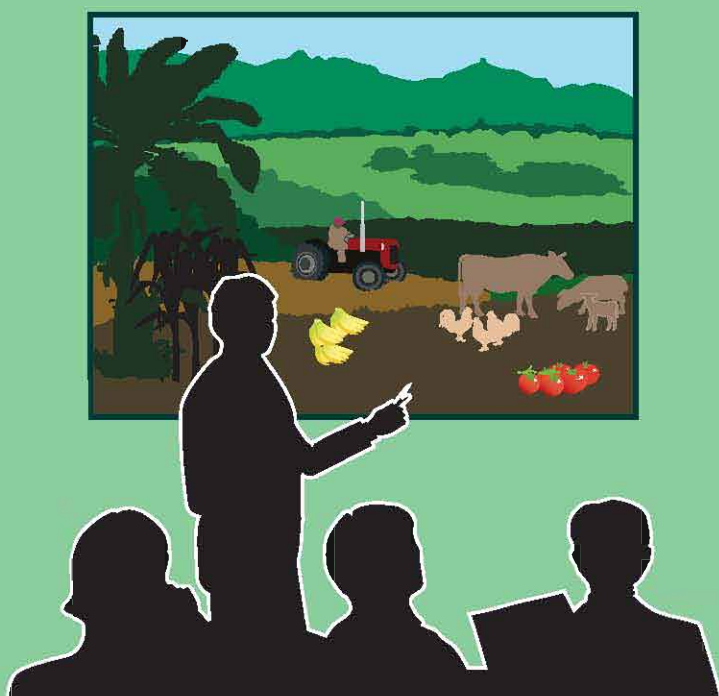


# Farm planning and management for trainers of extension workers

TRAINING  
MATERIALS FOR  
AGRICULTURAL  
MANAGEMENT,  
MARKETING  
AND FINANCE

3

## ASIA



## OVERVIEW

Annexes • References • Glossary



# Farm planning and management for trainers of extension workers

## ASIA

### OVERVIEW

Annexes • References • Glossary

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

All rights reserved. Reproduction and dissemination of material in this information product for educational or other non-commercial purposes are authorized without any prior written permission from the copyright holders provided the source is fully acknowledged. Reproduction of material in this information product for resale or other commercial purposes is prohibited without written permission of the copyright holders. Applications for such permission should be addressed to the Chief, Publishing Management Service, Information Division, FAO, Viale delle Terme di Caracalla, 00153 Rome, Italy or by e-mail to [copyright@fao.org](mailto:copyright@fao.org)

© FAO 2006

*Over the past few years the Agricultural Management, Marketing and Finance Service (AGSF) has prepared a collection of materials to form the basis of a series of training manuals in farm planning and management, which can then be adapted for use in various world regions. These are intended for the trainers of agricultural extension workers employed by ministries of agriculture, non-governmental organizations (NGOs), for those in civil society and the private sector who run programmes to help farmers commercialize, or for any who wish to study the subject matter included.*

*This manual, which focuses on Asia, was adapted from the AGSF collection. The materials were tested and further developed at a workshop conducted in the Philippines for use by extension workers in the region working with small-scale commercial farmers. A common characteristic among extension workers in this region is that they are generally well-educated and holders of university degrees. Similarly the trainers of agricultural extension workers in the region are also well-qualified and experienced in methods of adult education. The materials provided in this manual have been prepared specifically for that level.*

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

---

Foreword .....	iii
Acknowledgements .....	x
<b>INTRODUCTION TO A TRAINING PROGRAMME.....</b>	<b>1</b>
About this manual .....	3
Using the manual .....	7
Opening programme .....	13
Annexes .....	19
References .....	69
Glossary .....	77
 Module 1	
<b>FARM MANAGEMENT .....</b>	<b>1</b>
Unit 1.1 The farm and its enterprises .....	3
Unit 1.2 Farm management as a way to increase profit .....	21
 Module 2	
<b>FARM RESOURCE ASSESSMENT .....</b>	<b>1</b>
Unit 2.1 Farm data collection .....	3
Unit 2.2 Farm resource appraisal .....	49
 Module 3	
<b>FARM BUSINESS ANALYSIS .....</b>	<b>1</b>
Unit 3.1 Enterprise and farm profitability .....	3
Unit 3.2 Constraints and potentials .....	63
Unit 3.3 Comparative analysis/field visit .....	83

## Module 4

**PLANNING FOR THE MARKET . . . . . 1**

Unit 4.1 Making planning decisions . . . . . 3

Unit 4.2 The process of marketing . . . . . 15

## Module 5

**ENTERPRISE BUDGETING AND FARM PLANNING . . . . . 1**

Unit 5.1 Farm enterprise and partial budgeting . . . . . 3

Unit 5.2 Whole farm plan and budget . . . . . 61

Unit 5.3 Labour planning . . . . . 89

Unit 5.4 Cash flow . . . . . 105

## Module 6

**FARM INVESTMENT AND RISK . . . . . 1**

Unit 6.1 Investment appraisal . . . . . 3

Unit 6.2 Managing risk. . . . . 61

***TRAINING AIDS PACKAGE***

*Handouts, Training exercises, Answer keys  
Training slides, Evaluation form*

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

---

<b>Opening programme</b>	
1	Agriculture in Asia . . . . . 15
<b>Module 1</b>	
1.1.1	What is a farm? . . . . . 7
1.1.2	Understanding farm enterprises . . . . . 17
1.2.1	What is farm management? . . . . . 27
1.2.2	Why is farm management important? . . . . . 49
1.2.3	What are farmers' objectives? . . . . . 57
1.2.4	How do farmers decide? . . . . . 67
<b>Module 2</b>	
2.1.1	Data and information . . . . . 9
2.1.2a	Farm records and accounts . . . . . 25
2.1.2b	A farm map, records and accounts . . . . . 29
2.1.3	Inventory of farm resources . . . . . 41
2.2.1	Farm assets and liabilities . . . . . 55
2.2.2	Asset valuation . . . . . 67
2.2.3	Farm balance sheet and net worth . . . . . 75
2.2.4	Sources of finance . . . . . 87
<b>Module 3</b>	
3.1.1a	Enterprise profitability analysis . . . . . 11
3.1.1b	More about variable costs . . . . . 31
3.1.2	Whole farm income . . . . . 51
3.1.3	Enterprise and farm efficiency measures . . . . . 59
3.2.1	Analysis of constraints and potentials . . . . . 69
3.3.1	Benchmarking . . . . . 87
3.3.2	Farm performance analysis . . . . . 97
3.3.3	Farm diagnosis using gross margin . . . . . 109
3.3.4	Planning for a field visit . . . . . 125



### Module 4

4.1.1	The farm planning process . . . . .	7
4.2.1a	The why and what of marketing . . . . .	21
4.2.1b	What is supply and demand? . . . . .	27
4.2.2	Production and marketing problems . . . . .	41
4.2.3a	Marketing channels, margins and costs . . . . .	55
4.2.3b	Options for marketing produce . . . . .	69
4.2.4	Planning for the market . . . . .	83

### Module 5

5.1.1	The use of enterprise budgeting in farm planning . . . . .	9
5.1.2	Break-even budgeting . . . . .	21
5.1.3	The use of partial budgeting . . . . .	35
5.1.4	Preparing a partial budget . . . . .	53
5.2.1	Whole farm planning . . . . .	67
5.2.2	Maximizing farm income using available resources . . . . .	79
5.3.1	Planning farm labour . . . . .	95
5.4.1	The concept of cash flow . . . . .	111
5.4.2	Application of cash flow . . . . .	125

### Module 6

6.1.1	Investment decisions . . . . .	7
6.1.2	Simple methods of investment appraisal . . . . .	15
6.1.3	Discounted methods of investment appraisal . . . . .	29
6.1.4	Loan appraisal . . . . .	53
6.2.1	Risk and risk management . . . . .	65
6.2.2	Sources of risk . . . . .	73
6.2.3	Risk management strategies . . . . .	83
6.2.4	Dealing with risk . . . . .	99

