

# 6

## Farm management extension guide

A group of people, including men and women, are gathered in a large, open field. Some are wearing hats, and they appear to be engaged in a discussion or activity. The background shows a flat landscape with some trees in the distance.

### **The role of the FARM MANAGEMENT SPECIALIST in extension**

by  
**David Kahan**

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## Preface

Farm management extension is concerned with the development of management strategies and skills among farmers for improved decision-making in the use of resources and linking farmers to markets. With the increasing market-orientation of farming, the decisions taken by farmers are more complex; for farms to compete they must be run as a business. This creates a demand for specialized extension support. To be successful farmers need the skills to produce what the market wants and what satisfies consumers. The growing importance of specialization in farm management is to support farmers in this work.

Those providing farm management extension go by many names: Farm Management Specialist or Agribusiness Management Specialist; Agro-enterprise Promoter; Agribusiness Counsellor – to name a few. In this guide the title used is Farm Management Specialist (FMS) and whichever title is used, refers to the specialization of providing support in business and marketing in the context of farming.

This guide provides a wealth of information suitable for use by those concerned with the promotion of farming as a business – whether they work for the private, NGO, or public sector. These could include public sector extension workers involved in farm business management and marketing, private sector business service providers and NGO's. Finally, it is hoped that this guide will encourage decision-makers to establish farm management extension positions where they do not exist.



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David Kahan

# INTRODUCTION

*There is increasing interest in farm management as a specialization in extension and a need to develop farm business management skills among extension workers and farmers. This guide contributes to the development of these skills and specifically addresses the work of those who are involved with providing farm management support at all levels of extension.*

***The role of the farm management specialist is broad and diverse***



## INTRODUCTION

The role of the farm management specialist covers investigation, planning, marketing, training and extension, as well as other related functions.

Farm management specialists may be situated at various levels within an extension service. They may be found at central or headquarters level, close to decision-makers. They may be found at decentralized levels such as provincial, regional, district or township levels. Or they may be found in any combination of these.

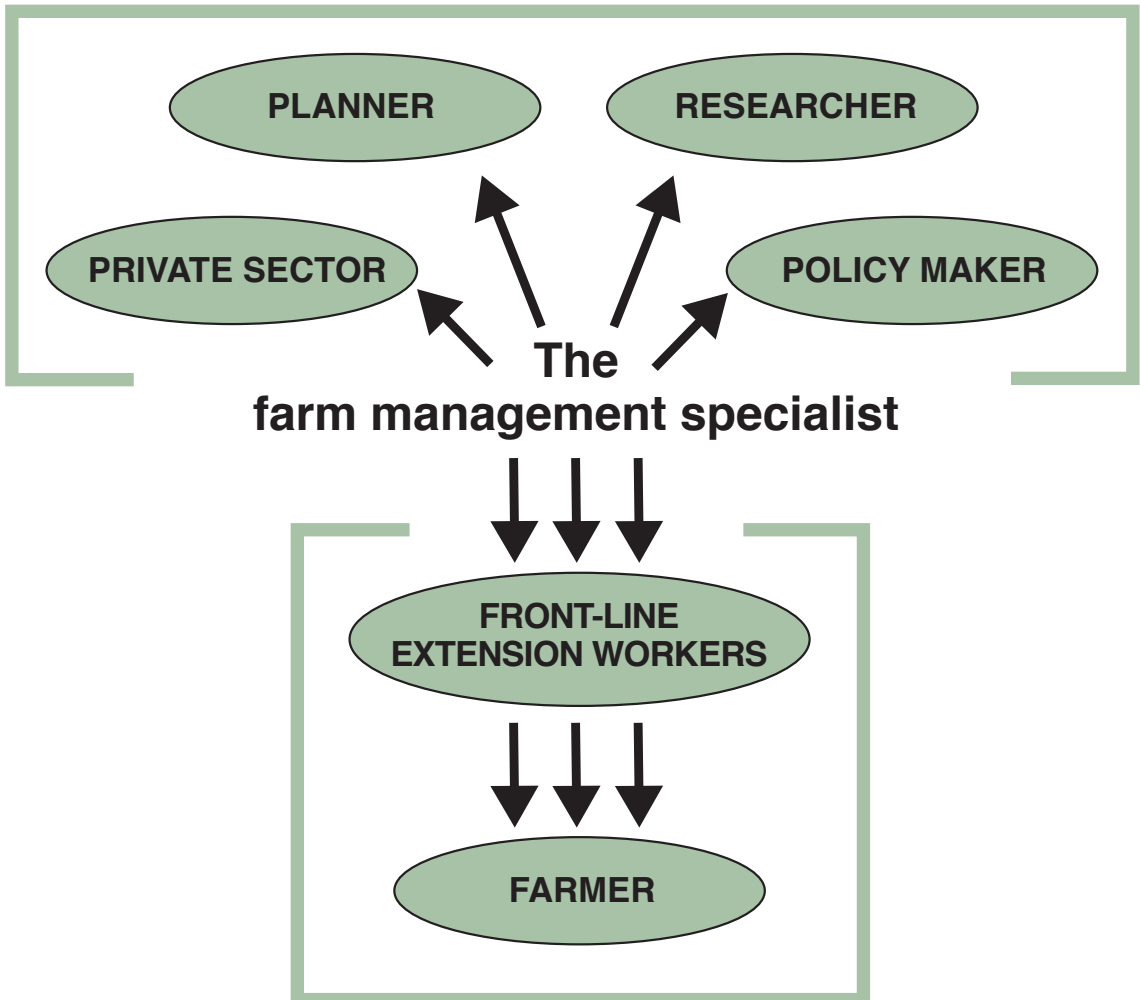
While the level of experience of specialist extension workers can vary markedly between countries and areas within countries, the tasks of farm management specialists themselves are very much the same. Differences might exist in their formal job descriptions and the actual skills and competencies of individual specialists but their purpose is essentially the same – fostering excellence in farm management among farmers.

This guide provides a basis for understanding the breadth of responsibilities that need to be covered in this emerging discipline. The material provided will assist this specialized staff in day-to-day extension work while raising awareness among extension programme managers of this increasingly important function. It can also be used as reference material for designing training programmes for extension staff who may need to improve their skills in order to deliver better farm management support.





*Figure 1*  
**The central role  
of the farm management specialist**



*The farm management specialist plays a pivotal role in the extension system as analyst, planner, trainer and facilitator. These tasks include communicating the findings of farm economic analyses to policy makers and front-line extension workers; facilitating linkages with private sector input dealers and buyers, and supporting workers and farmers with specialized training on farming as a business.*



## Chapter 1

# Farm management extension

*This chapter begins with an overview of farm management extension and the contributions that farm management specialists can make in the context of smallholder farmers. Farm management specialists require a background in economics or business or both and their responsibilities include collecting, analyzing and disseminating information on economic aspects of the farm to farmers, extension workers and policy-makers. Reference is made to the administrative structure of the extension service and where specialists can be best utilized. Finally, the demand for and supply of farm management extension services is discussed.*



## THE IMPORTANCE OF FARM MANAGEMENT

*There has been an upsurge of interest in farm management particularly among smallholder farmers*

Farm management extension services provide business and marketing knowledge and skills to farmers to assist them in making their farms more profitable and competitive. Currently, only a small number of farmers benefit directly from farm business management advice. These farmers tend to be more profit-minded and market-oriented and are capable of managing production and marketing systematically. Recently, however, there has been an upsurge of interest in farm management particularly among smallholder farmers that are becoming market-oriented, and realize the need to increase profits and become more competitive. Potential market-oriented farmers also have to be guided and supported in their first steps toward commercialization.

*Farm management extension services provide farmers with business and marketing knowledge and skills and assist them in making their farms more profitable and competitive*

In response to the many changes that are impacting on farming, extension services are recognizing the importance of business, management and marketing support to farmers. In many countries public sector extension services are being realigned to include farm business management and new positions are being established in the public service. Farm business management advice is also being provided by NGOs and private organizations. In developing countries, Agri-clinics, Agribusiness Service Centres and Local Economic Development Authorities have also been established to provide business support services. There is now a wide range of public and private organizations that have an interest in improving the efficiency of the farm business. These include extension services, input dealers and manufacturers, traders, financial and farmer organizations, and NGOs.



## FARM MANAGEMENT ADVICE

Most farmers believe that their major problems relate to:

- **Management.** Small-scale farmers may be good at producing, but often lack the skills needed to manage their farm as a business. Extension and training support are needed to assist farmers to develop their management skills and competencies.
- **Marketing.** Farmers selling their farm products at favourable prices which are often undifferentiated and where competition is high. Small-scale farmers in particular are at a disadvantage. They are less able to sell their produce in urban areas which are rapidly growing. A large part of the answer rests in building marketing skills.
- **Access to finance.** This prevents farmers from expanding the size of their business and exploiting business opportunities. While many farmers think that their main or even their only problem is a shortage of capital this is often not the case. Often the problem is the management of the capital resources that they have. Again a large part of the answer rests in training: building financial management skills.

*Farm management advice includes management, marketing and market access*

Although the farmer is a key role-player, there are other stakeholders involved in rural and urban areas that also require farm management information and advice: input suppliers, traders, farmer associations, processors, other service providers and policy-makers. These people often represent the different stakeholders in produce value chains, linking production to final consumption. Each of these different stakeholders has a different demand for business management and marketing support. Thus, farm management support must extend beyond the farm.

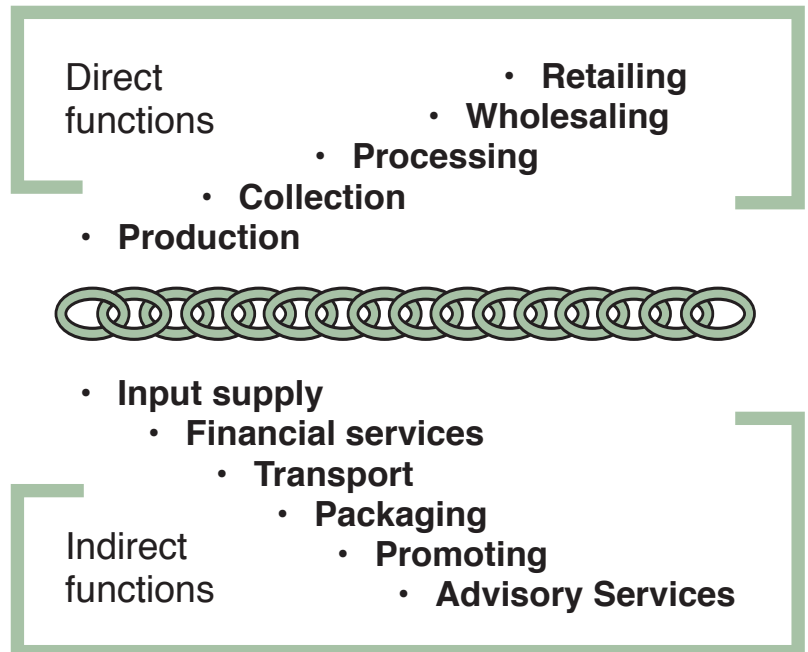
*Farm management support must extend beyond the farm to all the stakeholders in the value chain*

### **The value chain**

The 'value chain' describes the system of products, organizations, processes and transactions involved in transforming raw materials into products that are sold and consumed. These include the direct functions of primary production, collection, processing, wholesaling and retailing, as well as support functions, such as input supply, financial services, transport, packaging, advertising and the provision of advisory services. The value chain reflects an understanding that value is added at each point in the chain.

