Market-oriented farm management for trainers of extension workers

AFRICA

TRAINING MATERIALS FOR AGRICULTURAL MANAGEMENT, MARKETING AND FINANCE

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TRAINING MATERIALS FOR AGRICULTURAL MANAGEMENT, MARKETING AND FINANCE

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This manual is one of a series produced by FAO's Agricultural Management, Marketing and Finance Service (AGSF) for use in various regions of the world. It was developed at a writers workshop held at Egerton University, Kenya, in 2003, which brought together farm management experts from Kenya, Mali, Nigeria, South Africa and Zimbabwe. The workshop provided a venue for sharing experiences in working with farmers in different regions of the continent. An outcome was an agreed upon content for the manual and the preparation of draft materials. The materials were field tested in Botswana, Ethiopia and Zambia before finalization. Although the manual focuses on Africa, it will be of value elsewhere to anyone concerned with improving farm management.

The materials provided in this collection are intended for the trainers of agricultural extension workers or others who deal with small-scale market-oriented farmers. Agricultural extension worker, as used in this manual, is a generic term that includes not only government employees of ministeries of agriculture and employees of local govenrment but also those from non-governmental organizations, civil society and the private sector who work directly with farmers in the field. The training approach used is experiential and participatory and aimed at ensuring that all involved acquire a better understanding of the skills needed to assist farmers to engage in profitable farming through better farm management practices.

We would welcome receiving
any comments or feedback from users
so that improvements can be made over time.

Note: The TRAINING AIDS PACKAGE is included in the CD-ROM that can be found in the leaflet accompanying this collection of the AGSF Training materials.

Module 1

Module 2

Module 3

Module 4

Module 5

Module 6

Module 7

Module 1

Module 2

Module 4

Module 5

Module 6

Module 7

* Distribute to participants only after completion of the classroom examination or if participants are to administer the examination by themselves.

Many people have contributed to the preparation of this training manual. David Kahan, as Senior Officer Farm Management, was responsible for the design of the training programme, technical input, overall management and supervision. Special thanks go to the participants of the original writers workshop held at Egerton University, Kenya, for their contribution in conceptualizing and writing parts of the manual: Maurice Shiluli, Zacharia Mairura (Kenya), Paul Kleene (Mali), Steve Worth (South Africa), Betina Edziwa (Zimbabwe), Oluwole M. Okelola (Nigeria). Special thanks go to Steve Worth also for developing the exercises. Appreciation also goes to those colleagues at FAO who reviewed various sections of the manual. Finally, thanks go to Tom Laughlin for design and layout, Fabio Ricci for desktop publishing, symbol design and artwork, and a CD version, Martin Hilmi for technical contributions and Madeline Grimoldi for editing. We are grateful to all who have been involved in the preparation and development of the materials in this collection.

INTRODUCTION TO A TRAINING PROGRAMME

Market-oriented farm management

In this manual, “market-oriented farm management” is a term used to capture a body of concepts and skills aimed at supporting farmers who have begun to adjust (orient) their farming activities to the opportunities and demands of the market. Farm management is all about making decisions on the farm. Market-oriented farm management is all about making decisions on the farm that enable farmers to farm for profit thereby expanding their potential and giving them and their families more choices in life.

General objective

This manual is for training front line agricultural extension workers in farm management for market-orientated farming. It is written generally for Africa, but it may have wider application. This is not a textbook for university students but a training manual for professional extension workers employed by the public, private or informal sector. Its aim is to contribute to building capacity by improving the skills of extension workers and, through them, the farmers with whom they work. It is not the intention of this training course to get farmers to become market-oriented. Rather the aim is more to help farmers understand why they make the choices they make and how to improve their decision-making skills in order to increase their farm income.

The principles and tools presented in this course may at first seem somewhat involved and complex. However, as the course progresses participants will see that it is not about numbers and accuracy, but about understanding and awareness. The primary outcome will be knowledge, understanding and skills that will better equip extension workers to assist farmers particularly as they become more market-oriented.

The learning principle behind the manual

This manual is built around the concept of experiential learning. The general format of the programme is a combination of individual readings providing technical information about a given topic followed by a group review and a variety of in-class exercises to reinforce learning and to practise a skill.

Most of the exercises are highly interactive. Some will entail field trips. Others employ creative ways to engage the participants in learning and in building skills. In addition to the practical knowledge and skills relevant to market-oriented farm management, the participants will also pick up a host of creative learning, training and presentation skills that they will be able to use in their extension work.

As will be seen when studying the Programme guidelines, everyone on the programme is referred to as a participant. While the programme is guided by a facilitator, the facilitator cannot take responsibility for anyone's learning. Each participant, including the facilitator, is responsible for their own learning. It is essentially a process of discovery through reading, discussion, practice and reflection.

The programme is intensive, but it is specifically designed to be fun. As will be seen, it covers a wide range of territory — some familiar, some new to the participants. There is ample space for interaction between and among participants. There is also space for critique and evaluation of the content, the learning approach, the learning outcomes, and style and manner of presentation.

Why market-oriented farm management?

Africa has many smallholder farmers who for years have farmed primarily for household food consumption with surpluses sold in the market. Farming has, in general, not been approached as a profit-making undertaking. Yet, as Africa is moving more and more to a cash economy, there is increased demand for food, fibre and fuel in towns and cities. This presents an excellent opportunity for smallholder farmers to consider ways and means to exploit increasing market opportunities for their products. One such way is to gain understanding, skills and competence in farm management practices that aim at increasing incomes for farmers by selling in the market.

Unfortunately farm management has often remained neglected in agricultural extension — in both the training of practitioners and in the job descriptions of extension workers. Extension in the past has focused largely on issues of production and productivity, limiting itself to the transfer of technologies.

