its shortcomings at an early stage and to take corrective action, where necessary.

How to do it:

• Informal meetings and discussions

• Pre testing

• Questionnaire

(b) Evaluating trainees' reaction

How did the participants like the training? This question is best put to trainees at the end of any specific session or during the course of the training. The purpose of this evaluation is to assess the participants' reaction to the course. An analysis of results obtained would be of primary interest to trainers, for improving the future runs of training.
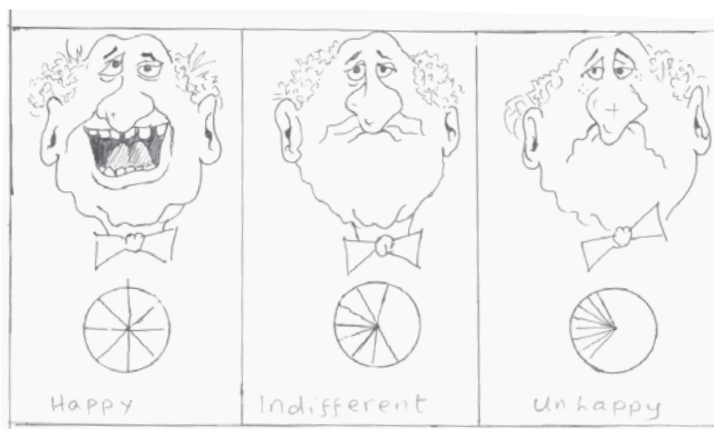
How to do it

- Self evaluation
- Daily review
- Mood meter
- Application feedback questions
- Rating sheet

Daily review, feedback and readjustment

A daily review accomplishes a number of things:

- Everyone revisits the daily material
- The facilitator finds out how everyone is feeling to recognise if there are problems or doubts
- People express satisfactions and dissatisfactions with the training
- The facilitator learns what are the most important topics of the day and what to change in the following sessions
- Participants draw conclusions and see the connections in the days materials
- The facilitator uses the materials to make plans for the next day

The mood meter

This can be used every morning and afternoon to gauge the daily mood of participants. For each session the participant put a tick or a mark for how they are feeling. You can use symbols for happy, neutral and unhappy.

Example of mood meter

Rating sheet

Please rate out of five for each parameters

S/N	Parameters	Score out of five				
		1	2	3	4	5
1	Logical flow					
2	Content					
3	Clarity					
4	Participants involvement					
5	Opportunity for practice					
6	Relevance to participants jobs					
7	Visual aids					
8	Other comments					

Table 7: Rating sheet

(c) Evaluating participant's learning

How much have the participants learnt as a result of the training? Have they learnt what they were expected to learn? This type of evaluation involves assessing the knowledge, skills, and attitudes participants have gained through training; It focus is on their learning rather than reactions and feelings.

How to do it:

• Open questions

• Learning journal

• Written tests or quizzes

• Performance tests

Example for asking open questions

The facilitator can use different questions. These include:

1. What did you learn today?

2. What things were most useful today?

3. What would you suggest to improve the training?

Handout 2.9.4

Guideline to Provide Feedback on Training

1. **Content : Relevance and structure**

   - Usefulness/relevance.
   - Amount of information.
   - Sequence.
   - Duration.
   - Balance between trainers' and trainees' participation.
   - Instructions to trainers.
   - Visual aids.
   - Handouts, exercises.
   - Evaluation.

2. **Process: training techniques and direction**

   - Usefulness/relevance/effectiveness.
   - Group interaction.
   - Clarity of questions/exercises instructions.
   - Opening and closure of the days.

3. **Trainers' and trainees' performance**

   - presentation/communication skills.
   - interaction/effective participation.
   - punctuality/interest/commitment/willingness to facilitate learning/willingness to participate.
   - other attitudes.

4. **Learning environment**

   - physical (training facilities, training material, hotel facilities in general).
   - psychological (personal feelings such as self-motivation, interest, satisfaction, self-achievement).
   - Social (development of friendship, relaxed and comfort among participants).

2.10 Participatory Tools for Appraisal

Background

The Purpose of this session is to enable the PFS facilitator to differentiate and apply the appropriate participatory tools for appraisal.

Topic objectives

By the end of this topic participants will be able to:

- Describe the various participatory tools for appraisal
- Apply participatory tools for appraisal while working with pastoral communities.

Topic overview

1. What are, and why Participatory tools tools for appraisal?
2. Participatory toolstools for appraisal.

Method of facilitation

- Participatory presentation.
- Group discussions.
- Brainstorming
- Visuals.
- Drama.
- Exercises.

Time: 5 hours

Materials: A4 sheets, Coloured Cards, Note book, Pens, Ruler, Masking tape, Display board, Chalk, sticks, animal droppings, ground.

Handout: 2.10.1 and 2.10.2

Additional reference

- PRA methodology books.
- Quang Ngai 2007 Participatory rural appraisal manual.

LEARNING ACTIVITIES

Activity 1: What is and Why Participatory Tools for Appraisal (40 minutes)

1. Greet participants and read aloud the posted session objective for the session.

2. Ask participants about their previous experience in using the participatory tools for appraisal. After a brief discussion of their experience, explain that in this activity they will be covering some of participatory tools which are involved in effective community participation or involvement in matters affecting their lives.

3. Discuss what is and why participatory tools for appraisal .

Activity 2: Participatory Tools for Appraisal (4 hours 30 minutes)

1. Ask each participant to find a partner and give each pair a sheet of flip chart paper. Ask half of the pairs to draw a picture of what they would consider to be an effective community participatory tools, which will put community at the centre stage of making decisions, or getting them involved

in their community development and conventional teacher, illustrating the conventional tool on their drawing.

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Exercise 2

Draw two pictures showing each of the following as you may remember them:

1.   Community members using a participatory tool in a session

2.   Conventional teacher using the conventional tool in a session.

</div>

2.   Explain that they are to do this without using words. Since they will have only 15 minutes to complete the two drawings, they should work quickly and not worry about being artistic. Their drawings should be big enough to be visible to all in the room.

3.   Distribute two large sheets and a marker to each participant only after giving the above instructions.

4.   Ask each person to show his or her drawing. If possible, post all on the walls to encourage comparison— those pairs drawing on community members using participatory tools on one wall and those who are conventional teachers on the other wall.

5.   Ask participants the following questions:

   (a) Whether the drawing was fun?

   (b) What can they see in each of the drawings?

   (c) Compare the community participatory tools and conventional tools used by the teacher.

   (d) What do the two drawings depict?

   (e) Ask participants to generate a list of differences between the community based participatory tools and conventional tools.

   (f) How they might use "drawings" in their work or real life situation.

   (g) Finally, ask which tools are more appropriate for PFS/community work.

Application and wrap up (10 minutes)

1.   Ask participants the following questions in order to begin thinking about the application of what they have learned in the session:

   •   How can you apply this in your situation at home?

   •   How could this exercise have been more meaningful to you?

   •   What do you think will be most difficult when you use this?

   •   What do you find most difficult?

   •   What can you do to overcome resistance from others?

2.   Emphasise the following points:

   •   Participatory tools and techniques are approaches and methods to enable people share, present, analyse their knowledge of life and conditions and plan to act and transform the undesirable realities.

   •   In essence, all this is aimed at achieving acceptable and responsive interventions. The methodology and approaches/techniques are in nature:

(i) Participatory and interactive   (ii) Flexible

(iii) Adaptable   (iv) Exploratory

(v) Empowering and enabling   (vi) Inventive and innovative

Handout 2.10.1

What are Participatory Tools and Techniques?

Participatory Rural Appraisal (PRA) is a set of tools and techniques used with households to gather and analyse information on community resources, problems, potential and is used for:

- Developing the profile of problems.

- Analysing the problems.

- Analysing the current situation and potential in a village or PFS.

- Supporting households to identify activities that respond to difficulties.

- Identifying the opportunities.

- Developing the Community Action Plan (CAP).

PRA is a family of approaches and methods to enable people share, present, analyse their knowledge of life and conditions and plan to act and transform the undesirable realities.

In essence, this is aimed at achieving acceptable and responsive interventions. The methodology and approaches/techniques are in nature:

- Participatory and interactive.   • Flexible.

- Adaptable.   • Exploratory.

- Empowering and enabling.   • Inventive and innovative.

PRA tools are user friendly. PRA also offsets the biases of rural/urban development tourists who:

- Meet only certain kinds of people for example, the important men, those who happen to be around.

- Do not meet other kinds of people- the poorest, women, the powerless, children, and disabled.

- Come with their own preconception/prejudices and impose their own fixed ideas.

- Are in hurry.

- Disregard cultural and traditional values.

- Misinterpretation through translation is often experienced from both the outsiders and insiders leading to more misunderstanding.

- Are overfed/over praised as visitors.

Handout 2.10.2

PRA Tools

The following are the commonly used tools:

1. **Tools related to space:** These give us information related to the space area under study. The are:

   - Community maps.
   - Household sketch maps.
   - Transects.
   - Mobility maps.

2. **Time related:** These tools enable us to gather information related to changes that have taken place in the community over time. For example:

   - Timelines/historical profiles.
   - Seasonal and daily activity calendars.
   - Trendlines.

3. **Socio-economic tools.** Aim at collecting data on community's ways of life and means of livelihoods. Such tools are:

   - Gender Daily Calendar.
   - Livelihood Diagrams.
   - Semi-Structured Interviews(SSI).
   - Venn diagram/ *Chapati* Diagrams.
   - Focused Group Discussions(FGD).
   - Indigenous Technical Knowledge(ITK).

4. **Analysis tools**

   - Pair wise ranking.
   - Direct matrix ranking.
   - Flow diagrams.
   - Preference ranking.
   - Proportional piling.

5. **Technical /secondary tools**

   - All published materials.
   - Ordinance maps.
   - Official reports.
   - Research papers.

Commonly Applicable Participatory Training Tools In The Field/Pastoralist Field Schools

- **Community maps:** a community sketch map is a visual representation of what the community perceives as their space. This includes showing the shape of the community boundary and all the major features as understood and known by the community members.

- **Transects:** This is a simple walk across the study area by the team accompanied by some community members. This is an observational walk to study and learn about topography, natural resources, soils, land use patterns, hygiene situations, housing, problems and opportunities.

- **Household sketch maps**: These show the following:

- Different resource types and how these are used

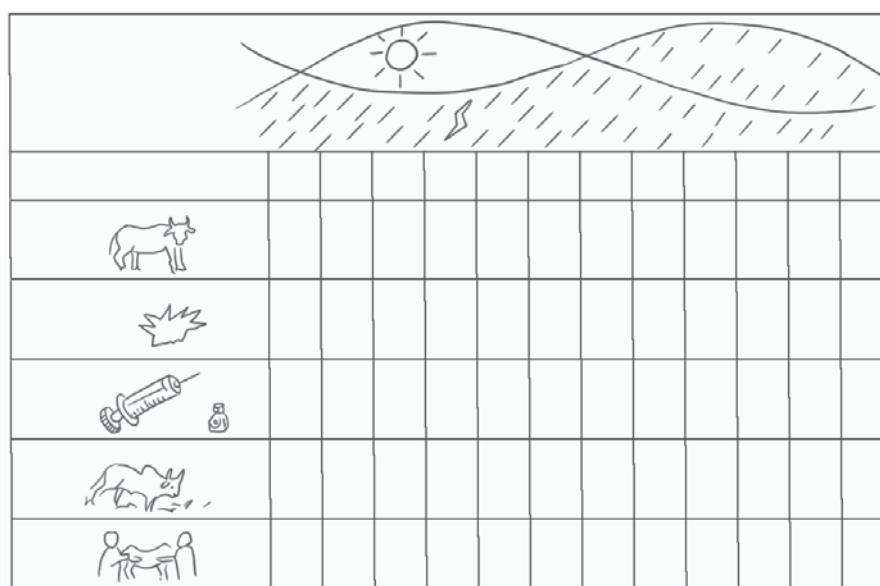- Resources that are scarce or abundant.

A household sketch map

- Identify opportunities and propose activities to improve or develop these
- **Mobility maps:** A mobility map is usually as a circle with arrows showing which sector in the community goes where and for what purpose. Contacts with the 'outside world' and decision making power in the community are often closely linked. The mobility map allows us to record, compare and analyse the mobility of different groups of people in the community for example men, women, boys, and girls. It is important to identify different patterns of spatial mobility for different segments of a community.
- **Timelines/historical profiles:** A historical timeline is a list of key events in the history of the community that helps to identify the past trends, events, problems and achievement in its life time. This is best done using the group discussions because it encourages dialogue and also helps community arrive at what is acceptable. It is also easy to cross check information. For every event the group should also state the effect it had on the community and how it coped with it. The tool is best done in small groups.

An example of a historical profile taken from Bufow Village South of Somalia

YEAR	EVENT	EFFECT	COPING MECHANISM
1972	Cholera outbreak	Many people died	• Government provided ant-cholera drugs • Holy Quran widely read.
1973	• Good harvest • Crash program introduced	Government confiscated land to turn into Government agricultural land	Members sought employment in the Government owned farms.
1974	• Agricultural coops set up by Government. • ADC monopolised the agricultural market	• Community farms taken over by the Government • Most members forced to buy food from ADC	Migration to others areas order to survive
1978	Agricultural coops cancelled by Government.	• Farmers regained their land. • Agricultural produce increased	Settlement came up for communities could now feed themselves
1987	Destruction of crops on farms belonging to the Government.	Displacement of people	Migration to other areas.
1991	Civil war reaches climax	Canal rehabilitation neglected. Looting of people's food reserves.	International non-governmental organisations brought food aid
1992	Famine and starvation	Most old people and children died	International food campaign launched to alleviate suffering
1993	Crop failure due to lack of enough water	Save the Children Fund (USA) rehabilitated the main primary canal Good irrigation accessed Good harvest.	Increased production and trading with neighbouring communities.
1994	Floods	Crops destroyed.	Community used underground grain reservoir stored from the previous harvest
1997	Flash floods	Crop destroyed	Community using underground grain storage facilities.

Table 8: Historical profile from Bufow Village

- **Seasonal calendars:** This compares the community activities month by month. The actual themes to be recorded will vary from community to community. Common themes include rainfall patterns, water availability, diseases, harvesting/planting, labour demand. the calendar should also show when problems are most acute. The timescale should be on the horizontal axis.

Seasonal calender

- **Gender Daily Calendar:** the main reason for a gender calendar is to identify role divisions in a community. It helps to identify who does what and makes the community articulate assumed roles which under normal circumstances are not discussed, but are taken for granted. This helps to analyse the division of labour in the community and raise awareness about responsibilities for sharing activities:

TIME	ACTIVITIES
Rising from bed	Fetching water. processing milk
Early morning to noon	Sweeping the house, preparing breakfast and washing utensils
Early afternoon	Preparing lunch, Washing utensils
Afternoon	Fetching water
Late afternoon	resting
Early evening	Preparing supper
Evening	Discussions ad sharing among family members
Late evening	Going to bed

*Reproductive roles: 16 hours. Sleeping hours: 6 hours. Rest: 2 hours

Table 9: Gender daily calender

- **Livelihood Diagrams:** These are used to interpret the behaviours, decisions and coping strategies of households with different socio-economic characteristics. Variables/factors for livelihood analysis may include household size and composition, number of labour migrants in the household, proportion of income by source, expenditures and relative income.

- **Focused Group Discussions (FGD):** This a tool used for getting information from the community members on a particular issue, event or livelihood. This is normally attended by a small group that ranges from 6-12 people from the community comprising of men, youth and female.

- **Indigenous Technical Knowledge (ITK):** This is a tool/knowledge that is provided by the community and can be used for their development. This is normally done through conducting community meetings or contacting the community informants or different segments of the community.

MODULE 3: TEAM BUILDING, GROUP MANAGEMENT AND LEADERSHIP

3.1 Team building

LEARNING ACTIVITIES

Introductory Exercise 1: The Rope Square Game (20 minutes)

1. Use a rope which is about 3 meters in length and tied once to form a loop. The rope is placed on the floor.

2. Ask for five volunteers and asks them to stand in a circle around the rope. Give the volunteers the following instructions:
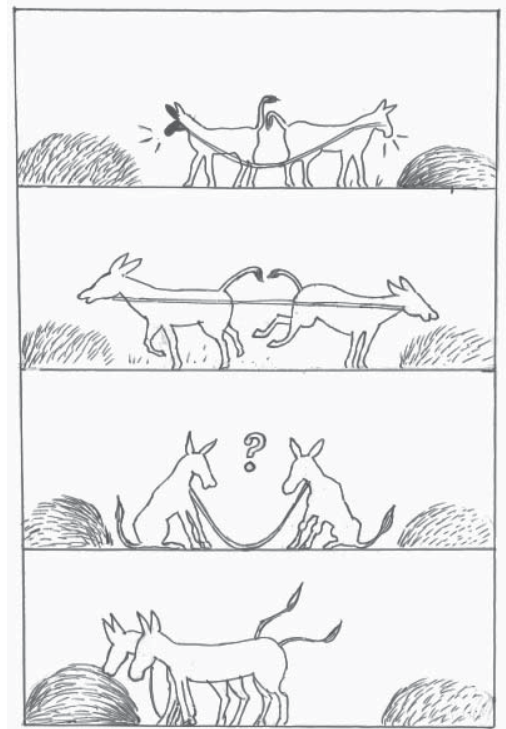
    (a) Eyes closed and not open during the game.

(b) Volunteers to bend down and touch the rope.

(c) Ask a group of volunteers to make a square.

(d) Only open eyes when as a group you are confident that a square has been made.

3. Other participants are asked to observe what is happening during the game.

4. Another alternative game that can be performed is the rope biding game.

Activity 1: The Difference Between a Group and a Team (20 minutes)

1. Divide the participants into groups or give cards to individuals and ask them to answer the following question: What is the difference between a group and a team

2. There after use the individual or groups responses to reinforce your presentation and also to elicit discussions.

3. Summarise by asking the participants:

   - Whether a group can be a team?
   - Whether a team can be a group?
   - The difference between a team and a group?
   - Why PFS is a team?

Activity 2: Stages of Team Growth (20 minutes)

1. Using power point or writing on flip chart paper, systematically explain the different stages of team growth, ask questions as you proceed and also allow participants to interject with questions. Ask a few questions to participants to gauge their understanding on the stages of team growth. Use local examples if possible to emphasise certain points.

2. After going through the topic Summarise key points through question and answer sessions with the participants and put emphasis on the important points to remember. Choose the most appropriate methods from drawings, brainstorming, question and answer, or power point to enhance understanding of the different stages of team growth.

Two donkeys pulling in different directions

Activity 3: Role of a Facilitator or Group Leader in Team building (20 minutes)

1. Ask the participants what the roles of a facilitator or group leader in team building are. Record their responses and fill in a flip chart.

2. Thereafter discuss and input on missing points.

3. Summarise on power point presentation or points written on flip chart paper.

Activity 4: Recipe for a Successful Team (20 minutes)

1. Divide the participants in groups and through brainstorming amongst them, ask the following question: How is a successful team built or what is the recipe for a successful team?

2. After they have answered the question in a flip chart, each group to present its findings in plenary while other groups comment or input on their presentation. This is done for all groups and a summary is made either in power point or flip chart paper.

Activity 5: Common Group Problems (20 minutes)

Ask the participants what are the common problems experienced in a team. Record their responses and fill in a flip chart. Thereafter discuss and input on missing points. Summarise on power point presentation or points written on flip chart paper.

A team building exercise

Activity 6: Team building Exercises (20 minutes)

Ask participants to identify and practice in groups on a few selected team building exercises

Examples of team building Exercises

• The rope binding game

• The rope square game

• Tug of war

• Puzzles

Handout 3.1.1

The Difference Between a Group and a Team:

A team can be described as a group that functions in an organised and coordinated manner, giving room for members to express their opinions and exploit their talents to the fullest in order achieve a certain objective / goal.

A group is not necessarily a team but a team can be a group.

Handout 3.1.2

Stages of Team Growth

As the team matures, members gradually learn to cope with emotional and group pressures.

STAGE 1: FORMING

Cautious exploring of the boundaries of acceptable group behaviour. Like hesitant swimmers they stand by the pool dabbing their toes in the water. This is a transition stage from individual to member status and tests the leader's guidance both formally and informally.

Forming includes these feelings

• excitement, anticipation, optimism.

• Initial tentative attachment to the team.

• Suspicion, fear and anxiety over the job ahead.

Team forming includes these behaviours

• Attempts to define/accomplish the task.

• Attempts to determine acceptable group behaviour.

• Frustrations with discussions of problems not relevant to the task.

• Complaints about the organisation/group and barriers to the task.

NB: The team at this stage accomplishes little as members are distracted. But this is perfectly normal

Action of team leader at forming stage

• Build trust and open communication.

• Establish code of conduct.

• Help ensure everyone has specific responsibilities.

• Provide structure by having regular team meetings.

• Define a mission/set goals.

• Facilitate team members to learn about one another.

• Encourage risk taking.

• Lead in team building exercises.

STAGE 2: STORMING

- Most difficult stage for the team.
- It is like members jump into the water and thinking they are drowning start thrashing about.
- Impatient due to lack of progress.
- Inexperienced, leading to arguments.
- Reliance on personal and professional experience
- Resisting attempts of collaboration

Storming includes these feelings

- Resistance to the task and other approaches different from what each individual member knows.
- Sharp fluctuations in attitude about the team.
- Stuck and unable to move forward.

Storming includes these behaviours

- Arguing even when agreeing on real issues.
- Defensiveness, competition, creating factions and choosing sides.
- Questioning the wisdom of those who selected project or initiative.
- Unrealistic goals, concerns over excessive work.
- A perceived "pecking order" disunity, increased tension and jealousy.

Action of a team leader at storming stage

- Preach vision, vision, and vision.
- Provide time for team to vent frustration.
- Facilitate wins, create positive supportive environment.
- Recognise and publicize team wins.
- Provide members with needed resources.
- Remove barriers.
- Encourage expression of differing views.
- Encourage team problem solving.

STAGE 3: NORMING

- Members reconcile competing loyalties and responsibilities.
- Accept team code of conduct and their roles in the team and individuality of fellow members.
- Reduced emotional conflict.
- Cooperation increased.

Team members realise they are not going to drown and stop thrashing, helping each other to stay afloat.

Norming includes these feelings

- A new ability to express criticism constructively.
- Acceptance of membership in the team.
- Relief as it seems things will work out.

Norming includes these behaviours

- Attempts to achieve harmony and avoid conflict.
- Friendliness, confiding in each other, sharing personal problems and discussing team dynamics.
- Establishing and maintaining team's code of conduct.
- Developing team skills and providing feedback
- Confronting issues.
- Establishing procedures.

Action of a team leader at norming stage

- Establish regular performance measures.
- Emphasise creative thinking, problem solving and advanced technical and interpersonal skills.
- Keep up the team wins.
- Recognise and reinforce team behaviour.
- Talk openly about issues.
- Give and request constructive feedback.
- Keep setting new higher goals.
- Delegate appropriate tasks.

STAGE 4: PERFORMING

- Team has now settled its relationships and expectations.
- Can begin performing, diagnosing and solving problems, choosing and implementing changes.
- Have discovered and accepted each other's strengths and weaknesses.
- Have learned what their roles are.

Now they can swim in a concert.

Performing includes these feelings

- Insights into personal and group processes.
- Better understanding of each other's strengths and weaknesses.
- Satisfaction of the team's progress.

Performing includes these behaviours

- Constructive self/change.
- Resourceful and flexible.

- Ability to prevent or work through group problems.
- Close attachment to the team.
- Supportive to team.

Action of a team leader in Performing stage

- Set challenging goals.
- Look for opportunities to increase team's scope.
- Question assumptions and traditional ways of behaving.
- Develop mechanisms for group self assessment.
- Develop members to their fullest potential through tasks and feedback.
- Establish continuous improvement as "a way-of-life".

Duration of the stages

- Duration and intensity vary from team to team.
- Sometimes the stage of performing may be achieved in a meeting or two, other times it may take months.
- Understanding these stages will keep you from over reacting to normal problems and setting unrealistic expectations that only add to frustrations.
- Patience and effort enables independent individuals grow into a team.

Handout 3.1.3

Role of a facilitator or group leader in team building:

- Initiate discussions
- Seek information and opinions
- Suggest procedures for reaching a goal
- Clarify or elaborate on ideas.
- Summarise
- Test for consensus
- Act as gate keepers to avoid simultaneous conversations
- Keep discussions from digressing
- Compromise and be creative in resolving differences
- Ease tension in difficult matters
- Express group feeling
- Agree on standards
- Refer to documentation and data
- Be fair in accepting both praise and complaints
- Build skills and evaluate progress

Handout 3.1.4

Recipe For a Successful Team;

How close a team comes to this ideal depends on the following ten essential elements;

- Clarity in team goals.

- An improvement plan.

- Clearly defined roles.

- Clear communication.

- Beneficial team behaviours.

- Well defined decision procedures.

- Balanced participation.

- Established ground rules.

- Awareness of the group process.

- Use of good data.

Handout 3.1.5

Common group problems

- Floundering

- Overbearing participants

- Dominating participants

- Reluctant participants

- Unquestioned acceptance of opinions as facts

- Rush to accomplishment

- Attribution

- Feuding team members.

3.2 PFS Group Management and Leadership

Background

Management is important for the smooth and effective functioning of a PFS, like it is in any other organisation, association or group. Management involves planning, directing and controlling the operations and activities of the PFS. This management in PFS takes two forms: the structures that act as pillars for, and the systems that support the management functions as well as the catalysts.

The structures in this case are primarily the leadership function in the PFS. The systems could be called the software rules, regulations embodied in the constitution and the record keeping, which the leadership use in carrying out their functions. Catalysts include the resources that facilitate the leadership to run the systems. In a PFS, these include subscription, membership and other fees mobilised by the group members.

Topic objectives

By the end of this topic, participants will be able to:

- Understand the importance of group structures and various systems for effective PFS management
- Facilitate and support the PFS to put in place appropriate structures and systems to guide the PFS operations.

Topic overview

1. Developing a PFS Constitution
2. PFS leadership
3. PFS Records
4. PFS Resource mobilisation

Method of facilitation

- Participatory presentation,
- Group discussions,
- Brainstorming
- Question and answer
- Role-plays / folk media / story telling

Time: 4 hours

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board, Sample copies of group constitution, Pictorial of leadership styles, record formats.

Handout: 3.2.1, 3.2.2 and 3.2.3

Additional reference

- FFS Facilitator's guide – Uganda 2010
- Uganda FFS Network Manual

LEARNING ACTIVITIES

Activity 1: PFS Constitution and By-laws (1 hour)

1. Brainstorm with the participants on what they understand by a constitution
2. Discuss the importance/role of a constitution in a PFS and having rules and regulations
3. Ask the participants to explain the possible components of a PFS constitution
4. Wrap up their discussions by explaining any additional components that they might have left out.

5. Present a format for the group constitution making process and explain each in detail, giving the importance, and how to derive the by-laws from each component

Activity 2: Leadership in PFS (1 hour)

1. Brainstorm on what is generally meant by leadership and who a leader is.

2. Discuss the characteristics of a good leader in the context of the PFS.

3. Ask the participants to list and describe the leadership approaches/styles they know. Let the participants list as many approaches as possible. Go through all the points presented and add additional inputs emphasising on strong points. Alternatively, give each participant flash cards and ask them to list leadership styles. Pick the flash cards from the participants and Analyse the results and input on missing points while emphasising on strong points.

   Finalise this discussion by summarising on leadership styles by asking these questions:

   • 'People get the type of leader they deserve', what is the meaning of this statement?

   • What makes a leader use a certain leadership approach?

4. Pin up the leadership approaches in front of the training hall and in question and answer form go through all the leadership styles and list/input on their implications when used. Input well on missing points then summarise on right implications through power point or other relevant facilitation means.

5. Using question and answer, ask the participants using one word to list the type of leaders found in groups. After the listing is complete pick participants randomly and ask to explain each type of leader listed. After all is through, add up any missing points, beef up the explanations and summarise. If time allows ask the participants to list some of the best ways in which a leader can lead a group effectively.

6. Ask the participant to identify and list the different leadership positions required for management of the PFS affairs.

7. Discuss the different roles and responsibilities of each position and the desired qualities for the individuals that PFS members should consider during the election of office bearers.

8. Ask the participants to discuss how a PFS can ensure democratic election process for their leaders.

Note: The trainer could use group discussions for leadership styles/types of leaders/characteristics of leaders.

In these pictures, the cart represents the PFS group

All the members are seated in the cart and the two representatives are trying to pull the cart. This is hard to achieve as the burden is solely on the shoulders of two people.	All the members are pushing the cart with the representative seated in the cart. This is inappropriate as it symbolizes domination by a few.	Everybody takes turn in steering the cart. This is an example of how it must be in a PFS group.

Leadership styles

Activity 3: PFS Record Keeping (1 hour)

1. Ask the participants what is meant by records and record keeping.

2. Divide the participants into 3 groups, each to discuss one of the following.

    (a) The importance of record keeping in management of PFS.

    (b) Types of records relevant to the PFS.

    (c) The role of PFS leaders in ensuring appropriate records are properly kept.

3. Ask each group to present their discussions. For each presentation, wrap up the discussion with the relevant information as provided in the hand out.

4. Expose the participants to the different record formats discussing each and how to record the required information.

    Note: The participants to be informed that when handling this with the PFS, they will only introduce the topic and the importance of record keeping and give examples of key records for PFS. The actual records will be introduced during the implementation as and when they will be required.