**Module 1**

1	Common problems facing farmers .....	39
2	What is farm management? .....	40
3	Qualities of a successful farmer .....	41

**Module 2**

4	Classification of farm assets and liabilities .....	58
5	Asset valuation .....	69
6	Calculating net worth .....	79

**Module 3**

7	Enterprise analysis .....	37
8	Analysis of constraints and potentials .....	76
9	Farm business analysis .....	112

**Module 4**

10	Marketing problems and solutions .....	46
11	Preparing a marketing strategy .....	101

**Module 5**

12	Partial budgeting .....	56
13	Whole farm budget .....	82
14	Preparing a labour profile .....	98
15	Cash flow .....	131

**Module 6**

16	Net present value and internal rate of return .....	40
17	Risk in farming .....	103

This training manual has been prepared by the Agricultural Management, Marketing and Finance Service (AGSF) of FAO. Many people have helped to produce and adapt material for use in the region. The Agricultural Support Systems Division would like to thank the faculty and staff members of the Department of Agricultural Economics, College of Economics and Management, University of the Philippines Los Baños, who provided their facilities for testing the manual through a Training of Trainers Workshop in collaboration with the Agricultural Training Institute (ATI) of the Philippines. Special thanks go to Narciso R. Deomampo, Cesar B. Quicoy, Corazon T. Aragon, Romeo R. Huelgas, Marilyn M. Elauria and Julieta A. Delos Reyes, of the university for their contribution in writing and testing the manual. We express our appreciation to those colleagues at FAO who reviewed sections of the manual, particularly to John Dixon and Andrew Shepherd. We would also like to thank Walter DeOliveira and Martin Hilmi for their technical contribution. Finally, thanks go to Tom Laughlin for rewrite, design and layout, to Madeline Grimoldi for proofreading and to Fabio Ricci for desktop publication, a CD version and a revised digital presentation. David Kahan was responsible for the design of the training programme, technical editing and overall management and supervision.

**INTRODUCTION  
TO A TRAINING PROGRAMME**



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. While extension workers generally tend to be technically competent, they often lack sufficient training in economics and its use in farm planning. This manual 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.

It should be clearly stated that this manual is not intended to supplant or replace the ideas or experience of individual trainers, but to complement them. As such, the steps of instruction have been designed as a tool to provide direction, both on subject matter and training methods, as well as a structure for conducting formal training sessions. The materials can also be used by subject matter specialists and by informal groups who desire to improve their management skills without the guidance of a trainer. They can also be used individually by those who wish to read and learn, rather like a programmed text.

Emphasis should be placed on shared learning and any and all involved may contribute. The role of the instructor, for example, can equally be taken by temporary leaders who are members of the group to be trained. Planned training can also be improved by programmed contributions from outside experts.

### Course duration

A suggested twelve-day training course, is outlined here, although trainers should be encouraged to adapt the length of the training and the content covered to the time available to them. In general twelve days would be adequate to deliver the entire course (based on an average 7.5 hours per training day). One day is devoted to a field visit where participants gain experience in data collection and analysis. A more detailed breakdown of a complete training schedule is included in the section on Training aids.

Day	Topic
1	Module 1 – Farm management
2	Module 2 – Farm resource assessment
3	Module 3 – Farm business analysis
4	Module 3 – <i>continued</i>
5	<b>Field visit*</b>
6	Module 4 – Planning for the market
	<b>Weekend break</b>
7	Module 4 – <i>continued</i>
8	Module 5 – Enterprise budgeting and farm planning
9	Module 5 – <i>continued</i>
10	Module 6 – Farm investment and risk
11	Module 6 – <i>continued</i>
12	Closing day programme

If the course is being presented in this way it will be spread over two weeks with a break in the middle. However, the complete course may also take place over a longer period with class meetings held only on certain days each week or in the evenings or weekends. A programme conducted in this manner may result in some loss of continuity. This might require additional planning and possibly a rearrangement of the order given in the manual. However, conducting a course between longer breaks has advantages. The participants would have more time to absorb the lessons presented and it would enable them to relate what they are learning to their everyday work. This would help to reinforce the practical value of the programme.

*\* It is recommended that the trainer have the necessary arrangements for the field visit in place well before the arrival of the participants.*

## Subjects covered

The sequence outlined below proceeds from an understanding of the farm context through the various steps involved in the process while introducing the techniques and tools necessary to make sound, rational farm planning and management decisions.

---

**Module 1 describes the farm and its enterprises and defines the role and importance of management,** including definitions and functions of management, decision areas in farm management and the decision-making process in farming today.

**Module 2 discusses farm resource assessment,** including farm data collection and farm resource appraisal.

**Module 3 measures the performance of the farm business,** which includes enterprise analysis, analysing farm performance, constraints and potentials.

**Module 4 introduces the notion of planning for the market,** discusses the marketing chain and margins, and planning for the market.

**Module 5 looks at enterprise budgeting and farm management planning,** such as partial budgeting, break-even budgeting, whole farm plan and budget, labour planning and cash flow budgeting.

**Module 6 presents farm investment and risk management,** which includes investment decisions, investment and loan appraisal, risk and management under risk.

---

**Note:** The modules are built on the four functions of management: (i) planning, (ii) organizing, (iii) directing, (iv) controlling.





### Structure of the programme

The modules in this manual are divided into 42 sessions each covering a segment of the training programme. Sessions consist of (i) a trainer's guide, (ii) a handout or handouts for the participants, (iii) an assortment of training slides to use in classroom presentations. Where appropriate, certain sessions include one or more training exercises for the participants to complete during that session.

The trainer's guide gives suggestions and provides a sequence for conducting the session to ensure a smooth delivery. This includes the following:

- a trainer's preparation box preceding each session that lists the teaching methods to be used, class time needed and the learning support materials provided;
- objectives;
- an opening description and rationale;
- key points;
- steps for instruction;
- evaluation.

Reference is made to the use of training slides for classroom presentations in the "trainer's information box" and the "steps for instruction" listed above. The slides to be used are provided at the end of each session. Additional information can be found in the annexes, which include (i) a suggested day-by-day class schedule, (ii) a guide to training programme design, (iii) a section on training methods, (iv) training module evaluation forms.

Note: A collection of materials, entitled "Training aids package", is provided in the CD-ROM in the end pocket of this volume (see also note on page vi). These are intended for use by the trainer in preparing photocopies for classroom distribution, or for making transparencies or opaque copies for overhead projection. This collection includes all (i) handouts, (ii) training exercises, (iii) exercise answer keys, (iv) training slides, and (v) an evaluation form. The training slides are also provided in digital format in the CD version.

### Relative importance of the training modules

An understanding of **Modules 1** (Farm management),  
**3** (Farm business analysis),  
**4** (Planning for the market)  
and **5** (Enterprise budgeting and farm planning)

... are essential to the work of all front-line extension workers  
and should be included in training programmes.

**Modules 2** (Farm resource assessment),  
and **6** (Farm investment and risk)

... are more advanced and could be omitted in abbreviated courses,  
although the last topic in the programme (Managing risk)  
is useful for most training purposes.

### Evaluation

The trainer should end each session with a short evaluation segment that calls upon the full participation of the trainees. This should summarize the achievements of the session and also inform the trainer of ways to improve the course in the future.

After the completion of each module, trainers are advised to conduct an evaluation exercise to assess all aspects of that portion of the programme (see annexes — class schedule and evaluation forms).

In addition, the participants might also be given the opportunity to "bridge the gap" between the classroom and their regular duties as extension workers by committing themselves to specific actions that they will undertake upon their return to work.

### Preparation and adaptation

Some trainers may be tempted to think that the material can be dealt with by spending less time in preparation for each session. This is not the case! The trainer must study every session carefully, well in advance, and pay particular attention to adapting the material to local conditions, including local information and local units of measurement. The subject matter must be checked carefully and calculations must be worked through in advance of the training so that they can be explained effectively to the trainees. Slide presentations should similarly be checked and any additional visual aids arranged for use. The handouts must be reproduced in sufficient quantities and distributed to all trainees.