The singular focus on production and technologies is not sufficient to meet the changes occurring at all levels of farming — locally, nationally, regionally, internationally. As smallholder and family farms become more and more integrated into the market economy, they have moved to more intensified ways of production, using “modern” inputs and machinery, thereby increasing their productivity and total production.

Further, farmers are increasingly diversifying their activities in relation to market opportunities. Diversification means introducing new crops (such as livestock) or new activities (such as post-harvest processing and storage). There are changes and advances occurring everywhere and on every front. Inputs, equipment, technologies, social and labour structures, and market opportunities are all changing, and these are impacting on the livelihoods of smallholder farmers.

For many farmers this situation is relatively new. Farmers are now asked to manage combinations of land, labour and other resources in a significantly different manner than those that they have been familiar with in the past. They are confronted with problems they did not know before, such as abrupt variations in costs of fertilizers and other inputs. They face difficulties in selling their produce at a good price. They experience strong fluctuations in market prices and demands too extreme to meet the specific quality requirements essential for their products. In short, they are confronted with farm management problems for which their past experience is of little support.

Farmers need to learn new skills. But what are these new skills and to what kind of situations can they be applied? That is what this manual is all about: understanding some of the management challenges facing market-oriented farmers and mastering the tools that can be used to tackle them. The first step is to help extension workers understand farm management and learn how to use tools that can be applied by the farmers with whom they work.

Market-oriented farm management in the context of unique farm household systems

One cannot speak about farmers, their farms and farm management without understanding the broader setting of the systems in which they find themselves. Each farm operates in a unique system. While most farm systems have a number of aspects in common, each individual farm is unique. However, it is beyond the scope of this manual to look at the whole range of farming systems that can be found in Africa.

While the diversity of farming systems is enormous — varying according to different climates, ecological zones, socio-economic and socio-political situations — of central importance is the understanding that principles of market-oriented farming can be applied to most farming situations.

It is up to extension workers to apply the concepts and tools learned in this course to the unique settings of each of the farmers and groups of farmers to whom they give management advice. The extension worker will also want to acquire a general understanding of how farmers and farming systems are linked to the global environment in which these are functioning.

Partnership programmes with farmers and farmers' organizations

The degree to which farmers themselves are an integral part of the governance and delivery of extension services will largely determine how successdful and effective extension services can be. Success rests in partnerships with farmers; incorporating farmer-to-farmer approaches, working with informal groups of farmers, and more formal farmers' organizations at village, district and national level.

In some countries demand for management training and extension advice is also provided through farmers' organizations. As stakeholders in the governance of such services, farmers — either individually or through their organizations — can participate in designing and implementing programmes and systems for extension delivery and evaluation. The participation of their members facilitates a more accurate identification of resources, opportunities and needs. Farmer organizations can assist in adapting the content of extension programmes to the situations and circumstances of their individual members.

Appropriate conditions for application

Market-oriented farm management extension can only be applied efficiently if certain conditions are met. The extension providers — public, private or both — should decide to convert at least a substantial part of their extension programmes to the provision of farm management advice. In the beginning this could be introduced through pilot programmes, which should receive full support from the governing agency.

However, farm management advice is not a panacea for all of the extension needs of farmers. Its application demands careful identification of target groups, regions and choice of personnel. Only sufficiently qualified and dynamic persons should be selected for training and participation in farm management extension programmes. Extension agencies need to be convinced of the usefulness and relevance of farm management extension, participatory processes and the importance of group dynamics. They should be ready to accept increased involvement of the beneficiaries and other stakeholders in programme definition and governance of delivery service.

Structure of the manual

Module 1	Getting started
Module 2	Understanding the farm setting
Module 3	Farm management decision-making
Module 4	Farm management tools
Module 5	Participatory approaches
Module 6	Planning
Module 7	Review, evaluation, examination

Modules are subdivided into sessions, which build on each other to expand understanding and develop skills.

How to use this manual

The manual is divided into two parts: handouts and training notes. The handouts are essentially information sheets to be given to the participants. Most of the handouts provide technical information relevant to the topic covered by the session in that section of the manual. Some of the handouts are guides to exercises.

The training notes provide guidance and instructions for the facilitator. The facilitator must read these thoroughly before presenting each session. The in-class exercises also require significant preparation. Facilitators should do all exercises themselves at least once to understand how they work and to get a feel for what will be required of them when working with the participants.

In most cases, the participants will need to receive the handouts the day (or night) before the session in which the material is covered. Some of the handouts are meant to be given out only during the session (particularly the handouts with answers to assignments). The facilitator will need to read through the training notes and prepare and distribute copies accordingly.

> **Note:** The participants should not get a copy of the training notes. If they do, they will compromise their learning. Reading ahead or reading the training notes will reduce the impact of discovery.

Preparing for a training programme

Preparation is a key factor to the success of this programme. The interactive nature of the exercises requires that the facilitator is very well prepared in advance.

Timing. The training programme runs for about 14 days. It can be lengthened or shorted, but 10 days is probably the minimum if core sessions are selected. The minimum programme can be divided into two five-day sessions. If this is the case, the facilitator may want to provide the participants with assignments to complete between training sessions.

Know the material. It is important that the facilitator prepares carefully for the training programme by reading the entire manual well in advance. Most of the in-class exercises provided will work in a wide variety of circumstances in Africa. However, the facilitator should be prepared to adjust these or any of the materials to improve the course. Perhaps more relevant local crops could be used or more examples of livestock included. It is also useful to have relevent stories from the field in mind to share with the class to help improve the learning process.

Physical facilities. It is important to consider the location of the training. Training of this kind should not take place in a luxurious or expensive environment. The whole focus is on efficient management and this message may be lost if the course itself gives the impression of unnecessary cost. It should also be away from the normal workplace and distractions such as shops and entertainment centres.

The training station should be in a large flat-floored room with chairs and tables that can be easily moved. It must be large enough to provide adequate space for small working groups as well as general presentations. Ideally the facility would have adjacent rooms large enough to accommodate comfortably groups of up to six or seven people.