    Tip: In order to save time during the ToF, the participants could be provided with the sample formats to copy in their journals during their free time prior to the session. During the session, the trainer should use practical exercises to enable the participants actually make sample records.

Activity 4: Resource Mobilisation for Funding PFS Operations (1 hour)

1. Introduce the importance of resource mobilization and setting up of a group/operational fund in the PFS.

2. Divide the participants in 2 groups to brainstorm on ways that the PFS could raise funds for running the PFS activities (15 minutes)

3. Ask the groups to present their ideas; wrap up with any ideas that may be feasible.

    Note: The common ways of raising operational funds in PFS and other groups is through membership fees, subscriptions, fines and other fees. The trainer should inform the facilitators to discuss this issue with each individual PFS to come up with strategies of raising group funds. [It should be made clear that member's savings cannot be used to run operations of the group]

Handout 3.2.1

Constitution

The constitution is a document that sets out the goal and objectives of the group that guide its operations. It sets out clear guidelines on the obligations and rights of members of the PFS. It is a living document that evolves as the group grows. It can thus be amended by the members as and when it is necessary to provide for new developments in the group at different stages. A PFS constitution should be made by all members of the PFS and not outsiders; the language used in the constitution should be simple to be understood by all members. Where a group is illiterate, it should be assisted to write their constitution in the local language. The document should be approved by, and accessible to all members.

Bylaws are the rules and regulations that guide the daily operations of the group. Bylaws operationalise the provisions made in the constitution. They are derived from the constitution. While the constitution lists the core principles of the group, the bylaws are rules about how the group will achieve those principles. The constitution has general ideas and the bylaws have more details.

The following is a suggested guide to developing a PFS constitution and the relevant bye-laws. It contains some of the key areas for consideration when developing a constitution for the PFS. It is important for the trainer to brainstorm with the participants on other important components that can be included in the constitution and byelaws. [Quite often there is confusion between a constitution and bylaws. Groups sometimes develop bylaws and call it a constitution. What is important at that level is for the group to have some guiding document.]

	What to include in the Constitution	**What to include in the Bylaws**
1.	**Group Identity**	
	• Group name	• Group name
	• Address	• Address
	• Slogan	• Slogan
	• Objective/Purpose	• Objective/Purpose
2.	**Membership**	
	• Principles behind membership (common interests, location, gender issues (composition)	• Rules/requirements for becoming a member
	• Eligibility	• Membership fees- amount and frequency?
	• Members' obligations	• Requirements for new members
3.	**Leadership**	
	• Nature of positions	• Roles and responsibilities for each leadership position
	• Leadership selection criteria	• Length of service/time of office
	• Duties of leaders (general)	• Penalties for non adherence to rules
	• Committees to be put in place	
	• General roles of committees/office bearers	
	• Terms of office	
4.	**Meeting Schedules**	
	• Types of meetings to be conducted	• Day(s), time, place for meetings
	• Regularity	• Penalties for non attendance
5.	**Disciplinary Actions**	
	• Reasons for disciplinary action	• Specific actions requiring disciplinary action
	• Disciplinary powers	• Disciplinary measures and modalities

6.	**Finances**		
	• Sources of funding for the group operations and activities	• Management – safe custody of the PFS funds	
	• Management of the finances - systems put in place, i.e for transparency, accountability	• Responsibility for keeping the financial records	
		• Mechanisms for transparency and accountability	
		• Sanctions for misuse of resources	
7.	**Savings**		
	• Savings mechanism to be adopted by the group.	• Minimum amounts per member	
	• Savings Plan/Purpose/goal(s)	• Frequency of savings	
		• Sanctions for non-compliance	
8.	**Record keeping**		
	• Description of the types of records that will be kept by the PFSs	• Responsibility for keeping different records	
	• The reason for keeping the various records	• Frequency and procedures for update ing records.	
		• Accessibility by members	
9.	**Loans**		
	VSLs/VICOBA	**Loans to PFS members:**	
	• Conditions for borrowing	Terms of the loan (interest rate, repayment schedule, eligibility, penalties for non-payment, guarantors)	
	• Maximum amount per member per borrowing		
	• Acceptable ratio of savings to loan requested		
	Loans from external sources	**Loans from external sources/financial institutions:**	
	• Conditions/situations for outside loans?	• When PFSs should borrow	
	• Provisions for individual loans	• Liability for repayment	
	• Provisions for borrowing from external sources	• Signatories for the loan	
10.	**Work plans**		
	• Different activities for which work plans have to be developed	• Who is responsible in ensuring the workplan is followed	
	• Who develops and prepares work plan?		
	• Frequency for reviewing the work plan		
11.	**Benefit Sharing**		
	• General statement about how the group and community will benefit from the PFS	• Modalities for benefits sharing among group members;	
	• Conditions for benefit sharing		
12.	**Collective Activities**		
	• Nature of activities to be undertaken collectively		
	• Schedule for the collective activities		
	• Planning for the activities	• Members roles	
	• Sanctions for non participation, etc		
13.	**Dissolution of the group**		
	• Circumstances for dissolution for example management and conflict	Not relevant in bylaws	

Handout 3.2.2

PFS Leadership

Leadership refers to the guiding and directing others to strive willingly towards the achievement of set goals. A functional and sustainable PFS requires effective leaders to guide and direct other members towards attaining the group's goal as well as to articulate the group needs and aspirations. Therefore the success of any PFS is very much hinged on the strength and vision of its leadership.

The PFS leadership must comprise of democratically elected members. Good leaders practice participatory leadership and this is desired for all PFSs. Thus the PFS leaders should be elected by all members of the PFS. The individuals elected must be willing to sacrifice their time to support the running of the PFS since the leadership is voluntary and has no monetary benefit attached. They are the custodians of the PFS resources including finances and assets if any.

Qualities of a good leader

The following are some of the qualities of a good leader.

A good leader:

- **Is knowledgeable and understanding** – PFS leaders should be competent individuals who understand how to manage PFS affairs, as well as be willing to listen to and pay attention to the needs of the members, they are decisive, trustworthy and act with integrity

- **Has good communication skills and ability** – Listens and gives feedback to the group members, does not demand but requests, mediates interpersonal conflicts among group members, accepts and encourages constructive criticism.

- **Encourages Teamwork** – Takes interest in the people she/he leads, encourages and builds team spirit, actively participates, is impartial and warm.

- **Is visionary** – Thinks for the development and success of the PFS. Works for the sustainability of the group, encourages and leads members to plan for the future of the group.

Leadership skills

For effective leadership, the following skills must be applied: ability to communicate orally, listening to all members, reflecting, giving feedback, keeping members' morale high by creating a sense of belonging, mediation of interpersonal conflicts, awakening enthusiasm (make members eager to listen and work), inspiring others, creating healthy/positive competition amongst people being led, treating all members equally.

Leadership approaches/styles

There are many ways in which leaders approach their tasks. The approach selected by a leader is determined by the group or people he leads, their activities, attitudes, traditions & beliefs, behaviours and confidence of the leader. No single leadership approach can be recommended as the best one to adopt for all groups or at all times. The leader therefore needs to understand the group, and their task, the community in which the group exists and his own strengths and weaknesses before deciding how to proceed.

- **Dominating leadership** – talks all the time and does not give chance to share in decision-making.

- **Participative (Involving) leadership** – also called a democratic leader and shares his power with group members. Members of the group are involved in decision making, planning and executing.

- **Commanding leadership** – leader makes all the decisions and announces them to the group members. Members receive ready made decisions and are asked to follow orders.

- **Passive leadership** – in this case there is a leader but he does not have any influence. Things get done the way the group wishes as nobody gives guidance. Some members try to fill in the leadership gap and quite often cause confusion and competition among group members.

NOTE:

1. Leaders adopt any of the four different approaches depending on the prevailing circumstances and conditions in a community.

2. No person adopts one style in all circumstances and at all times. Quite often leaders combine all the characteristics or change from one style to another depending on the type of group and time.

The PFS requires leaders who make it possible for all members to participate in managing the affairs of the group.

Participatory leaderships	Dictatorial leadership
• Encourages group members. "If we achieve the PFS goal, we will all benefit" • Says and thinks "We". "We (the PFS) are going to achieve the objective". • Gives others credit for success. "You members deserve credit for our achievement. Your hard work made it possible".	• Threatens group members "Either achieve the objectives or you leave the PFS" • Says and thinks "I" "I am going to achieve the objectives" • Takes full credit positive results. "Only through my efforts were we able to solve the problem"
• Accepts responsibility for failures. "I am fully responsible. Had I managed this activity properly, the results would have been positive" • Makes work a game. "Let's work together to complete this work. It will be fun if we all participate" • Depends on demonstrated ability. "I have achieved similar goals before and with your help we'll achieve this one"	• Blames teammates for failures. "You people are responsible for the problem. If you had listened to me, we would have succeeded" • Makes work drudgery, "I know this job is boring, but you're paid to do it, so do it" • Knows all the answers. "My way is best. After all, I'm in charge ….."

Implications of leadership approaches/styles:

Type of leadership	Reasons adopted	Likely effects
Dominating	High opinion of abilities, seeking personal power and influence	Resentfulness, antagonism, less contribution, disintegration.
Commanding	Emergency, urgent action. Imposed leadership	Complaints, resentment, no growth, disinterest.
Participative	Confidence in members. Sharing roles and tasks, avoid opposition	High morale and participation. Contribution, support & growth
Passive	Lack of self confidence, interest, skills experience	Infighting, lack of direction and consistency,

Types of leaders found in groups

Common descriptions of types of leaders found in groups:

- The disappearing leader.
- The despairing leader.
- The expiring leader.
- The inspiring leader.
- The conspiring leader.

How to lead a group effectively

- Give group members chance to make a decision.
- Encourage members to contribute in skills materials and suggestions.
- Make constructive criticisms that help members improve.
- Help group to reach decisions.
- Be punctual in meetings and encourage others to attend regularly.
- Be a good listener.
- Act on the decisions made by members.
- Keep promises.
- Appreciate other contributions and give praise when it is deserved.
- Avoid taking sides when settling conflicts.
- Know individual members and be friendly to all.
- Accept members as individuals regardless of their status.
- Summarise group decisions.
- Coordinate different views and activities.

Leadership positions and roles in the PFS

(a)   Chairperson   – dynamic, respected and respectful, visionary, a good mobiliser, has good repute in community

(b) Secretary – must know how to read and write, and do basic arithmetic, trustworthy

(c) treasurer – can do basic addition and subtraction, read and write, trusted person

The trainer should be able to list other positions and qualities/roles as may be necessary.

Handout 3.2.3

PFS records

Record keeping is a core component of the PFS and a prerequisite for effective management of the PFS. It helps to track the group activities and events. Proper record keeping enables transparency in the PFS because they enable the leaders to account to the PFS membership.

What are records?

A record is written proof of a happening or something anticipated to happen. A record is also a written proof of something said and by whom it was said. For example, minutes of a meeting, number of group members who attended the PFS meeting, or worked in the group garden, names of members who have brought in their membership contribution.

Record Keeping: Record keeping is the practice of making, maintaining and storing of records in a safe manner.

Importance of Record keeping

Record keeping is important because it helps members to remember or keep track of what happened. It also provides information and data for periodic reporting, monitoring and evaluation. In PFS records are essential for:

- Planning.
- Livestock treatment.
- Decision making.
- Monitoring and Evaluation

Types of records in PFS

Activity records

Provides a series of information on all the important events and activities that take PFS chronologically including the time/date, any costs incurred by the PFS or income earned. The record is updated regularly as and when the activity occurs (maybe daily, or a number of times a week or monthly depending on the volume of activities).

The record provides important information for future planning, helps pastoralists take precautionary measures, to undertake special preparations, or in the general planning of the PFS activities and appropriate decision-making.

Financial records

Financial records are important to the management of the PFS financial resources including savings, membership, and any other income coming into the PFS as well as tracking expenditures. Financial records are important because they provide figures for planning and budgeting, show the profitability of the business, enable the monitoring of performance of the PFS business. Some of these may include income and expenditure records, cash book, profit and loss statements.

Production records

These records document whatever is produced by the PFS. The frequency of recording depends on the level of production. It could be daily [for example for milk yields and eggs], weekly, bi-weekly or monthly. However, for the PFS with minimal activities, this can be kept on a monthly basis. The records help the PFS/Network to measure progress in production.

In the PFS, production records may include the following :

- Livestock register – could include number of stock owned, bought and sold

- Treatment/vaccination records – vaccinations, de-worming, spraying

- Breeding records

- Nutrition records – For example, on supplementary feeding

- Health records

- Sales Record – milk, eggs,

The Inventory Record

The Inventory record contains details of store-related items, date when purchased, their value and condition. These may include equipment such as sprayers, tools and stationery. These are maintained in order to ensure that the assets are not lost or misused. The items are categorised into short/medium/long term. The leaders of the group should ensure that the record is regularly updated, and monitor the use of the assets.

How can the PFS leaders ensure records are properly managed

- Regular updating

- Regular attendance of meetings by the members and leadership/persons charged with record keeping role.

- Transparency in record keeping – members need to be reminded of the previous/past decisions, deliberations during meetings. The records should be open and accessible by members if they wish to verify any information

Note:

The nature of records-kept in the PFS will depend on the ability of the group to record, understand, and interpret the records, and this is dependent on the literacy levels of the leadership and members. Under extreme conditions like in the pastoral settings, minimum level of record keeping is advised; usually limited to maintaining only the key basic records. Use of pictorials in record keeping is the most appropriate.

Handout 3.2.4

Resource mobilisation

Resources are required by the PFS to put in place and maintain the systems mentioned above, as well as enable the leadership to run and manage the systems. Thus, the group requires funds to purchase the record books and other stationery for writing the constitution. They may need pens, calculators. The leaders may need money for transport to carry out specific activities such as to register their PFS with the government/community development office. They may also require funds for running the experiments during the learning process for example, buying acaricide.

3.3 Conflict Management and Peace Building

Background

Conflict is a natural and necessary part of our lives. It happens at home with our families, at work with colleagues, between groups, associations and governments. Therefore conflict is an inevitable feature that occurs in life's circumstances. Hence the challenge that faces the human race is not the elimination of conflicts but rather how to address conflict when it arises. Conflict may be managed positively through open discussions, negotiation, joint problem solving and consensus building. Conflict also be managed negatively through avoidance at one extreme and through the use of threats or force at the other. Conflict can arise in PFS groups leading to suspicion amongst members, threatening harmony that may eventually lead into fights and eventual disintegration of the group. Conflict resolution is therefore an important aspect that needs to be addressed in PFS groups so that when it occurs it can be well handled and the group's activities are not disrupted or the group does not disintegrate. Resolving conflict is an art and a science that can be learnt for the good benefit of individuals, groups, associations and governments.

Topic objectives

By the end of this topic participants will be able to:

- Explain what conflict is.
- Explain the causes of conflict.
- Explain the types of conflict.
- Describe the results of conflict
- Describe the stages and dynamics of conflict.
- Describe conflict transformation and peace building
- Explain the positive outcomes of conflict

Topic overview

1. What is conflict.
2. Causes of conflict.
3. Types of conflict.
4. Results of conflict.
5. Stages and dynamics of conflict.
6. Conflict transformation and peace building.
7. Functions and positives of conflict

Method of facilitation

- Participatory presentation.
- Group discussions, and plenary presentations
- Question and answer
- Role-plays / folk media / story telling

Time: 3 hours

Materials: Measuring tape, Crayons, Drawings, pictures, A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board.

Handout: 3.3.1, 3.3.2, 3.3.3, 3.3.4, 3.3.5, 3.3.6 and 3.3.7

Additional reference

- LFFS manual
- Caritas Peace Building and Conflict Resolution Manual.
- TOT Manual: Conflict Transformation and Peace Building In Rwanda.

LEARNING ACTIVITIES

Activity 1: What is Conflict (20 minutes)

This is a crucial step in helping the participants understand what conflict is and give their opinions with regard to their set ups or situations.

1. Divide the participants into groups and ask them what conflict is. Let them come up with as many definitions as possible then ask the groups to present in plenary. After presentation go through all the points presented and add additional inputs emphasising on strong points. This exercise can take about 20 to 30 minutes.

2. Alternatively, give each participant a flash card and ask them to come up with definitions of conflict. Pick the flash cards from the participants and Analyse the results and input on missing points while emphasising on strong points.

To finalise this session, ask the participants if conflict is a normal occurrence in life, and ask them to recite real life situations where they have been involved in conflict under different contexts.

Conflict tree

Activity 2: Causes of Conflict (20 minutes)

Repeat the steps as above for the causes of conflict; the exercise should take approximately the same time as above. To summarise ask the participants to recite real life situations of things that caused conflict.

Activity 3: Types of Conflict (20 minutes)

Repeat the steps as above for the types of conflict; the exercise should take approximately the same time as above. To Summarise, ask the participants to recite real life situations on types of conflict that they were involved in or witnessed.

Activity 4: Results of Conflict (20 minutes)

Repeat the steps as above for the results of conflict; the exercise should take approximately the same time as above. To summarise, ask the participants to recite real life situations on results of conflict that they were involved in or witnessed.

Activity 5: Stages and Dynamics of Conflict (30 minutes)

Using the question and answer session, ask the participants different stages and dynamics of conflict from the start to end. Write the responses on a flip chart as the answers come and when through re-arrange the stages in consultation with the participants in order to get the right order.

Summarise the session by going through the real stages of conflict and giving the due emphasis.

Activity 6: Conflict Transformation and Peace Building (30 minutes)

1. Give each participant two flash cards and ask them to write what they understand by the terms conflict transformation and peace building. Give about five minutes then pick the cards and go through the definitions. Finally explain the right terms, emphasising on important inputs from the participants

2. Divide the participants into groups and ask them to list the different methods in which conflicts are handled and come up with realistic ways through which conflicts can be handled. Once they are through with the exercise, ask them to present in plenary. Once all groups are through, brainstorm on the issues and add comments. To cement the issue finalise with the realistic conflict transformation and peace building mechanisms giving emphasis where it is due. Wrap up session with the outcomes of conflict resolution situations.

Activity 7: Functions and Positives of Conflict (30 minutes)

Divide the participants into groups and ask them to discuss and come up with positive aspects of conflict. Ask the group members to come up with real life situations in which a conflict situation had a positive effect on them or their friends. Summarise, emphasise and add onto other points in presentation.

Wrap up (10 minutes)

Summarise key points in conflict through question and answer sessions with the participants and put emphasis on the important points to remember.

Handout 3.3.1

What is conflict?

Conflict is sometimes caused by miscommunication, but more often is about other issues like values or beliefs. A common definition of social conflict is "A struggle over values and claims to scarce status, power and resources" another is "Any situation in which two or more social entities or parties perceive that they possess mutually incompatible goals" This definition emphasizes the existence of incompatible or contradictory goals and the element of perception that leads to conflict. Most people associate negative words or ideas with conflict, war, violence, anger, or hurt feelings. However conflict is a natural part of human existence, and the overall aim is to transform the destructive ways we use to deal with conflict in order to lead to more constructive outcomes.

Handout 3.3.2

Causes of conflict

Conflicts are a natural happening in human existence and will always occur in different social set ups. However it is important to look into some of the issues that cause conflicts to arise. They include:

(a) Differences in social background, perception, needs, attitudes, ideologies and way of thinking.

(b) Lack of mutual trust amongst individuals, group members, governments.

(c) Poor communication means that lead to lack of good understanding of messages or bad interpretation of communication messages.

(d) Rigidity of opinion and views by taking a hard-line stance.

(e) Perceived injustices and inequitable distribution and use of resources.

(f) Social tradition and religious obligations.

Causes of conflict at group level

(i)   Poor leadership style

(ii)   Leadership wrangles over positions, utilisation and distribution of group resources.

(iii)   Communication breakdown amongst group members leading to misunderstandings

(iv)   Cultural and religious differences amongst group members.

(v)   Occupational differences.

(vi)   Poor management and utilisation of group resources.

(vii)   Politics and external interference to the group.

(viii) Inadequate attention to gender concerns.

Handout 3.3.3

Types of Conflict

To begin with, conflicts may be understood as follows:

1. Intra-personal conflict - refers to conflicts occurring within a person. Usually people need to work on their own inner struggles and issues in order to be constructive in social conflicts. (Are there any stories of personal transformation that you know that finally resulted to successful negotiations that stopped conflict?)

2. Inter-personal conflict – refers to conflicts occurring between individuals or small groups of people. Before negotiating for broader social change, individuals engaged in interpersonal conflict have to engage each other first and overcome any conflicts between them.

3. Intra–group conflict – refers to those conflicts that happen within a particular group, whether it is religious, ethnic, political or other type of identity group. It is important to be able to manage the conflicts within your own group, and be able to communicate with others within your group in order to build support for long term peace processes.

4. Inter-group conflict – refers to conflicts occurring between large organised social or identity groups. To be successful in alleviating or reducing conflict, we need to have the skills to work within our own groups as well as between groups.

Handout 3.3.4

Results of conflict

1. None performance, slowed progress and collapse of groups, parties or organisations.

2. Strained relationships between individuals, groups, parties.

3. Promotion of antagonism and animosity.

4. Harmony unity and cohesiveness threatened.

5. Discontentment and frustration.

6. Impaired communication.

7. Fighting that can lead to maiming and deaths.

8. Looting, destruction and loss of property.

9. Destruction of infrastructure that is important for use by communities.

10. Inability to use vital structures that are of benefit for survival by the group or community.

Handout 3.3.5

Stages and Dynamics of Conflict

Potential conflict: In this stage, which is sometimes referred to as latent conflict, people usually experience structural violence , which refers to situations of injustice where people are not allowed to experience their rights and responsibilities equally. People are treated unequally within social structures, systems and institutions and the disparities are unbearable. The apartheid system in South Africa was an example of a social system of control that oppressed people without necessarily engaging in physical violence.

Confrontation: This usually means that the cover or structural forms of violence are being rejected publicly. This usually happens as in the case of confrontation between two parties, and a large public demonstration. Are there other examples that you know?

Crisis: When conflicts get "hot", those involved often resort to overt violence in order to win, although usually both sides end up losing something. Overt violence refers to those actions that people purposefully do to harm, maim, or kill others. War is the most organised form of overt violence that humans have invented. Political groups usually engage in overt violence when they are frustrated, scared and believe there is no other way of achieving their goals.

Regeneration: At this stage, it is time to focus on other things beside the fire, and to rebuild and regenerate what was lost. If the injustices of structures and systems are adequately addressed, there will be space for reconciliation, regeneration and renewal. These processes are not easy and involve as much energy as the fire, only channelled in different ways. Regeneration takes years and years, just as a forest burned down does not re-appear in a year.

Handout 3.3.6

Conflict Transformation and Peace Building Mechanisms

Conflict transformation goes beyond the concept of conflict resolution in that it requires the transformation of parties, their relationships to each other, and the structural elements that underlie the conflict. These relationships and social structures are often unjust and unequal, and transforming conflict seeks to alter these structures in ways that build a more just society.

Conflict handling styles

Accommodating: People who accommodate are unassertive and very co-operative. They neglect their own concerns to satisfy the concerns of others. They often give in during a conflict and acknowledge they made a mistake or decide it is no big deal. Accommodating is the opposite style of competing. People who accommodate may be selflessly generous or charitable, they may obey another person when they would prefer not to, or yield to another's point of view. Usually accommodators put relationships first, ignore the issues and try to keep peace at any price.

Competing/forcing: This is approaching conflict in a competitive way without cooperating in pursuance of own concerns at the expense of others. Here, whatever power that is necessary in order to win is used. Competing may mean standing up and defending a position believed to be correct, or simply trying to win. Forcing is another way of competing.

Avoiding: People who void conflict are generally unassertive and uncooperative. They do not immediately pursue their own concerns or that of the other person, but rather they avoid the conflict entirely or delay their response. To do so, they may diplomatically sidestep or postpone discussion until a better time, withdraw from the threatening situation or divert attention. They perceive conflict as hopeless and therefore something to be avoided, differences are overlooked and disagreement accepted.

Collaborating: Collaborating or cooperating, unlike avoiders are both assertive and cooperative. They assert their own views while listening to other views and welcome differences. They attempt to work with others to find solutions that fully satisfy the concerns of both parties. This approach involves identifying the concerns that underlie the conflict by exploring the disagreement from both sides of the conflict, learning from each other's insights and creatively coming up with solutions that address the concerns of both. This style recognises that there are tensions and contrasting views in relationships and seeks to work through them.

Compromising: Compromisers are moderately assertive and moderately cooperative. They try to find fast, mutually acceptable solutions to conflicts that partially satisfy both parties. Compromisers give up less than accommodators, but more than competitors. They explore issues more than avoiders, but less than collaborators. Their solutions often involve "splitting the difference" or exchanging concessions. Conflict is mutual difference best resolved by cooperation and compromise.

Problem solving: This is a technique that encourages individuals in conflict to jointly define the conflict or problem, Analyse its causes, suggest various options for solving the conflict and then select and implement the preferred solution. It is a five step process:

1. Defines the conflict.

2. Analyses the causes of conflict.

3. Generates or brainstorms options for resolution.

4. Selects the preferred option.

5. Implements of the solution – done separately at a later stage.

Appreciative enquiry is another method that is used and takes a more positive approach, analyzing and appreciating capacities that exist rather than problems.

Negotiation: Voluntary process in which conflicting parties meet face to face to reach a mutually acceptable resolution. The following principles of negotiation apply:

• Separate people from the problem (relationships separated from substantive issues)

• Focus on interests and not positions

• Invent options for mutual gain (through brainstorming)

• Insist on using objective or mutually accepted criteria

Mediation: Sometimes referred to as assisted negotiation. Mediation involves third party whose role is to help the parties reach mutually agreeable solution to the conflict problem or disagreement. Mediation is a voluntary process and the exact process differs from mediator to mediator and according to the culture in which the mediation takes place. Mediators are neutral and impartial. Stages of mediation include:

- Introduction – introducing role of mediator and parties together with mediator establish ground rules for the mediation process.

- Story telling – each party tells their story from their own perspective, the mediator Summarises each of the stories and lists the issues for resolution and parties agree to the list.

- Problem solving – parties engage in problem solving process to generate and evaluate various options for solving conflict. At times the mediator uses a caucus, which is a separate session with each party to explore emotions, unstated interests or goals.

- Agreement – Comes after evaluating the various options for solving the disagreement and parties decide on a solution. The mediator facilitates discussion about the details of the agreement and it is put into writing with details of the outcomes if either party does not honour the agreement.

Outcomes of conflict resolution situations

1. Lose – lose: one party wanting conflict to deteriorate such that there is no winner.

2. Lose – win: one party accepting to lose for the sake of peace.

3. Win – lose: one party's energy directed to winning and seeing the other party lose.

4. Win – win: creative solutions providing benefits for both parties.

Handout 3.3.7

The Functions/Positives of Conflict

- Conflict helps establish our identity and independence.

- Intensity of conflict demonstrates the closeness and importance of relationships.

- Conflict can build new relationships.

- Conflict can create coalitions.

- Conflict serves as a safety valve mechanism which helps to sustain relationships.

- Conflict establishes and maintains group identities.

- Conflict creates or modifies rules, norms, law and institutions.

- Conflict enhances group cohesion through issue and belief clarification.

MODULE 4: TECHNICAL TOPICS AND CROSS CUTTING ISSUES

4.1 Business Skills

Background

Most of the PFS participants will be subsistence pastoralists, meaning that they eat what they produce. While subsistence production helps pastoralists meet their basic food needs, it is a dangerous lifestyle. If the crop/ livestock fails, the pastoralists have no safety net. They will need to get help from outside sources. This module will put emphasis on the value of moving from subsistence to commercial production. If the participants make good management decisions, they can feed themselves and create their own safety net. The next time a crop fails/ livestock struck by disease or drought, the pastoralists will remain financially secure because they have learned how to diversify their livelihoods sources, how to save money and how to maximise profits.

The starting point of the PFS process is a small plot of land or a few numbers of animals that pastoralists can use to experiment and practice farming techniques. The goal, however, is for the PFS to use this practice and the knowledge it has gained from the learning programme to develop a sustainable commercial activity.

Topic objectives

By the end of this topic, participants will be able to:

- Describe the basic concepts of Farming As A Business (FAAB)
- Practice how to select the most viable commercial enterprises
- Use the tools for analysing and selecting the most viable commercial enterprise (s)
- Practice how to prepare business plans and budgets

Topic overview

1. Introduction to farming as a business
2. Selection of the PFS commercial enterprise
3. Profitability Analysis of PFS Enterprises
4. Budgeting and planning the PFS Commercial Enterprise

Method of facilitation

- Participatory presentation
- Group discussions
- Brainstorming
- Role-play
- Case study
- Pictogram
- Tailored exercises

Time: 7 hours

Materials: A4 sheets, cards, note book, pens, ruler, masking tape, display board, enterprise selection matrix form, sample of a PFS Budget, sample of a PFS Business Plan, samples of business records.

Handout: 4.1.1 and 4.1.2

Additional reference

- FFS Facilitator's guide – Uganda 2010

LEARNING ACTIVITIES

Activity 1: Introduction to FAAB (1 hour 20 minutes)

1. In a brainstorming exercise:
   - Explore the participants' understanding of FAAB.
   - List common businesses in the participants' community to find out if they consider farming to be a business.
   - Explore why farmers often do not consider farming as a business

2. Define and explain key concepts – Farming, Business, Profit, Factors of production (key productive resources) – Capital (cash), Labour, Land, Time, Management /entrepreneurship (emphasise on the two most neglected resources – time, management skills).