Adequate time should be given prior to each session so that the trainers can assimilate the material to ensure smooth delivery. This process will not only prepare trainers to train others using the material, but can also help them learn new skills and techniques. The advance preparation process alone can be very productive even for specialists to review the subjects prior to classroom use.

The trainees should also be encouraged to prepare themselves in advance by reading the handouts provided and familiarizing themselves with the instructions given. Note that in the section "Steps for instruction" in each trainer's guide it is stressed that handouts should be distributed before the start of that session. (Trainers would be well advised to have the handouts for the next scheduled session ready to be distributed at the end of each previous session.)

The outlines for each training session are written in some detail, but the structure need not be followed exactly. Each trainer must interpret their own programmes. They may choose to leave out some parts and add others, while varying the sequence, the methods used and the pace of the course, based on their preferences and skills, and the needs of the trainees. Participatory techniques should be used to involve trainees whenever possible during the course.

Some points to keep in mind when designing effective training presentations are:

- Communicate effectively with the trainees.
- Make learning effective, active and enjoyable.
- Develop a clear picture of relevant topics.
- Translate chosen topics into precise training solutions.
- Agree on training and development objectives and plans.
- Select appropriate training methods and content to realize objectives.
- Carry out appropriate evaluations of the training as required.

### **Local languages**

Frequently there will be a need to conduct courses in local languages and not in English. It is important for trainers to communicate with participants in their own language when required. Then, of course, all the training materials to be distributed to participants will have to be translated. In addition, whether courses are to be given in a local language or in English, it will often be necessary to adjust such things as names, the crops in question and the sums of money used in order to reflect the local condition. Whenever possible, examples given in the manual should be replaced using materials that are more relevant locally.

### **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 centre 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 groups of up to six or seven people comfortably around a table.

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 equipment 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 five or six varying colours (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 widthwise);
- thick marking pens in a variety of dark colours (e.g. black, blue, red, green, brown);
- ink pens and pencils;
- hand calculator for each participant;
- prestick (or other means of attaching paper to the wall).



### Introducing the participants and trainers

The entire course or single modular teaching courses should start with a formal programme designed to introduce trainees, co-participants and resource persons to one another, clarify the training objectives and the trainees' expectations of the course, and clarify 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 the 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 Asian agriculture.

### Key points

1. Welcome to all those involved in the programme.
2. The trainer learns some things about the participants, such as their names, where they come from, what positions they hold and what kind of educational background and working experience they have, as is relevant to the training workshop.
3. The participants learn what they should expect from the training course, training management team and participants.
4. Establish ground rules to be observed during the training course.
5. Distribute the classroom materials to be used (colour pens, crayons, paper, adhesive tape, etc.).
6. Supply name tags to participants and trainers.



### Steps for instruction



1. The programme should begin with a short opening speech of welcome followed by a brief discussion of the challenges to agriculture today. The trainer may choose to use Handout 1 (Agriculture in Asia) as an outline for this discussion. Distribute Handout 1 to the participants at the end of this portion of the programme.
2. After the speech the trainer may begin to distribute the training supplies to the participants in a way that is lively and interesting to assist them in meeting one another. Participants and co-trainers should then be asked to introduce themselves. Have each give their names, state where they come from, mention their position and say something about their educational background and working experience. The trainer may choose to devise a game by which all the participants, including the trainers, can remember the names of each person involved without the aid of name tags.
3. The trainer should ask the participants about their expectations of the course. These could be written on cards to be displayed before the class. Thus making it easier to identify written expectations with similar content and to group them for ease of classification. After collating all the responses, the trainer should identify which expectations can be met and which cannot.
4. Clearly explain the ground rules to be in effect throughout the whole training course such as:
  - attendance/going home;
  - use of mobile phones;
  - sleeping arrangements;
  - meal arrangements;
  - observance of curfew hours, if any;
  - regulations of the training venue;
  - others.

*As the opening programme comes to a close  
distribute Handout 1.1.1 (What is a farm?)  
for the class to read before the first training session.*

## Agriculture in Asia

In this region agriculture is the largest sectoral contributor to the national economy and rice plays a major part in the agricultural gross domestic product. However, the growth in rice production brought about by successful agricultural production-led programmes resulted, by the mid-1980s, in serious problems for many countries here. Over the years, these countries pursued a policy of self-sufficiency in rice production, which led to surpluses generated on the world market, a decline in the international demand for the commodity and a decrease in product price.

The farming population is largely made up of small-scale farmers who cultivate most of the agricultural land. These farmers cultivate small plots and have a limited supply of family labour and access to credit. As a result of these structural difficulties, farm incomes are low.

The economic difficulties facing farmers, arising from this increase in rice production, have been augmented by the challenges brought about by economic liberalization and globalization. Government support to farmers has diminished, and market forces are playing a larger part in determining their future. Greater opportunities now exist for farmers to sell their produce in a broader range of global markets. Globalization has brought about increased trade between countries.

The decrease in farm income among rice producers and the opportunity and need to compete globally has triggered a change towards farm diversification. Farmers are rapidly diversifying into mixed crop—livestock systems and shifting production from staple crops to higher value commodities. In order to improve farm income, farmers require knowledge of market trends and opportunities as well as the skills necessary to manage their farm in an increasingly competitive environment.

*Rice plays a dominant role in Asia's agriculture*

*Farmers are diversifying their farm enterprises*

Extension services provided by public sector agencies in almost all countries have traditionally focused on technology transfer. The advisory services provided have consisted mainly of technical messages, such as agronomic practices, pest and disease control, and water management. Farm management and business advisory services are almost non-existent in many of these countries.

### **The challenge**

It is imperative that the agricultural sector in Asia responds vigorously to the challenges posed by structural adjustment, trade liberalization and globalization. The need for a more transparent climate for trade through the elimination of quotas and tariffs and the application of food quality and safety standards internationally have also contributed to the more competitive environment that currently exists. The new economic order necessitates change in every dimension of farming.

*There is increasing need to produce for the market*

Globalization has brought about opportunities and a potential for higher income earning for all nations. While globalization is generally considered to be positive by opening up new markets for farm produce, there are also impeding factors. Farmers now face increased competition as well as greater risks. For example, there are greater variations of prices and costs. Small farmers are particularly vulnerable to the threat of lower product prices and higher input costs, resulting in a decrease in farm income.

At national level, countries have to concentrate on production that meets the changing demands of domestic and world markets. There is strong pressure for agriculture in the region to produce not only the quantity and quality to satisfy this change but also to remain competitive so that farming can carry on in a sustainable manner.

Farmers who possess the skills to manage their farms both efficiently and profitably and respond to market changes will be in a better position to take advantage of existing opportunities to increase income. There is also a need to revisit the subsistence and traditional production-oriented systems and assist them towards more market-oriented farming.

As producers, farmers require improved technologies and practices that lead to intensification of agricultural production. But farmers must also have the capacity to respond to market opportunities through diversification of farm enterprises (cropping activities, as well as livestock, aquacultural and other non-crop activities).

Efforts must then be directed toward strengthening the capabilities of small farmers. They must move from being simple producers to becoming efficient farm planners and managers involved in commercial farming. The emphasis on the market, increased competitiveness and efficiency calls for the development of business skills. This is what is meant by market-oriented farming.

The need to increase income by taking advantage of market opportunities means farmers must be able to compete in this new environment. Good decision-making is critical when trying to make the most of new market opportunities. This calls for better understanding of how to organize and plan farm activities accordingly. By making informed decisions farmers can become more competitive and thereby increase profits.

*Farmers  
need improved  
management and  
business skills  
to increase  
profits and  
farm income*



# ANNEXES

**Annexes**

Class schedule .....	21
Programme design .....	33
Training methods .....	49
Evaluation form .....	63

# **Class schedule**



The duration and scheduling of course segments  
may need to be adapted  
to match trainee requirements and experience.