The essence of a value chain is market-focused collaboration with different business enterprises working together to produce and market products and services in an effective and efficient manner.

*Figure 2*  
**The value chain**



In order to be able to build value chains, extension services need to develop farm management skills. Training extension practitioners in farm management and the establishment of specialist positions in farm business management will contribute substantially to strengthening the agricultural sector to respond successfully to the rapid changes taking place.



## THE SPECIALIST IN FARM MANAGEMENT

Extension workers typically consist of subject matter specialists and front-line extension workers. Subject matter specialists are responsible for giving technical support to front-line extension workers who are in day-to-day contact with farmers. The subject matter specialists are experts in specific areas of agriculture that typically include crop production, animal husbandry, farm mechanization, livestock husbandry, among others. The front-line extension workers have a more general agricultural orientation.

Farm management and agricultural marketing are also among the specializations much needed in today's changing agricultural environment. And in this environment, the management specialist has many roles to cover and has the potential to:

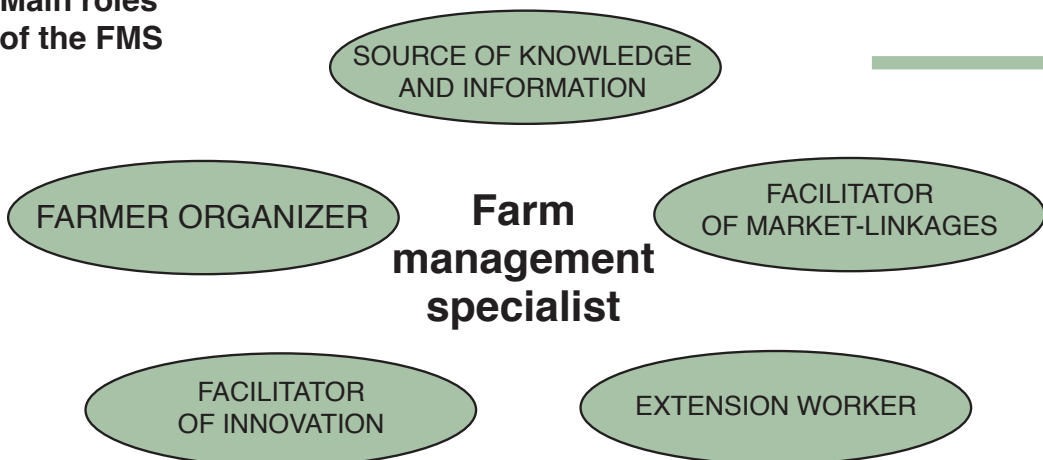
- Influence policy decisions;
- provide extension support to farmers;
- facilitate linkages between farmers, input suppliers and markets;
- guide farmers in the best use of their resources through investigation and diagnosis of problems identified by them through extension support;
- compile and analyze data on farm enterprise profitability and generate extension information to disseminate to farmers;
- advise on opportunities;
- provide up-to-date marketing and business management information;
- help with marketing problems (facilitate linkages between farmers and buyers);
- advise farmers on aspects of business management;
- advise on supportive public projects and programmes;
- facilitate communications between farmers and the public sector for improved understanding and collaboration.

***Specialization in farm management and marketing are vital in today's ever changing agricultural environment***

Specialists need to possess a wide range of specialized knowledge in addition to the traditional knowledge and skills in applying farm management methods, tools and techniques. This specialized knowledge includes finance, accounting, project appraisal, law and contracts. They also need to be able to organize farmers into groups, associations and cooperatives. Knowledge of contracting is also needed to facilitate market linkages.

The farm management specialist has five major roles to play in supporting farmers to adapt to market-oriented farming and to take advantage of opportunities to improve profitability. He or she is a source of knowledge and information, a facilitator of market-linkages, an extension worker, a facilitator of innovation and a farmer organizer.

*Figure 3*  
**Main roles  
of the FMS**



***SOURCE OF KNOWLEDGE AND INFORMATION***

Provide information enabling farmers to make informed decisions.  
Communicate information to front-line extension workers.

***FACILITATOR OF MARKET-LINKAGES***

Know the agents and the opportunities.  
Gather and disseminate market information.  
Bring farmers and commercial agents together.  
Assist with the formulation of fair contracts.



**EXTENSION WORKER**

Identify and respond to problems and opportunities enabling farmers to expand their options and increase their profitability.

**FACILITATOR OF INNOVATION**

Support farmers and engage with researchers and other stakeholders to foster innovation along the value chains. Facilitate interaction among value chain and other stakeholders to collaborate on developing innovative responses to problems and opportunities.

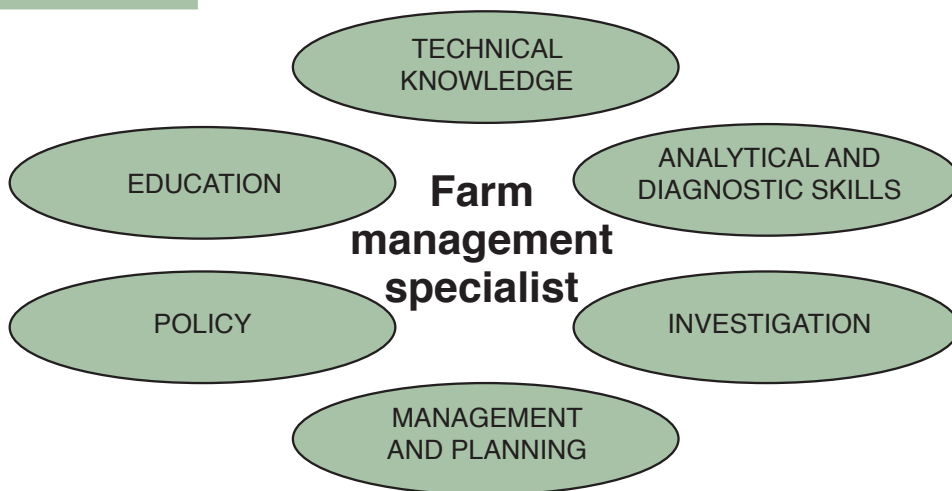
**FARMER ORGANIZER**

Help farmers form their own organizations in order to achieve economies of scale, create efficiencies in buying inputs and marketing produce. Mobilize farmers to work together to tackle problems and seize opportunities by themselves.

**Knowledge requirements**

In order to fulfill their roles appropriately, the specialist requires a variety of those specific qualities relevant to the dissemination of knowledge and skills.

*Figure 4*  
**Required knowledge and skills**



### **TECHNICAL KNOWLEDGE**

Farm management specialists must be adequately trained in the technical aspects of the work and have a good working knowledge of the main elements of the agricultural system in which he or she is working such as crop or livestock production, vegetable production or mixed farming.

### **ANALYTICAL AND DIAGNOSTIC SKILLS**

Specialists must be able to examine situations, recognize and understand the problems and opportunities and propose courses of action. For example, if a farmer is experiencing low income or low profitability, the specialist should be able to diagnose the situation, identify the cause of the problem and to recommend corrective action.

### **INVESTIGATION**

Specialists should know where to search for information, how to interpret it and how to convey it in the most adequate and effective form. If a farmer asks for help with determining the profitability of selling in a new market, the specialist should be able to locate information about that market and put it together in a way that will be useful to the farmer.

### **MANAGEMENT AND PLANNING**

Specialists require skills in aspects of management, finance and marketing.

For example farm management specialists can:

- assess the financial position of farm businesses;
- assist with cash flow budgeting and financial planning;
- negotiate with and mediate between banks and financial institutions;
- assist with decision-making, including farm planning;
- provide information on government assistance schemes and help with applications.

### **POLICY**

Specialists should be familiar with government legislation and other institutional policies which affect farmers and their role in agriculture and rural development. For example, there may be restrictions on the movement of agricultural products or the use of pesticides and herbicides or on labour law and tax legislation.

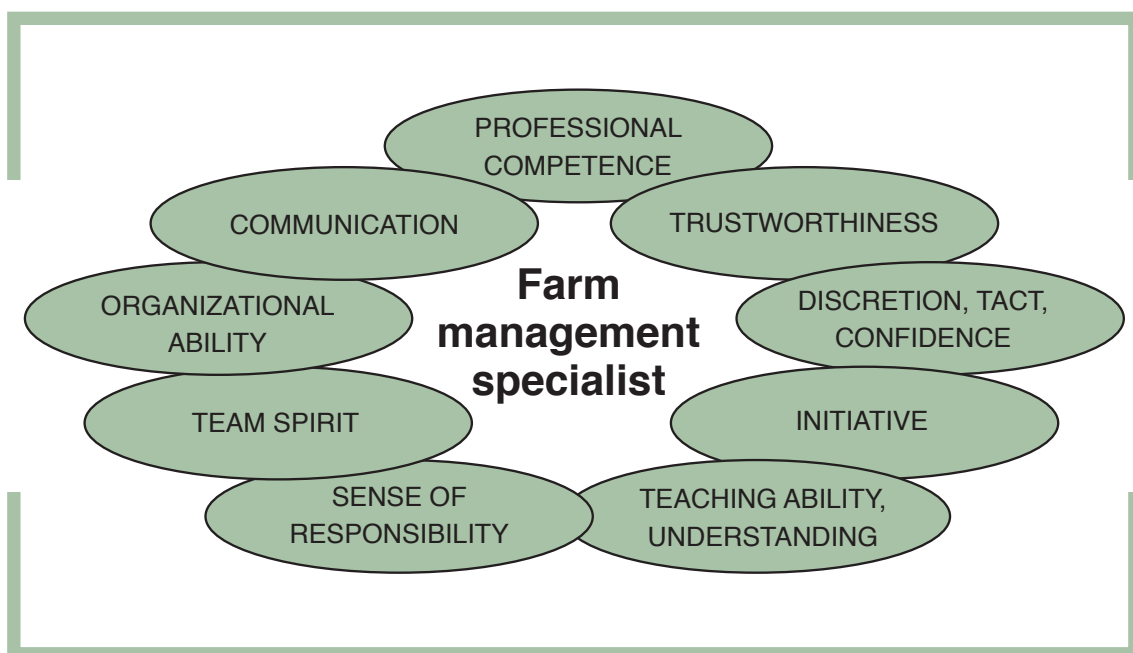
### **EDUCATION**

Since extension is an educational process, the specialist in farm management must be familiar with the main approaches to adult education and group dynamics, and with the techniques of facilitating farmer participation. There are often specialized education and training programmes – including literacy and numeracy training – for adults who have had little formal education.