3. Brainstorm and explain how the different FoP depreciate and the importance of treating our farming as a business.

4. Explain the concept of business objectives emphasising on the three principle objectives that lead to the overall goal of profit maximisation (minimising costs, maximising output per unit area and taking advantage of high market prices).

5. Relate the three objectives to profit maximisation.

   Profit = Total Revenue – Total cost

   Where:

   Total Revenue = Output X Market Price

   Implying that:

   - Higher Total Revenue is achieved with increased output and higher market prices
   - Higher Profits are achieved with lower total costs of production and higher total revenue

6. In three separate groups, participants should brainstorm and list means of attaining one of the three principle objectives of profit maximisation (Note: most will relate to good production and post harvest handling practices).

7. Wrap up by relating the relevance and interrelationship between this topic and the rest of the technical topics the PFS/APFS must learn to achieve each of the above 3 principles.

Activity 2: Selection of the PFS Commercial Enterprise (1 hour 20 minutes)

There are as many business ideas as the number of participants. In selecting an enterprise for the PFS, the PFS must have an objective. Therefore, in order for PFS to engage in profitable enterprises, the members must select an appropriate enterprise

1. Briefly review the three principle objectives of profit maximisation

2. Through group work explore.
   - Contrast between individual and group business
   - Why PFS require a group enterprise

- The types and potential enterprises that the PFS can undertake (business ideas)
- The potential challenges to having PFS group enterprise

3. After the group presentation discuss the importance of a PFS commercial enterprise and some of the key success factors.

4. Introduce the concept of enterprise selection.

5. Explain the relevance of reducing the list of business ideas as a basis for selecting the most likely profitable business idea.

6. Use preference or pair wise ranking to select the best 5 business ideas

7. Identify and prioritise the most critical factors that have to be included in the criteria for the PFS commercial enterprise selection. These could include - profitability, marketability, start up costs, risks associate with the enterprise, knowledge and skill among pastoralists/farmers, maturity period, compatibility with PFS, compatibility with customs/norms, gender, poverty focus, sustainable use, availability of factors of production etc depending on the nature of enterprise.

8. Assign weights to the agreed components of the criteria giving the highest weight to the most important.

9. Through a participatory tailored exercise, introduce the participants to the Enterprise Selection Matrix and using a simple set of 5 enterprises that they are familiar with, systematically explain the process

10. Explore the groups' perception on the outcome of the process above (such as is the prioritisation representative).

11. If the process is not representative, rank to get the best 3 enterprises which can then be subjected to a further profitability analysis.

Enterprise selection through ranking

Suppose the Pastoralists filtered out their business ideas and selected the following crops as the potential commercial enterprise; nappier, sorghum, maize, beans, and kales.

1. Guide the members to weigh the items according to the importance and give the highest weight to the most important:

    (a) Since the PFS goal is to earn maximum profits, profitability is always given the highest weight, that is Profit, W = 10

    (b) Market availability directly affects profitability thus, is given W = 9.

    (c) Start up costs come next given the weak capital base of rural poor pastoralist, W=8.

    (d) Since returns from the enterprise to be selected will be used to pay back the loan, duration to maturity is considered next most important factor, W = 7.

    (e) Risks associated with the enterprise that make it susceptible to pests and diseases; vagaries of weather and other natural calamities come next, W = 6

(f) Skills come last here – because the enterprises selected are not new to the pastoralists/farmers – they are common enterprises undertaken in the community, = W 5. However, if some of the enterprises selected were foreign and not known to the farmers, skills would have been given a higher weight.

2. Have participants vote by show of hands which enterprise scores highest against each selected criteria.

3. Tally the votes against the respective boxes as shown in the table below.

4. Multiply the tallies for each criterion by the weight.

5. Add the scores for all the criteria for each enterprise to get the total score.

6. Rank the enterprises by total scores. The highest score ranks number one.

Enterprise	Profit W=10	Market W=9	Capital W=8	Risk W=7	Duration W=6	Skills W=5	Total Score	Rank
Nappier	27×10 =273	27×9 =243	5×8 =40	4×7 =28	23×6 =138	23×5 =115	837	2
Sorghum	23×10 =230	28×9 =252	25×8 =200	11×7 =77	17×6 =102	26×5 =130	991	1
Maize	3×10 =30	14×9 =126	24×8 =192	29×7 =203	25×6 =150	26×5 =130	826	3
Beans	12×10 =120	16×9 =144	22×8 =176	6×7 =42	25×6 =150	25×5 =125	757	4
Kales	14×10 =140	15×9 =135	16×8 =128	14×7 =98	23×6 =138	18×5 =90	729	5

Table 10: Ranking enterprises

The above will have been generated out of the enterprise knowledge and experience by the pastoralists. Therefore, the enterprises are subject to further analysis using the profitability analysis to ensure that the enterprise which is finally selected is not only technically viable, but profitable as well

NOTE: Before filtering out the numerous business ideas, it is important to categorise the list into Livestock or Crops, is advisable to further categorise them into Annual or Perennial because the above process is only applicable to more homogeneous enterprises

Activity 3: Profitability Analysis of PFS Enterprises (1 hour 50 minutes)

Take the participants systematically through the procedure of carrying out gross margin analysis for each of the potential enterprise as follows:

• List and quantify all inputs that are required to run the enterprise. This will include: Land, labour (group/hired), hand tools, implements, seed, structures, agro-chemicals, advisory/technical services, wages, processing equipment, promotion/advertising costs and actual marketing costs.

• Establish the cost of each input.

• Estimate the total costs of production for the enterprise by multiplying the total quantity of each input by the unit cost.

Step 1 – Determine the total costs of production

Input	Description	Quantity	Unit Cost ($)	Total Cost ($)
Land	Hire	1 acre		
Bush clearing	Man days	5		
Seed	Seredo	10 Kgs	0.8	8
Ploughing	1st ploughing	1 acre	19	19
	2nd ploughing	1 acre	15	15
Planting	Man days	10		
Weeding	Man days	20		
Fertiliser				
	DAP	125 kgs	0.5	62.5
	Urea	75 kgs	0.5	37.5
Harvesting	Man days	20		
Threshing/winnowing	Man days	20		
Packing	Bags	15	0.5	7.5
Storage	Lindane dust	5 tins	1	5
Transport	Vehicle hire	15 bags	1.5	22.5
Market dues	Bags	15	0.5	7.5
TOTAL VARIABLE COSTS				184.5

Table 11: Determining total costs of production

- Estimate the total output or yield of the enterprise using long term average production figures in the locality.

- Establish the projected market price for the end product (this information could be obtained from a market survey or sources of marketing information in the locality).

- Compute expected returns by multiplying expected output/yield by the market price per unit of output

	Yield (kg/acre)	Market price/kg	Returns/acre
Sorghum	1,500	0.15	225

Gross Margin = Expected Total Returns less Estimated total costs

From above:

Total Production Cost	= 184.5
Expected Output (Marketable Yield)	= 1,500 kg
Selling Price per kg	= 0.15
Expected Revenue	= 1,500 x 0.15 = 225
Gross Margin	= Expected Revenue – Total Production Cost
	= 225 – 184.5 = **40.5**

Table 12: Estimating total output

After the participants have fully understood the concept and process for estimating the gross margin analysis, then using the same example above, introduce them to the concept of risk analysis and how it is carried out as follows:

- Assume a risk factor to the magnitude of 5 – 10% in terms of increased cost of production; decreased yield or decreased market price in the example above.
- Compute changes in projected gross margins arising from an increase in the costs of production of 5%:

5% Production cost increase	= 184.5 + (5% of 184.5)
	= 184.5 + 9.20 = 193.7
New Estimated Gross Margin	= Original Expected Revenue – New Production Cost
	= 225 – 193.7 = **31.3**
Thus the gross margin has decreased from 40.5 dollars to 31.3 dollars as a result of a 5% increase in production costs.	

Table 13: Computing changes in projected gross

- Similarly compute changes in gross margins due to 5% reductions in yields/ output.

5% Yield decrease	= 1500 kg – (5% of 1500 kg)
	= 1500 – 75 = 1425 kg
New Revenue	= New Yield X Original Market Price
	= 1,425 Kg X 0.15
	= 213.75
New Estimated Gross Margin	= New Expected Revenue – Original Production Cost
	= 213.75 – 184.5 = **29.2**
Thus the gross margin has decreased from 40.5 dollars to 29.2 dollars as a result of a 5% decrease in yield.	

- Do the same with a fall in market prices 5% Price decrease:

5% Market price decrease	= 0.15 – (5% of 0.15)
	= 0.15 – 0.0075 = 0.14
New Revenue	= Original Yield X New Market Price
	= 1,500 Kg X 0.14
	= 210
New Estimated Gross Margin	= New Expected Revenue – Original Production Cost
	= 210 – 184.5 = **25.5**
Thus the gross margin has decreased from 40.5 dollars to 25.5 dollars as a result of a 5% decrease in yield.	

- In their respective groups, the participants should be requested to carry out the above process on the other four crops.
- Compare the outcomes.

NOTE: The final decision on the crop(s) to be selected depends on the overall gross margin and to what extent the gross margin is affected by the 5 – 10% risk factor subjected to it.

Activity 4: Budgeting and Planning the PFS Commercial Enterprise (2 hours 30 minutes)

(a) PFS Business Plan

- Briefly recap on the enterprise selection process and link it to the subsequent step of business planning.

- In a brainstorm exercise ask the participants to list reasons why a PFS should have a business plan for its commercial enterprise

- Explain the key aspects of business planning which include: Defining the business, activities, deciding scale of the business, inputs required, quantities required, cost estimation (fixed and operational costs), sources of funding, assigning of roles and responsibilities, setting of rules and regulations, day-to-day management, record keeping/ financial accounts, and marketing.

- Highlight some of the key barriers to planning in relation to a PFS situation

- Brainstorm on the key components of an PFS business plan.

- Systematically explain the following key steps in to be undertaken in the development of an PFS business plan:

    (i)   Computing start-up and operating costs.

    (ii)   Mobilising resources to start the business.

    (iii)   Assigning roles and responsibilities among members.

    (iv)   Agreeing on rules and regulations governing the running of the business.

    (v)   Deciding on the scale or size of the business.

    (vi)   Writing out a simple work plan.

    (vii) Getting started.

- In their mini groups, participants develop PFS business plans for one of the enterprises selected in the previous session of enterprise selection. As the participants present to the plenary, the facilitator guides the discussion ensuring that the key elements of a business plan are all included and thereafter introduces the concept of business management and managerial function in relation to the PFS.

Sample of a PFS Business Plan					
Name of PFS:	Rengen Pastoral Field School				
Village:	Aukot	**Subcounty:**	Rengen	**District:**	Kotido
Group enterprise:	Commercial Production of Beans				

Overall objective: To maximise the group's income through commercial production of beans

Specific Objectives

- To maximise yield through use of improved bean varieties
- To minimise costs through use of group labour
- To get premium prices by selling high quality beans during off-season

Estimated start up costs: $. 125

Sources of Funding

- Members' contributions, $. 75   •   Group Fund, $. 50

Scale of enterprise: 2 Acres

Members' Roles and Responsibilities

Four working committees under the leadership of a coordinator

- Purchases committee (3 members)   •   Production committee (4 members)
- Finance committee (Treasurer and 3 members)   •   Marketing committee (3 members)

Rules and regulations

- All members to pay contribution of $ 5 each
- All members to work on group garden at least once a week
- A fine of $ 0.8 for absenting from group work
- All members to carry out monthly monitoring visits

Work plan

Activity	When	Where	Responsible person	Resources	Expected output
Ploughing	February	Group plot	Production coordinator	Oxen, plough	Ploughed field
Seed purchases	February	Agro Supply store	Purchases coordinator	Cash, seed	Seed purchased
Planting	March	Group plot	All members	Group labour	Crop planted
Weeding	May	Group plot	All members	Group labour	Crop weeded
Harvesting	June	Group plot	All members	Group labour	Crop harvested
Drying and threshing	June	C/man's home	All members	Hired labour	Clean crop
Sorting and bagging	July	C/man's home	Marketing coordinator	Hired labour	High quality beans
Marketing	December	Kotido town	Marketing coordinator	Transport	High income

Table 14: Work plan

(b) PFS Budget

- In a brainstorming session, introduce participants to the concept of budgeting and its importance towards the success of the PFS business
- Select an enterprise and systematically develop a budget, explaining the key components (Costs, Financial Plan, Projected returns, Projected Cash flow)
- Guide the members through the process to develop a budget for their selected enterprise. Specifically guide the group to:
    - Identify, quantify and cost the fixed costs
    - Identify quantify and cost the variable/operational costs
    - Identifying the sources of funding
    - Project the returns/expected output
    - Project the cash flow analysis

For illustration, consider the following poultry enterprise.

Enterprise: Broilers Scale: 200 birds in 3 batches

Assumptions:

- That the members of the PFS will provide all the labour required in the enterprise
- All sales will be made at the farm gate

A.   Fixed costs

Item (inputs)	Detailed description	Quantity	Unit cost	Total cost
Poultry house	Poles	20	0.8	16
	Thatch (grass)	40 bundles	0.8	32
	Wire mesh	2 rolls	8	16
	Shutters	1	8	8
	Labour	15 man days	0.5	7.5
				79.5
Feeders	1 FD/10 birds	20	2.5	50
Waterers	1 W/10 birds	20	1.6	32
Lamps	Kerosene lamps	3	5	15
Litter	Rice, maize, coffee husks	2 tippers	7.5	15
				112
Subtotal Fixed Cost				191.5

Table 15: Fixed costs

B.   Operational /variable costs

Item (inputs)	Detailed description	Quantity	Unit cost	Total cost
Chicks	3 batches of day old chicks(breed)	660	0.5	330
Transport	Vehicle hire	3	15	45
Feeds	Chick mash/Duck mash (7 kgs/bird to maturity)	4,620	0.25	1,155
	5 litres/week*18weeks	90 litres	0.9	81
Paraffin	vials of vaccine	6	10	60
Treatment	Transport hire,		N/A	
Marketing	Market dues		N/A	
Sub-total Operational Costs				1,671
Total Cost = Fixed Costs + Variable/Operation Costs				
Therefore Total Cost = (A + B) = 191.5 + 1,671 = 1,862.50				

Table 16: Operational/variable cost

C.   Financial plan

Source of funding	Amount
1. Members' contributions	75
2. PFS savings	125
3. Grant	450
4. Other sources	
- Loan (MFI, NGO)	75
- Gifts from local politician	15
Total contributions	740
Total projected costs	1,862.50
Deficit	1,122.50

Table 17: Financial plan

D.   Projected Returns

Product	Yield/output	Market price	Total return
Broilers (3 batches)	600 birds	2.5	1,500
			1,500

Table 18: Projected returns

E.   Projected Cash Flow

A cash flow statement shows when money flows into the business (inflows) and when money flows out of the business (outflows). It helps the PFS to keep track of daily/monthly cash transactions ("cash in" and "cash out") and also helps ensure that there is always enough cash to meet current and future expenses. It provides opportunity to verify all cash transactions and helps confirm the "cash at hand" any time. It assists the PFS make informed decisions e.g. where the net inflow is negative the members either have to seek additional funds from the reserve; request for members contributions; borrow from the bank or Micro Finance Institutions (MFIs). The following is a projected cash flow for the above poultry enterprise.

Projected Cash Flow for the Poultry Enterprise

Expenses/Income	Period (2013)									
	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan
A. Expenses (outflows)										
1. Poultry house	-75									
2. Feeders	-50									
3. Waters	-30									
4. Lamps	-15									
5. Litter	-15									
6. Chicks		-110			-110			-110		
7. Hire transport		-15			-15			-15		
8. Feed		-135	-125	-125	-135	-125	-125	-135	-125	-125
9. Paraffin		-10	-10	-7	-10	-10	-7	-10	-10	-7
10. Treatment		-10	-10		-10	-10		-10	-10	
12. Refund of members contribution										-25
13. Loan repayment: Principle										-75
o Interest (20%)										-75
TOTAL OUTFLOW	-185	-280	-145	-132	-280	-145	-132	-280	-145	-247
B. Income (inflows)										
Member's contribution	75									
PFS revolving fund	450									
PFS savings	125									
Other sources: Gifts	15									
Revolving Loan from PFS network										
Broiler sales										
TOTAL INFLOWS	665			500			500			500
NET INFLOW	480	-280	-145	368	-280	-145	368	-280	-70	253

Table 19: Projected cash flow

Conclusion

From the projected cash flow above, it is apparent that as much as there was an overall deficit of 1,122.50 as depicted in the financial plan, the PFS did not need to abandon the enterprise, because not all the funds will be required at the beginning of the enterprise. Neither, will it be necessary for the PFS to borrow a loan at the at onset. Having spread the costs over the implementation period, it can be seen that:

(a) the available funds in the first month are sufficient to cover the costs in that month, as well as leave a sufficient positive net inflow to cover the negative net inflows for the two subsequent months.

(b)   In the fourth month (July), the enterprise is able to refinance its operations from the sales of broilers, therefore, the PFS does not have to go into borrowing additional funds at the beginning of

implementation to cater for the deficit. Similarly, in the seventh month (October), the PFS will be able to finance its operations from broiler sales.

(c) In December, the PFS may borrow a limited amount of funds (75) to cater for the additional cost of operations in that month, and as seen, the loan will be repaid back in the next month after broiler sales. Therefore, the PFS does not have to incur costs of the loan (interest payments) for a long period, since the inflow is sufficient to cover all its costs as well as leave a positive net inflow in the last month.

In the plenary, facilitate the decision-making process taking all the local realities into consideration.

Handout 4.1.1

Profitability Analysis

A typical profitability analysis includes two closely linked steps: a gross margin analysis and a risk analysis. Gross margin analysis matches the costs (production and marketing) against the expected benefits or returns from the enterprise. On the other hand, the risk analysis is aimed at finding out how changes in the 3 key determinants of gross margin affect the overall profitability of the enterprise namely:

• Changes in costs of production

• Changes in output or yields

• Changes in market prices

Any sharp rise in costs of production will render the enterprise less or even unprofitable while a sudden fall in output/yields and market prices too will reduce the profitability of the enterprise. This is common with rain-fed agricultural related enterprises, which are frequently subject to vagaries such as drought, water logging, pest and diseases and poor access to productivity enhancing technologies. Therefore, all PFSs should endeavour to carry out a risk analysis in addition to the gross margin analysis.

Handout 4.1.2

Budgeting and Planning the PFS Commercial Enterprise

A business plan is a tool for guiding the business – It lays down all the resources required in implementing the enterprise, when (time) the resources will be required, and where (source) the resources will come from in order to achieve the outputs of the business/enterprise.

Business planning involves preparing and organizing all resources (human and material), which are required to run the business. It ensures that time and resources are optimally utilized and costs are minimized. Therefore, this must be done before starting the enterprise.

Budgeting is the allocation of resources to planned activities and summary of costed resources. After drawing the business plan, and deciding on the scale of production, the PFS should be helped to draw a budget to enable them evaluate whether they have sufficient funds to implement the enterprise, and to plan for its implementation. Management is making best use of the human, financial and material resources in order to achieve business objectives. This is directly related to the three key business objectives that contribute to profit maximisation.

In the PFS, members themselves assume the management functions by allocating business roles and responsibilities among members. If roles and responsibilities are not clearly defined or if some members show reluctance in performing their assigned tasks, the PFS business is unlikely to succeed. Proper management of funds and assets together with proper record keeping are some of the most important management functions in business and should be assigned to literate, dedicated and trustworthy persons.

4.2 Livestock Production in Pastoral Areas

Background

Livestock production is the main driver of pastoral production systems and as such it cannot be underestimated. Over the ages, pastoralists have relied on livestock as their main means of livelihood, keeping various species that are well suited and adapted to the harsh pastoral environment.

The livestock species kept in the pastoral areas are basically the same with slight variations depending on breeds and community preferences. The pastoral means of livestock production are also basically the same based on migration in search of pasture and water for the livestock as well as the human beings.

In spite of the difficulties and challenges facing the pastoral livestock production systems, these systems continue to dominate in the supply of livestock especially for meat in many countries.

Topic objectives

By the end of this topic, participants will be able to:

- Explain the importance of livestock production.
- List the species and breeds of livestock found in pastoral areas.
- Describe the livestock production systems in pastoral areas.
- List and explain the different animal husbandry practices.
- Describe the factors determining livestock production.
- Explain what livestock marketing is, and the different forms of livestock marketing.
- List and explain the challenges and opportunities facing the pastoral livestock production systems

Topic overview

1. Importance of livestock production.
2. Species and breeds of livestock in pastoral areas.
3. Livestock production systems in pastoral areas.
4. Livestock production husbandry practices.
5. Factors determining livestock production in pastoral areas.
6. Livestock marketing
7. Challenges and opportunities facing pastoral livestock production.

Method of facilitation

- Participatory presentation,
- Group discussions,
- Brainstorming
- Role play,
- Drawing

Time: 3 hours

Materials: measuring tape, crayons, drawings, pictures, A4 sheets, cards, note book, pens, ruler, masking tape, display board..

Handout: 4.2.1, 4.2.2, 4.2.3, 4.2.4, 4.2.5, 4.2.6 and 4.2.7

Additional reference

- Livestock Farmer Field School Manual
- Pastoralist Field School Manual: Guidelines for Facilitation

LEARNING ACTIVITIES

Activity 1: Importance of Livestock Production (20 minutes)

Divide the participants into groups and ask them to list the importance of livestock in pastoral production systems. Let the participants exhaust the importance of the livestock even if it means delving into individual species of livestock. When the participants are through, ask two or so groups to present in plenary with additional points or discussions if necessary.

Activity 2: Species and Breeds of Livestock in Pastoral Areas (20 minutes)

In plenary, ask participants to name the species and breeds of livestock found in pastoral areas. Start with the naming of the different species and end with the naming of the different breeds. Ask the participants to differentiate between species and breeds.

Activity 3: Livestock Production Systems in Pastoral Areas (20 minutes)

Divide the participants into groups and ask them to list the different livestock production systems in pastoral areas. After listing, all the presentations are put in front and two or more groups are asked to present their findings in plenary with additional points or discussions if necessary. Ask some participants which pastoral production system they practice in their areas.

Activity 4: Livestock Production Husbandry Practices (40 minutes)

Divide the participants into groups and ask them to list the different livestock production husbandry practices in pastoral areas. The findings of the group are presented in plenary; allow discussions and additions of any vital missing information. Ask the participants to list some husbandry practices that are performed traditionally and if possible explain how these are performed and the significance of the practices.

Activity 5: Factors Determining Livestock Production in Pastoral Areas (20 minutes)

Using the question and answer method, ask the participants to list factors determining livestock production in pastoral areas. Continue until all the points are exhausted and ensure that discussions are allowed to enhance participation. Ask one or two participants to rank the three most important factors affecting production in order of priority; ask the other participants whether they agree with the ranking.

Activity 6: Livestock Marketing (40 minutes)

In plenary, ask the participants to define what they understand by livestock marketing and hold discussions. To follow up, divide the participants into groups and ask them to list the type of markets they know locally and outside the production area and also ask them to list the importance of livestock marketing. Randomly select two or so participants and ask them to list down factors that affect and hinder livestock production in pastoral areas. To sum up, the participants can come up with a case study of a pastoralist whose life was transformed through livestock marketing initiative

Activity 7: Challenges and opportunities facing livestock production (30 minutes)

(a) Using the question and answer method ask the participants to list the challenges facing livestock production in pastoral areas. Continue until all the points are exhausted and ensure that discussions are allowed to enhance participation. Ask one or two participants to rank the four most important challenges facing livestock production in order of priority; ask the other participants whether they agree with the ranking.

(b) Continue and ask the participants to list the opportunities available for livestock production in pastoral areas. Continue until all the points are exhausted and ensure that discussions are allowed to enhance participation. Ask one or two participants to rank the two most important opportunities available for livestock production in order of priority; ask the other participants whether they agree with the ranking

Handout 4.2.1

Importance of Livestock Production

Livestock production is the main means of livelihood for the pastoral communities. The livestock kept by the pastoral communities are varied in breeds but the species are almost similar across the board. These being the main means of livelihood with a lot of cultural significance and attachment, livestock have a big economic importance such as:

1. Provide monetary value to communities and countries from the sale of the livestock and livestock products.

2. Livestock manure can be used as fertilizer or for the production of biogas.

3. Livestock are a good source of food in terms of milk, meat, fat, butter and other food products.

4. Livestock can be used for transport purposes or draught power.

5. Livestock are used for social and ceremonial purposes in the cases of bride price, as fines in solving disputes and other traditional ceremonial rituals depending on the concerned community.

6. Some livestock products such as hides and skins are used for making shoes, clothing, bags, wallets, and other traditional ornaments. Some products such as bones are used to make curios.

7. For some communities, consumption of some livestock products such as meat and milk is medicinal. The milk of camels for example has been thought to help in diabetes while to some communities the meat of a donkey is medicinal.

8. Livestock are a source of wealth and as such the money accrued from their sale can be used to purchase other goods and services such as food grains, clothing, and payment of school fees and hospital bills.

Handout 4.2.2

Species and Breeds of Livestock in Pastoral Areas

The species of livestock kept in pastoral areas are almost uniform with slight variations from one area to another. However the breed differences can be observed between communities keeping the same species of livestock. The species and breeds of livestock seen in pastoral areas do not just happen to be there, they are well suited and adapted to the harsh pastoral environments and hence, should not be disregarded against other species and breeds in other areas. The chicken is not common but is getting wide acceptance especially amongst the settled sedentary pastoral set ups. The following are the common species of livestock found in pastoral areas:

1. Cattle - the main breeds are the Boran and the small East African Zebu

2. Camel – the main breeds are the Somali, Turkana, Rendille

3. Donkey

4. Sheep – the main breeds are black Persian head and the Red Masai

5. Goats – The main breeds are small East African goat and the Gala

6. Poultry – Local breeds

Handout 4.2.3

Livestock Production Systems in Pastoral Areas

Livestock production systems in pastoral areas mainly anchor on nomadic pastoralism. In this case, livestock move in a particular manner depending on the season in search of pasture and water. The migration is very systematic and clearly defines the wet season grazing grounds, the dry season grazing grounds and the reserve grazing grounds to be used in times of crisis. Other production systems may not be fully mobile with some species of livestock returning to a particular location where there is a permanent homestead while other species move with the seasonal changes. In times of crisis, the pastoral production system operates on split herd management and the movement of livestock across international boundaries. The last and least production mode in pastoral areas is the one of ranches where huge chunks of land are segregated for livestock production purposes. It is worth to also note that some settled sedentary pastoral communities do practice the confining and feeding of some livestock especially sheep, goats and poultry, others may opt to a semi confining system that only supplements what the livestock have fed on from the fields.

Handout 4.2.4

Livestock Production Husbandry Practices

There are a number of "requirements" by which animals should be managed so that the best performance is achieved in a way acceptable to those responsible for the care of the animals and to the community generally. These requirements which are the keys to good management are called husbandry practices.

Husbandry practices may vary amongst different pastoral communities though some may be commonly practiced across the board while others are not. Despite this, good husbandry practices are essential in livestock management in order to improve on production. The most common livestock husbandry practices are:

1. **Dehorning or horn shaping** – this aims to reduce injury to other animals and human beings as well as for aesthetic purposes.

2. **Branding** – this depends from one pastoral area to another and is used for identification purposes of the livestock.

3. **Hoof trimming** – This is aimed at avoiding injuries / lameness to the legs of livestock caused by overgrown hoofs.

4. **Castration** - This is performed on male animals as a way of controlling breeding. Castration is performed on old animals to prevent inbreeding or animals with poor genetic traits to prevent them from spreading the traits to offspring's. Another way of controlling breeding is through the use of aprons especially in small stock or surgical penile deviation.

5. **Housing** – this is for protection against extreme weather conditions for small stock and also vermin and theft. Housing is very important and it is supposed to be not only secure but well ventilated and hygienic.

6. **Breeding** – This is the mechanism of ensuring that certain good traits from a particular animal are transferred to offspring through mating. Breeding is done through the use of selected breeding stock with the required traits to improve production.

7. **Selection** - The ability to select breeding stock by using performance records, visual evaluations, and other tools used in selecting livestock.

8. **Culling** – the removal of livestock with unwanted or unfavorable traits, livestock with injuries, none performing stock, old, sick and weak livestock etc.

9. **Feeding/supplementation** – this refers to additional feed or mineral supplements to livestock in order to improve on body mass or milk production.

10. **Pasture and water** – this refers to ensuring that the livestock are well accessed to pasture and water because these two are the main basis on which survival of the livestock depends and are the keys to good production.

11. **Hygiene/sanitation** – this refers to mechanisms, methods and procedure through which certain acts are performed to livestock hence minimizing the risks of infections and disease for example hygienic milking procedures and hygienic housing.

12. **Deworming** – may be strategic or tactical and aims at reducing the worm load in livestock and hence improve production.

13. **Vaccination** – this is the act of immunizing livestock so that they may gain immunity against diseases that may interfere with production or even cause deaths.