**DAY 1**

date

30 minutes	Introduction to the training course*	
------------	--------------------------------------	--

**Module 1 – Farm management***Unit 1.1 – The farm and its enterprises*

75 minutes	Session 1.1.1 – What is a farm?	
------------	---------------------------------	--

15 minutes	Session 1.1.2 – Understanding farm enterprises	
------------	--	--

**BREAK***Unit 1.2 – Farm management as a way to increase profit*

120 minutes	Session 1.2.1 – What is farm management?	
-------------	--	--

as required	Training exercise 1 – Common problems facing farmers**	
-------------	--	--

**LUNCH**

as required	Training exercise 2 – What is farm management? **	
-------------	---	--

as required	Training exercise 3 – Qualities of a successful farmer**	
-------------	--	--

15 minutes	Session 1.2.2 – Why is farm management important?	
------------	---	--

30 minutes	Session 1.2.3 – What are farmers' objectives?	
------------	---	--

15 minutes	Session 1.2.4 – How do farmers decide?	
------------	--	--

30 minutes	Evaluation of Module 1	
------------	------------------------	--

<b>Total</b> <b>330 minutes</b> <b>5½ hours</b> <i>(+ exercises)</i>
---

\* This segment, which is left to the discretion of the trainer, can also be conducted during the opening programme (see page xix).

\*\* Training exercises 1, 2, 3 may all be scheduled either before or after lunch.

**DAY 2**

30 minutes	Previous day recap	date
------------	--------------------	------

**Module 2 – Farm resource assessment***Unit 2.1 – Farm data collection*

45 minutes	Session 2.1.1 – Data and information	
45 minutes	Session 2.1.2 – Farm records and accounts	

**BREAK**

45 minutes	Session 2.1.3 – Inventory of farm resources	
------------	---	--

*Unit 2.2 – Farm resource appraisal*

60 minutes	Session 2.2.1 – Farm assets and liabilities	
as required	Training exercise 4 – Classification of assets and liabilities	

**LUNCH**

60 minutes	Session 2.2.2 – Asset valuation	
as required	Training exercise 5 – Asset valuation	
45 minutes	Session 2.2.3 – Farm balance sheet and net worth	
as required	Training exercise 6 – Calculating net worth	
30 minutes	Session 2.2.4 – Sources of finance	
30 minutes	Evaluation of Module 2	

<b>Total</b> <b>390 minutes</b> <b>6½ hours</b> <i>(+ exercises)</i>
---

**DAY 3**

30 minutes	Previous day recap	date
------------	--------------------	------

**Module 3 – Farm business analysis***Unit 3.1 – Enterprise and farm profitability*

150 minutes	Session 3.1.1 – Enterprise profitability analysis	
as required	Training exercise 7 – Enterprise analysis	

**BREAK**

30 minutes	Session 3.1.2 – Whole farm income	
30 minutes	Session 3.1.3 – Enterprise and farm efficiency measures	

**LUNCH***Unit 3.2 – Constraints and potentials*

60 minutes	Session 3.2.1 – Analysis of constraints and potentials	
as required	Training exercise 8 – Analysis of constraints and potentials	

<b>Total</b> <b>300 minutes</b> <b>5 hours</b> <i>(+ exercises)</i>
--

**DAY 4**

		date
30 minutes	Previous day recap	

*Unit 3.3 – Comparative analysis*

15 minutes	Session 3.3.1 – Benchmarking	
30 minutes	Session 3.3.2 – Farm performance analysis	

**BREAK**

75 minutes	Session 3.3.3 – Farm diagnosis using gross margin	
as required	Training exercise 9 – Asset valuation	
30 minutes	Evaluation of Module 3	

**LUNCH**

	Session 3.3.4 – Planning for a field visit	
40 minutes	Field visit structure	
40 minutes	Field data collection	
40 minutes	Follow-up requirements	
as required	Team meetings*	

**Total**  
**300 minutes**  
**5 hours**  
 (+ exercises  
 and team  
 meetings)

\*Conducted by the individual teams with the trainer on hand to answer questions and supervise.

**DAY 5  
FIELD VISIT**

		date
as required	Preliminary analysis of data collected *	
as required	Team discussions *	
as required	Preparation for day 6 recap *	

\* A time should be found while still on the site of the field visit to review the events of the day and prepare for the field visit recap scheduled for Day 6.

**DAY 6**

as required	Field visit recap – findings, analysis and report*	date
-------------	--	------

**LUNCH****Module 4 – Planning for the market***Unit 4.1 – Making planning decisions*

30 minutes	Session 4.1.1 – The farm planning process	
------------	---	--

*Unit 4.2 – The process of marketing*

30 minutes	Session 4.2.1 – The why and what of marketing	
------------	---	--

<b>Total**</b> ___ minutes ___ hours
--

\* If a full morning session is not adequate the field visit recap can continue after lunch where a lighter programme has been scheduled for this purpose.

\*\* Trainer to supply times as required.

**DAY 7**

30 minutes	Previous day recap	date
------------	--------------------	------

60 minutes	Session 4.2.2 – Production and marketing problems	
------------	---	--

as required	Training exercise 10 – Marketing problems and solutions	
-------------	---	--

**BREAK**

150 minutes	Session 4.2.3 – Marketing channels, margins and costs	
-------------	---	--

**LUNCH**

120 minutes	Session 4.2.4 – Planning for the market	
-------------	---	--

as required	Training exercise 11 – Preparing a marketing strategy	
-------------	---	--

30 minutes	Evaluation of Module 4	
------------	------------------------	--

<b>Total</b> <b>390 minutes</b> <b>6½ hours</b> (+ exercises)
--

**DAY 8**

30 minutes	Previous day recap	date
------------	--------------------	------

**Module 5 – Enterprise budgeting and farm planning***Unit 5.1 – Farm enterprise and partial budgeting*

40 minutes	Session 5.1.1 – The use of enterprise budgeting in farm planning	
60 minutes	Session 5.1.2 – Break-even budgeting	
50 minutes	Session 5.1.3 – The use of partial budgeting	

**BREAK**

60 minutes	Session 5.1.4 – Preparing a partial budget	
as required	Training exercise 12 – Partial budgeting	

**LUNCH***Unit 5.2 – Whole farm plan and budget*

60 minutes	Session 5.2.1 – Whole farm planning	
60 minutes	Session 5.2.2 – Maximizing farm income using available resources	
as required	Training exercise 13 – Whole farm budget	

<b>Total</b> <b>360 minutes</b> <b>6 hours</b> <i>(+ exercises)</i>
--

**DAY 9**

30 minutes	Previous day recap	date
------------	--------------------	------

*Unit 5.3 – Labour planning*

120 minutes	Session 5.3.1 – Planning farm labour	
as required	Training exercise 14 – Preparing a labour profile	

**BREAK**

**DAY 9 (continued)***Unit 5.4 – Cash flow*

date

30 minutes	Session 5.4.1 – The concept of cash flow	
------------	--	--

60 minutes	Session 5.4.2 – Application of cash flow	
------------	--	--

**LUNCH**

60 minutes	Session 5.4.2 – Application of cash flow, <i>continued</i>	
------------	--	--

as required	Training exercise 15 – Cash flow	
-------------	----------------------------------	--

30 minutes	Evaluation of Module 5	
------------	------------------------	--

<b>Total</b> <b>330 minutes</b> <b>5½ hours</b> <i>(+ exercises)</i>
---

**DAY 10**

date

30 minutes	Previous day recap	
------------	--------------------	--

**Module 6 – Farm investment and risk***Unit 6.1 – Investment appraisal*

50 minutes	Session 6.1.1 – Investment decisions	
------------	--------------------------------------	--

**BREAK**

100 minutes	Session 6.1.2 – Simple methods of investment appraisal	
-------------	--	--

**LUNCH**

120 minutes	Session 6.1.3 – Discounted methods of investment appraisal	
-------------	--	--

as required	Training exercise 16 – NPV and IRR	
-------------	------------------------------------	--