### **Qualities needed in a farm management specialist**

The skills and qualities required by an affective farm management specialist are diagrammed and outlined below.

*Figure 5*  
**Specialist's skills and qualities**



***PROFESSIONAL COMPETENCE***

Sound grasp of farming techniques and training in economics and specialization in farm business management. Understand concepts, tools and techniques of farm management. Skills necessary to provide practical and useful advice to farmers and to explore alternatives.

***TRUSTWORTHINESS***

Ethical and reliable in all dealings with farmers.

***DISCRETION, TACT AND CONFIDENCE***

Respect the privacy of farmers.  
Tactful enough to avoid upsetting and embarrassing farmers in difficulty.  
Ready to help without interfering.  
Ability to challenge farmers' thinking without criticising them.

***INITIATIVE***

Ability to work alone and without supervision and without waiting for guidance and support from superiors.

***TEACHING ABILITY AND UNDERSTANDING***

Beyond advising, help farmers to make their own decisions through sound economic reasoning. Understand that improving the farmers' businesses also depends on non-business factors such as relationships and other personal commitments. Understand that farmers often feel alone and unsupported in making changes to their farm businesses as such changes can be very uncertain; they need help to overcome fears and reservations.

***SENSE OF RESPONSIBILITY***

Prudent and responsible.  
Balance own responsibility with the understanding that it is the farmer who decides how the farm should be managed.

**TEAM SPIRIT**

Work in a team with other local agricultural advisers and specialists.  
Instil a team spirit in farmer groups.

**ORGANIZATIONAL ABILITY**

Able to plan extension work, to organize its implementation  
and generally to manage and effectively control  
an extension office and its activities.

**COMMUNICATION AND FACILITATION SKILLS**

Able to communicate using many media  
including verbal, non-verbal and written communication.  
Able to help others understand, learn  
and acquire knowledge and skills.

**Collaboration and leadership**

In addition to dealing with farmers, extension workers and other stakeholders, specialists in farm management should collaborate with other subject matter specialists. These may be specialists dealing in crops or livestock or other areas of interest in farm management.

Farm management specialists should also have the ability to motivate and guide front-line extension workers in the public, private and NGO sectors. Given the holistic nature of the work, the management specialist should act as a leader among those working with farmers.





## ORGANIZATION OF FARM MANAGEMENT SUPPORT

The farm management specialist has the potential to contribute not only to extension work, but to planning, project preparation and policy analysis. The specialist can bridge the gap between the farmer and the planner; the farmer and the researcher; the farmer and the policy-maker and the farmer and the private sector. By having access to farm management data and preparing farm plans, the specialist is well placed to contribute to policy formulation, project plans and national plans. As planning often requires considerable expertise and experience, these skills are often invaluable in this task.

Specialists should be located within the extension services where they can be of most support to front-line extension workers and other subject matter specialists, planners and policy-makers.

*Given the scarcity of public funds for their work, extension service management will need to be creative and strategic in locating farm management specialists.*

There are many options of where a specialist can be placed in the overall organizational structure. Choices will be determined by need and resources and by the availability of specialist personnel. No matter where they are placed, they will often find themselves at the intersection between planning and extension, and at the intersection between research and extension because farm management information is needed in all areas of service delivery to farmers.

## Chapter 2

# Diagnosis and investigation

*This Chapter looks at the role of the farm management specialist in diagnosis and investigation and the tasks involved. It describes farm enterprise analysis, benchmarking, market appraisal and value chain analysis but does not go into detail on methodology. It briefly describes the methodologies and makes reference to materials for further learning.*



## KEY ROLES

The specialist in farm management has five key roles in providing strategic guidance:

- 1. Preparing and sharing area profiles based on data and information collected on the biophysical and socio-economic background of the area being considered.*
- 2. Providing extension services and, through them, farmers with information on the profitability and competitiveness of farm enterprises.*
- 3. Providing assistance to research staff in research stations and institutions and to extension service providers by prioritizing technical areas of research concentration.*
- 4. Analyzing market opportunities for high potential agricultural products and support private sector investments.*
- 5. Providing policy-makers with guidance and support from farm-level studies conducted in the area.*

*Those extension workers who specialize in farm management have a number of key roles to play*

These roles all require the collection of micro-level data – farm and local market information – and their analysis, compilation and presentation to a diverse range of users. Specialist staff, wherever they are located, have a critical role in managing and conducting investigations of priority issues. They are also often responsible for leading or facilitating teams of experts in conducting market appraisals and value chain analyses and conducting farm profitability analyses.





## PREPARING AREA PROFILES

Area profiles are a collection of information about a location (e.g. zone, district, region) of interest to planners, policy-makers, extension workers and investors. Area profiles comprise statistical tables together with diagrams, charts, maps and explanatory text. They should provide an understanding of the conditions of the particular area as well as the dynamics of change. Area profiles are invaluable for farm management specialists working at the farm level, and for extension workers, planners and policy-makers to better understand the area's unique circumstances and its relative position within the national agricultural economy.

Area profiles will help specialists to thoroughly familiarize themselves with the problems and the opportunities in the area. The information can also be used to create a database for analytical investigation, planning and extension.

Area profiles should include all the information that could be of value and use to the diverse audience of information users: a description of the farming system, farm types and sizes, market outlets, input supply sources, agro-processors, service providers and successful farmers and rural entrepreneurs situated in the area.

To prepare an area profile, the specialist also needs to make a thorough inventory of secondary data found in censuses, special studies and other reports about the area. Information can also be gathered by speaking to farmers and other stakeholders located in the vicinity.

***Area profiles should include a description of the farming system, farm types and sizes, market outlets, input supply sources, agro-processors, service providers ...***

***... and successful farmers and rural entrepreneurs***

The next task is to map out and analyse the information collected. First, a database should be set up with information collected on the physical, social and economic aspects of the area. This mapping helps identify the different farming systems in the area which enables extension workers and planners to understand better the variations in farming.

---

## FARMING SYSTEMS

***The information gathering process should ultimately give the specialist a clear idea of the farming system of the area ...***

***... and the potential problems, opportunities, possible action***

A farming system can be defined by the number of individual farm systems that have broadly similar resource bases, enterprise patterns, household livelihoods and constraints. Depending on the scale of the analysis, a farming system can encompass a few dozen or many millions of households.

*Source*

[http://www.fao.org/farmingsystems/description\\_en.htm](http://www.fao.org/farmingsystems/description_en.htm)

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From this overview, the farm management specialist can identify specific crop and livestock enterprises and calculate the profitability and the potential that they have for economic success. Supporting this, the specialist should identify specific market opportunities for crop, livestock or other products that can be successfully produced within the various agro-ecological zones.

The farm management specialist should also gain a broader understanding of other aspects including identifying and mapping out input suppliers, agro-processors, traders, financial sources, service providers as well as successful business enterprises (small and medium size enterprises and farmers). It would then be possible to assess the demand among farmers and other stakeholders for support services.

## **PURPOSE OF BUILDING AN AREA PROFILE**

Describe the farming systems  
and farm types

Access the potential and constraints  
for particular commodities and products.

Identify areas of the region with particular  
strengths and weaknesses for agricultural

Locate input suppliers and market outlets.  
Compare the distribution of resources.

Identify successful cases of farm businesses  
and 'benchmark' farms

Identify service providers.

Identify market infrastructure weaknesses

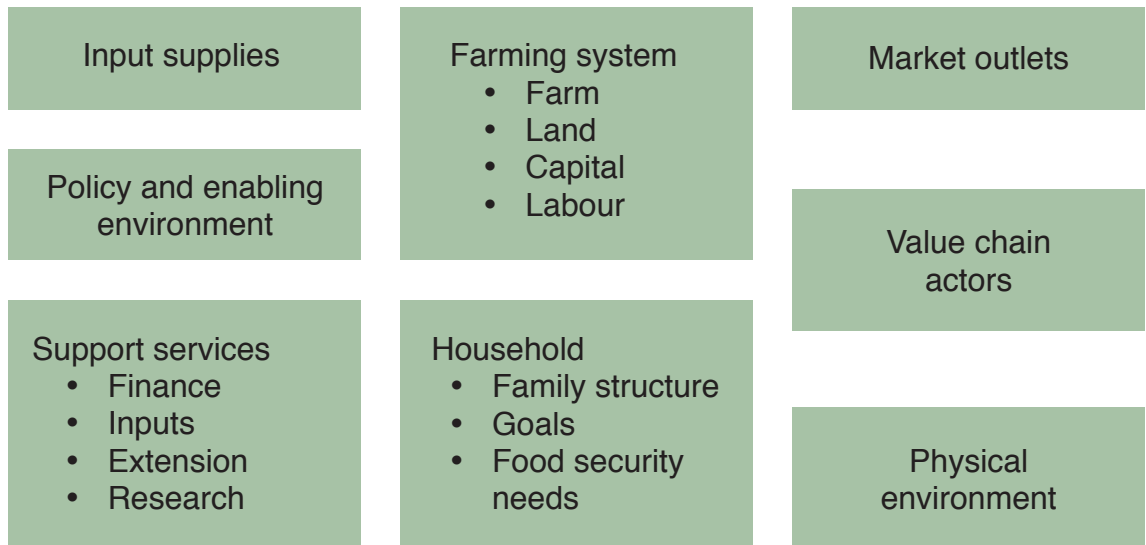
Formulate linkages with  
rural finance institutions.

Establish a platform of dialogue among  
farmers, the public and private sector

The information gathering process should ultimately give a clear idea of the entire value chain; inputs, products, processing, marketing and the individuals, problems and opportunities involved. The specialist should also have gained some idea of possible actions worth investigating.

The data thus gathered is compiled into a profile that provides stakeholders (private and public) with information about the area.

## AN EXAMPLE OF AN AREA PROFILE



There is no “correct” way of collecting, compiling and analyzing information. It should be tailored to the type and quality of the data available and the resources available for collection and compilation. Much also depends on the type of problems or issues that are important for extension, planning and policy-making and the opportunities that the area offers for agribusiness development and fostering market-oriented farming.

Farm management specialists need to carefully consider the choice of methods for organizing area based profiles. The best method is the method that delivers an outcome that will be useful for all.

### **Data requirements and sources**

This guide divides data requirements for area profiles into three broad categories:

- farming systems
- marketing
- socio-economic data.