Handout 4.2.5

Factors Determining Livestock Production in Pastoral Areas

Livestock production in pastoral areas is not as smooth as it seems, as there are some factors that may hinder maximum production. In spite of the challenges facing pastoral areas, pastoralism in itself is a means of addressing the challenges with an aim of keeping production going. The factors determining production are therefore;

1. Availability of good rainfall. A good seasonal calendar is good for optimal availability of water and pasture.

2. Species and breeds of livestock. This is with regard to extreme climatic conditions where the grazers like cattle and sheep are affected leading to deaths whilst the camels and goats can survive for longer.

3. Frequent droughts that lead to deaths and poor production in livestock and even migration across international boundaries.

4. Insecurity caused by cattle raiding leaving affected pastoralists with no means of livelihoods to depend on. The insecurity also causes inaccessibility to grazing and watering points.

5. Disasters such as floods that may predispose animals to diseases apart from the loss to floods.

6. Possibility of livestock contracting diseases as they cross international boundaries in search of water and pasture.

7. Drop outs from the main pastoral system due to drought and conflict leading to the cropping up of sedentary settlements that interfere with the grazing routes.

8. Mush rooming of settlements and towns due to development organizations initiatives thus interfering with the original grazing and watering points for the pastoralists.

9. The reserve grazing grounds having a lot of pasture but scarcity of water and at times insecurity.

Handout 4.2.6

Livestock marketing

Livestock marketing in pastoral areas is faced with a lot of challenges but still thrives though at most times to the disadvantage of the producer. Livestock from the pastoral communities form the major supply of meat to urban centers. Primary markets available in pastoral areas include the following:

• Small village market centers that sell a limited number of livestock

• Big towns and centers within the pastoral areas.

The other markets are the secondary and tertiary markets that are far away and receive the livestock from the primary markets of the pastoral areas.

Livestock marketing in the pastoral areas is mainly under the control of the local authorities, middlemen and traders. The middlemen act as negotiators between the traders and the producers and this at most times leaves the producer disadvantaged.

Importance of livestock marketing

Livestock marketing is important for the pastoral communities. By selling livestock, the pastoral communities are able to purchase other items they require such as grain, foodstuffs, clothing and also pay for services such as school fees and medical care. Besides, some pastoralists also use the income they get from their livestock to set up small businesses at the village level or in big towns. Livestock marketing is also very crucial especially in times of crisis such as during drought as it helps to off-take the livestock from the depleted pastures before the animals lose condition and hence provide an income that would have otherwise been lost if the animals deteriorated or died.

Livestock marketing can therefore not be taken lightly as a component of the production process, because in real sense livestock marketing is the driver of production.

Challenges of livestock marketing in pastoral areas

Livestock marketing, though quite important, is faced by some challenges which in essence also hinder the production process. The challenges facing marketing in pastoral areas are:

1. Exploitation of the producers by middlemen and traders.

2. Lack of markets especially in the production areas.

3. The primary markets being too far from the production sites.

4. Disease and quarantine.

5. Poor market infrastructure.

6. Poor infrastructure in terms of roads reducing inaccessibility to markets by traders.

7. Poor market information system

8. Poor prices offered by traders and middlemen.

9. Producers' lack of understanding on good grade animals that fetch good prices.

10. Theft and insecurity in pastoral areas in general and also in some markets.

11. Livestock raiding for sale (Commercial raiding)

Handout 4.2.7

Challenges and Opportunities Facing Pastoral Livestock Production

Challenges

1. Sedentarisation of the pastoralists due to dropping out of the main pastoral system.

2. Frequent droughts and at times floods that impact negatively on production.

3. Harsh and difficult terrain.

4. Limited availability of adequate water sources

5. Insecurity.

6. Trans-boundary disease outbreaks.

7. Inadequate livestock production extension services and animal health.

8. Poor natural resource management activities with regard to water, pasture and vegetation due to weakening of the traditional institutions.

9. Food relief interventions that create a dependency syndrome.

10. Livestock marketing is poor in some pastoral areas and hence the livestock keepers do not benefit well from the sale of their livestock.

Opportunities

1. Adequate land mass to practice pastoralism.

2. Availability of livestock that is well suited and able to withstand the harsh environment.

3. Pastoralists have the knowledge of their landscape and the production system and what they know can be used to further advance production.

4. Pastoralists have over time known coping mechanisms that can be used to save their livestock in times of drought or floods.

5. Availability of strong traditional institutions that can be used to promote and protect the natural resource base for the benefit of the livestock.

4.3 Pasture Production in Pastoral Areas.

Background

Pastures are a vital resource for the pastoralists. Communities in the pastoral areas rely on natural pastures. These are pastures that regenerate when rains fall. Unreliable rainfall and frequent rainfall failures have led to poor regeneration of pastures resulting in chronic pasture scarcity. Pasture quality also declines tremendously in periods of drought. This can however change if pastoralists can tap into the enormous pasture production potential that exists. Production under rain fed can be promoted with the use of appropriate water harvesting technologies while production under irrigation can be promoted in areas with reliable water sources and suitable soils. Supplements UMMB (Urea Mollases Mineral Block) have been used in many countries as drought feed with success. The main justification for using blocks, to provide deficient nutrients is, therefore, their convenience for packaging, storage, transport and ease of feeding.

Topic Objectives.

By the end of this topic, participants will be able to:

*   Explain the importance of pasture production in pastoral areas.
*   Identify pasture varieties suitable for propagation in various pastoral areas.
*   Demonstrate different methods of producing and conserving pastures
*   Explain the importance of using UMMB.

Topic Overview

1. Importance of pasture production and conservation in pastoral areas
2. Pasture varieties
3. Methods of pasture production
4. Methods and importance of pasture conservation
5. Mineral supplementation

Method of facilitation

*   Participatory presentation
*   Group discussions
*   Brainstorming
*   Demonstrations

Time: 1. 45 hours

Materials: Pictures, note books, pens, ruler, flipchart, display board, sisal twine, seed samples, samples of UMMB blocks

Handout: 4.3.1, 4.3.2, 4.3.4, 4.3.5

LEARNING ACTIVITIES

Activity 1: Importance of pasture production and conservation in pastoral areas (15 minutes)

Divide the participants into groups and ask them to list the importance of pasture in pastoral production systems, methods deployed to conserve pastures and importance of pasture conservation. When the participants are through, ask them to make group presentations and encourage all members present to contribute during the plenary discussions.

Activity 2: Pasture varieties (15 minutes)

Divide the participants into groups and ask them to list the names of pasture varieties found in their common grazing grounds that they can positively identify in the local language identify areas where pastures used to grow well but are now bare, propose reasons as they attribute this development too. Ask them to make group presentations and encourage all members present to contribute during the plenary discussions.

Activity 3: Methods of pasture production (30 minutes)

Discuss alternative methods of pasture production. Use question and answer methods to engage the participants. Demonstrate appropriate methods of propagation and seed rate in situations that can allow.

Activity 4: Methods and importance of pasture conservation (30 minutes)

Discuss current practices deployed to conserve pastures and alternative methods that can be used. Use question and answer methods to engage the participants. Demonstrate appropriate using locally available resources hay making, bailing and storage.

Activity 5: Mineral Supplementation (15 minutes)

Use plenary discussions to introduce mineral supplementation and its importance. Elicit from the participants if they have past experience in using them and their perception towards utilization.

Handout 4.3.1

Importance of Pasture Production and Conservation in Pastoral Areas

Deliberate efforts to produce fodder in pastoral areas is increasingly becoming relevant because; It helps avert seasonal scarcity, Improves pasture availability, Improves livestock productivity, Reduces livestock death during the dry season, Prevents resource based conflicts, Is a source of income, Can be used to trigger adaptable research and Prevention of conflicts

Handout 4.3.2

Pasture varieties

Common pasture species found in the Asals include; Eragrostis sps, Cenchrus sps, Chloris sps, Entrepogon sps, Cynadon sps, Makueni guinea grass, Sporobolus sps, Arisitida spp, Cenchrus spp, Digitaria sps, Aristida sps, Panicum spp

Handout 4.3.3

Methods of Pasture Production

Pastures are produced under rain fed system of production or under irrigation. To effectively support production, farmers are encouraged to used mainly semi circular bands improve on water retention for improved production. While under irrigation, production can be done in basins or on ridges.

Agronomic practices involved in fodder production - Site identification, Seed bed preparation, Preparation of irrigation structures, preparation of water harvesting structures (for rain fed production), Seed selection/identification, Planting- proper spacing, watering, weed and pest control and manuring where applicable.

Factors to consider before establishment - Understand the grazing pattern/livestock movement; know the rain pattern, labour availability, seeds types & availability, availability of storage facilities, soil types, irrigation infrastructure, security, availability of water and soil salinity.

Handout 4.3.4

Methods and Importance of Pasture Conservation

Pastures are conserved either as standing hay or bailing. For bailing, producers need to consider the following; Stage of harvesting pastures – must be at earling stage, drying of pastures under shade, bailing and stacking.

Handout 4.3.5

Pasture quantity and quality are affected during drought periods. Supplements are used in for drought feeding and for cattle fattening. UMMB are lick blocks containing urea, molasses, vitamins, minerals and other multi nutrients. Use of feeding of the blocks is a convenient and an inexpensive method of providing a range of nutrients required by both the rumen microbes and the animal, which may be deficient in the diet. The main justification for using the blocks depends on their convenience for packaging, storage, transport and ease of feeding. The ingredients are designed to provide a wide range of nutrients to cover all potential deficiencies.

4.4 Animal Health

Background

Livestock are an important component in pastoral production systems and as such their health cannot be underestimated. Diseases affect production through deaths, or poor production in terms of milk, eggs, and slowed or poor breeding habits. Diseases of livestock are of economic importance in that they lead to big losses in monetary terms accruing from deaths and decreased production. If the livestock are healthy, production will also increase and this will result into better health of the people. In a nutshell, healthy animals lead to healthy people and better livelihoods.

This module therefore helps the participants to be familiar with the normal habits, behaviour, actions, the appearance of skin and hair, mucus membranes, secretions and excretions, respiration etc of an animal. This would enable them to distinguish between healthy and sick animals, and form the basis for tentative diagnosis of a disease in the field. As a result, the participants could treat sick animals quickly and prevent the spread of the diseases. The module also focuses on the causes of diseases, mode of transmission, disease description and control measures. The participants should understand the causes of disease in livestock and the various modes of disease transmission as this can lead to disease prevention and control. The participants should facilitate identification and description of locally important diseases as they relate to clinical signs and post mortem lesions for the different species of animals kept in the specific area.

Topic objectives

By the end of this topic, participants will be able to:

- Recognise and describe healthy and unhealthy animals
- Describe the basic causes of diseases in livestock.
- Explain the different ways in which diseases spread among livestock.
- Describe the basic disease prevention strategies
- Identify, rank and describe the clinical signs of major important diseases in the different livestock species in their locality.

Topic overview

1. Healthy and unhealthy animals
2. Causes of livestock diseases
3. Disease spread (transmission)
4. Disease prevention/ control
5. Listing and ranking of diseases in each species of animals
6. Treatment
7. Veterinary public health

Method of facilitation

- Participants presentation,
- Disease charts
- Brainstorming
- Group discussion,
- Participatory exercises
- Practical demonstration
- Direct observation

Time: 4 hours

Materials: Pictures, disease transmission charts, drawings, samples of CBEWS, A4 sheets, cards, note book, pens, ruler, masking tape, coloured paper, display board, sick and healthy animals, healthy and diseased organs.
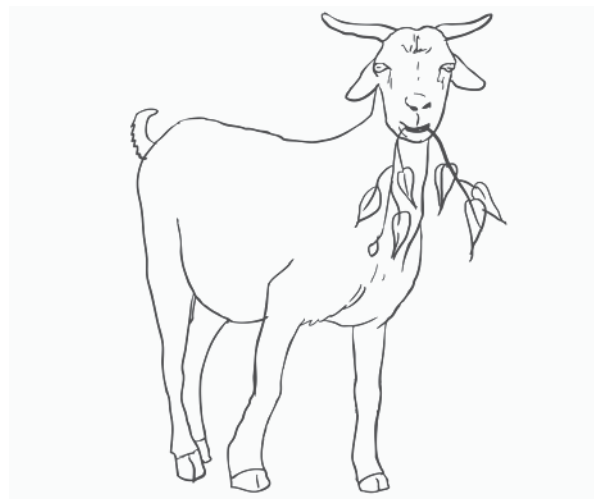
LEARNING ACTIVITIES

Activity 1: Healthy and unhealthy Animals (40 minutes)
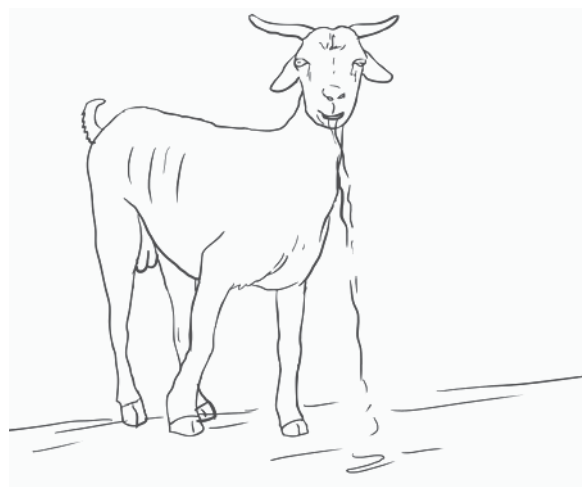
Signs of health and the learning advantage

Divide the participants into small groups of 4-5 people and ask them to list what they consider signs of normal health in an animal, and the advantage of knowing signs of normal health in an animal. The different groups should present their findings to the plenary.

Picture code: Put up picture code (Illustration 4.3.1) and add more information on the signs of health that are not depicted in the picture, and discuss the advantage of knowing signs of health in depth.

A healthy goat

Signs of disease and the learning advantage

Divide the trainees into small groups of 4-5 people and ask them to list what they consider signs of illness in an animal, and the advantage of knowing signs of illness in an animal. The different groups should present their findings to the plenary.

Picture code: Put up picture code and add more information on the signs of disease that are not depicted in the picture, and discuss the advantage of knowing signs of illness in depth.

A sick goat

How to distinguish signs of health and disease in live animal

Field practical: Take the participants to the nearby livestock kraal or grazing / watering point and ask them to pick out a healthy animal and explain the signs of health in the animal. The same exercise should be repeated for an unhealthy animal. Make sure that each of the participants has participated in the exercise, and different species have been used in the practical.

How to distinguish signs of health and disease in organs and systems

Divide the participants into small groups of 4-5 people and ask them to identify and list the features of healthy and diseased organs.

Demonstration: Post-mortem examination of sick and healthy animals should be carried out to demonstrate and compare signs of health and disease in body organs with emphasis on the size and appearance.

Summary

The facilitator should summarise systematically how one can distinguish between healthy and unhealthy animals as outlined in the following table:

	Signs of health	Signs of disease
General condition	Good body condition	Emaciated
Behaviour	Alert and hold their heads up	Dummy, restless, lonely
Movement (gait)	Regular and steady steps Strong limbs and move easily with others in a group	Shuffling and stumbling Remain behind the group
Eyes	Bright and alert, No discharge	Lacrimation (discharge); Colour: red, pink, brown or white
Nose and Muzzle	No discharge from the nose, Muzzle moist in cattle, Nose clean & dry in sheep & goats dry	Discharge from the nose; Muzzle dry in cattle,
Mouth	Clean and chewing properly	Saliva dripping; Lesions on the lips; Chewing slow or incomplete if there is problem in the teeth
Ears	Erect, Move in the direction of sound Quick movement to get rid of flies	Dropped; Not responding to sounds or no movement to get rid of flies
Mucus membrane	Pink/red mucus membrane showing blood vessels clearly	White/pale, yellow, very dark red or red
Hair coat	Smooth and shiny Lick their coats and you can often see the lick marks	Rough or raised
Appetite and rumination	Eat and drink normally Ruminating (chewing) the cud (for ruminants)	Not eating and drinking normally, Not ruminating
Respiration	Smooth and regular at rest Movement and hot weather increase the rate of breathing	Increased and irregular breathing
Urine	Clear in colour No sign of pain or difficulty during urination	Cloudy or red Pain during urination
Faeces	Firm	Very soft (Diarrhoea) Constipation
Udder and Milk	Healthy teats; Smooth and clean udder; Good milk production; Clean milk.	Blind and injury of the teat Blood or other matter in the milk; Swelling of udder Sign of pain and heat when the udder is touched.

Table 20: Signs of health and signs of diseases in animals

General inspection of sick animal from a distance

Stand back and observe at the undisturbed animal from a distance so as not to excite the animal (Illustration 4.4.3), and observe the following:

Behaviour:	How does the animal behave?
	Is it excited, aggressive, or calm?
	Does the animal look like distressed, or in pain? …. Is it
	kicking itself? It is shaking its head or grinding itself?
Posture and gait:	How does the animal stand?…. Is the back arched?
	Is the shoulder abducted?…. Is the leg raised?… How is it walking? Shuffling, stumbling walk, circling movement? Or unable to move?
Body condition:	Is it fat, thin or emaciated?
	How is the skin and coat? Is the skin dry and leathery?…Is it biting, rubbing or scratching itself?
Respiration:	Is it breathing easily and normally or does its breathing look distressed?… How fast is the animal breathing?… Is it breathing deep slow breaths or shallow short breaths?… Does its abdomen move as well as its chest when it breathes out?… Does it show pain by grunting, especially when it breathes out?
Urination and defecation:	Is it urinating and passing faeces? …Volume, frequency and characteristics of the urine and faeces?

Observing undisturbed animal from a distance

Close inspection of body regions of a sick animal

Inspection of body region should be done systematically starting from the head through the neck, chest, abdomen and the hindquarters including the tail. First take the animal's temperature.

Activity 2: Causes of Diseases (30 minutes)

1. Divide the participants into small groups of 4-5 people and ask them to list what they perceive to be the causes of diseases in their animals.
2. Each group should present their lists of causes of diseases to the plenary and this should be discussed.

3. To build on the participants knowledge, the facilitator should highlight the following as the main causes of diseases:

    •   Poor food (Malnutrition)

    •   Physical injuries (wounds)

    •   Chemicals / poisons / toxic plants

    •   Germs

    The term "germ" will be probably new for the participants, and therefore the facilitator should further explain what a germ is in general. Explain to the trainees that most of the diseases are actually caused by germs, and there are two types of germs according to their sizes. These are:

    •   Very small germs that cannot be seen by the naked eye. Examples of diseases caused by invisible germs can be given e.g. - Diseases causing high fever,

    •   Big disease causing organisms that can be seen by the naked eye e.g. – Worms, Ticks and lice

4. Summarise the topic through question and answer to make sure that the participants have understood the lesson.

Activity 3: Disease Transmission (30 minutes)

1. The facilitator should brainstorm the participants on the following question:

    "How does disease spread from sick animals to healthy animals?"

2. Write down on flip chart participants' perception of disease transmission, add missing points and discuss the different causes of diseases as outlined:

    (a) Diseases transmitted via direct contact between animals:

        •   This type of disease spread happens when a sick animal breathes over other animals. Ask participants to give examples of diseases transmitted in this way for example CBPP and CCPP

        •   Disease also spreads when animals rub against each other. Ask the trainees to give an example of diseases transmitted in this way such as Mange.

    (b) Disease transmitted via parasites:

        •   A parasite carries or transmits disease from a sick animal to a healthy animal. Ask the trainees to give an example of parasites that transmit diseases from one animal to the other, and the diseases they transmit for example Tick – transmits Babesia/Anaplasma, Tsetse- Trypanosome

    (c) Diseases transmitted via contaminated soil, food and water

        •   Soil, food and water can be contaminated by excretion or secretion from a sick animal and thus transmitted to other animals while grazing/drinking or walking through contaminated soil, food or water. Ask trainees to give examples of diseases transmitted through this way (like Internal parasites/Worms, Foot rot)

Activity 4: Common Disease Control and Prevention Methods (40 minutes)

1. In plenary, ask the participants to list the common disease control and prevention methods. Ask the participants to list also the traditional disease control and prevention methods according to the locality they come from.

2. Ask the participants whether disease control methods differ according to disease.

3. After all the listing has been done, go through the list emphasising important points and at the end add up on any methods that have been left out.

4. Ask one participant to sum up by giving up a real life example of a traditional disease control method that has worked over time and its application within the community he/she comes from.

Disease type	Modern control method	Traditional control method	Remarks

Activity 5: Listing and ranking of diseases in each species of animals (40 minutes)

1. Divide the participants into small groups of 4-5 people and ask them to list at least the 5 most important diseases in each species of animals in their locality using local vernacular.

2. Write down the lists of diseases identified by the participants on flip chart, and using a pair-wise ranking method identify the relative importance of the different diseases and ask the participants the reason for the rankings. The findings of the pair-wise ranking should be summarised as shown in table below.

Table: Results of pair - wise disease ranking			
Species	Disease name	Rank	Reasons for rank given (Indicators of importance)

Activity 6: Treatment (30 minutes)

1. In plenary, ask the participants to list the common diseases and their treatment, both modern and traditional treatment methods.

2. Ask the participants whether disease treatment methods differ according to diseases. Are there different diseases that can be treated using the same method?

3. After all the listing has been done, go through the list emphasising the important points and at the end, add up on any treatment methods that have been left out.

4. Ask one participant to sum up by giving up a real life example of a traditional disease treatment method that has worked over time and its application within the community he/she comes from.

Disease type	Traditional treatment	Modern treatment	Remarks

Note that the section above can be emphasized further by the table below on drugs and their uses since the diseases or conditions the drugs are used for are well spelt.

Drugs and their use

Types of drugs	Diseases and problems they treat or prevent	
Anthelmintics		
	• Liver fluke	
	• Gastrointestinal worms	
	• Lung worms	
	• Eye worms	
Acaricides		
	• Tick infestation	
	• Tick-borne diseases	
	• Mange (only some acaricides)	
	• Lice and flea	
Antibiotics	Infections	Secondary infections
	• Wounds and abscesses	• Sheep and goat pox
	• Contagious Bovine Pleuropneumonia (CBPP)	• Camel pox
	• Contagious Caprine Pleuroneumonia (CCPP)	• Lumpy skin disease (LSD)
	• Pasteurellosis	• Foot and mouth disease (FMD)
	• Anthrax	• Pest des petits ruminants (PPR)
	• Black leg	
	• Foot rot	
	• Pink eye	
	• Mastitis	
	• Bloody diarrhoea	
	• Non-specific coughing	
Antiprotozoa		
	• Trypanosomosis	
	• Tick-born diseases	
Vaccines		
	• Black leg	
	• Anthrax	
	• Pasteurellosis	
	• CBPP	
	• CCPP	
	• PPR	
	• LSD	
	• Pox diseases	
	• Rinderpest	
Vitamins and mineral	Food supplement and support therapy	

Table 21: Drugs and their use

Activity 7: Veterinary Public Health (30 minutes)

1. Divide the participants into small groups of 4-5 people and ask them to list disease or conditions associated with the consumption or handling of livestock products that affect human beings.

2. The facilitator should facilitate discussion to further clarify the response of the participants on the bases of the following questions:

   - What are the signs of the conditions in human beings?

   - What livestock products in particular cause these conditions?

   - How can these conditions be avoided / controlled?

3. Hygiene measures when dealing with livestock and important zoonotic diseases such as Anthrax, Rabies, Brucellosis, Taeniasis, Hydatidosis, Tuberculosis etc should be discussed with due emphasis on how they are transmitted from animal to human beings and vies-versa and their control strategies.

4.5 Natural Resource Management

Background

Natural resources management is a broad discipline and involves quite a number of things to consider. But looking at natural resource management in the pastoral areas, three things come into our minds, the plants and vegetation, the livestock and others such as wildlife, the soils and water. These issues are quite important and critical especially bearing their importance towards the sustenance of life. All these issues have an interrelationship with each other and the maintenance of their relationships is quite important towards ensuring an ecological balance that will provide a good environment that can maximize production.

It is becoming evident that pastoral environments are changing over times due to degradation of the natural habitats due to human activities and climate variation. The result of this is evidenced through the frequent droughts that impact negatively on production and the pastoral livelihood systems.

Dry land environments are fragile. Their vegetative cover is sparse; when removed through overgrazing or excessive tillage, exposed soils quickly erode and lose fertility, and the surface sealed soils cause water to be lost as runoff. Sustainable solutions that preserve and enhance soil cover and organic matter such as mixed crop-tree-livestock systems, water harvesting and conservation, and the judicious use of manure and inorganic fertilizers at economically-optimal rates are showing success in many countries. These types of solutions are knowledge-intensive, so improved systems for knowledge exchange are vital.

Topic objectives

By the end of this topic participants will be able to:

* Describe what natural resources are.
* Explain the classification of natural resources.
* Explain what natural resource management is
* Explain ownership regimes in NRM
* Explain stakeholder analysis in NRM
* Explain the importance of natural resource management

Topic overview

1. What are natural resources
2. Classification of natural resources
3. What is natural resource management
4. Ownership regimes in NRM
5. Stakeholder analysis in NRM
6. Importance natural resource management.

Method of facilitation

* Participatory presentation,
* Group discussions, and plenary presentations
* Question and answer
* Role plays / folk media / story telling

Time: 5 hours

Materials: Measure tape, Crayons, Drawings, pictures, A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Display board.

Handout: 4.5.1, 4.5.2, 4.5.3, 4.5.4, 4.5.5 and 4.5.6
Additional reference

* LFFS manual   •   PFS manual

LEARNING ACTIVITIES

Activity 1: What are Natural Resources (20 minutes)

Divide the participants into groups and ask them what a resource is, ask then to list the important natural resources occurring in their area. When the participants are through ask two or so groups to present in plenary with additional points or discussions if necessary.

Is a river a resource? What is it used for? How do humans interact with a river – the same questions can be asked about wildlife, forests etc.

Activity 2: Classification of Natural Resources (30 minutes)

1. In plenary ask participants what they understand by classification of natural resources then divide into groups and ask them to classify natural resources. Are all the classifications available in your area?

2. Rank the natural resources according to order of importance with regards to pastoral environment.

Activity 3: What is Natural Resource Management (20 minutes)

In plenary, ask participants to state what they understand by natural resource management, and list ways and means through which natural resources are managed. Discuss findings add additional inputs and summarise. Are there any NRM management practices in your area? If so state which.

Activity 4: Ownership Regimes in NRM (30 minutes)

1. In plenary ask the participants to list and explain the different ownership regimes in NRM. Let the participants list exhaustively discuss and add additional inputs.

2. Ask the participants to name the types of ownership regimes that exist in their area and how they are managed.

Activity 5: Stakeholder Analysis in NRM (30 minutes)

1. Divide the participants into groups and ask them to discuss the following questions and present in plenary

    •   Who are stakeholders in NRM

    •   What are the aims of stakeholder analysis in NRM

    •   What are the stages in stakeholder analysis

    •   What are the applications of stakeholder analysis

2. After presenting in plenary discuss the findings and add onto missing inputs and emphasise on important points.

Activity 6: Importance of Natural Resource Management (30 minutes)

In plenary, ask the participants to list the importance of natural resources management. After the participants have exhausted their inputs, discuss their inputs and emphasise on important inputs, also add up on missing inputs to summarise.

Handout 4.5.1

Natural Resources

Natural Resources are basic and essential for survival of people. Natural resources are usually referred to as land or raw materials from economic point of view, which occur naturally in environments without human intervention. Natural resources are often characterised by amounts of biodiversity existent in various ecosystems. Natural resources are derived from the environment and are essential for our survival while others are used for satisfying our wants. Natural resources may be further classified in different ways. On the basis of origin, resources may be divided into biotic resources which are obtained from the biosphere, such as forests and their products, animals, birds and their products, fish and other marine organisms mineral fuels such as coal and petroleum are also included in this category because they are formed from decayed organic matter. Abiotic resources include non-living things. Examples include land, water, air and ores such as gold, iron, copper and silver. Considering their stage of development, natural resources may be referred to in the following ways:

Handout 4.5.2

Classification of Natural resources

On basis of origin

1.   Biotic

2.   Abiotic

On basis of Stage of Development

Potential Resources: Potential resources are those that exist in a region and may be used in the future. For example, petroleum may exist in many parts of a country, having sedimentary rocks but until the time it is actually drilled out and put into use, it remains a potential resource.

Actual Resources are those that have been surveyed, their quantity and quality determined and are being used in present times. The development of an actual resource, such as wood processing depends upon the technology available and the cost involved. That part of the actual resource that can be developed profitably with available technology is called a reserve.

On Basis of Renewability

Renewable resources: these are the ones that can be replenished or reproduced easily. Some of them, like sunlight, air and wind and are continuously available and their quantity is not affected by human consumption. Many renewable resources can be depleted by human use, but may also be replenished, thus maintaining a flow. Some of these, like agricultural crops, take a short time for renewal; others, like water, take a comparatively longer time, while still others, like forests, take even longer.

Non-renewable resources: They are formed over very long geological periods. Minerals fuels and fossil fuels are included in this category. Since their rate of formation is extremely slow, they cannot be replenished once they get depleted. Of these, the metallic minerals can be re-used by recycling them but coal and petroleum cannot be recycled.

Resources are things that have utility, NR are the raw materials used to satisfy human needs. NR are those materials derived from the earth that exist completely independent of human activity.

Handout 4.5.3

Natural Resource Management

Natural Resource Management refers to the management of natural resources such as land, water, soil, plants and animals, with a particular focus on how management affects the quality of life for both present and future generations (stewardship).