<b>Total</b> <b>300 minutes</b> <b>5 hours</b> <i>(+ exercises)</i>
--



**DAY 11**

		date
30 minutes	Previous day recap	
45 minutes	Session 6.1.4 – Loan appraisal	

**BREAK***Unit 6.2 – Managing risk*

45 minutes	Session 6.2.1 – Risk and risk management	
45 minutes	Session 6.2.2 – Sources of risk	

**LUNCH**

60 minutes	Session 6.2.3 – Risk management strategies	
90 minutes	Session 6.2.3 – Dealing with risk	
as required	Training exercise 17 – Risk in farming	
30 minutes	Evaluation of Module 6	

<b>Total</b> <b>345 minutes</b> <b>5<math>\frac{3}{4}</math> hours</b> <i>(+ exercises)</i>
--

**DAY 12**

		date
30 minutes	Previous day recap	
	*	
	*	
	*	
	*	
	*	

**BREAK**

	*	
	*	
	*	
	*	
	*	

**FAREWELL LUNCH**

30 minutes	Closing programme	
------------	-------------------	--

<p><b>Total**</b></p> <p>___ minutes</p> <p>___ hours</p>
---

\* The scheduling for the last day is left to the trainer. It should be a time used to tie up any loose ends. Participants should be free to exchange ideas and to ask questions where doubts remain and where clarification is required. A time might be included for a final review of the course using the Evaluation form provided in both the Annexes and the Training aids package.

\*\* Trainer to supply times as required.



# Programme design



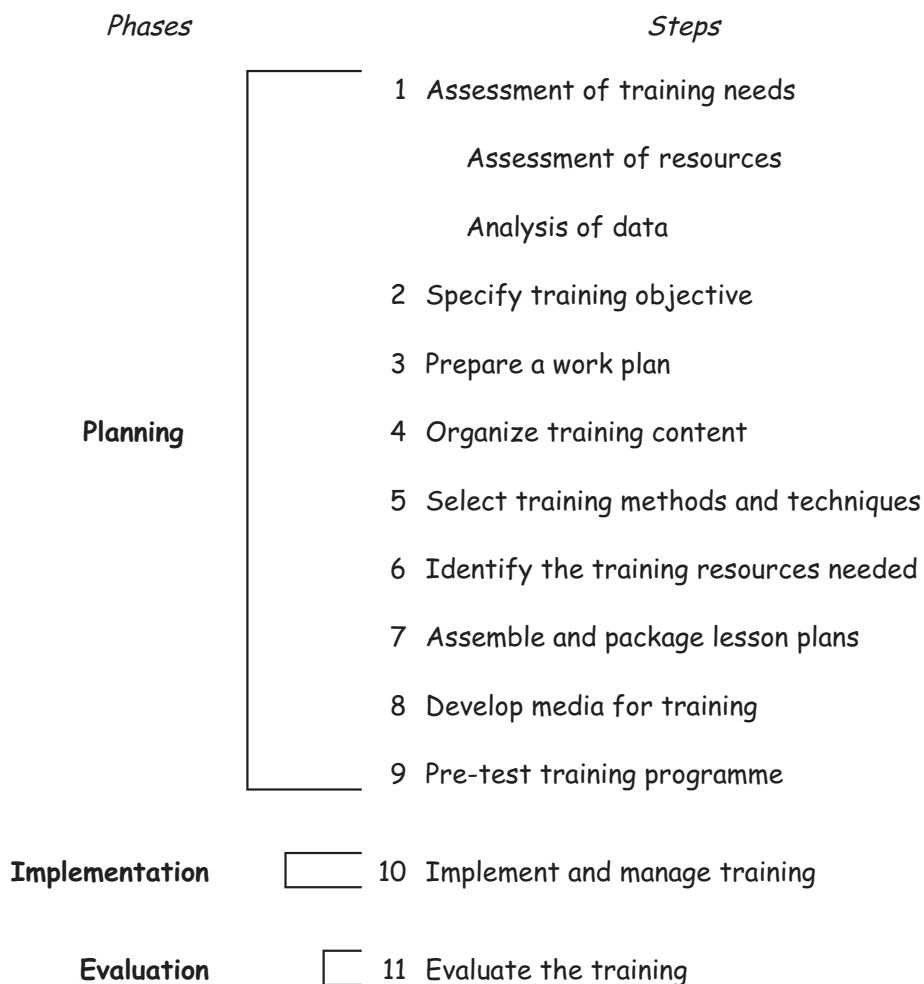
## Purpose

Training requires more than just providing information or development of skills. It requires the trainer to have a thorough understanding of the training process and the role and value of proper and systematic planning, 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 training.

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\*



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.

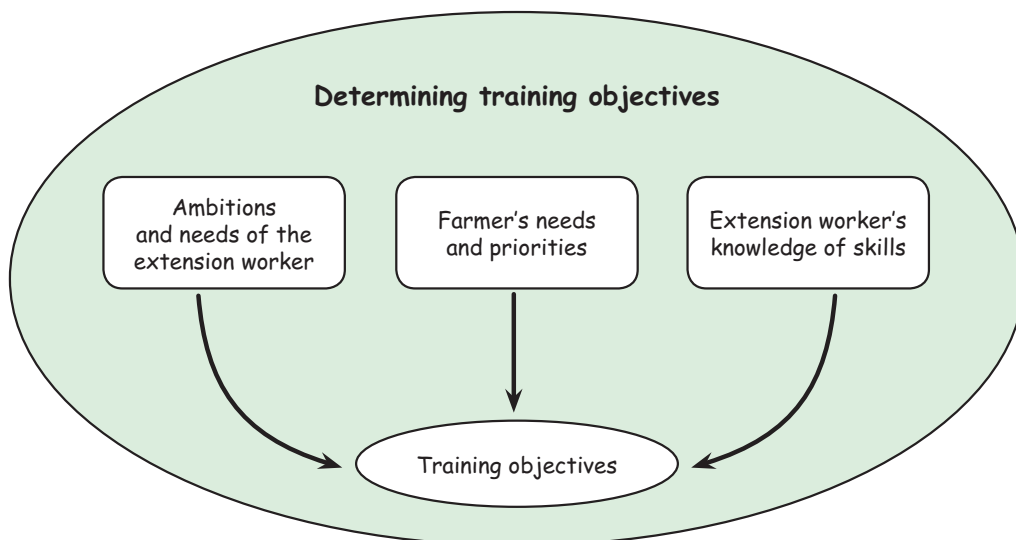
You should try to understand the reasons why extension workers prioritize their needs the way they do. This calls for some understanding of the farming community and the problems that farmers face. Some of this information may be available in reports and in files, or can be obtained from extension staff.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

<b>Must know information</b>	<b>Should know information</b>	<b>Could know information</b>
allows trainees to achieve the objectives set (for example understanding of costs of production, gross margin).	will help the trainee achieve the objectives and will reinforce the learning process (for example risk management).	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)

<b>Must know information</b>	<b>Should know information</b>	<b>Could know information</b>
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 you 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