### Farming systems

- Natural resource base
- Climate
- Landscape
- Farm size
- Farm activities
- Technologies used
- Integration of crops, livestock and other activities



### Marketing systems

- Market outlets
- Prices of products sold
- Marketing costs
- Marketing channels
- Levels of trade
- Market changes



### Socio-economic information

- Income patterns
- Food security issues
- Employment and labour data
- Rural infrastructure
- Support service provision
- Value chain actors

*Figure 6*  
Data requirements  
for an area profile

### Farming systems

Data and information about farming systems is the basic requirement. In any single area there are often many farming systems and, within these, farm incomes vary widely. The farm management specialist needs to know what causes income variations, who are the most vulnerable farm households, who comprise the better-off farm households and what is the most appropriate support for these households.

Farming systems information is needed by extension workers to assist farmers to diagnose their farm performance, to set objectives, to plan, implement and control farm activities, and to make more efficient use of their limited resources. To develop a farm system profile, the following information is needed:

- available natural resource base
- climate
- landscape
- farm size, tenure and organization
- dominant pattern of farm activities and household livelihoods
- main technologies used
- integration of crops, livestock and other activities
- farmer capacity

For each of these the specialist needs to investigate a number of key issues and record the management practices applied, the effect of these elements on farming system choices, and their effect on other aspects of farming such as labour, sustainability and access.

**Available natural resource base.** Land and soils, water, and vegetation, grazing areas and forests.

- *Land and soils.* Texture, acidity, fertility, organic matter content, depth, ease/difficulty of cultivation, drainage, and salt content.
- *Water.* Availability, quality and affordability of water for irrigation; existing management practices and availability, quality and accessibility of drinking water to homestead.
- *Vegetation, grazing and forests.* Permanent grasses, shrubs and bushes, wild/planted trees, trees, and medicinal herbs.

**Climate.** Rainfall distribution, temperature, humidity, natural calamities (floods, droughts, typhoons).

**Landscape.** Topography and altitude.

**Farm size, tenure and organization.** Layout of the farm, nature of land ownership and business management arrangements.

**Dominant pattern of farm activities and household livelihoods.** Crops, vegetables, livestock, trees, aquaculture, hunting and gathering, processing and related cost, production and marketing patterns and information on employment and on-farm and off-farm sources of income.

**Main technologies used.** Tools, equipment, traction and production programmes to determine the intensity of production.

**Integration of crops, livestock and other activities.** Information on how enterprises are integrated and managed.

**Farmer capacity.** Farmers' skills and their problems and assistance that farmers believe they require to help them market their products and improve profitability.

In the process of gathering information on farming systems, the FMS should also identify 'successful' farmers who can be regarded as 'innovators' that are able to identify new income generating opportunities and successfully exploit market niches.

### **Marketing systems**

Farmers and rural entrepreneurs also require information on markets and marketing on a regular basis including market outlets, prices of products sold, marketing costs (handling, transportation and storage), market margins, market channels and levels of trade and market changes. The task for the specialist is to identify and assess potential markets for different products that can increase farm profits.



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Recording market prices

*Farmers require accurate and up-to-date information on market prices, production levels, on the costs of inputs and also materials in order to make informed farm management decisions.*



© FAO/17813/A Conti

On-the-spot study of a rural market and marketing procedures



© FAO/17847/A Conti

Prices vary by location and level of market activity



© FAO/24491/D White



Super markets are competitive and frequently lower priced

*An important task for the specialist in farm management is to identify reliable and trustworthy sources of information ...*

*... information of this kind can be found at many levels.*

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Computerization of market price data



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Market price data broadcast through the local radio

Farmers and rural entrepreneurs also require information about inputs, equipment and materials in order to make production decisions. The information needed includes knowledge of reliable and trustworthy sources of inputs suppliers, equipment and machinery manufacturers, prices, quality of items and on reliable sources of spare parts for tools and equipment and maintenance supplies.

### **Socio-economic information**

Farm management specialists should also collect information on social and economic factors that influence the broader community including community leaders and lead farmers, rural infrastructure, support services and value chain actors including processors, traders, input suppliers and farmer organizations – formal and informal – operating in the area. It also includes assessments of how well farmer organizations are performing; identifying their strengths and weaknesses. Additionally, socio-economic information is needed on employment in the area.

***Socio-economic factors also influence markets and the decisions that farmers and entrepreneurs make***

\* \* \*

## **FARM MANAGEMENT INVESTIGATIONS**

Profit-orientation, market-orientation and diversification of farming has brought about changes in farm enterprises and the input-output relationship between them. It has influenced the composition of farm enterprises, their size and use of land, labour and other resources. Specialists in farm management need to investigate the profitability and efficiency in the use of inputs; it is a key area of investigation to support farmers' pursuit of greater profitability.

Farm management analyses are essential to help farmers and extension workers understand how the farm business is performing and to determine its profitability. Analyses can help locate weaknesses and ways to correct them. They can highlight areas of good performance so they may be exploited more fully. Farmers need the analyses to make decisions to improve farm performance.

Farms in any given location are rarely homogenous. Each farm and household has unique conditions, characteristics and farming systems. However, there are often many elements in common and thus farmers may share a common farming system in that they have similar objectives and resources (in terms of both quantity and quality), produce similar products and undertake similar activities on and off the farm within similar biophysical, economic, socio-cultural, policy and institutional environments. Those farms that belong to a particular farming system can be expected to have similar potentials in terms of productivity and income.

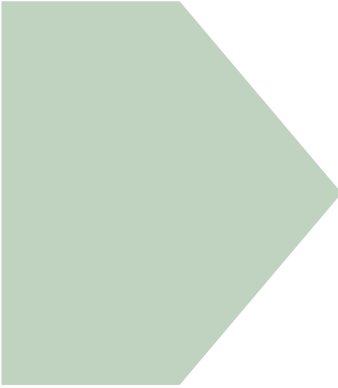
In order to investigate farm performance and recommend improvements, the farm management specialist and the extension worker must understand the overall farming system and its links as well as the variations that exist in farm types. Thus a priority responsibility of the specialist is to collect farm-level data and develop a typology of smallholder farmers according to their individual farming systems.

Diagnostic techniques that can be applied at farm-level can help extension workers and farmers recognize the critical problems limiting farm profitability. Many of the conventional farm management tools fit into this broad category. They include constraints analysis, gross margin analysis, budgeting, cash flow analysis as well as more specialized farm management methods such as financial statements, balance sheets and risk management.

***Farm management analyses are essential. They help farmers and extension workers understand how the farm business is performing and to determine its profitability***

***The result of a well conducted farm management analysis can provide useful insight into farming systems and farm types***

## **SIMPLE FARM MANAGEMENT DIAGNOSTIC TECHNIQUES**



**Constraints and opportunities analysis.** An instrument used to help identify weaknesses and potentials and the causes of those weaknesses. It helps develop strategies for overcoming the weaknesses and building on the potentials identified.

**Enterprise budget.** Estimate of the output, cost, and profitability of individual crops, cropping patterns or livestock enterprises. Each type of crop or livestock that can be grown or raised on the farm is an enterprise. A very simple and practical type of enterprise budget is the gross margin.

**Gross margin.** An indicator of the profitability of farm enterprises and technologies, obtained by subtracting the variable costs from gross income. It can be used to analyse the performance of existing enterprises and to estimate profitability of proposed enterprises

**Benchmarking.** This involves studying and comparing the actual performance of a farm/enterprise with farms/enterprises of similar size and farming system for detailed financial and technical analysis. The intention is to identify strengths and weaknesses and steps to improve performance. The differences between the farm/enterprise being studied and the benchmark are used as the basis for improving performance.

### **Farm performance analysis — Benchmarking**

The most useful diagnostic tool in farm management is “farm performance analysis”. Here, financial results and the components of the production and marketing system are compared with benchmarks. Comparisons

can be internal to the farm business or external with other farms. The performance of an individual farm can be compared with the standards set, identifying weak points and actions for improvement. Performance analysis can also be done for a single enterprise, where the profitability and efficiency of that enterprise is analysed.

### STANDARDS OF PERFORMANCE AND BENCHMARKS

**Standards of performance.** The standards relate to technical and financial performance and efficiency. Technical performance standards involve physical measures such as yields of crops, production of livestock, or use of inputs such as labour. Financial standards are measured with instruments as enterprise or total gross margins per hectare (or per unit of some other resource) such as net income per hectare or return to total capital.

**Benchmarks.** Generally, benchmarks for farms are made up by averaging the actual performance data from a large group of farms. The benchmarks are typically derived by selecting one-third of the farms in a large group that are the most profitable and averaging the performance measures from those farms.

Farm management specialists need to be able to listen, analyse farmer's problems, research information and suggest innovative practical solutions on a wide variety of business issues. They can assist farmers by making them think through the main issues they need to consider. They need to assess farmer's knowledge of critical business issues before they start helping them to develop their business plan.

### **Demonstrations and on-farm trials**

Demonstrations are becoming increasingly important to test new technologies and enterprises as a way of making the most of market opportunities. Farm management specialists assist front-line extension workers to evaluate the results of demonstrations and on-farm trials. They mainly advise on record-keeping to ensure that the data are sufficiently complete and reliable so that farmers can have confidence in the information generated.

#### **DATA REQUIREMENTS**

**Background data.** Land use or field history going back two or three seasons such as methods of land preparation, yields, fertility management, crop rotations, residue management, soil type, texture, terrain, slope, vegetation, system of water control, fallow periods.

**Technical input data.** Data on the inputs applied to the demonstration including the type of inputs used; the rate of application; the method of production and family and hired labour requirements.

**Input-output response data.** Data on the performance of the crop under the different technologies. This implies developing a response relationship between inputs and outputs.

**Product price and input cost data.** Data on input and output prices. Data on what inputs to apply, their unit and total cost and where to obtain them would be useful for farmers ready to innovate.

**Farmer assessment data.** This data is subjective, based on farmer's own observations.

Farm management specialists assist farmers and extension workers evaluate the trials and demonstrations. Evaluations should provide findings and conclusions that can assist extension workers in designing suitable extension programmes. They should include a technical appraisal of the feasibility of the new technologies, an assessment of financial performance to check if the technology or enterprise is potentially profitable, and an evaluation conducted together with the farmers involved.

*Evaluations of demonstrations are most fruitful when done in collaboration with farmers and extension workers in the field*

Compilation and analysis could be carried out by the farm management specialist alone, but it is most fruitful when done in collaboration with farmers and extension workers in the field.

### CONTRIBUTIONS OF FARM-LEVEL INVESTIGATIONS

**Production and farm management.** Providing information that allows constraints and opportunities to be identified at the farm level.

**Marketing information.** Provides insight into the workings of rural markets, pricing mechanisms, marketing margins, channels of product flow, farmer perceptions towards marketing efficiency, transport issues, affects of subsidies, tariffs and other regulatory instruments on the farm community.