Natural resource management deals with managing the way in which people and natural landscapes interact. It brings together land use planning, water management, biodiversity conservation, and the future sustainability of industries like agriculture, mining, tourism, fisheries and forestry. It recognises that people and their livelihoods rely on the health and productivity of our landscapes, and their actions as stewards of the land play a critical role in maintaining this health and productivity

Natural resource management is also congruent with the concept of sustainable development, a scientific principle that forms a basis for sustainable global land management and environmental governance to conserve and preserve natural resources.

Natural resource management specifically focuses on a scientific and technical understanding of resources and ecology, and the life-supporting capacity of those resources.

Natural Resources can be managed, owned, maintained or not maintained by different people, groups, agencies and government

Natural Resource Management is the planning and active manipulation of ecosystems and processes for human benefit. People are the stake holders. Natural Resource Management is for people, or to maintain resources in spite of people, or because of people.

Handout 4.5.4

Ownership Regimes (Natural Resource Management)

Natural resource management approaches can be categorized according to the kind and right of stakeholders. Natural Resource Management ownership regimes are:

- State Property Regime
- Private Property Regime
- Common Property Regime
- Non-property Regimes (open access)
- Hybrid Regimes

State Property Regime

Ownership and control over the use of resources is in the hands of the state. Individuals or groups may be able to make use of the resources, but only with the permission of the state. National forests, National parks and military reservations are some examples.

Private Property Regime

This refers to any property owned by a defined individual or corporate entity. Both the benefits of and duties to the resources fall to the owner(s). Private land is the most common example.

Common Property Regimes

It is a private property of a group. The group may vary in size, nature and internal structure e.g. indigenous tribe, neighbours of village. Some examples of common property are community forests and water resources.

Non-property Regimes (open access)

There is no definite owner of these properties. Each potential user has equal ability to use it as they wish. These areas are the most exploited. It is said that "Everybody's property is nobody's property". An example is a lake fishery. This ownership regime is often linked to the tragedy of the commons.

Hybrid Regimes

Many ownership regimes governing natural resources will contain parts of more than one of the regimes described above, so natural resource managers need to consider the impact of hybrid regimes. An example of such a hybrid regime is native vegetation management in NSW, Australia, where legislation recognizes a public interest in the preservation of native vegetation, but where most native vegetation exists on private land.

Handout 4.5.5

Stakeholders and Stakeholder Analysis in Natural Resource Management

- "...any group of people, organised or unorganised, who share a common interest or stake in a particular issue or system..."

- "...any group or individual who may directly or indirectly affect or be affected or planning to be at least potential stakeholders."

- "...any individual, group and institution who would potentially be affected, whether positively or negatively, by a specified event, process or change."

The aims of stakeholder analysis in natural resource management are to:

- Identify and categorise the stakeholders that may have influence

- Develop an understanding of why changes occur

- Establish who can make changes happen

- Decide how to best manage natural resources

This gives transparency and clarity to policy making allowing stakeholders to recognise conflicts of interest and facilitate resolutions.

Stages in Stakeholder Analysis

1. Clarify objectives of the analysis

2. Place issues in a systems context

3. Identify decision-makers and stakeholders

4. Investigate stakeholder interests and agendas

5. Investigate patterns of inter-action and dependence for example conflicts and compatibilities, trade-offs and synergies

Application

Stakeholder analysis in natural resource management is most relevant where issues can be characterised as:

• Cross-cutting systems and stakeholder interests

• Multiple uses and users of the resource.

• Market failure

• Sub tractability and temporal trade-offs

• Unclear or open-access property rights

• Untraded products and services

• Poverty and under-representation

Management of natural resources

All the things we use and consume are obtained from natural resources. Due to increase in population, industrialisation and urbanization, the demand for natural resources is increasing and their availability is limited. So there is a need for proper management of natural resources.

The proper management of natural resources consists of:

(a) Judicious use of natural resources and avoiding wastage.

(b) Long term planning for the use of natural resources so that they last not only for the present but also for future generations.

(c) The exploitation of natural resources should not be for the benefit of a few people but should be distributed equally for all.

(d) While extracting and using natural resources, we should also plan for the safe disposal of wastes so that no damage is caused to the environment.

Handout 4.5.6

Importance of Natural Resource Management.

• Reduces atmospheric pollution and also pollution in rivers

• To reduce the "*Green House Effect*" this is the major cause of global warm.

• Aesthetic and recreational benefits.

• Social and educational benefits.

• Ecological benefits.

• Economic benefits.

Example 1

(a) Importance of wildlife

    (i)   Wildlife helps to preserve biodiversity.

    (ii)   Wildlife helps to maintain food chains and food web.

    (iii)   We get useful products from wild life like food, medicines, leather, bones and honey.

    (iv)   Wildlife promotes tourism

(b) Conservation of wildlife

    (i)   Preserving the natural habitats of animals.

    (ii)   Banning poaching of animals.

    (iii)   Protecting endangered species of animals.

    (iv)   Setting up of wildlife sanctuaries, national parks and biosphere reserves

Example 2

(a) Importance of forests

    (i)   Forests help to preserve biodiversity.

    (ii)   Forests are natural habitats of plants and animals.

    (iii)   Forests provide timber, wood, fuel, medicines and fodder.

    (iv)   Forests help to maintain ecological balance.

    (v)   Forests help to control climate and rainfall.

    (vi)   Forests help to prevent soil erosion and control floods.

    (vii)   Forests help to maintain the oxygen – carbon dioxide balance in nature.

(b)   Stake holders of forests

People who are associated with forests directly or indirectly are

    (i)   People living in and around forests depend on forests for their livelihood.

    (ii)   Industrialists who use the raw materials from forests for manufacturing paper, medicines and furniture

    (iii)   Forest Department of the Government which owns the forests and controls the resources from the forests.

    (iv)   Nature and wild life organisations that want to conserve and preserve forests.

Forests can be conserved by :

    (i)   Afforestation – planting of more trees.

    (ii)   Preventing or reducing deforestation.

    (iii)   Preventing over grazing by cattle.

(iv) By setting up wildlife sanctuaries, national parks and biosphere reserves.

(v) Undertaking social forestry programs i.e. movement for planting and protecting trees on a large scale.

As we have read, we can conclude that everything we use or consume is obtained from resources on this earth. Therefore, depleting the natural resources too fast without the possibility of their regeneration, creates untold misery for ourselves and for the future generation.

4.6 Crop Production in Pastoral Setting

Background

Pastoral areas are subject to extreme climatic conditions (erratic, low rainfall and recurring dry spells) which limit cultivation and make cropping extremely difficult and risky. In a year of reasonable harvest, most households only meet between one-third and two-thirds of their food needs from their own fields. Agricultural production constraints include declining land fertility due to monoculture and poor land husbandry practices, poor pre- and post harvest technology, rudimentary tools and manual labour, low quality seeds, lack of drought-resistant varieties of crops, insecurity, human disease, low coverage of agricultural extension services and poor infrastructure, particularly the lack of adequate access to markets.

Unreliable and insufficient rain patterns make it difficult for pastoralists to know when to plant seeds. Traditional coping mechanisms include diversification of risks through semi-nomadic livestock rearing and selection of drought-tolerant grains like sorghum or pearl millet which are best-suited to local conditions. In years of good production, proceeds from the sale of grain surpluses are often reinvested in livestock. However, the risks associated with crop production can be partly mitigated by a better utilization of soil and water resources, use of drought-tolerant varieties and the adoption of adequate cropping practices in dry lands areas. PFS endeavours to enhance capacities and resilience in this sector. Promoting better integration between crop and livestock contributes to more efficient use of the available resources.

Topic objectives

By the end of this topic, participants will be able to:

- Explain Integrated Production and pest management
- Discuss suitable agricultural practices for pastoral areas and agricultural practices for selected crops.
- Understand the importance of soil cover
- Build sack gardens for vegetable production

Topic overview

1. Integrated Production and Pest Management
2. Suitable agricultural practices for pastoral areas
3. Good agricultural practices for selected crops
4. The importance of soil cover
5. Sack gardening

Method of facilitation

- Participatory presentation
- Group discussions,
- Group exercises,
- Experience sharing
- Illustrations/pictograms

Time: 5 hours 30 minutes

Materials: A4 sheets, cards, note book,pens, ruler, masking tape,coloured paper, photos, display board.

Handout: 4.6.1 and 4.6.2

Additional reference

- Draft APFS Karamoja Manual-Uganda
- FARMESA FFS soil and water conservation manual

LEARNING ACTIVITIES

Activity 1: Integrated Production and Pest Management (IPPM) (30 minutes)

1. Explain IPPM to the group. Why is it important to the pastoralist

2. In mini groups, have participants discuss how to raise and maintain a healthy crop. What aspects of the field would a good farmer try to observe in the garden? What makes a crop healthy? What makes a crop unhealthy?

3. The mini groups should make presentations.

4. Introduce the four main principles of IPPM.

5. Brainstorm how the IPPM principles relate to the PFS's anticipated activities.

Activity 2: Suitable Agricultural Practices for Pastoral Areas (1 hour)

Using brainstorming technique discuss with participants some suitable agricultural practices for pastoral set ups (Handout 4.6.2).

Activity 3: Good Agricultural Practices for Selected Crops (1 hour 30 minutes)

1. Through brainstorming, identify two or three key crops recommended for the region.

2. For each crop, discuss with the participants the good agricultural practices starting from land preparation to post harvest management and marketing.

Activity 4: The importance of soil cover (1 hour)

In this exercise participants will be able to see how evaporation (air continuously absorbing moisture from the soil) takes place and discover the benefit of soil cover to reduce the amount of water lost. The exercise should be carried out in the middle of a sunny and hot day.

Materials needed: mulch (dry grass or crop residues) cut into small pieces, 2 big transparent plastic bags, watering can and water

1. Locate a flat area on bare soil and mark out two squares with half a metre sides. Place a 1 cm layer of mulch (grass, leaves or debris) on one of the squares.

2. Water the two plots with about 10 litres of water.

3. Place the plastic bags over the soil so that the open end of the plastic bags covers as big area as possible of the plot. The plastic bags should be full of air and take up as much volume as possible. Place sticks inside the bags to keep them upright. Finally, use nails to fasten the opening of the bags into the ground.

4. Leave the plots in the sunshine for four hours. After the four hours return to the plot and study the amount of water that have evaporated from the soil and now hangs on the inside of the plastic bags.

5. Discuss the following questions:

    *   What does this mean for our crop fields and pastures, where do we lose more or less water?

    *   What can we do to safeguard the water on our land and avoid that it goes up in the air?

    *   What role does vegetation and trees have in safeguarding water in the soil?

Activity 5: Sack gardening (1 hour 30 minutes)

In this activity participants will familiarise themselves with the construction of a sack garden. Sack gardens are a great way to optimise vegetable production and to get a good harvest from little space, and small amounts of soil and water.

Materials needed: food aid or animal feed sacks, one wheelbarrow of soil mixed with some manure or organic matter (old leaves, grass, etc.)., a bucket of gravel, a plastic container of about one litre with the bottom cut out, seedling vegetable plants.

1. Put a shallow layer of soil in the bottom of the sack, place the container (or coffee can or a similar container) in the centre and fill it with gravel.

2. Shovel the soil around the rock-filled container and fill out the sack to the edges. When the soil reaches the top of the container, pull it up gently, leaving the rocks in a column in the centre. Repeat until the bag is full with a centre column of gravel. The column is for drainage and water distribution throughout the sack.

3. Plant seedling in the soil at the top of the sack.

4. Cut small holes in the sides of the sack for planting along the sides.

5. Water the sack regularly and when possible feed the soil in the sack with kitchen waste or other organic materials.

A sack garden

(footnote: adapted from www.netplaces.com)

Handout 4.6.1

Integrated Production and Pest Management (IPPM)

In an attempt to meet increasing food demand, it is important that pastoralists use sustainable production practices that preserve or improve the production resource base for future generations. Integrated Production and Pest Management (IPPM) is an ecosystem-based management concept entailing improved practices that respect the environment while also enhancing the overall goal of making a profit. IPPM places a strong emphasis on growing/raising a healthy crop/animal with the least disruption to the environment.

IPPM is a holistic approach that combines a number of practices throughout the production cycle. Some of these practices include:

* Loosening the soil structure.
* Timely planting.
* Proper spacing.
* Using organic matter/manure.
* Using cover crops.

* Using clean seed/planting material.
* Mixed cropping.
* Mulching..
* Rotating crops.
* Resting the garden.

More broadly, there are four basic principles of IPPM:

* Growing a healthy crop (from an healthy seed in a healthy soil).
* Observing the field regularly.
* Preserving natural enemies.
* Empowering the farmer to make good management decisions.

Handout 4.6.2

Suitable Agricultural Practices for Arid and Semi-Arid Lands (ASAL)

Pastoral areas experience many agricultural production constraints including declining land fertility due to monoculture and poor land husbandry practices, poor pre- and post harvest technology, rudimentary tools and manual labour, low quality seeds, lack of drought-resistant varieties of crops, insecurity, human disease, low coverage of agricultural extension services and poor infrastructure, particularly the lack of adequate access to markets. Unreliable and insufficient rain patterns make it difficult for pastoralists to know when to plant seeds. Therefore it is important to introduce and promote suitable practices for Arid and Semi-Arid Lands (ASAL). Some of these practices include:

1. **Promotion of drought-tolerant crop and fast maturing varieties**. These drought-tolerant varieties can significantly reduce risk of crop failure especially during periods of moderate drought and help assure small-scale pastoralists of harvests.

2. **Spacing of planting dates.** Because rain patterns are increasingly unpredictable, phased planting from first rains until mid season can contribute to spread the risk of crops drying up in case of dry spell.

3. **Transplantation of cereals.** Transplanting cereals within dry land farming system is a practical option which enables agro-pastoralists to maximise the growing season and minimise the risk of failed crops, patchy stands and reduce the costs of re-planting. Early crops are important as they break the hunger gap; transplanting early crops breaks this gap to two to three weeks earlier, and yields more

(often double) than normal direct-sown crops, providing food when it is in short supply and very expensive in the market place.

4. **Crop diversification and mixed-cropping.** Diversification is not simply a way of spreading risks, but it can also help to smooth out seasonal peaks and troughs of income as well as alleviate the common pre-harvest hunger period. Mixed cropping is followed to minimize the effect of unpredictability of rain. Mixed cropping may have low yield potential but it works as a buffer against failure under possible unfavourable conditions. Inter-cropping can also be used to mitigate attack of pests (push-pull approach) and stimulate crop-livestock integration by the cultivation of fodder crops.

5. **Soil and Water Management.** Conservation practices related to limit water runoff and reduce soil erosion can be promoted to improve water retention and soil regeneration. Some of the techniques that can be implemented include contour bunds, semi-circular bunds, trapezoidal bunds, contour ridges, planting pits. The selection of the most appropriate techniques should be based on the terrain and the social cultural aspects prevailing in the area.

6. **Bio-intensive gardening.** Different type of kitchen gardening can be introduced to promote year long vegetable production for household purposes. Kitchen gardens contribute to improve household diet and nutritional status. In addition, dry-season vegetable production for marketing purposes can be promoted if the groups have a sustained access to water (SSD and associated shallow well).

7. **Post-Harvest Management.** Traditional storage facilities and lack of adequate knowledge on preservation entails significant post-harvest losses of grain and seeds due to predation, germination or contamination. Improved storage should include the promotion of metal silo and good practices in post-harvest handling especially drying.

Handout 4.6.3 Evaporation and moisture loss

Evaporation is the term for soil-water transfer to the atmosphere. The air continuously absorb moisture from the soil. That is why the soil surface dries out quicker than the underlying soil layers in a soil profile. Evaporation in the field can take place from plant canopies, from the soil surface or from a free-water surface. When the soil is bare from vegetation, big amounts of water can be lost from the soil by evaporation. Strong sun and winds increase evaporation. When growing annual field crops, the soil surface may remain largely bare throughout the period of tillage, planting, germination and early seedling growth, and such high evaporation might take place that soil moisture is lost to the extent that it affect the growth of the young plants during their most vulnerable stage. Quick drying of a seedbed can doom an entire crop from the start. In drylands where water is scarce it is important to try to minimise evaporation as much as possible. This can be done by appropriate soil moisture retention practices. Evaporation can be reduced by keeping the soil surface covered, in crop land this might mean planting a cover crop together with the main crop, or by covering the soil surface with mulch or crop residues. On pasture land this might mean preventing over grazing by animals so that there always remain a minimum grass cover.

4.7 HIV/AIDS in PFS

Background

HIV/AIDS increasingly exerts adverse pressure on rural and pastoralist livelihoods. The impacts of HIV/AIDS include loss of labour, reduction of household incomes, increased medical and funeral costs, high dependency ratio and loss of indigenous knowledge. These impacts negatively affect agricultural and livestock production, increase food insecurity and reduce the population's resilience to shocks. Food insecurity and malnutrition stand out as the main drivers of the spread of HIV, and are key mediators of the impacts of AIDS. HIV/AIDS must be understood and addressed within the context of livelihood security in pastoral areas context (isolation, poor health and education infrastructure, low awareness, high food insecurity and high exposure to shocks) and way of life which increase vulnerability to HIV exposure (polygamous marriage, early sexual debut for females, high levels of sexual networking within and outside marriage as well as certain traditional practices such as female circumcision, male circumcision, tattoo and piercing).

This module is intended to explain the basic facts about HIV/AIDS, and the specific risks to which pastoralists are exposed to in their community (traditional practices, migration).

Topic objectives

By the end of this topic participants will be able to:

- Define HIV and AIDS,
- List modes of transmission of the HIV Virus,
- Mention ways through which HIV is not transmitted,
- List ways of protection against HIV/AIDS,
- Explain how HIV affects livestock and pastoral systems

Topic overview

1. What is HIV and AIDS?
2. Ways of HIV transmission, Ways of which HIV is not transmitted, and Protection against AIDS.
3. HIV/AIDS pathway
4. Understanding the dynamics of the disease in rural communities

Method of facilitation

- Participatory presentation on basic HIV/AIDS information,
- Group discussions.
- Group exercises.
- Experience sharing.
- Illustrations/pictogrammes.

Time: 4 hours

Materials: A4 sheets, cards, note book, pens, ruler, masking tape, coloured paper, photos, beans (white and red), Ball, A4 envelopes, display board.

Handout: 4.7.1, 4.7.2 and 4.7.3

Additional reference

- Planning livestock intervention with a gender and HIV lens, FAO
- Impact of HIV/AIDS among pastoralist communities in Kenya, 2004
- Conceptualizing the Links Between HIV/AIDS and Pastoralist livelihoods , John Morton
- Gender and HIV/AIDS in a market oriented agricultural development context: A training manual for frontline staff, ILRI
- HIV and AIDS peer educator manual, PACOYEK

LEARNING ACTIVITIES

Activity 1: What is HIV and AIDS? (15 minutes)

1.   Ask the participants to tell you what he/she thinks HIV and AIDS is.
2.   Use the responses to build up the proper definition of HIV and AIDS.

Activity 2: HIV Transmission (30 minutes)

Part A: HIV Transmission

1.   Ask the participants whether they know how one can get HIV.
2.   List the points on the flip chart for further discussions.
3.   Identify the main modes of HIV transmission contextualised to pastoralist setting.

Part B: HIV Transmission- fluids activity

1.   Prepare small cards labelled with body fluids (blood, semen, pre-ejaculation fluids, vaginal secretions, breast milk, tears, sweat, saliva, urine, faeces, nasal secretions, sputum)
2.   Distribute the cards to the participants and ask them to sort them out according to 'risky' and 'non-risky' fluids.
3.   Discuss

Part C: HIV cannot be transmitted through

1.   Ask the participants to give you ways through which HIV cannot be transmitted.
2.   Discuss

Part D: Prevention of HIV transmission

1.   Ask the participants to give you ways through which HIV can be prevented.
2.   Discuss

Part E: Play the bean Game on HIV transmission (30 minutes)

This activity aims to experience the spread of HIV within a community and develop individual conclusion on HIV transmission.

Materials:

A4 envelopes, 2kg of white beans, 200g of red beans

Steps

•   Each participant gets an envelope (A4) or an opaque bag with White Beans,
•   Only one envelope to contain beans of a different color, red for example.
•   Participants walk around the room, shake hands and exchange the contents of their package with at least 5 others.
•   Facilitator asks them not to look into the contents of their packages.
•   All participants are asked to pour contents on their table after 5 minutes of greetings and exchanges.

Facilitator may ask the following questions

- What was happening?
- What do white beans represent? Red?
- Could you tell who had the red beans?
- How do you feel?
- The multiplier effect on transmission.
- If we were to do it again?

Reactions expected

- Those that find themselves:
    1. Negative results: distress, angry, lonely, denial, discriminated against, mistake, alienated, unlucky, scared, nobody knows, retested
    2. positive results lucky, guilty, take precautions, supportive, retested

Lessons learnt

- Cannot tell/know the HIV status by the looks
- Opening the package is like going for VCT
- HIV transmission
- Infects and affects everyone
- Re- infection
- Stigma and discrimination

Part F: Ball game (15 minutes)

This activity aims to summarise the learning on basic information on HIV and AIDS through the HIV ball quiz game.

Steps:

The participants form a circle and the facilitator throws the ball to a first participant who is asked the first question. If the participant gets the right answer he/she remains in the game and throws the ball to another participant. If the participant gets the wrong answer, he/she throws the ball but sits down as he/she is eliminated.

Game questions:

1. What does AIDS stand for? (Answer: Acquired Immune Deficiency Syndrome)
2. True/False: You can get HIV the first time you have sex. (Answer: True)
3. True/False: Once you have HIV, you will always have HIV. (Answer: True)
4. What part of the body does HIV attack? (Answer: The immune system)
5. True/False: HIV can be spread by shaking hands. (Answer: False)
6. What does it mean to be faithful? (Answer: To have only one sexual partner at a time.)
7. True/False: A person with HIV can live longer if he or she eats well and does exercise. (Answer: True)

8. What is the period called, immediately after infection, when a person might have HIV but can still test negative? (Answer: Window Period)

9. What is the only 100% safe way to protect yourself from HIV? (Answer: Abstinence, and being careful of sharing needles, razor blades and other sharp objects).

10. True/False: You can tell by looking at a person that he/she is HIV positive. (Answer: False)

11. True/False: Mosquitoes can transmit HIV. (Answer: False)

12. What are the six fluids that transmit HIV? (Answer: Blood, semen, vaginal fluid, pus, breast milk and blister fluid)

13. True/False: Condoms reduce the risk of transmitting HIV. (Answer: True)

14. True/False: HIV positive mothers can pass HIV to their babies. (Answer: True)

15. What doe HIV stand for? (Answer: Human Immuno-deficiency Virus)

16. True/False: HIV and AIDS is the same thing. (Answer: False. HIV is the virus that causes AIDS.)

17. True/False: A sexually transmitted infection, or STI, increases a person's risk of getting HIV. (Answer: True)

18. What is the difference between prevalence and incidence of HIV? (answer: prevalence is the number of people living with HIV and the incidence is the new infections)

Activity 3: HIV/AIDS Pathway (2 hours)

The facilitator will discuss the purpose of conducting HIV/AIDS analysis and will provide the structure for this session:

1. Explain the HIV/AIDS pathway using a flipchart (Figure 3, in Handout 4.7.2)

2. Ask the participants for examples of the main means of transmission of HIV and the main symptoms of AIDS-related illnesses:

3. Explain the differences between the drivers of the epidemic and opportunities to address the disease.

4. Ask the participants, in groups, to identify one of the following (Figure 3, in Handout 4.7.3):

    • Sources of risk of infection.

    • Opportunities that help prevent a person from becoming infected

    • Factors that hasten the onset of AIDS-related illnesses and death

    • Opportunities that can prevent or slow down the onset of these illnesses and death

    • Factors that make remaining household members vulnerable to the impacts of an AIDS-related death.

    • Opportunities that reduce the vulnerability of remaining household members to the death of a key adult.

5. Ask the participants to report back in plenary; use the pathway to explain the three stages of the epidemic at the community level (AIDS-initiating, AIDS-impending or AIDS-impacted). This information is necessary in order to identify appropriate responses.

6. Identify what can be done within PFS to address HIV/AIDS.

Activity 4: Understanding the Dynamics of the Disease in rural Communities (1 hour)

1. Explain the importance of understanding the sources of risk of infection and the stage of the epidemic in the rural community in order to make meaningful responses to the HIV/AIDS epidemic.

2. Compare the HIV prevalence rates between the urban areas and rural areas—the former is much higher than the rural communities, so does it mean that rural populations are not really at risk? Answer—rural populations are at risk because of the role of bridging populations and customs and norms within communities

3. Use a schematic map of the rural community and town hotspots and ask the participants in plenary (or each group to list examples of one of the following) (Figure 9, in Handout 4.7.3):

    (a) HIV-risky environments in the area;

    (b) Bridging populations (moving from and to rural communities as well as within rural communities);

    (c) Norms, traditions and cultures within communities that hasten the spread of the disease.

4. Conclude that living in a rural community is inherently risky, in terms of HIV infection, depending on the age, sex, wealth and lifestyle of the individuals

5. Discuss the need to use proxies in order to identify the impact of AIDS on a community because of the absence of hard data about prevalence rates and the causes of death recorded on death certificates, and also denial by the community about the presence of the disease (Figure 3, in Handout 4.7.2).

6. Discuss indicators of an AIDS-infected and impacted community by asking the participants in plenary (or each group to list examples of one of) the following: as a result of AIDS impacts in a community:

    (i) Behaviour change and changes in community responses to coping with illness and death

    (ii) Changes in household composition;

    (iii) Changes in farming and other livelihood practices.

Handout 4.7.1

Basic Information on HIV/AIDS

What is HIV?

Human: Human beings

Immuno-deficiency: A weakening in the body's immune system—the white blood cells—to fight diseases and other infections

Virus: An infectious organism that multiplies and destroys human body cells

HIV causes AIDS, a disease that destroys a person's immune system. There are no clear symptoms of HIV infection but an infected person can pass on the virus to others.

What is AIDS?

Acquired: The virus is passed on from an infected person

Immune Deficiency: A weakening in the body's immune system to fight off diseases

Syndrome: A group of health problems that occur together or one after another but are all part of the same underlying medical condition

AIDS is the final stage of the infection. As HIV slowly damages the immune system, the body's ability to fight off diseases and other infections is weakened. Eventually an infected person suffers from a combination of illnesses which results in his/her death.

AIDS symptoms typically include rapid weight loss, dry cough, diarrhoea lasting more than a week, recurring fever, swollen lymph glands, skin rashes, memory loss, depression, dementia and severe chronic fatigue.

What a Sexually Transmitted Infections is (STI)

STI stands for Sexually Transmitted Infections are infections that are transmitted from one infected person to another through sexual means. They cause a lot of discomfort and they primarily affect reproductive organs. It is possible for one to have an infection that does not manifest or show itself outwardly as a disease. STIs increase susceptibility to HIV.

Modes of transmission

(a) Unprotected sexual intercourse with an infected partner- the HIV virus is within the secretions and enters through the cells in the vagina or opening of the penis or through small cuts and lesions that may occur while having sex

(b) From Mother To Child- can occur in 3 ways:

    (i) While the baby is in the womb, mainly through damaged placenta,

    (ii) During delivery- as the baby is in contact with the mother's infected blood and body fluids,

    (iii) Through breast milk- as the virus is also found in breast milk,

(c) Transfusion of infected blood,

(d) Contact with compromised skin with infected blood or other body fluids,

(e) Sharing of instruments that have been contaminated with infected blood (for example sharing knives at circumcision, skin and ear piercing)

(f) Risky Fluids (Moderate or High levels of virus): Blood, Semen, Pre-ejaculation fluids, Vaginal Secretions, Breast Milk.

(g) Non-Risky Fluids (with minimal or no virus): Sweat, Tears, Saliva, Urine, Faeces, Nasal Secretions, Sputum

(h) Ways through which HIV cannot be transmitted: Sharing food/drink, sharing utensils, holding hands, hugging, shaking hands, sharing a toilet, living together, dancing/swimming/ any other sport, donating blood, mosquitoes and other insect biting.

Ways of preventing HIV infection

The ABC of prevention

•   Abstinence

•   Be faithful to one uninfected partner whose HIV status you know

•   Correct and consistent use of condoms

Handout 4.7.2

HIV/AIDS lifecycle

An individual passes through three stages between infection and death (in the absence of anti-retrovirals (ARVs)). This process may spread over a period of up to 8 to 10 years. The stages are described below and illustrated in Figure:

•   HIV-infected but not yet affected: After a person becomes infected with HIV, he or she can spend a number of years looking and feeling healthy and strong. This stage is very risky for the spread of the disease because an infected person can pass on the virus to others without knowing they are doing so, through unprotected sex or sharing unsterilized skin piercing instruments. Good nutrition and medical treatment can slow down the rate at which HIV weakens the immune system. This stage, without any symptoms, may last between six to eight years.

•   HIV-infected and affected: The infected person starts becoming sick with opportunistic infections, such as tuberculosis, pneumonia, viral and fungal infections, which take advantage of the body's weakened immune system. As these illnesses become more frequent and persistent, the patient suffers from chronic fatigue. Medical treatments can prevent or cure some of the illnesses associated with AIDS. Household resources are diverted into patient care, involving not only the time of other household members to tend to the sick but also financial resources for medical treatment. The ability of someone suffering from AIDS-related illnesses to carry on with their normal lives depends on the extent to which physical strength and visual appearance is important. Once the person has full-blown AIDS, life expectancy is two to three years.