If possible both the participants and the trainers should be accommodated near enough to the training centre to ensure group cohesion and possible evening sessions.

Equipment. The following is suggested:

- classroom board;
- flip chart stands (equal to the number of training groups);
- overhead projector;
- computer/laptop with CD rom reading and projection capacity;
- ring binders for handouts/materials for each participant.

Materials. The trainer needs to be sure that all materials are ready before starting the programme. While the need for materials varies throughout the course, the following list will be of help:

- handouts punched to fit the ring binders;
- flip chart paper and newsprint;
- heavy paper or light cardboard in a variety of light colours (e.g. green, beige, blue, yellow, pink); paper must be porous enough to write on with the available pens and markers;
- writing pads for each participant;
- paper (A3, A4, A5);
- scrap paper strips 21 x 5 cm (A4 cut width-wise);
- thick marking pens in a variety of dark colours (e.g. black, blue, red, green, brown);
- ink pens and pencils;
- scissors for each participant;
- hand calculator for each participant;
- prestick (or other means of attaching paper to the wall);
- string.

Who should attend the programme. This programme is designed to help professional extension workers employed by the public, private or informal sector who are working with smallholder farmers. Participants do not need to have any previous training or experience in farm management. The material covered will provide basic concepts sufficient to meet the farm management requirements of most smallholder farmers who are interested in or are already selling produce on the market.

Other participants might include extension support staff, livestock workers and community development workers. However, basic practical agricultural knowledge and some field exposure with farmers and crop/livestock enterprises are essential.

Introducing the participants and facilitators*. The entire course or single modules should start with a formal programme that introduces trainees to one another, specifies the training objectives and the trainees' expectations, and clarifies ground rules on the conduct of the training.

The programme should begin by welcoming the participants to the training workshop and setting the training atmosphere.

Objectives

To ensure that the participants will:

- have learned each other's name and acquired some understanding of the background and specific skills of the group;
- understand what to expect from the training course;
- understand the ground rules for conducting the training;
- recognize the challenges facing African agriculture.

** This has been built into Session 1.1, but facilitators may themselves wish to 'personalize' this introductory session.*

Post-training support

To be effective, training needs to be supported upon completion. It would be advisable to hold a short orientation course for the managers and supervisors of the extension workers selected to participate in this programme. The session would introduce managers and supervisors to the concepts and tools that the trained extension workers will apply when working with farmers in the field. By covering the materials included in the training programme, managers and supervisors will be in a better position to appreciate what is expected of their extension workers and the scope of expertise needed to be effective in the field.

ANNEXES

Annexes

Programme design

Purpose

Training requires more than just providing information and developing skills. It requires the trainer to have a thorough understanding of the training context and the role and value of proper and systematic planning, implementation and evaluation of the programme. This section has been prepared to remind you, the trainer, of the importance of preparing a well-designed training programme.

The section will provide you with information on how to plan, design and evaluate the training. It sets out the phases and steps in the training process with a list of those aspects that need to be kept in mind. The phases and steps involved should assist you in identifying shortcomings in the process of planning as well as evaluating, with a view to improving future training activities. It concludes with an explanation and guidance on how to apply some of the tools referred to in the manual.

Proper preparation is vital to the success of the training programme. More time and energy is usually required at this particular stage of the training than throughout its duration. As you are no doubt aware, preparation is the most challenging aspect of any training and if not adequately addressed can severely jeopardize its success.

Phases and steps in the training process*

Phases	*Steps*
	1 Assessment of training needs
	Assessment of resources
	Analysis of data
	2 Specify training objectives
	3 Prepare a work plan
Planning	4 Organize training content
	5 Select training methods and techniques
	6 Identify the training resources needed
	7 Assemble and package lesson plans
	8 Develop media for training
	9 Pre-test training programme
Implementation	10 Implement and manage the training
Evaluation	11 Evaluate the training

Planning determines what you want to achieve and how best to achieve it. Steps on the following pages should assist you in designing a relevant and effective training programme.

* Source of figure: Planning for effective training (SDRE — FAO)

Step 1
Assessment of training needs

The primary step in any training process provides baseline information upon which the training programme is designed and developed. The assessment of training needs requires understanding (i) who, (ii) what, (iii) whom.

Who means the categories of people who have needs (e.g. extension workers or directly training farmers).

What refers to the kind of needs the trainees have (e.g. how to analyse and plan an enterprise; how to plan for the market).

Whom refers to the trainers (i.e. persons with knowledge to define the needs of extension workers or farmers).

In order to assess Who needs **"What"**, you need to look at ...

What is happening? ... **What** should be happening?
What are extension workers doing? ... **What** should they be doing?
and ...
What knowledge, skills and attitudes are necessary for the **training**?

During the preparation stage of the training design you need to conduct discussions with potential trainees and possibly with their supervisors. Conducting a survey, preparing a questionnaire or simply listening to well-informed extension workers and their supervisors should allow you to assess the interests and needs of the trainees.