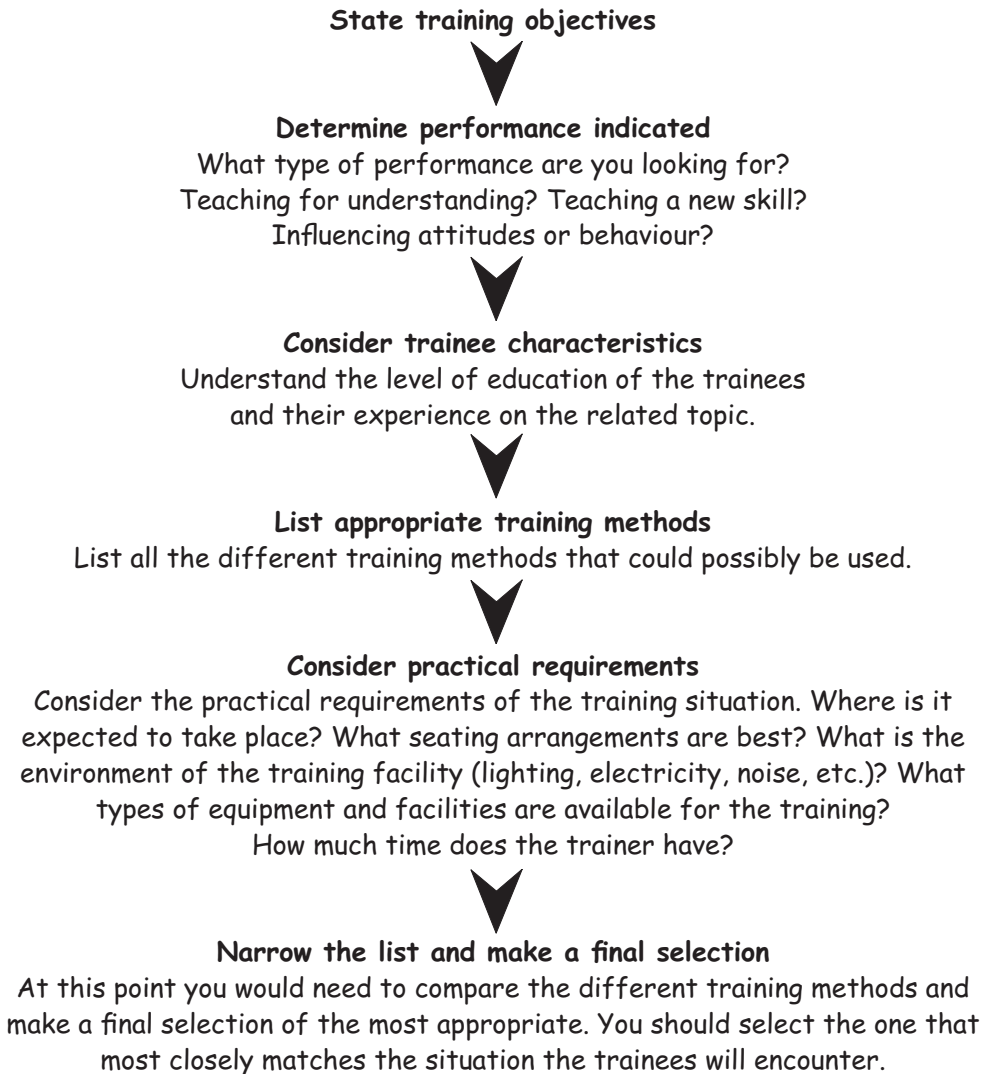
#### Training to "influence" attitudes and behaviour

*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\*:



\* 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 Asia.

**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 may also 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 .....	51
Role-play .....	52
Buzz-groups .....	53
Training exercises .....	56
Tick box discussion .....	58
Case studies .....	60

## ***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;
- to 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*

- Handout 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 three or four 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

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

Example tick box exercise

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





## REFERENCES





- Baker, J.** 1989. *Agricultural marketing*. Oxford University Press. Oxford.
- Boehlje, M.D. & Eidman, V.R.** 1984. *Farm Management*. John Wiley & Sons.
- Buckett, T.** 1988. *An introduction to farm organization and management*. Butterworth - Heinemann. Paperback by Pergamon Press. N. Y.
- Brown, B.** 2003. *Practical accounting for farm and rural business*. Crowood Press.
- Byram, M.L.** 1986. *Modules for training extension workers with handouts*. University of Massachusetts. Boston.
- CIAT.** 1999. *Identifying and assessing market opportunities for small rural producers*. Colombia.
- Davel, J.A.H. & Van Reenen, M.J.** 1997. *Farm Management — a business approach*. Unisa Press.
- FAO.** 2002. *Training guide on farm management for agricultural extension*, FAO regional office for Asia and the Pacific.
- FAO.** 2002. *Training guide on farm management for agricultural extension*. Bangkok.

- FAO.** 2000. *Understanding and using market information. Marketing extension, guide 2.* Rome.
- FAO.** 1999. *A guide to maize marketing for extension officers* by A. W. Shepherd. AGSF. Rome.
- FAO.** 1998. *Agricultural cooperative development, a manual for trainers.* Rome.
- FAO.** 1997. *Improving agricultural extension, a reference manual, SDR.* Rome.
- FAO.** 1997. *Farm management for Asia: A systems approach* by D.J. McConnel & J. L. Dillon. Rome.
- FAO.** 1996. *Training programme for agricultural planning at the district level in Nepal.* Rome.
- FAO.** 1995. *The group enterprise resource book.* Rome.
- FAO.** 1993. *Planning for effective training, a guide to curriculum development.* Rome.
- FAO.** 1993. *Farm management research for small farmer development* by J.C. Dillon & J.B. Hardaker. AGPS. Rome.
- FAO.** 1993. *A guide to marketing costs and how to calculate them* by A. W. Shepherd. AGSF. Rome.
- FAO.** 1991. *Improving training quality, trainer's guide to evaluation.* Rome.

**FAO.** 1990. *Guidelines for the conduct of a training course in farming systems development.* AGSP. Rome.

**FAO.** 1989. *Horticultural marketing, a resource and training manual for extension officers* by G. Dixie. AGSF. Rome.

**FAO.** *Agricultural marketing extension training papers* (TCP/SAF/0065). Rome.

**FAO and IIRR.** 1995. *Resource management for upland areas in Southeast Asia, an information kit.* Rome.

**Herbst, J.H. & Erickson, D.E.** 1996. *Farm management: Principles, budgets, plans.* Stipes Publishing.

**Johnson, D.T.** 1982 *The business of farming: A guide to farm business management in the Tropics.* Macmillan Tropical Agriculture Series.

**Kains, M.G.** 2002. *A handbook of small farm management.* Dover Publications.

**Kay, R. D & Edwards, W. M.** 1994. *Farm management,* 3rd edition. McGraw-Hill Inc.

**Kindervatter, S. & Range, M.** 1991. *Marketing strategy, training of trainers activities for entrepreneurs.* OEF International.

- Macher, R.** 1999. *Making your small farm profitable*. Storey Books.
- Malcolm, L.R. & Makeham, J.P.** 1986. *The economics of tropical farm management*. Cambridge University Press.
- Mason, J.** 1997. *Farm management*. Kangaroo Press.
- Mortenson, W.P., Klemme, R.M. & Luening, R.A.** 1991. *The farm management handbook*, 7th edition. Interstate Publishers.
- Norman, L. & Coote, R.B.** 1971. *The farm business*. Longman.
- Olson, K. D.** 2003. *Farm management: Principles and strategies*. Iowa State Press.
- Turner, J.** 1998. *Applied farm management*. Blackwell Science.
- Upton, M. & Anthonio, Q. B. O.** 1965. *Farming as a business*. Oxford University Press.

### Useful web references

AgriBusiness.

<http://www.developmentgateway.com.au/jahia/Jahiacache/offonce/lang/en/pid/141>

Food and Fertilizer Technology Centre.

<http://www.fftc.agnet.org/library/list/pub/ac.html>

The Farmer-centred Agricultural Resource Management (FARM).

<http://dbtindia.nic.in/farm/page1.htm>

USAID ASIA.

[http://www.usaid-ph.gov/environment%20cocoa\\_usaid.htm](http://www.usaid-ph.gov/environment%20cocoa_usaid.htm)

International Rice Research Institute.

<http://www.irri.org/>

Asia Rice.

<http://www.asiarice.org/index.html>

India Extension Services.

<http://www.manage.gov.in/>

International Institute of Rural Reconstruction.

<http://www.iirr.org/Asia/pubasia.htm>



# **GLOSSARY**





**A** **Accounting.** A comprehensive system for recording and summarizing business transactions.

**Accounting period.** The period of time over which accounting transactions are summarized.

**Amortization.** A periodic charge reflecting the decline in the recorded value of an intangible asset over a specific number of years.