•   AIDS-related death and impact on other household members: Immediately following the death of an infected person, many households observe funeral and mourning rites. This can be a time consuming and expensive process, further draining a household's limited resource base. If the deceased had a spouse, it is very likely that the spouse is also infected and it is only a matter of time before he or she becomes sick. A household may remain in a state of being infected and affected for several years. Many households struggle to survive the death of key household members, particularly in communities where the property inheritance system is weak or characterised by property grabbing by relatives of the deceased
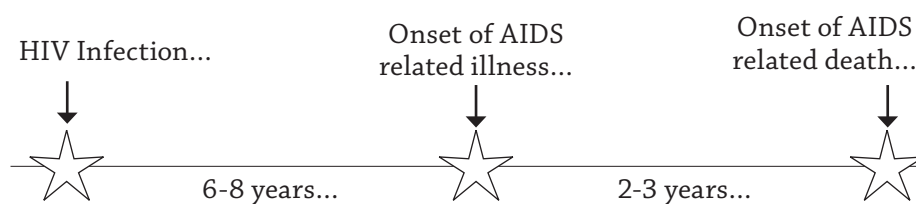
Figure 8: Individual HIV/AIDS timeline (without ARV treatment)

Handout 4.7.3

Basic Concepts of HIV/AIDS Analysis in Rural Communities

What an individual's HIV/AIDS pathway is

Before examining the sources of risk at community level, it is useful to examine the nature of the HIV/AIDS disease for an individual. This may be represented diagrammatically in the form of the HIV/ADS pathway (Figure 9). The pathway assists in identifying what makes individuals more or less likely to become infected with HIV and what makes them more or less vulnerable to the impacts of AIDS. The pathway has three gates:

- Gate 1: HIV infection
- Gate 2: AIDS-related illnesses
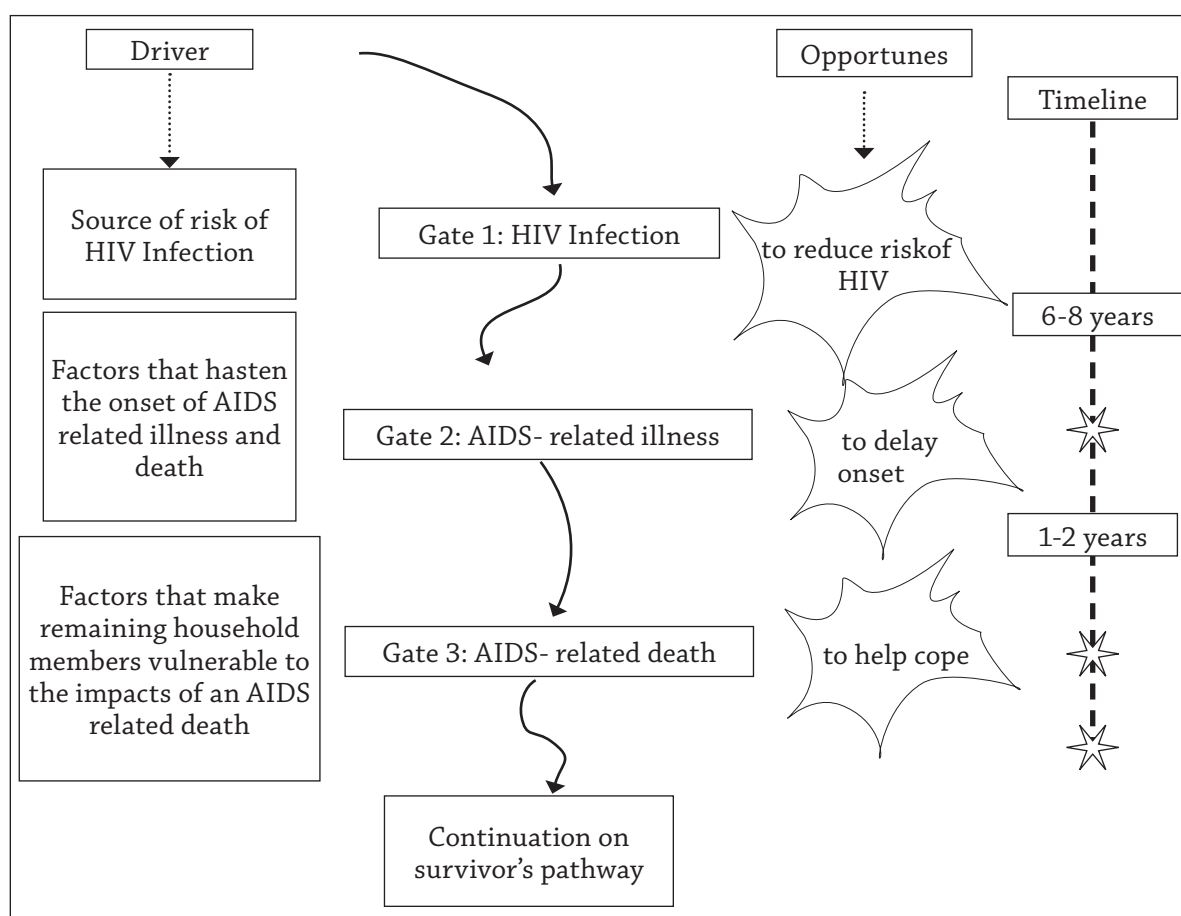- Gate 3: AIDS-related death.

Figure 9: HIV/AIDS pathway.

In the absence of any care and treatment, including anti-retroviral therapy, it takes the following times to move between the gates:

Gates 1 to 2: on average 6–8 years

Gates 2 to 3: on average 1–2 years

Entrance through gate 1 is an irreversible step, which will inevitably arrive at the second and third gates at some time in the future, even though the journey may take place over 6 to 10 years (or longer, with effective anti-retroviral therapy). The rate at which individuals pass along the pathway, or even commence the journey, depends on a number of factors.

The drivers of the epidemic

There are three groups of drivers:

- factors that put people at risk of HIV infection (largely through unprotected sex with an infected person), such as poverty, mobility, displacement from the family, lack of social cohesion, excessive alcohol consumption and cultural practices;

- factors that hasten the onset of AIDS-related illnesses and death, such as re-infection with HIV virus, household composition, weak household asset base, limited diversity of livelihood strategies, and stigma and discrimination;

- factors that increase vulnerability of surviving household members to the impacts of AIDS, such as sex and age of the remaining household head, household composition, strength of the household asset base, asset ownership, diversity of livelihood strategies and stigma and discrimination.

Opportunities that are there to address the epidemic

The purpose of HIV/AIDS interventions is to do one of the following:

- to avoid entering gate 1 by giving people the life skills to enable them not to become infected with HIV through raising awareness and understanding of HIV/AIDS, behaviour change communication, availability and use of health services, treatment of sexually transmitted infections, condoms and empowerment;

- to slow down progress to gate 2 by finding ways to delay the progression of the infected person towards AIDS-related illnesses and death through behaviour change communication, improving the nutritional status, labour saving technologies, care practices, health care services, access to ARVs and community safety nets; and

- to help surviving household members cope and adjust to life after the death of a key adult members (beyond gate 3) by strengthening their access and control over assets, developing livelihood skills, and strengthening safety nets.

The stages of the epidemic that a community may pass through

- AIDS initiating: the HIV prevalence rate is low at present but is expected to rise in the near future due to the presence of HIV-risky environments and bridging populations, and norms and traditions within the community;

- AIDS impending: the HIV prevalence rate is already high (based on data and observed behaviour) but the community is not yet heavily impacted by AIDS-related illnesses and deaths; and

- AIDS impacted: the HIV prevalence rate is high and households and the community are already impacted by AIDS-related illnesses and deaths.

  These stages may be represented on the HIV/AIDS pathway. If a community is at the initiating stage, most of the community members are before gate 1; at the impending stage, a significant number of the community will already be infected and progressing towards gate 2; if there are many AIDS-related deaths, the community is already beyond gate 3.

What are the sources of risk of HIV infection in rural communities

There are three sources of risk of infection in rural communities:

- Potentially HIV-risky environments or hotspots in and around each town;

- Bridging populations comprising people who are at higher risk and that provide substantial links with other subpopulations who have lower risk behaviour.

- Cultural traditions and practices which may hasten the spread of the disease once it is present in rural communities.

  The interrelationships between these three components and the rural community are presented in Figure below. It is also important to be aware of risks of infection specifically associated with agricultural production and marketing.
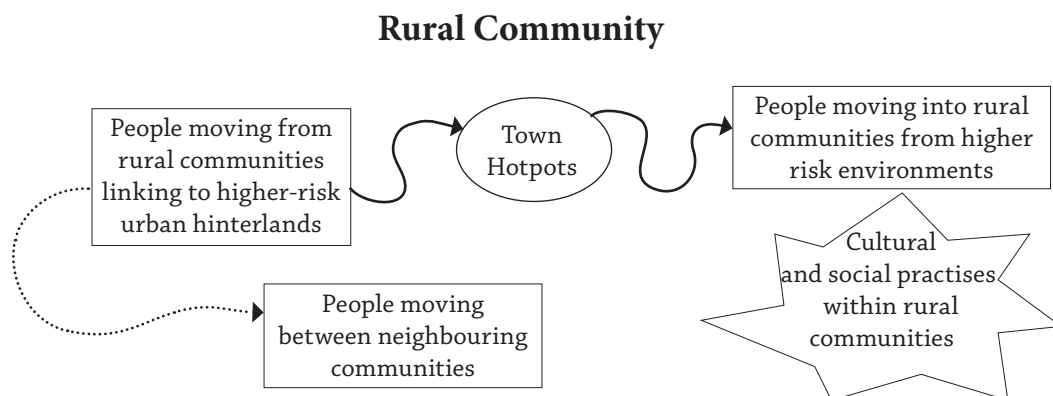
Rural Community

Figure 10: Inter- and intra-linkages between rural communities and urban hinterland

4.8 Gender in PFS

Background

Gender refers to the socially constructed roles, behaviour, activities and attributes that a particular society considers appropriate for men and women. The distinct roles and behaviour may give rise to gender inequalities, i.e. differences between men and women that systematically favour one group. Gender equality is essential in the achievement of the development goal as it benefits the entire household and community. PFS encourages that the group composition aims at achieving gender balance and that participation from men and women is encouraged as well as engagement in leadership roles. These gender equality mechanisms should be reinforced and complemented with improved knowledge and sensibility on gender of its participants.

Topic objectives

By the end of this topic participants will be able to:

• Describe gender dynamics in their community

• Explain the need to address gender issues in the context of PFS

• Practice how to conduct gender analysis in the context of PFS

Topic overview

1. What is Gender

2. Gender roles

3. Socio-cultural aspects

4. Gender Analysis

5. PFS gender indicators

6. Types of Gender Based Violence (GBV)

Method of facilitation

• Participatory Presentation

• Exercises: boys and girls, Proverbs, GBV tree

• Group discussion

Time: 4 hours

Materials: A4 sheets, cards, note book, pens, ruler, masking tape, coloured paper, photos, display board.

Handout: 4.8

Additional reference

• Gender and HIV/AIDS mainstreaming in a market oriented agricultural development context , ILRI

• Changing nature of gender roles in the dry lands of the Horn and East Africa, REGLAP

• Promoting Gender Mainstreaming within Pastoral Programs and Organisations: a generic guideline by Pastoralist Forum Ethiopia.

LEARNING ACTIVITIES

Activity 1: Definitions (20 minutes)

1. Using brainstorming as a technique, ask the participants their understanding of the term gender. Capture all the responses on flip chart.

   • Highlight key words in the definitions generated from the participants.

- Since gender is a commonly misunderstood development paradigm, the facilitator should draw up a working definition appropriate for the forum.

2. Differentiate between Gender and Sex.

Activity 2: Gender Roles (45 minutes)

1. Brainstorm on cases where roles prescribed for males and females conflict by comparing their culture and other cultures in the following areas:
   - Who is involved in childcare (baby sitting, guidance, counselling and discipline)
   - Who provides water and food (fetching, cooking and serving)
   - Housekeeping (cleaning, laundry)
   - Ploughing, planting, weeding, harvesting
   - Weddings/funerals ceremonies

2. Conduct the exercise: Boys and Girls

Steps

1. Separate the group into two, one side will be the boys and the other side the girls. Make sure to mix up men and women in both groups.
2. Give them two sets of coloured cards and asked them: remember what was expected that you would do or would be you when you were a child? and what was expected that you would not do?
3. Give the groups 15-20 minutes to discuss and produce cards
4. Then ask the groups to put them on the ground and for a representative from each group to present
5. Get the comments from the others on what could be missing.
6. Then ask the participants to reflect on the difference between gender and sex based on the experience

Activity 3: Socio Cultural Aspects (20 minutes)

Conduct the Proverbs, Saying and Gender Exercise

Instructions for the exercise:

(a) Please read through the attached samples of proverbs and saying and discuss what you think they mean with your neighbour and add others from your country. You have ten minutes. Once you have decided on the meaning there will be a short plenary discussion (the name of the country where the saying or proverb originates from is provided)

Women and men take part in decision-making

Sample proverbs and sayings:

- "He who listens to women suffers from famine at harvest time"—Tonga proverb from Zambia.
- "If the hours are long enough and the pay is short enough, someone will say it's women's work"—Swahili proverb.

(NB: Participants can also be asked to generate proverbs from their community and these are discussed)

(b) Please revisit these proverbs and sayings and discuss in your group what impact they might have on:

- Women and men's decision-making roles at the household and community levels
- Women and men's access to:
  - (i) Resources
  - (ii) Services (health, and education.)
  - (iii) Employment.

Activity 4: Gender Analysis and Gender Analysis Tools (45 minutes)

1. Define Gender Analysis
2. Introduce Gender Analysis Tools and their purpose

A. Activity profile (example) - Who does what

Role	Men	Women	Boys	Girls
Productive work				
• Food crop production				
• Life stock keeping				
• Digging of wells				
• Fishing/wild fruit gathering				
Reproductive activities				
• Water fetching				
• Fire collection				
• Child care				
Socio-cultural				
• Participation in village groups				
• Saving and Credit				
• Collective community work				

Table 22: Activity profile

B. Access and control over resources (example) - Who owns what

Resources	Access		Control	
	Men	Women	Women	Men
Natural material resources				
• Land (grazing areas)				
• Watering points				
• Capital				
• Livestock				
• Production inputs				
Socio-cultural resources				
• Information				
• Education				
• Training				
• Public services				
Etc				

Table 23: Access and control over resources

C. Benefit sharing (example) - who gets how much

Products of	Access		Control	
	Men	**Women**	**Women**	**Men**
Livestock 1. Oxen and cows 2. Camel 3. Goat 4. Donkey Etc.				
Livestock products 1. Milk 2. Butter 3. Egg 4. Skins, hides Etc.				
Crop products 1. Maize 2. Sorghum Etc.				

Table 24: Benefit sharing (a)

Table 25: Benefit sharing (b)

D. Daily routine activities (example)

Activities	Time						
	05	**06**	**07**	**08**	**09**	**10**	**11**
1. Cultivation							
2. Marketing							
3. Making food							
4. Cooking							
5. Looking after livestock							
6. Rest							
7. Fuel wood fetching							
8. Milking livestock							

Table 26: Daily routine activities

Activity 5: Gender Indicators in PFS (50 minutes)

Steps

Looking at each step on the PFS process, identify the gender indicators.

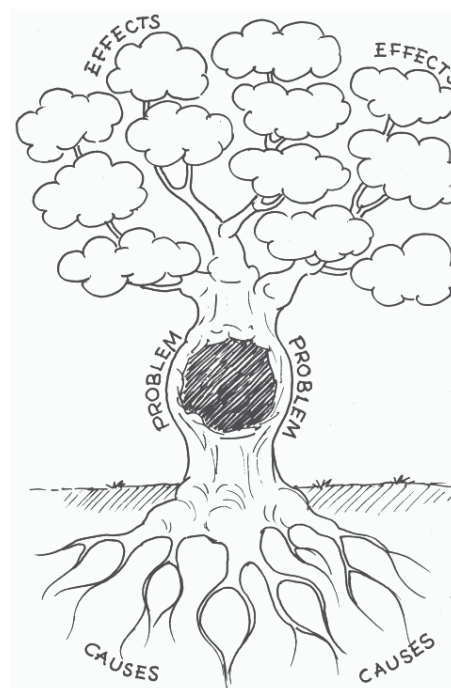**Example of PFS gender indicators**

- Gender composition of initial group.
- Number of facilitators trained (male and female)
- Number of subgroups and women participants.
- Number of gender related topics in the curriculum.
- Number of PFS sessions held and number of women and men participants.
- Number of comparative experiments performed (women led experiments).
- Number of female and male benefitting from exchange visits.
- Number of female and male actively participating from field days.
- Percentage of Gender related problems identified.
- Gender related focal enterprise.
  - Percentage   -   Number
- Number of females successfully graduating.
- Post graduates of PFS.
- Decrease of incidence of gender based violence.
- Number of sessions facilitated by men and women.
- Decrease in workload for woman

Activity 6: Types of Gender Based Violence (GBV) (1 hour)

Exercise: GBV TREE

Steps:

1. Ask participants to identify some forms of gender-based violence.
2. Draw a simple tree on the flip chart.
3. Ask participants to identify different forms of gender-based violence listing each example at the trunk of the tree.
4. Divide the participants into two groups, one group will focus on the causes of gender-based violence and another group will focus on the consequences of gender-based violence in our communities.Explain that the consequences of GBV can be organised into four general areas:
   - Health.
   - Emotional, social and psychosocial.
   - Legal/justice system.
   - Community and physical safety and security.

Gender-based violence tree

5. The groups will present to the other participants and stick the writing cards on the GBV tree. With the causes on the roots and the consequences on the branches.

6. Discuss the causes and contributing factors and the consequences and what can be done in PFS to prevent and mitigate GBV.

Handout 4.8

Some Definitions of Gender

* Gender refers to the social differences between women and men, i.e. the different responsibilities of women and men in a given culture or location. These roles of women and men are learned and they are dynamic.

* Gender concerns the socially constructed roles and the resulting relationships between women and men, girls and boys in terms of rights, obligations and opportunities in a specified setting.

* Gender refers to the socially determined ideas and practices of what it is to be female or male; the widely shared expectations and norms within a society about appropriate male and female behaviour, characteristics, and roles.

Differentiate between Gender and Sex

Sex refers to the biological characteristics that categorise someone as either female or male; whereas gender refers to the socially determined ideas and practices of what it is to be female or male. Men and women play different roles that are shaped by biological, ideological, historical, religious, economic and social cultural determinants.

Sex			
Refers to the biological differences between men and women	Biological	Born with	Cannot be changed
Gender	Socially constructed	Not born with	Can be changed

Reproductive Work/Role: This includes the biological function of child bearing and child rearing and also social reproduction and maintenance of the workforce, e.g. by cooking and housekeeping. [Moser, 1999]. Though this work requires skills and takes the time of those who perform these tasks such work has been disregarded by extension service providers.

Productive Work/Role: This is involves the production of goods and services for payment. [Moser, 1999]

Community Work/Role: The community role of women is usually an extension of their reproductive role and includes such tasks as the maintenance of collective resources such as roads. [Moser, 1999]

Gender Analysis: This is the systematic gathering and examination of information on gender differences and social relations in order to identify understand and redress inequalities based on gender.

Gender Analysis Tools: They help us to gather and examine information on gender differences and social relations in order to identify, understand and redress gender issues and concerns. These tools include:

1. Activity Profile.
2. Gender Daily Calendar.
3. Access and Control Profile.
4. Benefits Analysis Chart.
5. Gender Analysis Matrix.

4.9 Nutrition in PFS

Background

Nutrition is the area of knowledge and practice concerned with food, and how it is used in the body. It includes how food is produced, collected, bought, processed, sold, prepared, shared and eaten as well as how it is digested, absorbed and used in the body and how it influences the well-being. Nutrition is fundamental and a cross cutting issue in pastoral setting.

Topic objectives

By the end of this topic participants will be able to:

- Explain the importance of nutrition in PFS.
- Have basic knowledge on nutrition.
- Identify local foods and their nutritive value.
- Discuss methods of food handling and preservation in a pastoral setting.
- Explain the role of nutrition in HIV/AIDS.

Topic overview

1. Basic facts on Nutrition.
2. Definitions and food groups, Diet diversification.
3. Food Handling and Preservation.
4. Nutrition and HIV/AIDS.

Method of facilitation

- Participatory presentation on basic nutrition information.
- Group discussions.
- Group exercises.
- Experience sharing.
- Illustrations/pictograms

Time: 3 hours

Materials: Pictograms, A4 sheets, cards, note book, pens, ruler, masking tape, display board.

Handout: 4.9.1, and 4.9.2

Additional reference

- JFFLS New Modules
- Maximising nutritional impact of FS and Livelihood Interventions – ACF Int.
- Milk and meat in pastoral areas (Kate et al.)
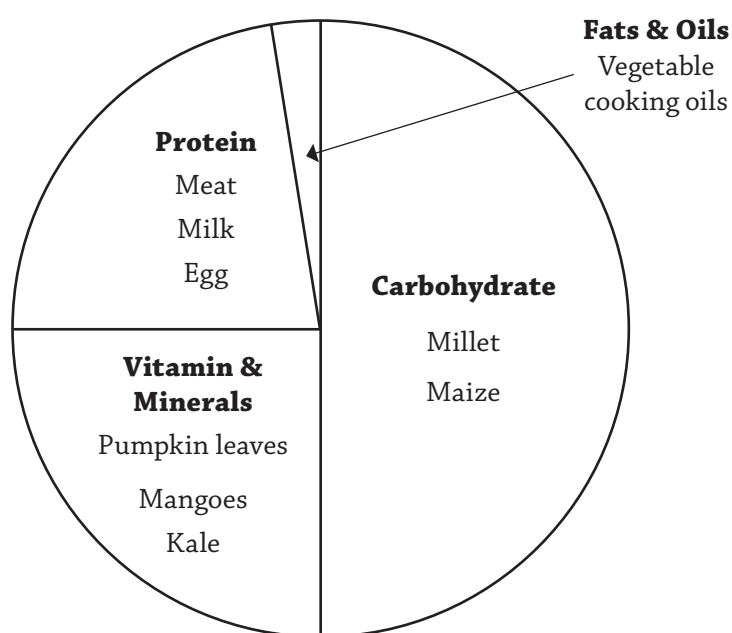- Milk Producer Group (FAO)

LEARNING ACTIVITIES

Activity 1: Basic facts on Nutrition (20 minutes)

Explain to the participants using any participatory approach the basic facts on Nutrition.

Activity 2: Analysis of Locally Available Foods and Meal Planning (1 hour)

Objective:

• To identify the locally available foods and their major nutritional value.

• To tell participants to plan for a balanced meal by use of the locally available foods.

• To analyse frequency of consumption of these foods in the community

1. Divide the participants into groups based on the regions which they come from.

2. Prepare 20 small pieces of writing papers for each group.

3. Distribute the writing materials and pens.

4. On each piece of paper, ask the groups to write one ingredient of a food that is locally available for example, milk, maize and meat.

5. Give each group a large manila paper to draw a round plate.

6. Ask the participants to divide the plate according to the proportions of each type of food that we need to eat in a healthy meal. The following is an example:

A plate with different proportions of food groups and examples of foods.

7. Each group will stick their ingredient papers, according to the nutrients they think they provide, on the different parts of their plate.

8. Each group will present their plate to the others, and discuss if their ingredients are well placed and if their meals are balanced.

9. Looking at the different ingredients listed by each group discuss the average frequency of consumption as shown in the following table:

Ingredient	Daily	Weekly	Monthly	Rarely
Fish				
Beef		√		
Maize	√			
Beans				√
Milk			√	
Eggs				
Traditional vegetables				
Goat meat				

Table 27: Average frequency of consumption of various ingredients

10. Discuss with the participants the importance of eating meals and frequency of consumption of different food groups.[4]

Activity 3: Cultural Influences on Food Choices and Consumption (30 minutes)

Objective:

To highlight both positive and negative cultural beliefs that affect food consumption.

1. Define culture.

2. Divide the participants into two groups.

3. Give coloured cards to each group and ask them to discuss and write down at least five different traditional sayings, beliefs or practices in their communities that touch on consumption of different foods by different groups of people (they can be positive or negative). This activity may take 10 minutes.

4. Each group will present to the rest what they have written down.

5. Brainstorm on what impact these sayings/beliefs/practices have on both the food choices and consumption of:

    (a) Women.

    (b) Children.

    (c) Men.

    (d) General household.

6. Highlight on the positive ones that should be promoted and discourage the ones that have a negative impact on nutrition.

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4   (This exercise has been adapted and modified from 'Healthy Harvest: A training manual for community workers in good nutrition and the growing, preparing and processing of healthy foods')

Activity 4: Food Handling, Preparation, Preservation (50 minutes)

Food preservation is the process of treating and handling food to stop or slow down spoilage (loss of quality, edibility or nutritional value) and thus allow for longer storage. It aids in preventing the growth of bacteria, yeasts, fungi and other micro-organisms to the food. It is important to become familiar with hygiene routines in preparing food, so as to avoid spoilage and also food poisoning.

Objective:

To assist the participants to identify both the positive and negative local food handling, preparation and preservation practices in their communities and how they can assist the community to improve the positive practices and discourage the negative ones that may affect the nutrition content or hygienic factors of the foods.

1. Divide the participants based on the different regions they come from, (if all the participants come from one group, or are in regions with similar practices, just form one group).

2. Distribute the writing materials to the group (s).

3. Ask the participants to write down, on different sheets of paper, the different food handling practices in their community, different preparation methods of the most common foods, and different ways through which they preserve the foods.

Food preparation process.

(Diagram adapted from: CTA Practicals Guide Series, No. 12)

For example, in community D, wild fruits are eaten directly after plucking without cleaning; milk containers are cleaned with hot ashes before storing milk.

In community E, meat is roasted before eating; milk is sun dried for later use in the drier seasons or certain herbs are inserted into the container with milk for preservation.

4. Ask each group to present their findings. Compare and analyse the responses from the different communities. Highlight the good practices and the bad ones that reduce the nutrition quality of the foods.

5. Discuss the practices to encourage or to improve on and which ones to discourage.

6. Discuss the factors that also affect general good food handling, preparation of food and preservation in the community.

7. Identify practical recommendations to the challenges that can be implemented at the community level.

Exercise

1. In 15 minutes, clean milk storage equipment (bottles, guards) using traditional and modern materials.

2. Store some milk in different ways then discuss the preservation methods.

Activity 5: Nutrition and HIV/AIDS (20 minutes)

Explain the relationship between nutrition and HIV/AIDS.

Handout 4.9.1: Basic information on nutrition

Nutrition: It is the sum of the process by which the body uses food for energy, maintenance and growth.

Nutritional status: It is the condition of the body as it relates to the consumption and use food.

Malnutrition: It is the state in which there is a prolonged lack of/excess of one or more nutrients which retard physical development or causes the appearance of specific clinical conditions.

A household's nutritional well-being depends on access to a nutritious diet at all times. Nutritional well-being requires access to enough nutritious and safe foods to meet the dietary needs of all members of the households throughout the year.

A balanced diet requires:

Carbohydrates: These are energy giving foods. They provide energy to work and grow. Eating more of complex carbohydrates than polished/simple carbohydrates is encouraged. Sources of carbohydrates are like rice, maize, bread, *chapati,* yam, cassava, sweet potatoes, pasta, arrow roots and cereals.

Proteins: These are body building foods. They are needed for growth and repair of worn out tissues. They are found in both plants and animals products such as animal protein, fish, chicken, beef, mutton, pork, dairy products, lentils, soya, beans, peanuts and peas.

Vitamins: These are protective foods. They are divided into:

- Fat soluble vitamins such as vitamins A, D, E, K.

- Water soluble vitamins like vitamins C and B complex.

They may be found in fruits, vegetables and whole grain cereals, organ meats and dairy products.

Mineral salts: Theses are also protective foods. However they are required in small amounts. Sources of these include vegetables, fruits, milk and meat.

Fats: Good fats are derived from omega fats, avocado, olive oil, sunflower and corn oil.

Fibre: Sources of these include fruits, whole meal grains, nuts and seeds, and vegetables.

Water: At least six to eight glasses of clean, boiled water is recommended.

The foods must be taken in hte correct proportions and combinations depending on age, gender, physical activity and medical condition.

A balanced diet must:

- Meet your daily energy/calories requirements.

- Meet your nutritional requirement for optimal growth and development.

- Give you quality life that is, free from illness and medical bills, proper sleep and a stress free life.

Handout 4.9.2

HIV/AIDS and NUTRITION

Nutrition and HIV/AIDS is complex. Malnutrition leads to immune impairment and any immune impairment leads to malnutrition. In HIV, malnutrition contributes to more rapid progression to AIDS. On the other hand, HIV progressively damages the immune system and malnutrition itself may also increase the susceptibility to infection. Both scenarios can make a person susceptible to a range of opportunistic infections and conditions, such as weight loss, fever and diarrhoea. These conditions can also lower food intake because they both reduce appetite and interfere with the body's ability to absorb food.