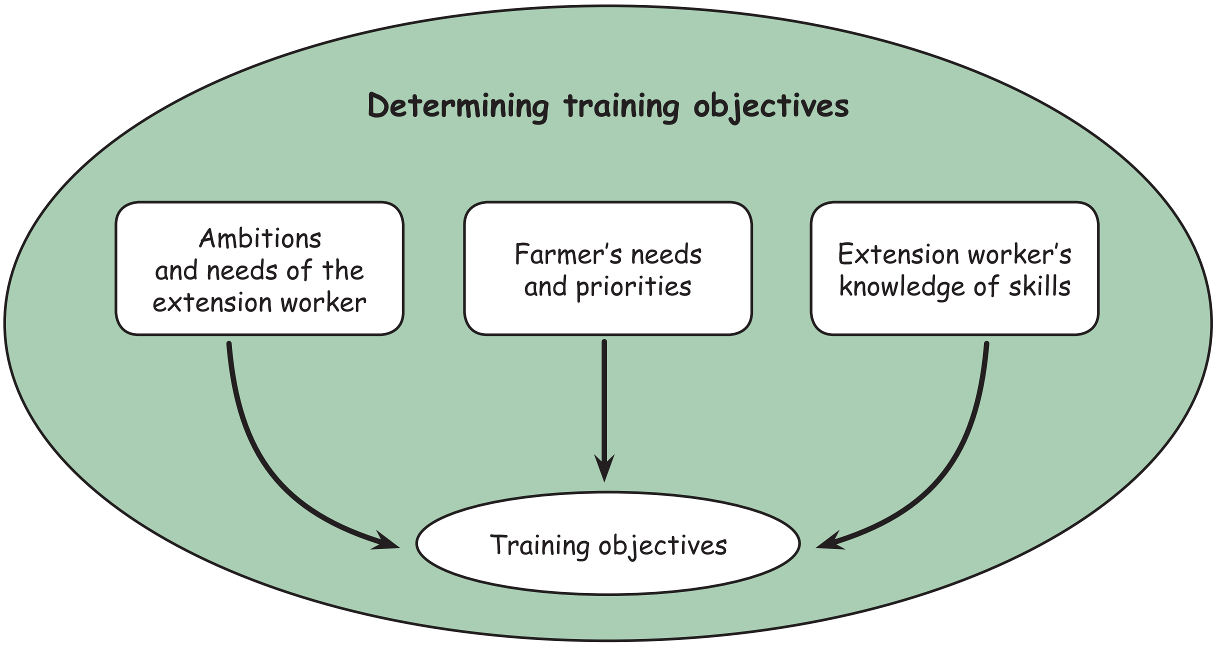
For example, if extension workers say that farmers really want to know more about analysing farm profitability, this should become a priority and a major part of the training design. You, of course, should not plan a training programme based on what you perceive as being a priority but should take into account the needs of the trainees. If this is not done correctly, the extension workers will become uninterested in the training and will feel that you are not concerned about their needs and wants. They will lose all sense of trust in you.

You should try to understand the reasons why extension workers prioritize their needs the way they do. This calls for some understanding of the farming community and the problems that farmers face. Some of this information may be available in reports and in files, or can be obtained from extension staff. Information gathered shows the skills of the extension workers, and needs assessment illustrates their aims and objectives.

Step 2
Specify training objectives
(turning needs into objectives)

Once the training needs have been identified, you should describe those needs as realistic objectives. Remember that the training objectives are the goals that the trainers set out to accomplish through the training. The objectives should help you to develop and conduct the training and provide the trainees with the knowledge and the skills they require. The objectives also provide trainees with a clear understanding of what they will be expected to do as a result of the training. This should help you and the trainees to evaluate what has been learned through the training.

The training objectives are illustrated in the figure below. They should be developed to serve as a guide to learning, a guide to instruction and a guide to evaluation*.



* Communications skills for rural development (SDRE — FAO)

Step 3
Prepare a work plan

A work plan is your plan of operations. It helps you to establish what is needed. An example is given below:

Training staff

How many?

To do what?

When?

Training

Who requires it?

When?

Where?

How long?

Media communications

What is required?

Where will it be obtained?

Equipment

What you need and where?

Stationery and materials

What and where?

Transport required

Where?

When?

Administration

Are secretaries or support staff needed and available?

Finance

Who controls funds?

Are there adequate funds available?

Step 4
Organize training content

The content of a training programme should be derived from the training objectives. You should develop a framework that draws out the content of the training. A good way to develop this framework is to list the objectives and prepare an outline using the descriptions and following the format below:

Must know information allows trainees to achieve the objectives set (for example understanding of costs of production, gross margin).	**Should know information** will help the trainee achieve the objectives and will reinforce the learning process (for example risk management).	**Could know information** can be general or advanced, but the lack of which is not likely to prevent achievements (for example appraising investments).

Example
A content selection format
(to understand farm management and its importance)

Must know information	**Should know information**	**Could know information**
The multiple functions of management How to set objectives The process of decision-making	Concepts of input, output, enterprises, production process Internal factors that influence production	Enterprise combinations Technical, economic and institutional restrictions to agriculture

If you are unable to include everything and would like to teach within the time allotted, limit yourself to ensuring that the **"must know"** information is covered.

The **"should know"** and **"could know"** information could be communicated through assignments, handouts or group work activities.

In any case the training contents should build on what the participants already know.

Step 5

Select training methods and techniques

The training content should include learning activities that help the trainees accomplish the training objectives. To help them understand the material, it is necessary to use training methods that allow you to review the key points communicated, use relevant and realistic examples, and restate new ideas in different ways by using familiar words and analogies. It is especially important when communicating to the trainees that there is consistency in the definitions and units of analysis used.

Different methods of training can be used to develop the skills of trainees, to ensure better understanding of the material, and influence attitudes and behaviour. Examples of these are given in the box below.

Training for skill development

If you want the trainees to be able to do something new as a result of training, the following techniques could be used ...	(i) demonstrations (ii) role-playing (iii) worksheets and exercises

Training for "understanding"

If you want the trainees to understand a concept or tool, you could provide them with information using ...	(i) printed materials (ii) lectures/trainer presentations (iii) diagrams (iv) case studies (v) demonstrations

Training to "influence" attitudes and behaviour

If you want to influence the attitudes and behaviour of the trainees, you could assist them in comparing old and new ways by using ...	(i) demonstrations (ii) field visits/study tours (iii) role-playing (iv) video films (v) case studies (vi) games and exercises

To influence the attitudes and behaviour of the trainees, it is necessary to use training methods that help you to compare old vs new attitudes and behaviour, arrange opportunities to experiment with new ways of acting, and reinforce and solidify these attitudes over time.