**Annuity.** A series of equal periodic payments.

**Appraisal.** The process of estimating the market value of an asset.

**Appreciation.** An increase in the market value of an asset.

**Asset.** A physical or financial property that has value and is owned by a farm. Assets can be fixed, they are used over several years, for example tree crops. Assets can be current, that is they can be used in a short-time period, such as cash in hand, grain and feeds in store.

**Asset valuation based in monetary terms.** Regardless of asset nature and purpose, valuation must be consistent throughout, and the same method should be used every time assets are valued.

**Asset valuation methods.** Assets can be valued using various methods: market value, original cost or purchase price, lower cost or market price, farm production costs, original cost minus depreciation.

**B**

**Balance sheet.** A report summarizing the assets, liabilities and net worth of the farm at a specific point in time.

**Benchmarking.** This is the practice of identifying those farmers who are the best at farming, learning from them, how they do it, so that farm performance can be improved. Financial benchmarking involves looking at financial performance of successful farms. Technical benchmarking refers to technical information necessary to assist farmers in input allocation for crops and livestock.

**Break-even analysis.** Determining the level of sales at which an enterprise will just recover fixed and variable costs; a zero profit condition.

**Break-even price.** The selling price for which total income will just equal total expenses for a given level of production.

**Break-even yield.** The yield level at which total income will just equal total expenses at a given selling price.

**Breeding livestock.** Livestock owned for the primary purpose of producing offspring.

**Budget.** An estimate of future income, costs or cash flows.

**C**

**Capital.** The collection of physical and financial assets that have a market value.

**Capital asset.** An asset that is expected to provide services through more than one production cycle and can be used to produce other assets or services.

**Capital budgeting.** A process for determining the profitability of a capital investment.

**Capital investment.** A relatively long-term commitment of money to a project expected to generate positive net cash flows over time. For example, the storage of crops for later sale, the buying of a tractor.

**Cash budget.** A periodic projection of cash receipts and cash disbursements over a specific length of time.

**Cash flow.** The flow of funds in and out of a farm, or the positive (inflow) or negative (outflow) movement of cash caused by an activity over a specific period of time. Cash flow is used to monitor liquidity, manage and plan, and provide solutions to cash short falls.

**Cash flow analysis.** An economic method of analysis that employs the positive (inflow) and negative (outflow) movements of cash caused by an activity to determine the relative desirability of the activity. This usually involves discounted cash flow methodology. Cash inflows are generated primarily by the sales of crop and livestock. Cash outflows are such aspects as production costs, family living expenditures.

**Cash flow budget.** A projection of the expected cash inflows and cash outflows for a business over a period of time.

**Cash flow cycle.** The periodic movement of cash through an enterprise, caused by investment, operating and financing decisions.

**Cash flow statement.** A financial statement listing the cash impact of the activities of a business over a specific period of time, separating the cash flows into the areas of operations, investments and financing.

**Collateral.** Assets pledged as security for a loan.

**Competitive enterprises.** Enterprises for which the output level of one can be increased only by decreasing the output level of the other.

**Complementary enterprises.** Enterprises for which increasing the output level of one also increases the output level of the other.

**Compounding.** The process of determining the future value of an investment or loan, in which interest is charged on the accumulated interest as well as the original capital.

**Cost of capital.** The weighted average cost to a firm of all forms of long-term financing used; employed as a minimum standard for the return to be earned on a new investment.

**Costs of production.** Production costs are classified into two categories: variable and fixed costs. Variable costs are short-term costs usually within 1 year or within a production cycle and are defined as costs that occur only if something is produced, tend to vary according to size of enterprise and can easily be allocated to individual enterprises. Examples of variable costs are seed, fertilizer, hired labor. Fixed costs are costs that last more than a year and stay the same regardless of the volume of output and do not tend to alter with small change in the size of an enterprise. Examples of fixed costs are fencing, machinery, rent. The classification of a particular cost as variable or fixed depends partly on the nature and timing of the management decisions being considered.

**Current ratio (CR).** The ratio of current assets to current liabilities; a common measure of liquidity. When  $CR = 1$ , assets equal liabilities, little safety margin, little if any liquidity. When CR is greater than 1, assets more than liabilities, there is more safety, more liquidity. When CR is less than 1, liabilities more than assets, liquidity is less.

**D**

**Data.** Raw numbers and facts (e.g. prices, costs).

**Debt (liability).** An obligation to pay amounts due under specified terms, or to provide goods or services to others.

**Demand.** Demand represents which products buyers are willing and able to buy at certain prices. Demand is affected by the price of produce, taste, preferences, age and culture of buyers, income of buyers, prices of similar produce and the range of produce available.

**Depreciation.** The decline in an asset's value from its purchase value, through use to obsolescence that is recognized in the accounting system as a periodic allocation (write-off).

**Depreciation cost.** This is considered to reflect the fall in value of capital items in a time period. The annual cost of deprecation is calculated by subtracting the salvage value from the purchase price, divided by the useful life in years.

**Discount rate.** The interest rates used in calculating the present value of an amount to be paid or received in the future.

**Discounted cash flow.** The discounting methodology employed in determining the economic attractiveness of capital investment projects.

**Discounting.** The process of calculating the reduced value of a future sum of money in proportion to the opportunity of earning interest and the distance in time of payment or receipt.

**Diversification.** The production of two or more commodities for which production levels and/or prices are not closely correlated.

**E** **Economies of scale.** A production relationship in which the average total cost per unit of output decreases as output increases.

**Efficiency.** A measure used to verify the relationship between the resources used and the output (production) achieved. Can be divided into: economic and technical efficiency. Economic efficiency refers to the value of input used and produce sold. Technical efficiency is a way to measure the technical performance of crop and livestock management practices. It measures the farm's success in producing maximum output from a given set of inputs.



**Enterprise.** The crop and livestock production activities associated with a farm. The activities include such aspects as the production of rice, ducks, goats.

**Equity (owners' equity, net worth).** The amount by which the value of total assets exceeds total liabilities. The amount of the owner's own capital invested in the business.

## F

**Factors of production.** These are resources that are used farmers, such as natural resources, (e.g. land and water), labour, the work of the farmer, farm family and hired labourers, capital, (e.g. buildings inputs).

**Farm.** A piece of land on which a farm household undertakes agricultural activities. A farm, apart from the land, may include structures erected on the land, such as wells, irrigation channels, fences, buildings. The farm also includes crops, livestock and other resources to support the livelihood of the farm family. The farm is part of a wider social and local community.

**Farm household.** Consists of the farmer, the farmer's family and their goals and preferences. The household is both a family and a business involved in production and consumption. It is a social unit, involved in the local community.

**Farm inventory.** A complete list of all physical assets at a specific point in time; typically of use at the end and beginning of the cropping year. It includes the value of every item of property and the amount of farm liabilities.

**Farm management.** Making efficient use of available resources and taking decisions to increase profit. It is concerned with achieving the right combination of available inputs in production of crops and livestock.

**Farm records and accounts.** Operating records such as farm map, inputs and materials, labor, livestock, income and expenses records. Financial records such as balance sheet.

**Farmer's decision-making process.** The decision process involves a series of steps: identifying the problem and collecting data and information; identifying and appraising alternative solutions; taking the decision, implementing the decision and monitoring the decision.

**Farmer's objectives.** The farmer's objectives will be influenced by the different goals of the farm household. Some of the objectives thus may conflict with other objectives. For example, the goal of increasing sales may conflict with the goal of ensuring stable food supply to the farm family. Some typical objectives are maximizing profits, increasing production, increasing sales, minimizing costs, avoiding debt, reducing risk.

**Financial flexibility.** The ability to maintain alternative choices for raising additional capital while preserving a capital structure appropriate to the risks and conditions of a company's business.

**Future value (FV).** The value that a payment or set of payments will have at sometime in the future, when interest is compounded.

**G**

**Gross income or gross revenue.** This is the value of output of an enterprise. It assesses the performance of an enterprise purely in terms of the benefits it yields without considering the costs to produce it. The gross income is obtained by multiplying the total volume of the final marketable production by its average farmgate price.