HIV infection increases nutrition requirements. It affects nutrition in 3, sometimes overlapping ways:

- Decrease in the amount of food consumed

- Impaired nutrient absorption

- Changes in metabolism

HIV/AIDS lowers food intake due to:

- Poor appetite

- Difficulties with chewing and swallowing

- Nausea and vomiting

- Poor sense of taste

- Less money available for food

- Depression and anxiety

- Isolation

- Reduced ability to care for oneself

Benefits of good nutrition in HIV/AIDS

- Prevents malnutrition and wasting

- Enhances body's ability to fight diseases

- Improves the effectiveness of drugs

- Achieves and maintains optimal body weight and strength

- May help delay the progression of HIV

- Improves the quality of life

Advantages of dietary management in HIV/AIDS

- Enables greater food intake

- Contributes to increased comfort

- Compensates for nutrient losses

- Prevents dehydration

- Complements and strengthens medical treatment

- Reduces severity of symptoms

4.10 Community Managed Disaster Risk Reduction

Background

Community Managed Disaster Risk Reduction (CMDRR) is a process in which a community systematically manages its disaster risk reduction measures towards becoming a safer and resilient community. By identifying the problems or hazards that may take place normally but which could become disasters during extreme circumstances, the community can prepare itself better.

The process of CMDRR that the community will go through helps it identify hazards within it, what needs to be done to make sure a hazard does not become a disaster, how much capacity it already possesses to cope and what kind of outside help it may need (if any). This exercise will also help a community prioritise which steps to take first in planning for disasters in an orderly well laid out plan. The sessions on CMDRR will help tackle these four questions.

Topic objectives

By the end of this topic participants will be able to:

- Describe the basic concepts, principles and practices of CMDRR and its uses
- Identify and prioritise hazards and undertake vulnerability and capacity analysis in order describe the level of risk at community level
- Develop and implement DRR plans at community level in collaboration with other stakeholders

Topic overview

1. Constructing a Seasonal Calendar
2. Identifying the hazards within a community
3. How does a disaster affect my life
4. Understanding community vulnerability
5. Capacity assessment
6. Hazard mitigation

Method of facilitation

- Participatory presentations
- Brainstorming
- Group discussions,
- Group exercises,
- Experience sharing and case studies
- Practicing PRA tools
- Field visits
- Role-plays
- Illustrations / pictograms

Time: 14 hours (2 days)

Materials: A4 sheets, Cards, Note book, Pens, Ruler, Masking tape, Coloured paper, Photos, Scissors, Small balls, idea cards, Display board.

Handout: 4.10.1, 4.10.2, 4.10.3, 4.10.4, 4.10.5 and 4.10.6

Additional reference

- Building Resilient Communities: A training manual on Community-Managed Disaster Risk Reduction
- Livelihood Centred Disaster Risk Reduction (LCDRR): A Guide for Facilitators Based on Field Experiences in Zimbabwe, published by Practical Action Southern Africa, (2011).

LEARNING ACTIVITIES

Activity 1: Constructing a Seasonal Calendar (1 hour)

By the end of this session, the participants should be able to produce a seasonal calendar and seasonal activities of the community of a normal year and the elements that affect activities

1. Draw up a seasonal calendar for a normal year in your area. (Do not worry too much about defining 'normal'. It just means 'the kind of year in which it was not a boom or a bust)

2. Start at the beginning of the year and describe the things that happen over a 12 month period in a normal year. This will vary from place to place. You may want to include:

   • Rainfall

   • Pasture condition

   • Water availability (quantity, location – and maybe cost)?

   • Livestock condition (each important species separately)

   • Livestock deaths

   • Livestock prices

   • Normal migration patterns – who goes where with which animals,

   • Milk supply

   • Peak calving periods and milk availability from different species.

   • Price of grain and other purchased foodstuffs

   • Other seasonal income such as firewood/charcoal, casual labour in towns.

   • Other seasonal food sources such as wild foods, hunting or fishing

The calendar should be for a 12 month period using the above categories down the left hand side with the time period (months) across the top. For example:

INDICATORS	Jan - 09	Feb -09	Mar - 09	Apr - 09	May - 09
Rainfall				poor rain	poor rain
Pasture	minimum pasture	minimum pasture	no pasture	some pasture recovery	declining
Livestock					
Water			severe water shortage	some recovery	some recovery
Human access			quality?		
Livestock access			water source empty	access to water improved	
Livestock condition		cattle condition declining		possible loss of weaker livestock	possible improvement
Livestock prices: uncertainty on what would be sold, demand and prices			low demand, low price	reluctant to sell	improved price due to lack of animals in the market
Livestock conception			below normal livestock conception		

Livestock births		few cattle births	few cattle births	few shoats kidding - slaughter to protect breeding stock	
			Milk production reduced	milk ends early	No milk
Cows milk					
Livestock mortality				Increased mortality	
Grain prices		high	high	high	
ToT	stable	stable	stable	slightly improved	
Debts				normal seasonal debt not repaid	
Malnutrition rates			GAM over 30%		
Mortality rates			low mortality		

Seasonal calender

Activity 2: Identifying The Hazards Within a Community (1 hour)

By the end of this session, the participants should be able to:

- Produce a conceptual map or profile clearly depicting hazards, their severity and distribution in the community.
- Understand how un managed hazard can become a disaster and why it is necessary to implement risk reduction.

1. Divide the participants into groups of 4 or 5 people. Each group will discuss the following and produce a map or drawing showing the hazard/disaster and how it affected their community. Each hazard map should identify hazardous zones, roads, forests, water resources, institutions, and safe places. Identify the physical location(s) of vulnerable and resilient households and the resources they rely on.

    - What was the most recent hazard /disaster event that has happened in a district where one of your dioceses operate recently
    - How did the disaster affect your community?
    - What was the immediate response of the community, external organizations, NGOs and the government?
    - In what way were these responses adequate or inadequate?
    - What lessons can we draw from your answers in the preceding questions in terms of the link between disaster and development?

2. Come back into Plenary Session. Within the larger group, consolidate the hazard maps of the community into five common hazards.

3. Discuss with the group how a hazard can become a disaster if not anticipated and managed. For example, a dry season can turn into a drought if rainfall fails many times during a year. Discuss what is needed to prevent a drought having a bad effect on the community.

4. Conduct a hazard assessment using the following tools.

Procedure

1. Divide the participants into five groups. Ask each group to choose the hazard it would like to Analyse, based on the members' familiarity with the hazard.

2. Distribute the Hazard Assessment Form to the participants. Explain that the key elements in profiling a hazard are force, warning signs and signals, forewarning, frequency, duration, period of occurrence and hazard description.

3. Using as example a hazard not prioritised by the group, illustrate how to characterise a hazard by using the prepared flip chart containing the Hazard Assessment form. Fill up the fields in the form together with the participants (See example below). Allow participants to debate on the correct answers

Exercise: How will the hazard affect me and my community?

Sample completed table from Amethek community, Turkana

HAZARD: PROLONGED DRY SPELL (DROUGHT)				
Community Profile: KARAMOJONG **Language spoken by the people:** Ngakarimojong **Ecological zone:** 4 **Rainfall:** Greater than 500mm **Vegetation:** Open grassland acacia associated **Population:** Sparsely populated and settled **Livelihood:** Agro-pastoral system **Source of water:** Boreholes				
Characteristics	**Elements**	**Analytical Description of Hazard**	**Exposure Variables**	
			How will it affect me?	**How will it affect my community**
Cause/Origin -	Deforestation, unreliability of rainfall	Drought occurs due to the destruction of tree cover and vegetation which is a source of attracting rainfall and act as wind breakers	No food due to poor crop yields and low milk production from livestock High inflation Increased cost of foodstuffs	Increased food insecurity at community level Malnutrition among under five children Poor livestock body condition Emaciated livestock and high death rate(high asset losses)
Force -	Food insecurity, hunger			
Warning signs and signals -	Flowering of acacia trees, The milk way moving towards the south, reading of the intestines, water table of shallow wells going down, comet star appearance, in-migration and out-migration, Frogs stop making noise and syclonic winds,			
Forewarning	Takes more time 2 to 3 months			
Speed of onset	Slow onset			
Frequency	3-4years (after a year of good harvest its projected that a drought follows)			
Period of occurrence	Cannot be determined but dependent on whether short rains of the previous year so expectation of the next year will be drought effect			
Duration -	More than 6 months			

Activity 3: How does a disaster affect my life (3 hours)

By the end of this session, participants should be able to:

- Understand the concept of a livelihood and how it is made up of five assets; financial, physical, natural, human and social.

- Understand the relationship between disasters and their effect on people's livelihoods.

- Understand that by protecting the assets of a community, it can better withstand the effects of a disaster.

1. In a plenary session, introduce the concept of livelihoods and how it relates to DRR.

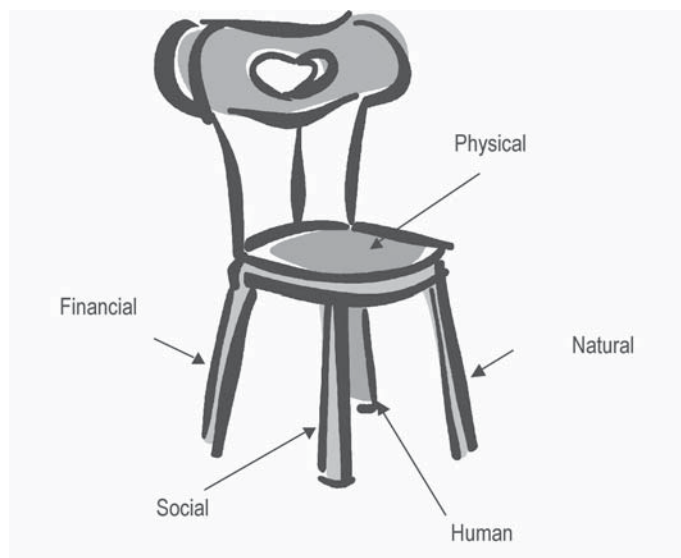2. Ask participants to describe what they understand as someone's "livelihood". Introduce the definition.

   Livelihood – the various assets people use and access to maintain their means of living and enhance their well-being. These assets include their homes, health, water supplies, social support, farms, tools and jobs.

3. Explain that how a community sustains itself is dependent on the maintaining of all five assets. For example, earning a livelihood through raising livestock (financial asset) requires water and feed (natural asset), a market to sell them (physical asset), knowledge of animal health and husbandry (human asset) and traditional institutions to discuss grazing lawnds, water access etc (social asset). All of these assets are necessary to enable the community to sustain itself successfully in this enterprise.

4. Discuss the following diagram:

   ### Five Assets of a Sustainable Livelihood

   The five assets that make up a livelihood are represented by a chair. All four legs and the seat of the chair must be functioning properly in order for the chair to be able to do its job. If a leg is broken or the seat has a hole in it, nobody can sit on the chair and it cannot serve its function properly.

   The same is true of a livelihood. All five assets; financial, physical, natural, human, and social must be present and functioning properly otherwise the livelihood of the family and community suffers

Assets of sustainable livehood

5. Go through the chair diagram, discussing with the community the different types of assets within it and categorise them accordingly.

6. Go back to the Community Maps drawn in Section 2 and have the community mark on the maps which category of financial, social, human, natural or physical features on the map fit into these.

7. Draw a consolidated Community Map with different elements of it categorised by asset classification.

Activity 4: How might my livelihood be affected adversely by a hazard that becomes a disaster? (Understanding community vulnerability) (3 hours)

At the end of this session, the participants should be able to do the following:

- Participants gain enhanced understanding of what constitutes vulnerability, and how policies shape this.

- Be able to produce a vulnerability assessment matrix. This can yield up-to-date and accurate information on the nature and distribution of hazards and vulnerabilities of different groups of people.

Vulnerability Assessment – Identifies what elements are at risk (humans and their assets) because of the exposure to the hazard due to their location.

1. Discuss in Plenary:

    - What makes a household more vulnerable to a hazard?

    - What might be some of the underlying causes that make people vulnerable?

    - What part does lack of livelihood assets play in vulnerability? What part does the 'enabling environment' (institutions and structures) play in constituting vulnerability?

2. Facilitate discussion on why it's important to analyse and understand the vulnerability context with respect to livelihoods and why protecting livelihoods and assets can play a role in reducing the impact and risk of a disaster.

3. Facilitate a discussion around the following table which is an example of a completed Vulnerability Assessment Matrix. Following this, have the participants break up into groups and complete the blank form, choosing a hazard that is present in their community.

The identified hazard is drought

	Vulnerable Assets What are the impacts during or after the hazard (short/long term)	Livelihood conditions/ characteristics of peoples livelihoods make those assets vulnerable?	Policies & institutions (local, regional, national) Which policies or institutions (or lack of) contribute to the vulenrable conditions? How?
Financial assets	Loss of crops Loss of livestock Sale of assets for cash	Dependence on rain-fed agriculture Inadequate food and water stores for animals No alternative income source No savings	Ministry of Agriculture - limited support to small scale rain fed farming Church - festivals and rituals reduce livestock Lack of small savings institutions
Natural assets	Water shortage Dry pastures Soil erosion No wild food	Environmental degradation Deforestation Loss of traditional seed varieties Loss of traditional knowledge	No local institutions for NRM
Physical assets	Shallow wells dry	No water harvesting No protected water sources	No local institutions to manage water
Human assets	Malnutrition Death Loss of strength Stress	No early warning systems Poor health care & family planning Poor vocational skills for enterprise based livelihoods Low education level Large families	MoH - limited health care provision MoE - limited education support/ high cost of education Village elders - promote large families
Social assets	Increased family conflicts Education disrupted Migration	Competition for limited resources Gender inequalities Weak civil society Lack of local employment	

Table 28: Vulnerability assessment

Activity 5: The assets or coping strategies the community possesses in preparation for a disaster (Capacity Assessment) (3 hours)

By the end of this session, participants should be able to:

- Acquire skills to better identify local capacity for development and risk reduction
- Identify 'hidden' local capacity for risk reduction
- Produce a capacity assessment matrix

Capacity assessment is a tool which seeks to understand existing areas of livelihoods capacity and opportunity, to build on them in later planning.

Exercise 1: Carry out capacity assessment

1. In the larger group, discuss the framework on the following page, using examples of how it might be adapted to the community.

2. Divide the participants into the same groups used for the hazard assessment. Using a blank framework based on that previously discussed, get each group to carry out a capacity assessment for their chosen hazard.

3. Each group should fill in the table with as much detail as possible about capacity.

4. Start first by looking at the assets and coping strategies that can be secured during or after a hazard. Second, analyse people's livelihood conditions/characteristics and technologies that enable them to protect assets or recover quickly. Lastly, ask participants to look at opportunities in the policy and institutional environment.

5. If time permits, allow groups to Summarise and present some of the points of their analysis reflecting on lessons and experiences from the process

Example of a Capacity Assessment Tool

Hazard is drought

	Secure assets Which assets are protected during or quickly recovered after the hazard (include coping strategies)?	Sustainable livelihood conditions/characteristics What characteristics of peoples livelihood helps them to be able to protect assets or recover quickly? What technologies could help protect or enhance assets at risk	Policies and institutions (local, regional, national) Which policies or institutions help reduce vulnerable conditions? How? What opportunities exist to change or influence them?
Financial assets			
Natural assets			
Physical assets			
Human assets			
Social assets			

Exercise 2:

Still in groups, have each group draw a map or pictorial representation of existing community capacity, that is, knowledge, elders meetings, traditional institutions, peace and conflict transformation skills, PFS, women's and men's networks, income diversification activities, local technologies, ITK.

Activity 6: Ranking risk reduction priority or hazard mitigation (3 hours)

By the end of this session, participants should be able to:

• Identify the most important areas of vulnerability for the community to tackle in order to reduce risk in the future.

1. Using the Seasonal Calendar drawn in Session 1, get the group to indicate the three most important hazards discussed in Session 2 and when they might occur during the coming seasons. Draw these on to the calendar.

2. Based on the group's knowledge of past years and hazards and disasters that have occurred, get the group to discuss whether there is forewarning of these disasters and how long the lag period might be between warning of imminent disaster and onset. Discuss whether there is time for planning to avert risk and what might be done.

   • Does the community have capacity to cope within if they make plans in enough time?

   • Is outside help needed and if so, how should it be solicited?

3. Get the group to agree on the 3 most important hazards to be tackled based on the previous discussions and write them down on a flip chart.

Handout 4.10.1

Participatory Disaster Risk Assessment

The Four Steps in Participatory Disaster Risk Assessment (PDRA)

1. **Hazard Assessment** – Identifies the most likely natural or human-made hazard or threat to the community, and seeks to understand its nature and behaviour.

2. **Livelihoods Analysis** – Identifies the livelihoods activities within a community in terms of 5 assets and illustrates their relationship to risk and disaster.

3. **Vulnerability Assessment** – Identifies what elements are at risk because of the exposure of their location to the hazard.

4. **Capacity Assessment** – Identifies the status of people's coping strategies which refer to the resources available for preparedness, mitigation and emergency response, as well as to who has access and control over these resources.

5. **Disaster Risk Analysis** – The process of consolidating the findings of hazard, vulnerability and capacity assessments and draw conclusions and recommendations for disaster risk reduction.

Handout 4.10.2

Session 2: Hazards in Community

Disasters are triggered by hazards. Hazards are external factors or events that can impact on people's lives with the potential to affect wellbeing or to do harm – depending on the circumstances in which they hit.

Hazards present themselves in many forms. Natural hazards are weather-related or geophysical in origin for example, floods, earthquakes, landslides and drought. Some 'natural' hazards are partly human induced, due to environmental degradation (such as landslides caused by deforestation, erosion gullies exacerbated by overgrazing and fires or poorly executed infrastructure development such as collapse of roads and bridges and dam walls. Epidemics (HIV/AIDS), psychological traumas and technological hazards (chemical spillages, radiation, like are also significant in some countries. Human activities are also contributing to Climate Change thus increasing the uncertainty of meteorological events.

People are threatened by hazards because of their social, economic and environmental vulnerability. Vulnerability reflects a state of 'being' – factors, including inequality, exploitation and marginalization leave people with limited capability to cope with challenging situations; poor people are not well represented in decision-making, they are often disenfranchised. Weak government institutions and poor development decisions exacerbate the situation.

Poverty and vulnerability are not the same – not all poor people are vulnerable to all hazards. Nevertheless, the links between disaster and poverty are clear: the poor tend to be the most vulnerable, and it is the most vulnerable that are worst affected and suffer most. The capacities of the poor to cope with hazards and recover from the effects are constrained by their lack of access to information and resources.

In assessing vulnerability it is important always to consider differential vulnerability. Certain households will be more susceptible to a hazard; particular social characteristics, such as age, gender, religious or ethnic grouping, disability or economic status, will influence somebody's vulnerability. These differentials must be explicitly considered.

Disasters are rarely just one-off events, but more often the result of deep-rooted long-term failures of development. Very often the impact of several small adversities is all that is required to drive the poor from a state of vulnerability to one of total destitution.

Note

A hazard can either be man made or natural but it is not synonymous with 'disaster'. A disaster occurs when a community cannot cope with the deleterious effects of a hazard. Therefore, a disaster is a social construct, always the consequence of human failure to plan well. In other words, a hazard event is a necessary but not sufficient condition for the occurrence of a disaster. For example, if a flood occurs in south Sudan but does not result in massive loss of lives and property, the flood is only a hazard event not a disaster.

Handout 4.10.3
Session 3: Livelihoods

Livelihood may be described as the various assets people use and access to maintain their means of living and enhance their well-being. These assets include their homes, health, water supplies, social support, farms, livestock, tools and jobs.

The Sustainable Livelihoods Approach takes a holistic view of how people generate and maintain their means of living: it recognises the broad range of assets and activities required to survive, and the support of the social networks and institutions that they are part of. These assets are affected by trends and shocks.

They are the core influence on vulnerability. The Sustainable Livelihoods Framework focuses on five types of assets that make up people's livelihood:

(a) Financial assets for example activities or resources that can generate cash such as savings, labour, livestock and financial services.

(b) Natural assets (natural resources) such as land, soil, water, environmental assets, rivers for fishing and forests for wild foods.

(c) Physical assets which are physical structures such as roads, buildings, schools, houses, markets, and tools used to make a living such as ploughs.

(d) Human assets for example, health, knowledge, education, skills, confidence and access to health facilities like.

(e) Social assets like family links, churches, women's groups, support networks and political influences over political decisions.

For disaster risk reduction, focusing on livelihoods is important: a vulnerable livelihood can mean that a hazard becomes disastrous; whereas finding ways to build sustainable livelihoods can build resilience to disasters. So the livelihoods approach can help to identify people's livelihood assets and their vulnerability to hazards and other external forces. This makes it possible to identify entry points to protect the assets that are most at risk or most valuable in times of crisis. It gives insights into people's choice of strategies why they live in fragile and potentially risky situations and how they cope in "normal" circumstances.

Handout 4.10.4

Session 4: Understanding Community Vulnerability

For disaster risk reduction, focusing on livelihoods is important: a vulnerable livelihood can mean that a hazard becomes disastrous; whereas finding ways to build sustainable livelihoods can build resilience to disasters. So the livelihoods approach can help to identify people's livelihood assets and their vulnerability to hazards and other external forces. This makes it possible to identify entry points to protect the assets that are most at risk or most valuable in times of crisis. It gives insights into people's choice of strategies why they live in fragile and potentially risky situations and how they cope in "normal" circumstances.

To do this, a **Vulnerability Assessment** is used. This will help in designing activities to reduce disaster risk.

The Sustainable Livelihoods Framework is useful in Vulnerability Assessment. It can help in analyzing the specific ways that hazards impact on people's livelihoods. It can break down the different aspects of a livelihood that are vulnerable (according to the five categories of livelihood assets financial, natural, physical, human, and social).

In a community facing different types of hazards, as identified in the Hazard Assessment, the vulnerability of the community should be assessed for each specific hazard. Remember that different groups experience different vulnerabilities. In particular, women who will often play a uniquely important role in times of disaster, assuming responsibility for the survival and care of children, the elderly, the sick and the disabled can be vulnerable, facing potential violence, social isolation or economic dependency.

So always ask who is at risk; ensure that all voices are heard in discussions; and highlight all the hazard vulnerabilities that are experienced for each group.

For each hazard and for each group, Vulnerability Assessment asks:

*   What livelihood assets are at risk? What are the impacts on financial, natural, physical, human and social assets? How are assets affected? Would they be destroyed by the hazard, or weakened, or sold, or undermined?

*   Why are the assets at risk? What are the characteristics that make people and assets vulnerable? What are the livelihood conditions that contribute to that vulnerability? What are the differences compared to people whose assets are not vulnerable to the hazard?

*   What policies or institutions are contributing to those vulnerable conditions? What are the underlying factors of vulnerability? What policies, institutions or conditions limit people's ability to access, develop or protect assets? Vulnerability may be influenced by policies and actions that occur regionally, at County level, or nationally, as well as local circumstances.

Handout 4.10.5

Session 5: Capacity Assessment

Livelihoods Capacity Assessment highlights which existing assets, policies or institutions can be drawn on by communities in order to cope with, prevent, prepare or recover from hazards. It aims to identify the existing strengths within the community based on the assets they have available to them or can mobilise; as such this can be an empowering process.

Considering individuals' and communities' capacities is an important step in choosing the most appropriate strategies to strengthen livelihoods and respond to vulnerabilities for DRR. It ensures that the resulting DRR plan of action will be effective and achievable. If the assets and resourcefulness which exist in communities and households are ignored when designing risk reduction measures, existing coping methods may be weakened, leading to increased vulnerability.

Capacity comprises the ability to gain access to assets and entitlements, to influence policies, and the capability and motivation to carry out actions which may reduce vulnerability. Especially important in Capacity Assessment are the human and social asset components of the livelihoods framework – including skills, knowledge, organisations and attitudes. People may also be able to identify technologies which play a part in reducing vulnerability (e.g. agricultural technologies such as ridging or particular seed varieties for drought resistance; or communications technologies to call for help in times of emergency).

For each hazard and for each group of people, Capacity Assessment seeks information on:

Protecting assets: Which assets are safe during the onset of the hazard? Which assets are quickly recoverable after the hazard? Which alternative assets can be drawn on to cope?

Sustainable livelihood conditions: What characteristics of people's livelihoods help them to be able to protect their assets or recover quickly, making them more resilient to the hazard? What capacities could help protect or enhance elements at risk? What resources could be drawn upon to implement a DRR plan?

Policies and institutions: Which policies or institutions help to reduce vulnerable conditions (both responding after a hazard has struck, and ensuring that people are not vulnerable before)? What opportunities exist to change or influence them?

Handout 4.10.6

Session 6: Priority Areas for Planning

The next step in the DRR planning process is to explore practical activities and options that can address the prioritized hazard risks and vulnerabilities. The identification of specific activities should be based on revisiting the VCA exercises. In drawing up risk reduction activities, it is important to include both disaster coping and preparedness strategies, and disaster prevention and mitigation ideas. Ensure that both the immediate causes of vulnerability, as well as the underlying causes, including the policy and institutional context, are addressed for longer-term livelihoods strengthening.

Proposed activities should clearly draw on existing skills and resources, rather than looking for too much external support.

Activities might focus on one or more of the following:

* Livelihoods asset protection.

* Livelihoods promotion and diversification.

* Disaster preparedness and coping activities.

* Early warning systems.

- Facilitating linkages with government and non-governmental agencies to access information and resources.

- Advocacy and influencing around policies and institutions to address the underlying causes of vulnerabilities.

Once a comprehensive range of ideas and activities has been brainstormed covering all areas of priority hazards and vulnerabilities, it will be essential to prioritise. This should narrow down the options to those which are likely to have the biggest impact, and those which are most feasible within the community's capacities and resources.

This prioritisation will be done first by discussing in the larger group, then by using a participatory ranking tool.

It may be useful to set rough time frames for immediate, short term and longer term actions.

The most successful risk reduction measures will be those which build on the resources and the indigenous coping strategies which already exist in the community.

ANNEX 1: Sample Group Dynamic Exercises

1. Group dynamics to energise participants

a) Claps

In the PFS, many different types of claps are used to energize the participants and also to welcome or thank a contributor.
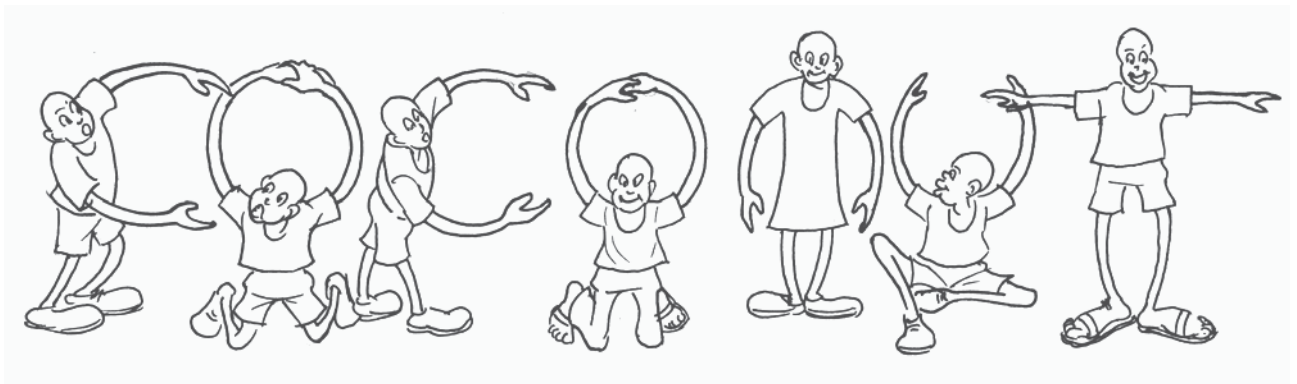
Time: 1–3 minutes.

Steps

1. The PFS clap: two rounds of three fast claps followed by one loud clap.
2. The OK clap: three fast stamps with one foot on the floor, three fast claps followed by the OK sign formed by the fingers.
3. The praise clap: three fast stamps on the floor, two fast claps followed by stretching the arms towards the person being welcomed or thanked.
4. The rain clap: the arms are raised above the head and the fingers are moving fast (like rain coming down), slowly the arms are lowered in a wide circle until they are down, followed by a loud clap with the hands.
5. The energy clap: the right arm is spinning around next to the body (like the wings of a helicopter) first slowly then faster. When the speed is at its fastest, a loud clap with the hands follows.

b) Coconut

Time: Five minutes.

Steps

The participants stand up and write the word C-O-C-O-N-U-T with their bodies (of course, any other word can be used)

Participants using body movement to write C-O-C-0-N-U-T

c) Fruits and animals

Time: 5–10 minutes.

Steps

1. The facilitator asks the group to form a circle standing up.
2. The group claps three times then the facilitator says the name of a fruit.
3. After three more claps, the person next to the facilitator says the name of an animal.
4. After three more claps the next person says the name of a fruit and so on around the circle.
5. If someone says the name of a fruit when an animal is required, or cannot think of a fruit or animal, or repeats the name of a fruit or an animal that has been said already, they must sit down.
6. Continue until only one participant is left standing.

d) Inside the field – outside the field

Time: 5–10 minutes.

Steps

1. Draw two parallel lines on the ground with a distance of approximately 2 meters between them.
2. Divide the group into two. Each group stands behind a line, so that the two groups are facing each other.
3. The facilitator explains that the area between the lines is the field.
4. When the facilitator says "Inside the field", all participants have to step over the line into the field area. When the facilitator says "Outside the field", the participants have to stand on the other side of the line.
5. The facilitator will gradually increase the speed of the commands to enhance the participants' alertness.
6. Each participant that reacts too late, or does not follow the command correctly is out.