The following process is designed to help you make a good decision regarding which training methods to select*:

State training objectives

Determine performance indicated
What type of performance are you looking for?
Teaching for understanding? Teaching a new skill?
Influencing attitudes or behaviour?

Consider trainee characteristics
Understand the level of education of the trainees and their experience on the related topic.

List appropriate training methods
List all the different training methods that could possibly be used.

Consider practical requirements
Consider the practical requirements of the training situation. Where is it expected to take place? What seating arrangements are best? What is the environment of the training facility (lighting, electricity, noise, etc.)? What types of equipment and facilities are available for the training? How much time does the trainer have?

Narrow the list and make a final selection
At this point you would need to compare the different training methods and make a final selection of the most appropriate. You should select the one that most closely matches the situation the trainees will encounter.

* Source: Planning for effective training (SDRE — FAO)

Step 6
Identify the training resources needed

Identify the resources needed to conduct the training. You will need to determine what facilities, equipment and materials are required in addition to identifying necessary administrative and personnel support.

Step 7
Assemble and package lesson plans

Pull together the training objectives, training content, training methods and the training resources into a plan that can be used for conducting the training. The plan should serve as a written record on how the training is intended to be conducted.

Step 8
Develop media for training

The materials prepared for the training need to be practical and relevant to the day-to-day work of the trainees. The material included in this training manual should provide you with an adequate base of information to address the needs of extension workers in Africa.

Step 9
Pre-test training programme

A pre-testing of the training programme would ensure that everything — the training objectives, media used for supporting the training programme, teaching methods, etc. — works as intended. During this phase you will identify unexpected problems and will be able to make changes and corrections in time.

Step 10

Implement and manage the training

(implementation involves a number of stages)

Preparation

Know the objectives of the training, be clear on the strategy to apply and know the content of the training. ____

____

____

Setting

Ensure a cheerful and relaxed environment that promotes learning. __________

____

____

Handling participants

This is a delicate process that requires patience and politeness. The trainees should be allowed and encouraged to participate, and you should try to show appreciation when they do. ____

____

____

Climate setting

Set the right atmosphere to relax and welcome participants. _______________

____

____

Present the objectives

Let the trainees know why they are assembled, what are the objectives of the units and sessions, and what is expected to take place. ____________________

____

____

Openers (breaking the ice)

Introduce warm-up activities and ways for the participants to know each other.

____

____

Initiate the learning experience

This is the core of the training. Ensure that the participants are handled in a way that promotes participation and allows them to express their ideas by asking

questions. The training discussions also need to be kept on track. Motivation needs to be maintained throughout the training. This can be done by relating the material to real life situations from the trainees' own experiences and keeping their interest by using different types of media. ______________________
____
____

Conduct a refresher training session

The training should finish with a session that reviews the course content, providing trainees with an opportunity to ask questions. __________________
____
____

Reflect on the experience

Solicit reactions to the material presented as part of a reflection process. Then the trainees should participate in a problem-solving discussion and provide feedback to you and the participants. ______________________________
____
____

Discuss lessons learned

At this point the trainees should identify key points that have come out of the experience and the discussion. You should help the trainees draw general conclusions from the experience. ________________________________
____
____

Discuss how the trainees might apply what they have learned

Based on the conclusions drawn, the participants should discuss how the information/skills will be useful in their fieldwork. They might also discuss how they propose to overcome difficulties in applying all they have learned. _______
____
____

Provide a closure to the training session

Briefly summarize the events of the training and assess the extent to which the objectives set at the beginning of the session have been met. Try to ensure that the participants leave with a positive feeling about the training. ____________
____
____
____

Step 11
Evaluate the training

Evaluation is generally considered the final part of the training process. However, it is best undertaken as an ongoing process conducted throughout the training and on completion of the individual modules. During the programme the evaluation enables adjustments to be made to the training as it proceeds. The training programme should be kept flexible, and if the evaluation shows that certain aspects of the programme are not working, the original plan should be amended and modified accordingly.

A final evaluation should be conducted at the end of the training to enable the entire programme to be assessed. This will provide a basis for reporting on the training while giving guidance for future training of its kind. A format for training evaluation is given at the end of the annexes. Although this has been prepared for module evaluation, it also may be of use for similar kinds of evaluation or for adaptation.

The next section describes some of the tools and techniques that may be used to enhance the quality of the training programme.

Training methods

Training methods

Brainstorming

Aims

- Stimulate wide and free thinking on a topic.
- Cause the group to see the breadth as well as the detail of the topic.
- Encourage everyone in the group to participate.
- Act as a lead into a discussion or subject area.
- Enable the sharing of the maximum amount of experience, training and ideas in the minimum time.
- "Liven up" a session — increase involvement.

Preparation

- Equipment: classroom board, overhead projector or newsprint (depending on whether the trainer wishes to refer to the information subsequently);
- Group size: restrict with the range from 6 to 20 people;
- Time: at the beginning of a topic. Normally not used at the beginning of a course because ideas flow too slowly. It should last 3—4 minutes.

Running a brainstorming session

- Write up topic/subject at top of classroom board, overhead projector or newsprint — keep it in view.
- Ask for one or two word contributions on the topic — whatever comes to mind.
- Ask trainees to free-wheel in their thinking — not to worry if some of their ideas at first seem wild or silly.
- Ask trainees to withhold any judgement on their own or other people's contribution until the end of the session.
- Ask trainees to keep their ideas flowing.
- Suggest to trainees that they "cross-fertilize" and develop the ideas of other members.
- Write up and number contributions as fast as they come — ensure writing is legible.
- Ensure that no contributions are missed.
- Add a contribution yourself occasionally to keep ideas flowing.
- Keep list of contributions in view — it helps to stimulate further ideas.
- Restate or slant the topic slightly if the session gets bogged down.
- Stop the session when you feel you have sufficient coverage of the subject — do not carry on too long.
- Ask trainees to read over the suggestions and take in the overall picture.
- Once the list is complete, the information can be used to highlight or lead into topics for: (i) a talk or lecture, (ii) whole group discussions.