**Monitoring and evaluation.** Generate information on the impact of technology changes and investments. The studies can shed light on baseline situations.

Specialists also have the task of analyzing data to produce the standard information needed for farm management handbooks to be used by front-line extension workers in their day-to-day work.

## **FARM MANAGEMENT HANDBOOKS**

Compilation of farm management data can take the form of databanks of reference data and Farm Management Handbooks. The preparation of standard data as benchmarks could also be compiled in the handbooks or alternatively stored in electronic databases (e.g. spreadsheets). The farm management data may be used for farm budgeting and local level planning. The information provided in the Farm Data Handbooks could be of use to sectoral and national planners, policy makers and agricultural extension workers. Regular and frequent updating is necessary in order to guarantee their usefulness.





## MARKET APPRAISAL

Appraisals involve gathering information about market constraints and opportunities, market channels and market prices for products. This includes collecting information on prices, consumer demand, identifying new crops to grow and sell in existing or new markets. The appraisals can also be used to identify potential customers and outline strategies for attracting them. Market appraisals look at the opportunities of those agricultural products that have a marketable potential.

In brief, in order for marketing appraisals to be satisfactorily conducted the starting point is obtaining thorough knowledge of the products to be produced, the demand for produce sold, estimates of production and a review of potential customers.

In order to better focus the market appraisal, the FMS should review the productive capacity of the area, draw up a list of possible products to be sold on the market and map out the marketing channels and flows of produce through them. This is commonly done in the form of mapping the product flows between the different links along the market channel. Through developing maps of market outlets, specialists can clarify which actors are involved in marketing the product; what products have market potential; where the final markets are; what the geographic coverage is of the marketing channel and who are the most important actors in the chain. Thus, the specialist will be able to identify the key buyers to interview to collect information on the product and the market. Extension workers can use this information to provide advice and guidance to farmers and rural entrepreneurs so that they can appropriately orient their production and marketing activities. Appraisals should cover specific questions some of which are outlined in the checklist shown at the end of this section.

***The results of  
market appraisals  
are a useful tool  
for all ...***

***... business  
management  
specialists,  
extension workers  
and farmers ...***

***... in addition to  
rural entrepreneurs  
and potential inventors***

**Table 1**  
**Information requirements for market appraisal**

Product identification	<ul style="list-style-type: none"> <li>• Check if the products are tradable (import substitutes, export crops, substitutes, non-tradable food crops)</li> </ul>
Production information	<ul style="list-style-type: none"> <li>• Area planted (ha) (per season), time of sowing and harvesting</li> <li>• Area harvested (ha), percentage of harvested area</li> <li>• Yield per ha (over time)</li> <li>• Quantity produced</li> <li>• Level of sales and percentage of sales</li> <li>• Percentage spoilage</li> </ul>
Information on processing	<ul style="list-style-type: none"> <li>• Capacity, location, number of processing outlets</li> <li>• Use of raw material to finished product (percent of turnout)</li> <li>• Quantity produced</li> <li>• Demand for processed goods</li> <li>• Processing costs: raw material, labour, fuel, electricity, maintenance</li> </ul>
Demand information	<ul style="list-style-type: none"> <li>• Current and projected demand</li> <li>• Per capita consumption: local consumption habits, elasticity of demand</li> </ul>
Prices	<ul style="list-style-type: none"> <li>• Retail, wholesale prices, farm-gate prices</li> </ul>
Imports	<ul style="list-style-type: none"> <li>• Type, quantity, value, price of imports (into the country and region); FOB (free on board) prices</li> <li>• Marketing cost of imports; import arrangements; collection arrangements</li> </ul>
Exports	<ul style="list-style-type: none"> <li>• Type, quantity, value, price of exports (out of the country and region); CIF (cost, insurance, and freight) prices</li> <li>• Marketing cost of exports; export arrangements; collection arrangements</li> </ul>
Market channels	<ul style="list-style-type: none"> <li>• Destination of different products: amount sold to each market; number of traders and intermediaries (for each product category)</li> </ul>
Trade	<ul style="list-style-type: none"> <li>• Flow of sales (from region to market): amount for local consumption; amount sold outside the region; amount exported</li> </ul>
Market costs	<ul style="list-style-type: none"> <li>• Preparation cost, transport costs (according to type of commodities: bulky or dense), handling costs; packaging materials and costs, storage costs, commissions, marketing margins; break-even cost of production</li> </ul>
Consumers	<ul style="list-style-type: none"> <li>• Preference for products (health, nutrition, income, etc.), opinion of consumers for different types of processed products (quality, price, health) and substitutes</li> </ul>
Input provision	<ul style="list-style-type: none"> <li>• Use of purchased inputs; main purchased inputs; availability of inputs; quality of inputs</li> </ul>

## A CHECKLIST OF QUESTIONS FOR CARRYING OUT A MARKET APPRAISAL

### Access

- What formal and informal barriers limit access to the market (e.g. unofficial payments)?*
- How much time does it take to reach the market?*
- Are there alternative routes to reach the market?*
- What are the costs of transportation?*
- Are there alternative forms of transport?*

### Handling

- What handling services for on-loading and off-loading are available?*
- How do the handling services operate?*
- What are the limitations?*
- Are there alternative ways of handling?*
- Can cheaper transport be used?*
- What types of transport can be used to get to the market?*

### Storage

- For what products are storage facilities available?*
- What are the storage costs?*
- Are they reasonable?*
- What is the condition of the facilities?*
- Who pays for storage?*
- What is the storage loss rate?*
- What are the major causes of loss?*
- Are there alternatives for storage?*

**Market prices**

- Are market prices satisfactory?*
- Do prices vary widely between seasons or months?*
- How can market prices be improved?*

**Product demand**

- What commodities sell the most?*
- What quantities are sold?*
- What are the potential quantities that can be sold?*
- How should the produce appear?*
- How is the produce displayed?*
- What products have a high demand?*
- Are there alternative forms of produce that have a high demand (e.g. processed, dried)?*

**Competition**

- Who are the main buyers?*
- How many buyers are there in the market?*
- How many wholesalers are there in the market?*
- How many retailers are there in the market?*
- What type of products do they buy?*
- What are the market shares of the different buyers?*
- Which buyers are leading the market?  
Are they growing?*
- How many sellers are there in the market?*
- Are there any clear competitors for the produce sold from the region?*
- Do any of the sellers have a competitive, advantageous position?*

## Market channels

- What is the terminal market? Where are these markets?*
- Are there alternative market outlets/channels that could provide higher profits?*
- What factors (e.g. value-adding, packaging, quantity) might open up new market channels?*

### STEPS IN CARRYING OUT MARKETING AND VALUE CHAIN ASSESSMENTS

**1**

Identify productive capacity and possible product groups

**2**

Characterize and map the market channels for different product groups

**3**

Collect secondary information on final markets

**4**

Collect primary information from chain actors

**5**

Organize results

\* \* \*

***Value chain analysis explores market access and competitiveness of farmers and other value chain stakeholders***

## VALUE CHAIN ANALYSIS

Value chain analysis is a more sophisticated and complex form of market appraisal. It explores market access as well as the competitiveness of farmers and other value chain stakeholders – processors, input dealers, traders, retailers, consumers. The importance of value chains is that profitable farming depends on the competitiveness of the entire chain and the ability of service providers and investors to address constraints and opportunities. The areas for action are broader than the limited role of both the extension services and the farm management specialist. Value chain analysis requires the involvement of a range of stakeholders from government, the private sector, producer organizations and farmers to name a few.

### OBJECTIVES OF VALUE CHAIN ANALYSIS

**1**

To identify market opportunities for the area

**2**

To analyze the chains from different viewpoints and propose concrete actions to improve competitiveness

**3**

To coordinate the supply and demand for business services

Value chain analysis must be a team effort. In this respect, the specialist might be expected to manage a team of experts. In other situations they may be used as facilitators of other experts or called upon to explain the

value chain approach to a wider group of stakeholders, who may then task a technical group to do the detailed analysis. Farm management specialists could also participate directly as team members representing public sector interests. In all situations they must have at least an understanding of value chains and how analyses should be conducted.

Specialists should also possess an adequate understanding of value chain analysis to manage and participate in the study. Although analysis begins by understanding the local potential it often requires an appraisal of opportunities that lie further afield.

***Profitable farming depends on the competitiveness of the entire chain and the ability of service providers and investors to address constraints and opportunities***

## **USE OF VALUE CHAIN STUDIES**

### **Solving issues in a specific value chain**

A set of suppliers, transporters, wholesalers and retailers may find that they are having problems in coordination and decide to use the value chain methodology to help solve these problems.

### **Developing specific business strategies and partnerships**

Retailers could decide to use the process because of an explicit policy of trying to work with local or small-scale producers or to explore ways of improving existing relationships with small-scale producers.

Value chain analysis is not an end in itself, but its results feed into decisions of both private and public value chain stakeholders. Private enterprises can use the results of an analysis to set out a vision and an upgrading strategy for their businesses and the value chain at large. Public agencies need the results for implementing value chain development projects and planning supportive actions. This is where farm management specialists have a direct role to play.





## Chapter 3

# Planning and project appraisal

*Farm management specialists have a key function to perform by helping policy makers and extension workers make sound decisions. Here some of the problems of planning for smallholder farms are outlined. We look briefly at farm investment appraisal, the use of farm planning in project appraisal and mention the part that farm planning plays in extension design. Identifying research problems and policy analysis are discussed and, along the way, some of the common planning tools are described.*



## FARM PLANNING

Farmers are increasingly finding themselves facing strategic decisions that are vital to the long-term success of their farm businesses. These include, among others, whether or not to introduce machinery, construct new farm buildings, and adopt a different combination of enterprises.

Farm planning allows farmers to determine the optimum combination of farm production and farm resources. It is the process that farmers use to decide how to better run their farms in the short- and long-term.

Farm planning is closely related to farm investigation and analysis which is an invaluable source of information for making sound planning decisions. The farm management specialist, as part of the extension service, is responsible for designing and conducting farm planning activities that support extension. In order to do so effectively, the specialist needs the information and skills necessary to develop relevant and useful plans.

The concern of farm planning is to help farmers move progressively to higher levels of productivity and income along the road best suited to their specific situations and the conditions that surround them. Farm planning identifies many roads that may be followed and tries to help each farmer find the one that fits his or her situation best.

Looking ahead to take into account new opportunities and changing conditions is not natural for traditional farmers. They tend to look backwards for guidance. Farm planning teaches farmers to look to the future and run their farm as a business.