**Gross margin.** The difference between gross income and variable costs, also called income above variable costs.

**Gross margin analysis.** A method of analysis that determines the relative excess of revenue over variable costs and judges the contribution made toward meeting fixed costs, overhead and profits.

**I**

**Income statement (profit and loss statement).**

A report that summarizes the income and expenses of a business over a period of time.

**Inflation.** An increase in general in price levels.

**Information.** Data that has been processed so that it can be understood easily.

**Input.** A resource used in the production of an output. Inputs are seeds, fertilizers, insecticides.

**Internal rate of return (IRR).** The discount or interest rate at which the cash inflows and the cash outflows of an investment project result in a net present value of zero.

**Inventory valuation.** Any adjustment to recorded inventory values to correct differences between historical costs and current prices, also affecting costs of goods sold.

**Investment.** The commitment of funds for the purposes of obtaining an economic return over a period of time, usually in the form of periodic cash flows and/or terminal value.

**K** **Key informant interviews.** Interviewing knowledgeable and selected persons, (e.g. farmers, rural traders).

**L** **Leasing.** The process of contracting for (or buying) the use of assets owned by others over a specific period of time in exchange for a stipulated pattern of periodic payments.

**Leverage.** The process of using credit to increase the total capital managed beyond the value of owner's equity.

**Liability.** An obligation to pay a specified amount. Current liabilities are those debts that need to be repaid within the year, for example the principal on a loan, income taxes. Fixed liabilities are debts due over a year, for example payments to buy a tractor, due in installments over several years.

**Liquid asset.** An asset that can be converted rapidly into cash without suffering a significant reduction in value, usually classified as a current asset.

**Liquidity.** The degree to which a farm is able to generate cash to meet financial obligations as they come due.

**Long-term debt.** Any debt obligation of a farm with a maturity of more than 1 year.

## M

**Market value.** The value for which an asset would be sold in an open transaction.

**Marketing.** The process of exchange between the farmer who sells and the buyer who purchases produce. Marketing involves assembling, sorting, packaging, transporting, storing, selling, processing, financing and taking risks. There are three important elements to marketing: the priority of the buyer, a process of selection and the building of relationships.

**Marketing channel.** This involves the various stages through which the produce passes from the time it leaves the farm to when it reaches the buyers. A number of marketing channels exist: supply directly from farm to final buyers, supply processing units, supply various retail outlets, supply via contract, etc.

**Marketing costs.** All transactions that occur along the various marketing channels entail costs. Main costs involved are: produce preparation, packaging, handling costs, transport costs, produce losses, storage costs, processing produce.

**Marketing margin.** This is the difference between the price of the produce at two different stages in the marketing process. The size of the marketing margin depends on the magnitude of the marketing costs and the amount of profit that buyers or traders make.

## N

**Net assets.** Total assets less current liabilities, as recorded on the balance sheet.

**Net farm income.** The difference between total revenue and total expenses, including gain or loss on the sale of all capital assets.

**Net present value (NPV).** The difference between the present values of cash inflows and outflows from an investment, representing the net gain or loss in value expected relative to the interest standard applied.

**Net profit.** The difference between periodic revenues and related costs and expenses.

**Net worth.** The difference between the value of the assets owned by an enterprise and the value of its liabilities. Also called equity.

**Non-cash items.** An expense that does not represent a cash flow during the period (no expenditure of cash), such as depreciation.

**O** **Operating costs.** Costs for the purchase of inputs and services that are used up relatively quickly, usually in one production cycle.

**Opportunity cost.** The income that could be received by employing a resource in its most profitable alternative use.

**Output.** The outcome of a production process. For example rice is the output of a crop enterprise.

**Overhead costs.** Costs that are not directly related to the type and quantity of products produced.

**P** **Partial budget.** An estimate of the changes in income and expenses that would result from carrying out a proposed change in the current farm plan. It looks only at those income and expense items that are affected by the proposed change.

**Participatory rural appraisal (PRA).** Like RRA, but with the participation of local farmers.

**Payback period.** The length of time it takes for the accumulated net returns earned from an investment to equal the original investment.

**Planning.** A process of working things out before they happen. It typically involves the formulation of goals, identifying resources, identifying opportunities, estimating gross margins, choosing enterprises, preparing the whole farm budget and putting the plan into action. Typical plans are the whole farm plan, planning for the market, labour planning.

**Present value (PV).** The current value of a set of payments to be received or paid out over a period of time.

**Price-maker.** Farmers who can set the price for produce to be sold. This happens where the product is specialized (differentiated) and there are few buyers.

**Price-taker.** Farmers have no influence over the market price and have to accept the price given in the market. This happens where the number of buyers is large and the product sold is common and undifferentiated.

**Principal.** The amount borrowed or that part of the original loan which has not yet been repaid.

**Profit.** The value that remains after all costs, including opportunity costs, have been subtracted from gross income. It represents the farmer's gain.



**R** **Rapid rural appraisal (RRA).** A series of quick research techniques that generate results of less apparent precision. Typically conducted by a small group of people involved in conducting a rapid appraisal of an agricultural setting.

**Rate of return.** The level of earning attained or expected from an investment over a period of time.

**Risk.** A situation in which more than one possible outcome exists, some of which may be unfavourable.

**Risk management.** This involves anticipating an unfavorable event and reducing the chance of it happening, taking actions to reduce adverse consequences of risk should an unfavorable event take place.

**S** **Salvage value.** The market value of a depreciable asset at the time it is sold or removed from service.

**Sensitivity analysis.** A procedure for assessing the risk margin of a decision by using several possible prices and/or production outcomes to budget the results and compare them.

**Short-term loan.** A loan scheduled to be repaid in less than 1 year.

**Solvency.** The degree to which the liabilities of a farm are backed up by the assets. The relationship between debt and equity capital.

**Sources of financing.** Farmer's savings, borrowing from relatives and friends, bank credit, bank overdraft, grants, credit against goods, investments.

**Sources of risk.** The most common sources of risk are production, technical, marketing, financial, institutional and human.

**Supplementary enterprises.** Enterprises in which the level of production of one can be increased without affecting the level of production of the other.

**Supply.** Supply is what producers are willing and able to market at a certain price. Supply is affected by the price of produce, prices of inputs, costs of production, technological factors, climate, storage possibilities, transportation costs, imports and packing costs.

**Survey.** Interviews carried out with the aid of prepared questionnaires.

**T**      **Terminal value (recovery value).** The value of any asset expected to be realized at the end of its economic life.

**V**      **Value of farm production.** The market value of all crops and livestock and other income generated by a farm business, after subtracting the value of purchased livestock and feed.

**W** **Whole farm budget.** A projection of the total production, income and expenses of a farm business for a given whole farm plan.

**Whole farm income.** It is a year-by-year profitability of the farm as a whole. There are two ways of calculating whole farm income: combining the gross margin of each of the farm enterprises and deducting fixed costs. Alternatively, it could be calculated by estimating the enterprise profit for each of the farm enterprises and then adding them all up.

**Whole farm plan.** A summary of the intended volume and kinds of enterprises to be carried out by a farm business.

**Working capital.** The difference in value between current assets and current liabilities, a measure of liquidity.













The following is a list of the AGSF series TRAINING MATERIALS FOR AGRICULTURAL MANAGEMENT, MARKETING AND FINANCE

1. Farm planning and management for trainers of extension workers in the Caribbean, 2004 (CD-ROM, English).
2. Horticultural marketing extension techniques, 2004 (CD-ROM, English)
3. Farm planning and management for trainers of extension workers. Asia, 2006 (Hard copy and CD-ROM, English).
4. Integrating environmental and economic accounting at the farm level, 2005 (CD-ROM, English)
5. Curso de gestión de agronegocios en empresas asociativas rurales en América Latina y el Caribe, 2005 (CD-ROM, Español)

In preparation

6. Market-oriented farm management for trainers of extension workers. Africa (Hard copy and CD-ROM, English).
- Farm planning and management for trainers of extension workers. Latin America (Hard copy and 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)\*.

\* Copies soon to be available from AGSF

**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.**