*Role-play**

Organization of session

1. "Set the scene". Explain to the participants the aim of the role-play situation followed, and give a brief description of the "play". *(Key point: A written synopsis should be prepared in advance by the trainer.)*

2. Allocate acting roles to individuals who will receive specific written information as to the part they will play and the view they represent. *(Key point: It is important that players should not see each other's information.)*

3. Appoint "recorders" from the audience who should use either written notes, audio tape, video tape or a combination of these.

4. Keep time short for players to plan their inputs. *(Key point: Involve all the participants, including those who will be "the audience", allot groups of trainees to each "player".)*

5. Role-play. Allow action or discussions to develop freely without interruption. *(Key point: Time limit is set for the role-play, e.g. 15 minutes.)*

6. Debriefing session for the "players". *(Key point: This should take place away from the audience and should be led by the trainer. It allows players to "cool off" and drop their role.)*

7. Review the session with the whole group (audience + players) using written record or audiovisual reports presented by recorders.

8. Record conclusions of session. Hold group discussions to be followed by poster session. *(Key point: It is important that a list of outcomes is achieved, related to the situation covered by the role-play.)*

Examples of role-play

- Individual farmers negotiating a business loan with the bank manager.
- Farm-product shop retailer and customer assessing customer requirements.

Make sure your trainees understand why we use role-play:

- to deepen understanding of a subject they have already learned;
- to combine different skills and information;
- to understand the practical application of information they have learned.

* The trainer has an important role in managing the session.

Buzz-groups

Introduction

The buzz-group has become a widely used participative learning technique, and considerable experience has been gained from its use.

Aims

- breaks tension and establishes working relationships;
- focuses attention on subject matter;
- changes attitude and knowledge by sharing ideas;
- creates interaction;
- provides foundations for future session;
- links sessions;
- gives early achievement and recognition.

Benefits

- leaves course members in their "own" seat;
- creates a "comfortable" noise;
- trainers are able to make early observations of participants;
- participants realize they are able to contribute;
- ideas are caught from conversation in subgroups.

Preparation

- The buzz-group question should be clear, concise and, if possible, indicate the action required (e.g. list eight qualities of an effective leader).
- Ideally any new questions should be tested prior to the course to ensure that the desired response is obtained. Prior to the session write up the question on the classroom board or newsprint and conceal it.
- Ensure that felt tip pens, paper and newsprint are available.

Briefing

The order of the content of a briefing is important to ensure understanding of what is required. The following procedure is recommended:

- State purpose and time (e.g. "We are going to work in groups of 3—4 to share ideas for about 20 minutes").
- State what is to be achieved (e.g. a list of eight qualities and abilities) and show a written brief.
- Indicate recording method (e.g. " Which one of you would like to record the points we have just raised?").
- Split groups — three is ideal but supplement with a fourth if required.

Trainers' role during buzz-group sessions

1. Divide the participants into subgroups.

2. Allow groups to work alone for the first 1—2 minutes.

3. Check with each group on their understanding of the questions and that a member of the group is recording. Try to condense the answers into 2—3 words.

4. If possible, withdraw from the room for 5 minutes. The volume of buzz will increase as will the exchange of ideas between groups.

5. Gauge the progress by the level of noise. Visit any quiet group to encourage the thinking.

6. After 10—15 minutes, when noise level declines or when some groups are at the point of finishing their list, introduce newsprint.

Introducing newsprint

- Introduce newsprint to each group so that the ideas can be shared.
- Indicate the size of the writing — point out the size on name cards, newsprint brief or demonstrate.
- Help to select a scribe and suggest that other members of the group help formulate precise answers.
- Emphasize that they are not to worry about spelling.

While writing up

- Assist the groups in finding required words.
- Ensure that the size of writing is maintained.
- Thank scribes.

Hanging newsprint for feedback

- Number sheets in group order (e.g. clockwise around the room).
- Hang sheets in order.
- Allow 1—2 minutes to read through the sheets.

Feedback for buzz-group sessions

Aims

- clarify points made;
- consolidate and summarize;
- stimulate interaction between groups.

Method

- Invite course members to identify areas common to each sheet — trainer to underline.
- Channel any clarifying questions on common areas to quieter members of the group.
- Examine any wide variations between groups, question for clarification.
- Unusual or controversial responses should be directed to groups for discussion, and the trainer summarizes.
- Trainer inserts any key words that have been omitted from lists.
- Summarize key points in answer — indicate any links to future session.
- Indicate in some way satisfaction with the group's work, that the answers are correct and thank the group.

Important remarks

- Ensure that writing is not left to one member of the group for every session.
- Group members can be moved around to balance groups or to align or disseminate information.
- More than one question may be used, but ensure groups allocate appropriate time to each question.
- Newsprint can be exchanged prior to hanging to enable other groups to prepare, challenge or prepare areas requiring clarification.
- Select a group member to elaborate on points, or identify key points in feedback.
- Ensure that brief is clear and understood and that someone is recording.
- Assist quieter groups.
- Listen for noise level cues.
- Spread questions around the group.
- Indicate satisfaction with the answers.
- Encourage interaction.
- Give recognition, particularly to quieter members.
- Don't use groups of less than three or more than four.
- Don't concentrate on one group's work.
- Don't bore by running feedback too long (20—25 minutes maximum).
- Don't provide all the answers and interpretations.
- Don't take up a defensive position during controversy.

Training exercises

Using exercises

- Establish trainees acceptance of new technologies/processes.
- Break down classroom atmosphere by introducing movement and activity.
- Build confidence in handling new situations by trying first in a safe environment.
- Create learning by doing.