***Farm planning helps farmers look to the future and to run their farms as a business ...***

***... it allows farmers to determine the optimum combination of farm production and farm resources***

---

## HOW FARM PLANNING HELPS

Farm planning helps farmers in an organized, systematic and effective way to:

1. Find new ideas and methods that could benefit them from farming.
  2. Critically assess their current situation and past experience as a basis for deciding which of the improved ideas best fit their specific situation.
  3. Make definite decisions about what to do.
  4. Identify new markets, assess the profitability and competitiveness of new farm enterprises, assess the amount of produce that should be sold, and the costs of transportation and handling.
  5. Clearly identify their supply needs for the new plan; how much and what kind of seed, fertilizer, or plant protection materials are needed; where and when to get them and their cost.
  6. Identify their credit needs both short- and medium-term; where to get it and its cost.
  7. Get a better idea of the yield and production that can be expected and the costs involved. From that farmers can estimate the level of profit and the amount of money needed to pay off loans and how much they would have left to pay for expenses and for other uses.
  8. Make investment decisions.
-

## PLANNING TOOLS AND TECHNIQUES

Budgeting is a farm management method that estimates costs and returns of alternative actions and enables a choice to be made by comparing the financial results. Budgeting lies at the core of conventional farm management analysis. All of the budgeting techniques rely on gross margin analysis as the basic farm management method used to assess farm enterprise profitability.

Partial budgeting, as opposed to whole farm budgeting, assesses the potential 'profitability' as a result of small changes in the farm business. It is concerned with evaluating the income from changes in technologies or new enterprises introduced that affect only a part of the farm business.

Programme planning is used to select farm enterprises while taking into account the resource constraints of the farm.

Mathematical programming techniques formulate the resource allocation problem where an objective is maximized within the restrictions imposed by the quantities of resources available. Mathematical models comprise methods of optimization subject to farm and enterprise constraints. The most common form of mathematical model is linear programming.

Farm investment appraisal is concerned with projecting the income and cost flow over the life of an investment. Farm investments can be regarded as simple decisions whether or not to buy a capital item that lasts longer than a single season or year. Examples are irrigation equipment or machinery that is not used up immediately. The planning decision is long-term. Some investments, depending on their size and complexity can be regarded as projects. Their financial feasibility require that they are appraised by discounting the future streams of costs and benefits according to two common indicators: net present value (NPV) and internal rate of return (IRR).

Developing the farm as a business can be difficult given the many possible changes. The experience and skill of a specialist can help to demystify the process, to provide alternatives for business problems, to help farmers develop a business plan and to get funding for their farm business.

The specialist can also offer diagnostic and advisory skills on immediate business issues such as analysing cash flow, managing increasing sales volume, or funding for farm business expansion.

Writing business plans is essential – it records how the farmers want their business to develop and how they want to achieve their vision. In some countries, the main process for accessing funds for developing farm businesses is by submitting a business plan to a bank or other finance institution for a loan. This is another key area where the specialist can intervene – helping develop business plans at every stage of the plan.

***The farm management specialist can provide the support and information necessary to develop the farm as a business***

***Writing business plans is a key area where the farm management specialist can provide assistance***

\* \* \*



## **FARM PLANNING AMONG SMALLHOLDERS**

Farm planning has traditionally involved conducting planning exercises on individual commercial farms. But, when applying farm management to smallholders in developing countries, a different approach is needed. As mentioned previously, in developing countries there is a shortage of skilled manpower with a background in farm management and agricultural economics.

## A PROCESS FOR IDENTIFYING REPRESENTATIVE MODEL FARMS

### 1

*Identify homogeneous areas.* For example by type of enterprise, topography, climate, soils, and economic and social conditions. This activity could be conducted by the FMS when developing an area profile.

### 2

*Choose sample areas.* Further classify the farms identified in Step 1 according to similar agro-ecology, topography and soil type. Representative areas could be found for each main farm type categories. Each of the areas chosen could then be studied so that the FMS has figures on the total number of farms and their land holding size

### 3

*Select the most typical farm size groups.* The next step is to identify the typical farms. This requires conducting a survey and listing the number of farms and their sizes for each of the sample areas identified in Step 2. Farms that are exceptionally large or small or have characteristics that vary significantly from the rest would be dropped. This stage results in a model size group for each of the sample areas.

### 4

*Select the most representative farms.* This stage involves taking random samples of the farms within the size groups as identified in Step 3. The farms could be sorted into three different categories of land size: small, medium and large. A random sample of farms from each category would be selected, with one chosen to represent each size group from each enterprise type. This figure could be reduced further in order to identify the most common farm in each selected type of farming area.

Further, in developing countries, farming is often comprised of multiple smallholders producing crops and livestock on small plots that are often dispersed. Planning requires a lot of farm management data which is scarce and can be expensive to collect. These factors make planning of individual smallholdings excessively expensive, inefficient and impractical. In this case farm management specialists can do one of two things: they can select case study farms or design farm models that represent 'typical' farms found in the area.

**Selecting case study farms.** Specialists could search for one or more farms that could be used as case studies. The farms would be chosen on the basis of their representation in the area. Specific case study farms would be selected on a near random basis from the entire population of farms and the sample would, hopefully, be representative. These farms are used to study and demonstrate farm planning procedures with the results disseminated to other farmers in the area.

*When applying farm management to smallholders in developing countries ...*

*... planning individual farms is not practical ...*

*... a different approach is needed*

---

## WAYS OF GROUPING SMALL FARMS

- **Size.** Useful because many important farm characteristics are related to farm size.
- **Nature of the farmers' goals.** Maximizing profits, avoiding risk, fulfilling household food requirements ensures learning meets the interest of the farmers.
- **Level of technology used.** Type of enterprises is useful because many farm decisions are related to these factors.

*Farm management specialists can select case study farms or design farm models that represent 'typical' farms found in the area and use these to demonstrate farm planning*

---

**Identifying a 'typical' farm.** Where farms are similar, one of them may be selected as representative; but where farms are different they would need to be separated into smaller homogeneous groups. These

groups would form the basis for identifying a farm that is 'typical' of the farms most commonly found in the area. Studying the typical farms can provide insight and understanding about the majority of farms in the vicinity.

This approach serves an important function of facilitating the analysis of changes in technologies or enterprises on different groups of farms of the same type.

***The farm management specialist must take care to correctly identify 'typical' farm prototypes***

The results from the 'typical' or case study farm will not apply specifically to any one actual farm. The intention in modelling is to generate results which should reasonably or 'on average' apply to the farms they represent. The plans are then submitted to farmers so that they may choose the one they think is best suited to their farms and goals.

### **Simple farm models: budgeting**

Designing farm models requires preparing farm enterprise budgets and whole farm budgets as essential prerequisites for analysis. In both cases the data requirements include the level of inputs and outputs, the unit costs of inputs, the output prices and the resource constraints. The budgets cover all the input-output relationships of the farm enterprises.

A budget for land should show what and how much can be produced. A labour budget should show whether family labour will be adequate for the production programme and the hired labour needed. The budget for physical resources should indicate the inputs required. Based on these budgets financial analyses can be carried out.

Often, fairly simple budgeting models are adequate for the farm management specialist to prepare farm plans. Budgeting models are very flexible and budgets can be constructed to include judgements as to how farmers will react to changes in production and markets. But budgeting can involve lots of calculations if analyses are to be extended over a wide range of situations and if all aspects of the changes are to be fully evaluated.



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## USE OF COMPUTERIZED TOOLS AND MODELS

Spreadsheet programmes such as Excel© allow budgets to be easily calculated with only very basic computer skills. Spreadsheets are particularly appropriate for 'what if' analyses; models can be developed to explore 'what might be' the situation with and without change – comparing alternative futures.

Spreadsheet models can be used to measure the impact of technology changes and policy variations at farm-level, and the technical, financial and economic feasibility of investment projects. The risks and consequences of decisions can be investigated by using break-even budgeting and sensitivity testing.

More complex analyses often require help applying mathematical models such as Linear Programming and other applications.

Budgeting models are not optimizing models; they just evaluate a given number of proposed alternatives. However, the farm as a business is complex, consisting of multiple operations with many dimensions. Mathematical programming methods can be used to construct sensible farm plans.

### **Note**

Mathematical methods and techniques have been criticized in their application to farm-level problems in developing countries as computers are often scarce, programmes depersonalized and the methods used hard to understand and require extensive data and skills.

*Calculations for budgeting are easier if spreadsheet software is used on personal computers ...*

*... this has brought farm modelling within the reach of specialists*

---



## FARM PLANNING IN INVESTMENT APPRAISAL

Encouraging investments facilitates the development of market-oriented farming. Investments can be in the form of saved produce, planting trees, building storage facilities, purchasing tools, machinery or equipment, irrigation schemes and livestock fattening investments.

Capital investment decisions are critical because they tie up capital for long periods of time. Therefore, it is important that the farmer is certain that the investment is sound. Investment analysis is a means of assessing whether or not a potential investment is worthwhile. It is a process of determining the profitability of an investment by comparing it with the profitability of alternative investments.

***Investment decisions are critical because they tie up capital for long periods of time***

***Farm planning is the central factor for successful investment appraisal***

***Farm budgeting is the building block for information on financial costs and benefits***

Investments can also be made on a larger scale by the state, the private sector or a combination of both. Investments can be at area, sectoral or national level covering a range of farm types.

At whatever level the investment is intended, farm planning is an essential part of investment appraisal. In all cases farm planning data is needed. Appraisal of investments is based on indicators of the value of costs and benefits. For farmers, appraisals call for investment estimates of costs and benefits measured in market prices.

Farm budgeting is the building block for information on financial costs and benefits. An analysis of farm income allows an assessment to be made of the incentives for farmers to participate in the proposed project.

Farm management specialists have an important role in this process by assisting project analysts, extension workers and farmers to conduct farm-level investment appraisals. To fulfil this role, they need to possess knowledge of the methods used in conducting appraisals.

## PRINCIPLES OF PROJECT APPRAISAL

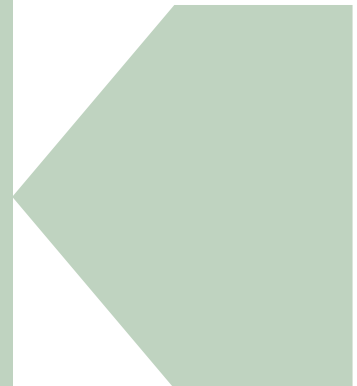
**Time value of money.** This means that a dollar today does not have the same value a year from now. The time value of money is simply a technique by which future benefits and costs are reduced to a present value. The time dimension of money is taken into account through the use of discounting.

**Life of the investment.** Investment appraisal studies extend over its life and follows the principle of 'discounted cash flow analysis', a subject covered in numerous references.

**Discount rate.** An appropriate discount rate is used as a 'cut off' rate to assess the financial viability of the investment. The rate used is usually the cost of capital to the farmer and is often assumed to be the rate of interest at which the farmer is able to borrow money.