Inside/outside the field

2. Group Dynamics to Enhance Participation

a) Talking object

Objective

• Encourage participation and discourage dominance.

Time: 15 minutes.

Steps

1. Participants sit in a circle.
2. An object is passed around the circle and the group decides on the subject of discussion.
3. The person who receives the object has to talk continuously until his/her neighbour decides to take the object and takes over.
4. This continues until all participants have spoken.
5. To reflect upon the exercise, the facilitator asks the participants to express how they felt when they were talking, when they had to wait for the object, and when they were interrupted.
6. Discuss that in a group it is important to share (talk), listen and respect other participants.

b) Knotty problem

Objectives

• Demonstrate that groups empowered to solve their own problems are much more successful than those instructed by outsiders
• Strengthen participants' confidence in their ability to solve problems themselves.

Time: 10–15 minutes.

Steps

1. Select one, two or three participants to act as PFS facilitators. They are asked to leave the room while the facilitator instructs the rest of the group.

2. Ask the remaining participants to hold hands in a circle and tie themselves into an entangled knot. They must not let go of each other's hands.

3. Once the knot is complete, the 'facilitators' who left the room return and are asked to unravel this knotty problem within three minutes, using verbal instructions only. They should hold their hands behind their backs so they are not tempted to touch the others.

Knotty problem

4. The participants entangled in the knot are asked to follow the facilitators' instructions literally and not make it easier for them by doing anything they have not been told to do.

5. The attempt is generally not very successful and sometimes even produces a more complex knot. Now repeat the exercise with the facilitators participating in the knot. When the knot is ready, simply ask the participants to get out of the knot themselves. This untying process is usually much quicker.

6. Ask the participants to comment on the differences between the first and the second time the knot was unraveled and why these differences occur. "What does the game tell us about the role of outsiders/facilitators and insiders (in the knot and in other problems in general)?" "What does the exercise tell us about the effectiveness of outsiders and managers in organising people?" "Who were the most successful in solving problems and why?"

c) Folding paper game

Objectives

- demonstrate that even simple instructions can be misinterpreted
- Raise awareness of misinterpretation of instructions and facts through non-participation, absenteeism and not asking for clarification
- Develop ways to avoid/resolve situations of misinterpretation.

Materials

Several sheets of paper (square sheets are most interesting, as ingenious participants could choose to fold them from corner to corner, thus getting a triangle).

Time: 5 minutes.

Steps

1. Select four participants (or ask for volunteers) and ask them to stand in front, facing the rest of the group.

2. Give each a sheet of paper. They must keep their eyes closed and must not ask questions.

3. Instruct them to fold their paper in half and then tear off the bottom right-hand corner of the paper. Tell them to fold the paper in half again and then tear off the top right-hand corner. Tell them to fold the paper again and tear off the bottom left-hand corner.

4. Ask them to open their eyes and display the unfolded paper to each other and the audience.

5. It is quite likely that the pieces of paper will look different. "What words in the instructions could be interpreted in different ways?" "How could the directions have been clearer to reduce the ambiguity?" "How can we encourage people to ask for clarification when they do not understand something?"

d) Puzzle

Objective

- To increase understanding of teamwork.

Materials

Puzzles made out of a piece of paper cut into pieces (better when the paper has a picture or drawing). Use a different puzzle for each sub-group.

Time: 15 minutes.

Steps

1. Make or use existing sub-groups.

2. Give each sub-group a puzzle and ask them to solve it in three minutes.

3. Discuss which group managed to solve the puzzle. "How did they do it?" "What were the roles of the different members of the group (e.g. who took the lead, who put the pieces together and who stood back)?" "What makes a good team?" "What kind of people should a team have?" "

3. Group Dynamics to Strengthen Group Work and Cohesion

a) The goats and the lion

Objective

*   To form sub-groups and make sure that the groups are mixed.

Time: 5 minutes.

Steps

1. Participants are requested to roam around the room as if they were goats grazing.

2. The facilitator explains that a lion is approaching and that only the goats that are in groups of a certain number, for example groups of eight, but can be any number will be safe.

3. The participants have to react quickly and hold each other's hands or shoulders.

4. This is repeated until the desired numbers of sub-groups are formed. With a group of 25–30, sub-groups of around 5–6 are most effective for learning.

Group dynamics

b) Gun, rabbit, wall

Objectives

- To enhance understanding of strengths and weaknesses, and learn importance of identifying strengths of each individual to help one another overcome weaknesses.
- To recognise importance of group work and consensus, since all members of a team need to be going in the same direction.
- To understand that a group needs to be organised to function well.

Time: 10–15 minutes.

Steps

1. Split the group into two.

2. The facilitator explains that there are three characters: a gun, a rabbit and a wall, each having its specific strengths and weaknesses. The gun can beat the rabbit since the rabbit can be shot. The wall beats the gun as it can stop the bullet, and the rabbit beats the wall as it can jump over it.

3. Each group has to decide whether it is a rabbit (by placing the hands on the head), a gun (by placing the hands like a gun) or a wall (by stretching the arms out wide).

4. The two groups form a line facing each other. The facilitator counts to three, then the groups show which they are by making the movements. The team with the most 'winning' moves is declared the winner.

Gun, rabbit, wall

5. What can be learned from this exercise? Each creature has its strengths and weaknesses. Also, a group needs to be organised and must communicate well, and a good leader can bring the group together.

6. In addition, the group has to pull together and will lose out if one person does something different from the others.

7. Ask the participants to comment on what can be learned from the exercise. (Each creature has its strengths and weaknesses, and that the group needs to be organised, communicate and reach a consensus to be able to win the game).

b) Digging exercise

Objective

- Enhance group cohesion and facilitate work through proper planning.

Materials

A hoe.

Time: 10–15 minutes.

Steps

1. The facilitator asks for three volunteers.
2. The participants are asked to dig together using the hoe.
3. In most cases, the participants struggle and the digging does not go very well.
4. The facilitator asks them to stop and asks the group what they just witnessed. What can we say about the digging? What can they do to improve the digging?
5. The three volunteers discuss amongst themselves and make another digging attempt.
6. When they have stopped digging, the facilitator asks what the group could observe comparing the two digging attempts. The first attempt was uncoordinated digging, whereas before the second attempt, the three participants coordinated the activity and agreed on how to dig together.
7. One can learn from this exercise that group work needs coordination and communication (agreements amongst all members) to be able to successfully conduct activities. This is what the sub-groups in the PFS need to keep in mind whenever they undertake an activity.

This exercise can also be done using a pen (for literate participants) to draw an object of their choice on a flip chart, using the same procedure.

4. Group Dynamics to Solve Conflicts

a) Different sites

Objectives

- provide insight into cause and effect of conflict
- provide ways and means of addressing conflict.

Materials

Several objects representing resources, such as books, pens and stones.

Time: 10 minutes.

Steps

1. The facilitator asks for four volunteers to leave the PFS learning site.
2. Objects (resources) are put in the middle of the remaining group of participants.
3. The facilitator gives instructions to the four volunteers separately. Each volunteer receives

instructions to take all the objects to a location. However, the location given is different for each volunteer.

4. The volunteers are asked to come back, have a look at the objects and follow up their specific instructions.

5. Each volunteer will move the objects according to the instructions given. Most probably a conflict occurs as none of the volunteers will manage to take all the objects to the place they were instructed, because the other volunteer will take the objects away again.

6. If the volunteers do not come up with a solution themselves, the facilitator needs to stimulate the volunteers to discuss how they can solve the problem. After discussing among themselves, the volunteers agree on a way to carry out the various instructions in a systematic way to the satisfaction of each of them.

7. The facilitator initiates the analysis of the exercise using questions like: "Has this exercise revealed general difficulties experienced in real life? If so, what kind?", "What was the solution of the volunteers?", "Is the solution applicable to conflict in real life?" and "What tool/mechanism was used?" (After discussion they understood each others' instructions and could then decide to follow up the instructions, one by one.) "What can we learn from this exercise?" (That communication and understanding of each person's needs and aims is crucial in conflict solving.)
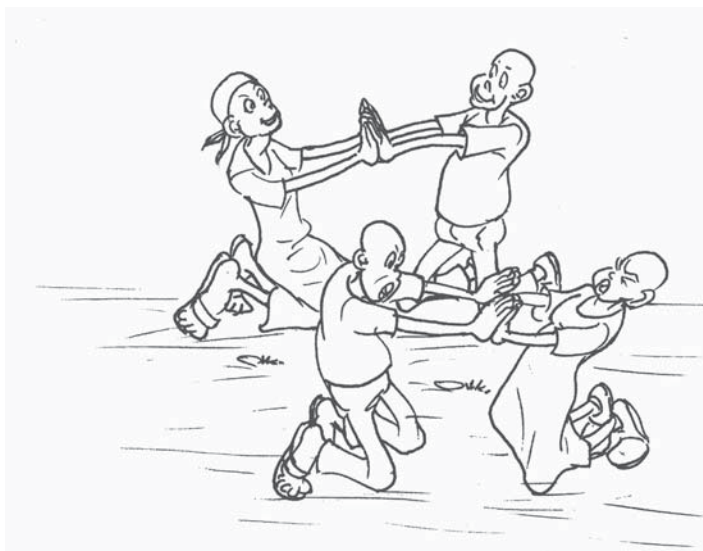
b) Come on over

Objective

- Demonstrate that non-resistance may actually work in your favour.

Time: 5–10 minutes.

Steps

1. The facilitator asks participants to form pairs and face each other while kneeling.

2. Designate one person 'A' and the other 'B'. Partners place their hands against each other with palms open and forward.

3. Ask each person to push their hands against their partners' with firm pressure. Tell A to give in (stop pushing) at any time without warning B.

4. Reverse the roles and repeat the exercise.

5. The facilitator asks the following questions: "How did it feel when you stopped resisting?" and "How did it feel when you exerted continued pressure?" Unnecessary strength or pressure can sometimes be counterproductive. "Can you think of some examples in daily life when this has happened?", "Can you think of examples in the PFS when this happened?"

Come on over

c) Confronting the lion

Objectives

- Show that people have different reactions to the same problem/obstacle
- Encourage self-analysis
- Show that obstacles can be overcome.
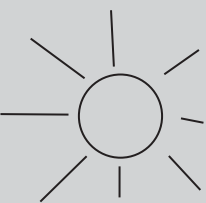
Materials

Flip charts and markers.

Time: 20 minutes.

Steps

1. Vividly describe a scene of walking alone and meeting a lion.
2. Ask participants to describe in one word what they would do in that situation.
3. The facilitator records these responses on a flip chart.
4. Why are the responses different? Discuss ways in which the responses may be similar to daily situations in which we meet 'lions' or problems and barriers.

ANNEX 2: Example of a Learning Curriculum

1. Learning Calender:

Topic/focus area	SEASON			
	Long Rains (March-May)	Post Long Rain (June-August)	Short Rains (September-November)	Dry(December-February)
	Fodder/Pasture planting/Establishment			
Fodder production	Topic of the day	Topic of the day	Topic of the day	Topic of the day
	Fodder /Pasture planting/Establishment	Fodder conservation Pasture harvesting and Hay making Pasture seed bulking **Comparative experiments** Pasture/fodder harvesting and storage methods	Fodder /pasture planting **Comparative experiment:** Fodder planting different species Exchange visit	Fodder conservation Pasture harvesting and hay making Pasture seed bulking **Comparative experiment and demonstration:** The different methods of fodder conservation. Exchange visit
Livestock health husbandry and production	Topic of the day	Topic of the day	Topic of the Day	Topic of the day
	• Tactical de-worming • Tick disease and pest **Comparative experiments** • Traditional versus modern de-worming • Traditional disease and pest control methods versus modern • Supplementary feeding versus free range feeding	• Importance of mineral licks • Supplementary feeding **Comparative experiments** Comparison between free range feeding, supplementary feeding and full zero grazed	• Livestock pest and Disease management and control • Husbandry practices: dehorning, castration, hoof trimming **Comparative experiment and Demonstration** • Tick control • Mange treatment • Dehorning, castration, hoof trimming	• Housing for the young • Feeding for the young • Disease and pest control for the young.

Rangeland&herd management	Topic of the day	Topic of the day	Topic of the day	Topic of the day
	• Pasture and grazing management • Grazing routes/areas – Rainy season • Community participatory rangeland management	• Grazing routes and areas – dry season • Community grazing plans and agreements • Water resources management	• CBNRM • HNRM • Water resources and grazing management	• Range and herd management. • Split herd management technique • Reserve grazing grounds
Crop production	Topic of the day	Topic of the day	Topic of the day	Topic of the day
	• Tuber crops production • Legume production **Comparative experiment** Comparison of production in inter-cropped and non inter-cropped fields	• Harvesting of tubers • Storage of tuber crops **Comparative experiment** Comparing different forms of storage and post harvest handling of crops	Dry land farming **Comparative experiment:** Performance of different drought tolerant crop varieties	Dry land farming
Livelihood diversification	Topic of the day	Topic of the day	Topic of the day	Topic of the day
	• Vegetable gardening • Bee keeping • Poultry Keeping **Comparative experiment:** • Comparison of honey production in different types of hives. • Comparison of poultry production under different housing systems	• Preservation of livestock products like meat and milk • Preparation of ghee and cheese Demonstration: • Preservation methods for meat and milk. • Preservation of cheese	• IGA/petty trading • Vegetable gardening • Livestock marketing	Livestock marketing **Comparative experiment:** Value addition/ fattening
Cross cutting issues	Topic of the day	Topic of the day	Topic of the Day	Topic of the day
	• Malaria prevention and control • Water harvesting methods • General hygiene and sanitation issues	• Management/ protection of water points and sanitation • Nutrition for the young and aged	• Community village banking • Business skills • Conflict and peace	• Gender mainstreaming • HIV/AIDs • Family planning • Environmental conservation
Participatory Monitoring and Evaluation	Weekly session evaluation Participatory impact assessment	Weekly session evaluation	Weekly session evaluation	Weekly session evaluation
GRADUATION	Graduation ceremony and replication			
EMERGING ISSUES	Dealt with as it emerges			

2. Learning Curriculum

Season	Focus area	Overall objective	Topics	Methodology	PM&E	Remarks
Long Rains Post Long Rains Short rains Dry	Fodder production	Increase community resilience to drought	• Fodder/pasture conservation • Collection and preservation natural feeds like Acacia pods • Introducing planted fodders • Hay making • Range rehabilitation	• Topic of the day(GP discussion, case Studies, practice, demonstration and brainstorming) • Experimentation • Field day	• Field monitoring • AESA • PIA • Final evaluation	
Short rains	Livestock Diseases and pest control	Improve livestock productivity and livelihood of local community	• Tick control • Common disease(FMD, CB/CPP, Mange and TBDs) management and control	Topic of the day Demonstration Comparative experiment	• P Monitoring • AESA • PIA • Final evaluation	
Dry	Herd and rangeland management	Improve husbandry practices	• Land use planning(Carrying capacity, Stocking Rate, Social Issues and emergency coping strategies)	Topic of the day	• P Monitoring • PIA • Final evaluation	
Short Rains Dry	Water and Sanitation (WASH)	Improve water management and sanitation practice in Community	• Water resources management • Sanitation& Health.	Topic of the day Exchange visit	• P Monitoring • PIA • Final evaluation	
Long Rains Short Rains Dry	Crop production	Improve crop productivity in local community	• Introduce drought tolerant varieties • Improve cultural practices	Topic of the day Field demonstration	• P Monitoring • PIA • Final evaluation	
Dry	Livelihood diversification	To diversify income sources of local community	• IGAs/petty trading • Livestock marketing	Topic of the day Comparative experiment	• P Monitoring • PIA • PESA • Final evaluation	

Dry	Emerging Issues	To incorporate cross cutting issues and emergency responses	• Cross cutting issues(gender mainstreaming, HIV/AIDs, family planning, Environmental conservation • Emergencies such as Disease outbreaks	Topic of the day	• P Monitoring • PIA • Final evaluation	
Long Rains	PIA and Graduation	To evaluate progress and replicate best practices	• Participatory impact assessment, graduation ceremony and planning for post graduation activities	Plenary discussion	• P Monitoring	

Key: **P Monitoring**- Participatory monitoring   **TBDs**- Tick borne diseases

PIA- Participatory impact assessment   **FMD**- Foot and mouth disease

PESA- Pastoral ecosystem analysis   **CBPP**- Contagious bovine pleural pneumonia

CCPP-Contagious caprine pleural pneumonia

3. Activity Schedule

Month	Week	Topic	Activity	Objective	Methodology	Resources	Remarks
Sept 2011	1	Fodder production	Hay making and storage Collection and use of maize stalk/straw	Practice hay making and storage Practice proper use of by products of farm produce.	Brainstorming Demonstration Discussion	SMS, Stationeries	
	2		Demonstration/AESA: Hay making	Observe, reflect, analyse and synthesize applications into their local context.	Observation, testing and discussion and decision	SMS Tools Sisal twines	
	3	Livestock diseases	Tick and other ecto-parasite control Demonstration/PESA of tick control methods	Describe and evaluate appropriate methods of ecto-parasite control	Brainstorming Demonstration Discussion Observation, testing and decision	SMS, stationeries Animal Acaricide Equipments	
	4		CBPP and CCPP control and prevention	Discuss relevance of disease surveillance, reporting and prevention and control measures	Brainstorming Discussion Visual aids	SMS Stationeries Pictures	
Oct 2011	5	Fodder production	Overview of Rhodes grass	List the advantages of planting for Rhodes grass	Brainstorming Discussion Visual aids Demonstration	SMS Stationeries Rhodes grass	
	6		Field trial (Land preparation and planting)	Demonstrate how to prepare and plant Rhodes grass trial	Demonstration		
	7	Crop production	Agronomic practices AESA/PESA	List common agronomic problems of crops	Group discussion, Observation, testing and discussion and decision	SMS Stationeries	
	8		Agronomic practices AESA PESA	Propose alternative solutions for the identified agronomic practices			
Nov 2011	9	Livestock diseases	PESA/AESA Foot and mouth disease control and prevention	Discuss relevance of disease surveillance, reporting and prevention and control measures	Brainstorming Discussion Visual aids	SMS Stationeries Pictures	

Month	Week	Topic	Activity	Objective	Methodology	Resources	Remarks
	10	Livestock diseases	PESA/AESA Mange control Comparative experiment: different method of mange control.	Observe, reflect, analyse and synthesize different options of mange control and make informed decision on their practice.	Observation, testing and discussion and decision	SMS, stationeries Animals Drugs Equipments	
	11	WASH	Water harvesting and management AESA and PESA- Rhodes, livestock disease	Describe appropriate water harvesting techniques (both traditional and modern) and plan of action for applications.	Brainstorming Discussion Visual aids	SMS Stationeries Pictures	
	12		Water sanitation AESA and PESA- Rhodes, livestock disease	Describe appropriate water sanitation methods.	Brainstorming Discussion Visual aids	SMS Stationeries Pictures	
Dec 2011	13	Exchange visit	Water harvesting and management exposure tour	Observe, reflect, discuss and share different water harvesting and management methods outside their areas.	Observation, Discussion, sharing.	SMS Logistics Water facilities	
	14	Fodder production	Field day	Discuss and demonstrate best practice within PFS.	Observation, Discussion, sharing.	Hay Materials Stationeries	
	15	Human nutrition	Balanced diet, eating practices and food preservation Demonstration AESA and PESA- livestock disease	Describe and evaluate human nutritional gaps Describe appropriate mitigation in pastoralist context.	Brainstorming Demonstration Discussion Observation, testing and decision	SMS, stationeries Foodstuff	
	16	Livelihood diversification	IGA/petty trading skills: alternative livelihood options AESA and PESA- livestock disease	Describe different viable alternative livelihood options applicable in their local context.	Brainstorming Discussion Visual aids	SMS Stationeries Pictures	
Jan 2012	17		Simple business plan development AESA and PESA- livestock disease	Describe elements of simple business plan	Brainstorming Discussion Visual aids	SMS Stationeries Plan sketch	

Month	Week	Topic	Activity	Objective	Methodology	Resources	Remarks
	18	Livelihood diversification	Livestock marketing Comparative Experiment-Value addition/fattening	Describe appropriate market price factors. Observe, reflect, analyse and synthesize applications of value addition in relation marketing.	Observation, testing and discussion and decision	SMS, stationeries Animals Feed supplements Equipments	
	19		Exchange visit-livelihood diversification	Observe, reflect, discuss and share different viable alternative livelihood options applicable in their area.	Observation, Discussion, sharing.	SMS Logistics Groups to visit	
	20	Range and herd management	Carrying capacity and stocking rate PESA-Value addition	Describe elements of range and herd management	Brainstorming Discussion Visual aids	SMS Stationeries Pictures	
Feb 2012	21		Emergency coping strategies: destocking and Contingency planning	Describe different emergency coping strategies practices by pastoralists to increase their resilience to natural calamities.	Brainstorming Discussion Case studies	SMS Stationeries Pictures	
	22		Emergency coping strategies: destocking and Contingency planning	Describe different emergency coping strategies practices by pastoralists to increase their resilience to natural calamities.	Brainstorming Discussion Case studies	SMS Stationeries	
Mar 2012	23	Cross cutting issues	Gender and HIV/AIDS	Describe elements of gender mainstreaming in PFS Describe methods of HIV/AIDS prevention	Brainstorming Discussion Visual aids	SMS Stationeries Pictures	
	24		Environmental conservation	Describe impacts of environment degradation and conservation.	Brainstorming Discussion Case studies	SMS Stationeries	
	25	Agronomic practices	Land preparation, seed selection, planting; weed control, harvesting, storage and marketing.	List common agronomic problems of crops	Brainstorming Discussion Farm transect walk	SMS Stationeries Ploughed plot	

Month	Week	Topic	Activity	Objective	Methodology	Resources	Remarks
	26		Land preparation, seed selection, planting; weed control, harvesting, storage and marketing.	Propose alternative solutions for the identified agronomic practices			
April 2012	27	PIA					
	28	GRADUATION and REPLICATION					

ANNEX 3: Sample PFS TOF Programme

Notes:

- TOF training to take 22 actual training days
- The training programme can be conducted continuously or divided into two phases (Phase 1: 12 days and Phase 2: 10 days)
- Daily session have been programmed at 7 hours per day
- Daily starting time and ending time to depend on local situation

Phase 1: 12 days				
Week 1				
Day	**Session**	**Duration**	**Topic**	**Topic outline**
Day 1	1	2hours	Official opening of the course and Climate setting.	• Welcome address. • Guests' speeches and Official Opening • Getting to know each other. • Levelling of expectations • Course objectives and programme and content overview • Host team formation and sharing responsibilities • Training norms
	2	2hours	Pastoral Production	• What is and why pastoralism
				• Characteristics of pastoral areas. • The different types of pastoral set ups. • Issues and challenges related to pastoralism • Alternative livelihood sources in pastoral areas.
	3	1hour	PFS Overview	• Origin of PFS • What is and why PFS • Role of PFS in extension
	4	1hour	PFS Principles	• PFS Principles and their application
	5	2hours (1hour day 1 and 1hour day 2)	Adult learning	• Characteristics of adult learning • Adult learning and teaching • Adult learning principles • Application of adult learning principles in the context of PFS

Day 2	5		Continuation Adult learning	
	6	2hours	Communication skills	• What is and why communication in PFS?
				• Elements/process of communication
				• Barriers of communication
				• Using appropriate non verbal behaviour for communication
	7	3hours	Experiential learning and discovery based learning	• Concepts of experiential learning
				• Phases of Experiential learning
				• Application of experiential learning in PFS
				• Concept of what is this? What is that?
	8	2hours (1hour day 2 and 1hour day 3	Participative training techniques	• Common participatory techniques of training
				• Application of some of the participatory training techniques
Day 3	8		Continuation Participative training techniques	
	9	2hours	Facilitation skills for PFS facilitators	• What is and why facilitation
				• Good qualities of facilitator
				• Role of facilitator
				• Verbal and non verbal facilitation skills
	10	2hours	Facilitating open discussion	• Facilitation techniques
				• How to conduct open discussions
	11	2 hours	Visual Aids	• What are visual aids and why use them
				• Use of visual aids
				• Guidelines for developing visual aids
Day 4	12	2hours	Evaluating learning	• Need for evaluating learning sessions
				• Methods of evaluation of learning sessions
	13	5hours	PRA tools and techniques	• What and Why Participatory tools and techniques of PRA?
				• Participatory tools and techniques of PRA tools
Day 5	14	7hours	PFS group visit/practice	• Overview of the PFS learning session
				• Feedback of field visit
Day 6	15	7hours	Steps in PFS implementation	• Preparatory phase
				• Implementation phase
				• Post graduation phase

Week 2				
Day	**Session**	**Duration**	**Topic**	**Topic outline**
Day 7	16	30 minutes	Introduction to PFS core activities	• PFS core activities
	17	7hours	PFS core activity 1: Experimentation in PFS	• What is and why experimentation in PFS • Principles of experimentation in PFS • Types of experiments in PFS • Steps in experimentation in PFS • Development of sample experiments at PFS level.
Day 8	18	7hours	PFS core activity 2: PESA/AESA	• Concept of ecosystem • What is and Why A/PESA • Steps in conducting A/PESA • Development of sample A/PESA formats
Day 9	19	1.5hours	PFS core activity 3: Topic of the day	• What is and why topic of the day • How to identify topic of the day • How to present topic of the day • Sample examples
	20	1.5hours	PFS core activity 4: Group dynamics	• What is and why group dynamics • Purpose of group dynamics • Categories of group dynamics • Points to watch in use of group dynamics
	21	7 hours (4hours day 9 and 3hours day 10)	PFS core activity 5: PMandE	• Why monitor and evaluate • Defining the goal • Selecting what to monitor • Developing a monitoring plan • Choosing a method to collect the information • Sample tools: evaluation wheel and village mapping
Day 10	21		Continuation PM and E	
	22	7hours (4hours day 10 and 3hours day 12)	Development of PFS learning schedule	• What is and why learning schedule • Steps and process in development of the learning schedule
Day 11	23	7hours	PFS group visit/practice	• Situation analysis using PRA tools • Feedback of field visit
Day 12	22		Continuation development of PFS learning schedule	
	24	2hours	Team building	• Difference between a team and group • Stages of team growth • Role of a facilitator in team building • How to build a successful team • Common problems in teams • Team building exercises
	25	2hours	Closing Phase I of training	• Phase 1 evaluation • Take home assignments • Closing remarks

Phase 2: 10 days				
Week 3				
Day	**Session**	**Duration**	**Topic**	**Topic outline**
Day 13	26	1hr	Climate setting	• Welcome address • Recap of Phase 1
	27	4hours	PFS Group management and leadership	• Developing a PFS Constitution • PFS leadership • PFS records • PFS Resource mobilisation
	28	2hours	Conflict management and peace building	• What is conflict • Causes of conflict • Types of conflict • Results of conflict
				• Stages and dynamics of conflict • Conflict transformation and peace building • Functions and positives of conflict
Day 14	29	7hours	Business skill	• Introduction to farming as a business • Selection of the PFS commercial enterprise • Profitability Analysis of Pastoral Field School Enterprises • Budgeting and planning the PFS Commercial Enterprise
Day 15	30	5hours	Natural resource Management	• What are natural resources • Classification of natural resources • What is natural resource management • Ownership regimes in NRM • Stakeholder analysis in NRM • Importance natural resource management
Day 16	31	2hours	Pasture production in pastoral areas	• Importance of pasture production and conservation in pastoral areas • Pasture varieties • Methods of pasture production • Methods and importance of pasture conservation • Mineral Supplementation
Day 17	32	3.5hours	Livestock production	• Importance of livestock production. • Species and breeds of livestock in pastoral areas. • Livestock production systems in pastoral areas. • Livestock production husbandry practices.
				• Factors determining livestock production in pastoral areas. • Livestock marketing • Challenges and opportunities facing pastoral livestock production.

Day	Session	Duration	Topic	Topic outline
	33	3.5hours	Animal health	• Healthy and unhealthy animals • Causes of livestock diseases • Disease spread (transmission) • Disease prevention/ control • Listing and ranking of diseases in each species of animal • Treatment • Veterinary public health
Day 18	34	7hours	PFS group visit/practice	• Practice on facilitating sessions. • Feedback of field visit
Day 19	35	3hours	Crop production in pastoral setting	• Integrated Production and Pest Management • Suitable agricultural practices for pastoral areas • Good agricultural practices for selected crops.
	36	4hours	HIV/AIDS	• What is HIV and AIDS? • Ways of HIV transmission, Ways of which HIV is not transmitted, and Protection against AIDS. • HIV/AIDS pathway • Understanding the dynamics of the disease in rural communities

Week 4

Day	Session	Duration	Topic	Topic outline
Day 20	37	4hours	Gender in PFS	• What is Gender • Gender roles • Socio-cultural aspects • Gender Analysis • PFS gender indicators • Types of GBV
	38	3hours	Human nutrition	• Basic facts on Nutrition • Definitions and food groups, Diet diversification, • Food Handling and Preservation • Nutrition and HIV/AIDS
Day 21	39	14hours	CMDRR	• Constructing a Seasonal Calendar • Identifying the hazards within a community • How does a disaster affect my life • Understanding community vulnerability • Capacity assessment • Hazard mitigation
Day 22	40		Continuation CMDRR	
Day 23	41	2hours	Action planning	
	42	1hr	Course evaluation	
	43	2hours	Graduation and official closing	• Closing speeches • Award of certificates