There are three phases in operating an exercise: brief (5 minutes), supervise (up to 50 minutes), review (up to 20 minutes).

Brief

- Have a printed set of instructions for the exercise on the overhead projector, flip chart or individual sheets of paper (see planning exercises on following page).
- Explain the details of the exercise such as (i) time available, (ii) result required, (iii) method of work/recording required, (iv) reporting back procedure.
- Allocate individuals to groups. Use the overhead projector or newsprint to show group membership.

Supervise

- After ensuring that the groups have the materials required for the exercise and starting work, leave them alone as much as possible.
- If individuals or groups get into difficulty, encourage them to resolve problems without doing the exercises for them.
- Towards the end of the exercise period, check the progress of groups and their readiness to review.

Review

- Use reviews to highlight the learning that has taken place.
- Ask groups to consider what went well and how performance could be improved next time.
- Conclude the review by making positive links to doing the job back at home.

Note: For real learning, an exercise requires at least 45 minutes and may take as long as 75 minutes.

Planning exercises

Plan an exercise where trainees can put a work process or technique into action by:

- working out costs of production (crop and livestock);
- calculating enterprise gross margins;
- working on budgets;
- solving a labour problem.

Process or technique

- should relate directly to course or session aim;
- should be part of the job that has to be done at work;
- should have a definite outcome and be achievable in time available.

Decide format

- Plan outcome of exercise.
- Decide how long it will take.
- Decide how many will work together.

Plan review

- Decide whether a whole group review is necessary.
- Decide what information the group will present to their peers.
- Decide what teaching points you will draw out.
- Plan your conclusion to the exercise.

Decide prior input

- Decide what technical instruction the group will need prior to the exercise to implement successfully the process/technique being taught.
- Identify whether the trainees need to be motivated to want to change behaviour prior to trying out the new process/technique.
- Plan inputs that will enable them to practice.

Plan exercise brief

- Specify time available.
- Specify result required.
- Specify method of working.
- Specify what is to be recorded.
- Specify reporting back procedure.

Tick box discussion

Use a tick box discussion to:

- establish previous experience (especially at the start of a course or session);
- establish current opinions and knowledge;
- get at individual standpoints and to question common attitudes and beliefs.

When using the tick box discussion there are three phases: brief (5 minutes), tick box (5 minutes), feedback (15 minutes).

Brief

- Hand out the tick box sheet (see example tick box sheet on following page).
- Explain what has to be done.
- Ensure individual working (unless the instruction is for pairs).
- Reassure trainees that this is not a test, but a means of developing discussion.

Tick box

- While trainees are completing the tick box sheet, avoid inspecting or overseeing what they are doing.
- Encourage speedy reaction and decision after 3 or 4 minutes (e.g. "Has everybody reached answer number ... ?").

Feedback

- Initially ask the whole group "which do you feel strongest about?" Then ask individuals to explain their choice.
- After the pattern of discussion has been established, you can go to individuals directly (e.g. "John, why have you chosen 1 or 1a?").
- Try to challenge superficial choices. Ask specifically "Why?"
- Try to obtain actual experiences.
- Draw conclusions that link to what is to follow.
- Vary the pattern of taking feedback according to the range of ideas within the group.

Timing

You should be able to operate a tick box discussion within 25 minutes.

Example tick box sheet

☐ There are good trainers and bad trainer teachers, and that situation cannot be changed.	☐ Any trainer with proper training and motivation can become very effective.
☐ Good trainers worry about their performance.	☐ Good trainers are so confident about their performance that they never worry.
☐ A good trainer should use visual aids to add impact.	☐ A good trainer who knows his subject does not need visual aids because they distract trainees.
☐ Trainees learn effectively by taking notes of what the trainer says.	☐ Trainees spend their time most effectively by being given notes after the session.
☐ Strict discipline ensures that trainees learn.	☐ Motivation ensures that trainees learn and want to learn.
☐ A successful trainer must always win arguments with trainees.	☐ An effective trainer always listens and accepts a trainee's point of view.
☐ Handing out printed notes encourages trainees to be lazy.	☐ Handing out course notes ensures that trainees make effective use of their time.
☐ Theory should be taught separately from practical work.	☐ Theory and practical work should always be integrated.
☐ Students learn best by watching a skilled demonstration.	☐ Students learn best by trying out a new skill for themselves.
☐ Experienced trainers would be insulted by the presence of a key trainer assessing their performance.	☐ An experienced trainer would be grateful for any help or advice from a key trainer.

Example tick box exercise

☐ A good farmer produces what the customer is used to.	☐ A good farmer produces new products to introduce to the customer.
☐ A farmer's production should be appropriate to his type of farm/location.	☐ A farmer's production should be appropriate to the market.
☐ A good farmer should produce a good product and then market it.	☐ A good farmer should establish a market and then produce what that market requires.
☐ A good farmer tries out new technology.	☐ A good farmer does what they know how to do best.
☐ Product presentation is more important than product quality.	☐ Product quality is more important than product presentation.
☐ Planning production is of little use because critical factors (e.g. weather, are not predictable).	☐ Planning production is even more important because critical factors are likely to change.
☐ A successful farmer must always be prepared to take risks by borrowing capital.	☐ A successful farmer must always be sure their venture will be successful before borrowing capital.

Case studies

Introduction

The practical case study is a well-established participative learning technique with a great many variations in its method of execution. Trainers may choose to use examples from their own experiences or prepare materials suitable for specific classroom requirements. The notes below summarize the main points that a trainer should be aware of, or be sure to carry out in any practical case study. Variation from the standard approach given in these notes is indicated in course manuals and instruction plans.

The technique will be discussed under the following headings: (i) aims, (ii) preparation, (iii) briefing, (iv) trainer role, (v) feedback, (vi) dos and don’ts.