**Indicators of profitability.** These indicators are used to measure the value of the costs and benefits streams. The net present value (NPV) is the difference between the present value of the benefits and costs of a project. The internal rate of return (IRR) is the rate at which the present value of the cost is equal to the present value of the benefit.

**With and without net benefits.** Investment analysis is conducted by comparing the situation with the investment (or project) against the situation without the investment (or project). The focus is on the project's 'incremental' benefit stream. The incremental net benefit is obtained by subtracting the net benefit without the project from the net benefit with the project.



*Farm management specialists have an important role to play in collecting and analyzing data for better farm planning and investment decisions, for policy makers and for extension workers.*



© FAO/ 22611/A Photo

Farmers learn how to measure land for farm management calculations



© FAO/ 19226/R Jones

Disseminating farm planning information to a group of farmers

© FAO/18251/J Villamor



Farmers being shown a model plan

© FAO/21589/J Spaul



Extension workers being trained in farm planning

*Farm planning is part of a process that involves formulating goals and objectives, collecting data on farm enterprise profitability and assessing the most profitable combinations and their investments.*

Investment appraisals can be done for individual farmers or rural entrepreneurs and for groups of farmers as part of a development project. Investment appraisals can also be carried out for agro-processors and post-production groups. While the method is the same, the focus of the work for rural entrepreneurs, agro-processors or the like shifts from farm-level to post production. Such studies might include conducting appraisals of storage facilities, local markets and agro-processing plants.

Farm management specialists can also play an important role in appraising and preparing projects. Here, farm planning techniques and skills are used to prepare representative farm types that are combined to cover all of the project participants and obtain values for a project as a whole.

The number of models required depends largely on the specific characteristics of the project. Typical farm types are used to reflect the type of farming system, the size of the farm and differences in management.

In conducting investment appraisal, specialists should possess knowledge of some of the key concepts involved in investment appraisal. They also need to possess the skills to undertake discounting of project inflows (benefits) and outflows (costs).

\* \* \*



## FARM PLANNING AND POLICY ANALYSIS

Diagnosing and assessing the impact of agricultural policy options can be constrained by a lack of knowledge of farm resources, production practices and responsiveness to changes in policy. Farm analysis and planning also have an important contribution to make at policy level.

Farm-level studies could aim at better understanding the behaviour of farmers with respect to their use of inputs, their choice of markets and the effect that price and cost changes, new technologies and new enterprises have on their income. They can also address issues of market access, input supply, access to credit and other factors that affect farm performance.

Policies and programmes are meant to have real impact. Often the impact is meant to be very specific (e.g. improved market access) or is aimed at a particular element in the value chain (e.g. post-harvest technologies). They may relate to specific regional projects, crops grown in a part of the country and to specific categories of beneficiaries. In order for policies to be correctly developed and targeted, accurate and reliable farm management information is needed and is increasingly valued by policy-makers.

Farm data is required to satisfy various aspects of policy analysis. Analysts need farm-level data and information generated through farm models. These are essential inputs into national and sectoral studies. Although specialists are not directly responsible for policy analyses they can contribute by providing this information.

The farm-type models can be used to measure enterprise profitability, the risks involved, the technical, economic and financial constraints impacting on farm income, and the likely impact of input or product price policies on farm income and production.

***Accurate and reliable farm management information is needed ...***

***... for policies to be correctly developed and targeted***

***Farm-level analyses allow policy-makers to better understand farm issues and gauge the impact of policy changes, improved technologies and market fluctuations***

After the critical constraints have been defined, at all levels, alternative policy solutions can be identified and assessed. Farm-level information concerning farmers' priorities, access to resources, input distribution and marketing bottlenecks is essential for assessing the likely impact of proposed policies. In many cases, approximate costs and benefits of different policies can be estimated with specific attention given to their effect on national or regional objectives.

Monitoring and evaluating the effects of the implemented policies generates new information at national- and farm-level. This information can be used to facilitate adjustments to interventions.

These analyses allow policy-makers to better understand farm issues and gauge the impact of policy changes, improved technologies and market fluctuations on the farm household and to monitor and evaluate the impact of policy on different types of farms.

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#### TYPICAL AGRICULTURAL POLICY INITIATIVES

- Adjusting the terms of trade in favour of small-scale farmers by introducing market efficiencies, reducing costs and improving farmgate prices.
  - Promoting technologies to improve farm production.
  - Expanding the farm resource base by capital investment, education, training and mechanization.
  - Reducing risk and uncertainty facing farm businesses through providing better information or stabilizing prices.
  - Redistributing assets and income to reduce poverty.
  - Assessing the impact of changes in prices of products and inputs on farmers.
-





## FARM PLANNING IN EXTENSION AND RESEARCH

Extension is directly related to research. Without research as the base there would be no extension service and no public-sector support for extension. But without extension, research has little to offer. Without the feedback of information from farmers and extension workers to researchers, the content of research efforts would be irrelevant. Synergies between research, extension and farmers are critical for effective technology innovation, development and transfer.

Farm management specialists have a direct role in extension and a responsibility to provide farmers and other extension workers with new ideas and clarification on their merits and limitations. Specialists can help them to see whether new ideas address their needs and can fit into their farm plans. The role of specialists is to advise, counsel and guide farmers and other extension workers. But it is ultimately the farmers who decide and bear the consequence of their actions.

Farm management specialists as extension workers, contribute not only to extension but also to research and are invaluable to both. Farm management investigation can provide much-needed feedback information and this can contribute significantly to discovering new knowledge; a major research objective.

### **Extension**

As mentioned before, farm management analysis and planning are closely linked and are used to set priorities for extension work in the field. The farm models can be used to design extension programmes. By classifying small farm units into homogeneous groups, extension advice is tailored to suit groups of farms with similar characteristics. Results of these investigations are often

*Farm planning  
provides a good  
foundation for  
effective extension  
programmes*

*Farm management  
specialists contribute  
not only to extension  
but also to research*

used to guide extension; it is not the detailed solutions generated from a farm plan that are important but the more general lessons that can be drawn from them.

***Investigations  
carried out  
with farmers  
are the most  
effective ...***

***... after all,  
farmers know  
their own needs***

Care must be exercised not to create standard answers or packaged messages that cannot be easily adapted to suit the unique situations of individual farmers. Where possible, the investigations should be carried out with farmers. Farm management specialists can lead this process by establishing a small team of extension workers and farmers to draw up farm plans for farms whose size and system are typical of the local area. Only if the farm plans are drawn up together with farmers will the plans be realistic and successfully implemented. This is vital as farmers know their own needs, their resource conditions and limitations.

Once the findings of farm planning investigations have been made, the results need to be disseminated to other farmers and farmer groups. In order to extend farm planning strategically among a broad base of farmers, extension programmes phased over time, should be developed. This is the responsibility of the farm management specialists and front-line extension workers working together. Farmers can also participate in the dissemination process, adding powerful credibility to the process.

To develop the phased programme, initially, a few strategic and favourable areas may be selected for focused concentration. In each of these selected areas, only a small number of farmers may be initially interested to work with the farm management specialists in setting goals and making plans for improvement. Those farmers who first joined the programme and have shown promising results from the farm plans that were drawn up will, as time progresses, have acquired considerable experience. They would then be in a good position to assist their fellow farmers in making practical plans for farm improvement. Over time, this process can extend to an increasing number of farmers with the aim of developing their farm planning skills and making changes to their farming systems to improve profitability.

## Research

Farm management has the analytical tools to enable research organizations to prioritize their areas of work.

Farm management methods can be used to:

- identify and analyse problems and constraints;
- assess the suitability of technologies or innovations to farmers' situations prior to detailed location-specific research;
- plan, monitor and evaluate on-farm trials and demonstrations;
- investigate alternative production and farming strategies.

Farm management specialists can generate vital farm-level information on the impact of new technologies, innovations and development options through guiding on-farm trials and demonstrations on selected farms and in well-located pilot areas representative of the major farming regions.

Farm enterprise budgeting and farm planning methods can be used to select, prioritize and evaluate technologies and set research priorities. Farm management studies on representative farms should evaluate the likely profitability and the expected rate of adoption of a new practice or enterprise. If the individual farms are aggregated they could measure the expected impact of a proposed innovation within the area.

Farm planning and budgeting methods can also support decisions on the allocation of scarce human and financial resources. They can be used to evaluate, select and review aspects of research programmes. The findings of farm-level investigations can influence the allocation of funds for research.

Research institutes and experiment stations will make a real and great contribution if their research programmes can be shaped to meet the critical needs of farmers as revealed by the farm management investigations and planning.

***Farm management has the analytical tools to enable research organizations to prioritize their areas of work***

***Farm management specialists can contribute to research planning and, if they work together with researchers, are well placed to influence research policy ...***

***... they can generate vital farm-level information on the impact of new technologies, innovations and development options***



## Chapter 4

# Linking farmers to markets

*Farm management specialists have a role as facilitators, linking farmers to markets. This involves the development of long-term business relationships with market outlets, strengthening producer-buyer linkages, facilitating linkages with input suppliers, financial institutions and market outlets and helping to negotiate contracts. Links can be achieved both informally by building trust and formally through contracts.*



## MARKET LINKAGES

***Farmers are beginning to appreciate the need to produce for the market and satisfy the needs of final consumers***

The desire among farmers to participate further down the value chain is widespread. Just producing and selling is not enough. Farmers want to capture more value from the transactions that they make with buyers. Thus to add value and move down the value chain, stronger collaboration with other value chain stakeholders is needed.

Many smallholder farmers, particularly in countries that have developed markets, are shifting their sales from open markets towards more formal market arrangements. This creates new obligations for farmers. Buyers demand reliable and regular supplies from farmers. They expect to have greater control over produce quality and safety.

Market-oriented production is very different from the periodic sale of subsistence surpluses. It requires farmers to confirm with buyers that they are in the position to meet the buyers' requirements. Often small-scale farmers face difficulties in providing consistent supplies, even before they are required to meet quality and safety standards. Farmers need to ensure that they can meet buyers' demands by supplying produce of consistent volume and quality on a regular basis.

Reliability of supplies applies to all actors in the value chain. Processors require the regular supply of raw material from farmers. Processors, in turn, have a commitment to supply finished products on a regular and consistent basis to their buyers. Similarly, supermarkets need to have a full range of produce available for their customers at all times.

Farm management specialists have a role in providing farmers and buyers with technical support in marketing and post-harvest handling. They also support small-scale farmers with advice in investment opportunities

as a way to ensure consistency of produce to buyers and reducing the risks that they face. Investments can be made in production and post-harvest equipment to introduce new crop or livestock enterprises and crop rotations or to capitalize selected specialized enterprises.