Aims

To give an opportunity for:

- sharing ideas and experience;
- using existing knowledge to discover new or unthought-of information;
- increasing the absorption of a subject;
- solving problems;
- giving practice in specific techniques;
- developing and modifying attitudes.

Preparation

The question

- One of the most critical points for the success of a practical case study is a clear, unambiguous question that indicates what is expected in terms of discussion, context and presentation of results. To achieve this, questions must be carefully worded in advance and preferably tested prior to a course.
- A typed summary should be made available for each individual.

Classroom

- Ensure that the classroom is comfortable and not occupied by anyone.
- Check heating, working places and lighting.
- Arrange desks for a round-table discussion.
- Ensure there is equipment to take notes.

Choosing groups

Groups should be formed and manned carefully to be well-balanced to achieve aims of the discussion. Remember that:

- Groups smaller than three will obviously have less experience or ideas. In groups bigger than seven, some trainees may “fall out” of the discussion.
- A group can be balanced on the basis of contribution, experience or both.
- A group with few “generators of ideas” can work well; however, poor contribution may be the result of little experience or limited abilities.
- Name cards may help the trainer to form the groups. These cards can be rearranged until a better group structure is formed.
- Use overhead projectors or classroom boards to write group numbers and numbers of classrooms.

Briefing

In order for trainees to understand the objectives better and not interrupt the discussion, the following procedure is recommended:

- Announce that the group will divide into subgroups to discuss a problem.
- Explain which result you are planning as the outcome of a discussion (i.e. a list), a problem solution. Define time allocated for the discussion.
- Distribute handout, ensuring it is understood by everyone.
- Define the answer format.
- Read (show) prepared lists of subgroups (classroom, subgroup members, chairman and/or secretary, if necessary) to the trainees.

Trainer role

Trainers must not isolate themselves from the course completely during practical case study sessions. The trainer has an important part to play during discussions and the following procedure is recommended:

- Visit each group after 2—5 minutes to ensure that groups are organized and on track.
- Leave group to work for 5 minutes.
- Enter each group to ensure the first topic is being discussed in sufficient depth, bring in non-contributing members and introduce new thought areas through questioning. Trainers should begin to identify points to emphasize.
- Rarely should the trainer make direct inputs. The role should be one of listening and questioning to guide and draw out.
- Remind groups of time 3—4 minutes before end of syndicate. Check progress of writing up of feedback. Ensure agreement has been reached on who is to report back.

Feedback

Where similar questions have been used, adopt the same procedure as laid down for buzz-groups. Where different questions have been used, only hand in the feedback that is being discussed.

- Ask a spokesperson for the group to identify key points in feedback and explain thinking.
- Underline key points in feedback.
- Encourage members of other groups to challenge by questioning.
- If needed, the trainer identifies specific areas and asks other course members to comment.
- Trainer summarizes feedback, points out key areas — shows links to future sessions or action.
- Where appropriate, indicate satisfaction with feedback and thank the group. Any shortcomings should be dealt with constructively.
- Hang newsprint in chronological order around the room to enable easy reference during the subsequent session.

Dos and don'ts

Do

- prepare written brief to question;
- select groups carefully;
- sit in for short times during group work;
- use course members to give feedback;
- encourage interaction between course members.

Don't

- interfere in groups that are working well;
- take up defensive positions;
- dominate feedback;
- forget to involve quieter members during feedback.

Evaluation form

Please record your thoughts on what has been presented. This kind of information is helpful in making training programmes more interesting and useful. On the following pages you will find a number of questions dealing with a completed training segment. Most questions can be answered by circling a number on the scale to the right of the question. Consider your responses carefully and answer truthfully. Thank you for your help.

Module/Unit/Session/Other

Content

1. Relevance of the topic to your job

Not relevant — Very relevant

1	2	3	4	5

2. Clarity of session's objectives

Not clear — Very clear

1	2	3	4	5

3. Level of instruction

Too basic — Too advanced

1	2	3	4	5

4. Lecture coverage

Inadequate — Very comprehensive

1	2	3	4	5

5. Time allotment

Too short — Too long

1	2	3	4	5

6. Emphasis on details

Too brief — Too detailed

1	2	3	4	5

7. Organization and direction

Disorganized — Well organized

1	2	3	4	5

8. Treatment of topic

Useless — Useful

1	2	3	4	5

Comments

Teaching aids and handouts

1. **Effectiveness of teaching aids (general reaction) in helping you learn**

Not effective — Very effective

1	2	3	4	5

2. **Readability of handouts**

Not readable — Very readable

1	2	3	4	5

3. **Clarity of message of handouts**

Not clear — Very clear

1	2	3	4	5

4. **Appeal of handouts**

Not appealing — Very appealing

1	2	3	4	5

5. **Usefulness of field visits**

Useless — Useful

1	2	3	4	5

Comments

Additional remarks you may have on these or other aspects of the teaching

General

Please state the three most important ideas/concepts that you learned from this module

What did you like least about this module?

Suggestions to improve the module

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Notes

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1. Farm planning and management for trainers of extension workers in the Caribbean, 2004 (CD-ROM, English).
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6. Market-oriented farm management for trainers of extension workers. Africa, 2007 (Hard copy and CD-ROM, English).

In preparation

- Farm planning and management for trainers of extension workers. Latin America (CD-ROM, in Spanish).
- Training manuals on farmer business schools. Asia and Africa.

Other work

- FAO Pacific Farm Management and Marketing Series 3, Helping small farmers think about better growing and marketing (Hard copy)*.

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This manual is intended for trainers of extension workers as they interact with farmers to find ways to increase their incomes through a better understanding of the principles and tools of farm management and planning. It provides a "remedial" course of training on subjects such as farm business analysis, enterprise budgeting and risk management, all of which will be of help to either subject matter specialists or front-line workers as they assist farmers develop the skills required to compete and succeed in their farm businesses.