There are many constraints, however, limiting the capacity of farmers to link to buyers. These include lack of access to production or post-production technology; limited market information on pricing and alternative market outlets; and lack of farmer skills in negotiating and bargaining. Area-level specialists are well placed to support farmers in these efforts.

To support farmers specialists need to be well-informed of the marketing outlets. They should make regular studies of these outlets including issues of access, prices, quantity and quality standards and packaging requirements. They should also know which of the outlets are reliable and trustworthy. They should know about the transport and handling options and costs relevant to each of the outlets. And they should keep abreast of contract possibilities as they present themselves in the market place.

***Farm management specialists need to be well-informed of the marketing outlets***

\* \* \*



## CONTRACTUAL LINKAGES

The practice of contracting is becoming increasingly common as markets develop. Contracting involves buyers – traders, agro-processors and exporters – entering into agreements with farmers to buy specified quantities of produce at specified prices and quality.

Developing contracts with buyers has the potential to produce the following benefits for farmers:

- inputs provided by the buyer;
- extension advice from the buyer to meet quality standards;
- confirmed markets and prices for products;
- a means of gaining access to distant national, regional and export markets.

***Contracting can give farmers access to markets far beyond those that they normally use ...***

***... it can be appealing for small-scale farmers as it is a way to reduce marketing risk***

Contracting relieves the producer of a great deal of uncertainty with respect to marketing, on both the input and output sides. Some buyers will provide support services, such as technical and business advice, in addition to inputs and credit. In more advanced contract schemes – particularly in contract farming – buyers may even provide mechanization services. (In some cases the contracts may involve a third party with NGOs or extension services providing marketing advice and support for negotiating contracts.)

Offsetting these advantages, however, is the possibility that the contract may break down after considerable investment by the farmer. There is also the potential loss of farmer flexibility in enterprise choice. An ever-present risk is that arrangements will collapse because of a lack of trust between the parties.

On balance, however, contracting is appealing for small-scale farmers as it is a way to reduce marketing risk. Individual small-scale farmers may find it difficult to enter into contractual agreements because buyers are more likely to set up contracts with larger farmers in order to reduce overhead expenses. However, a group of small-scale farmers might be attractive to buyers. Facilitators can potentially play a significant role in brokering such access and agreements.

Farmers need to understand the terms and conditions of any contracts they enter into. These conditions will vary with each contract. Farmers often



face difficulties with this. Farm management specialists can assist farmers prepare contracts and specify the terms and conditions so farmers understand them clearly.

Specialists can also initiate agreements, (specifically in matching requirements of the market with farmers' products); assist in identifying reputable buyers and farmers' groups; help monitor and help enforce agreements; and show the advantages of linking with both sides. They can also assist with ensuring that:

- Agreements are fair and enforceable. This requires that farmers know the basic elements of the agreement and that the agreement is seen as fair by both parties.
- Mechanisms and consequences are in place to settle disputes should they arise.
- Alternative markets have been organized in case of buyer default.

In order to draw up contracts, the expectations from both parties must be realistic. This is not always the case. Farm management specialists can help clarify the positions of both sides, assist the farmers to negotiate (or, in some instances, negotiate on their behalf) and develop mutual trust between farmers and buyers.

To sustain contract linkages it is also necessary to develop the capacity of farmers in contract negotiation and compliance. Successful contract negotiations require that farmers have reliable information and know how to use it. This includes knowledge of their costs of production and break-even prices. For knowledge on their production costs, farmers should keep records and be able to prepare enterprise budgets, market margins and gross margins. Armed with this information, negotiating skills and confidence, farmers should be able to successfully negotiate contracts with buyers.

Under contractual arrangements farmers have to be able to synchronize production to ensure that the product is available when the buyer requires it.

***Farm management specialists can assist farmers prepare contracts and specify the terms and conditions so farmers understand them clearly***

***The farm management specialist can help clarify the position of farmers and buyers, assist farmers to negotiate and develop mutual trust***

Therefore, activities must be clearly specified within a time schedule in the contract. Farmers must work strictly to the schedule. For crops, schedules include planting material availability, planting dates, amounts to be planted, harvest dates and expected yield. For livestock products similar specifications would be developed.

Farmers need to clearly understand the risks that the contractor faces and the implications of those risks for themselves. Farm management specialists can help identify the risks to both sides, who bears the risk and ways of mitigating them. Understanding risk and having agreed mitigation strategies will contribute to trust and the sustainability of contractual relations.

#### A CHECKLIST TO ASSIST IN SUPPORT OF CONTRACTING

- Has a detailed analysis of the supply chain been carried out? Have proposed linkage activities been based on that analysis?*
- What are the buyers' purchase conditions in relation to quality, safety, quantity, packaging, transport and delivery, pricing and payment?*
- What is the capacity of farmers to meet these conditions? What training do they require? Are they able to make the necessary investments?*
- What difficulties does the location of the farmers present in supplying the market?*
- How likely are farmers to fully understand the purchase conditions, particularly in relation to pricing and quality? What steps are needed to ensure they develop an understanding?*
- What would be the likelihood of side-selling (extra-contractual marketing) for the envisaged crops? How can this be minimized?*

- Is a written contract necessary or is a verbal contract sufficient? Who will draft the contract? What steps can be taken to maximize the involvement of farmers in this process and to ensure that they fully understand the conditions of the contract?*
- Does the contract allow for renegotiation in situations of extraordinary events or circumstances beyond the control of the parties?*
- What costs would farmers incur in meeting buyer conditions? How would these costs affect profitability? Would returns be higher than existing returns? Would returns justify any increase in risks?*
- What transport arrangements would be used? What transport is available? Is it suitable for the planned products? What steps are necessary to make suitable transport available? What are the costs and how will they affect profits?*
- What arrangements can be made for farmers and buyers to meet? Can buyers visit farms? Can farmers see how their products are marketed and used?*
- Is any external certification required for the potential market? What is the cost of certification? What costs would farmers face in meeting required standards? How would these affect profits?*
- How long has the potential buyer been in operation? What risks are associated with the business?*
- Does development of the market require any support to processors? How can this be done with minimal subsidy to ensure sustainability? Prior to a decision to provide support, has detailed market and business research been carried out to assess the long-term viability of the company?*
- Do other actors in the supply chain require technical or financial support in order for linkages to be more efficient?*



## PRODUCER GROUP DEVELOPMENT

All too often, farmers are unsuccessful in getting involved in activities at the upper-end of the value chain. This is largely as a result of farmers being unable to afford the high expenses of marketing individually. Farmers organized in groups can reduce transaction costs, achieve economies of scale and thereby make it possible for farmers to take advantage of the upper-end market opportunities.

The benefits of farm organization, particularly for marketing, include greater bargaining power, coordinated production and better access to credit and other support services. Alone, small-scale producers cannot provide the volume of products required to be competitive in modern markets. Small-scale producers also have little power to protect their interests in the market. However, groups of farmers working together shortens the supply chain and often eliminates the need for local traders. Producer groups not only ensure cost reductions, they also strengthen the farmers' bargaining ability, reduce risks and ensure easier access to credit. For these reasons producer organizations are valuable for linking small-scale producers to markets.

Establishing and initially organizing producer groups is only the first step. The key is to achieve long-term sustainability. This is not easy because it takes considerable time for the leaders and managers of producer organizations to learn the necessary technical, management and entrepreneurial skills to keep these organizations functioning effectively.

Producer organizations often need to be strengthened to sustain benefits to members over time. A starting point is to ensure that farmers are organized only when there is a clear benefit to them in doing so.

*Producer organizations  
often need to be  
strengthened to sustain  
benefits to members  
over time*

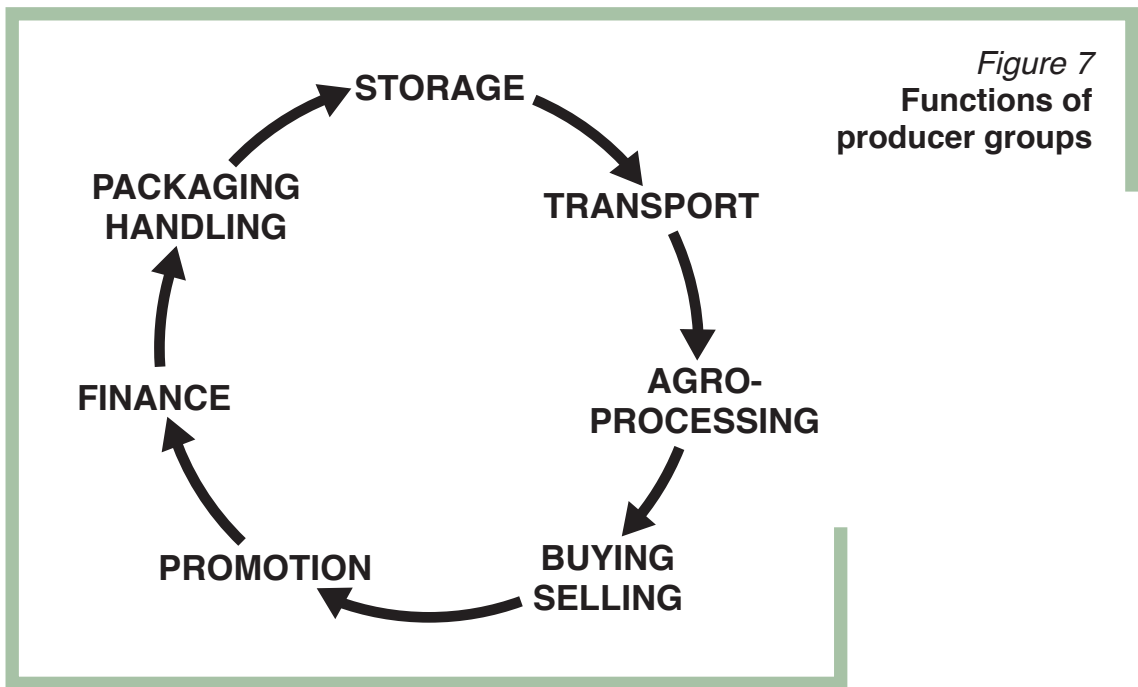


Figure 7  
Functions of  
producer groups

**STORAGE.** Farmers group together for storage in an attempt to obtain better product prices.

**TRANSPORT.** Transport costs are often very high. As a result many farmers cannot afford to transport produce individually to markets where higher prices can be attained. The organization of farmers into a transport group can result in economies of scale and lower transport costs.

**AGRO-PROCESSING.** Farmers working in groups can often afford purchasing or hiring small-scale agroprocessing facilities which can add value to their products. Examples are maize threshing machines and milk processing.

**BUYING AND SELLING.** Farmer groups can buy inputs and materials in bulk and attain better market information. As a result they can strengthen their bargaining power.

**PROMOTION.** Group marketing can foster specialized skills in seeking more diverse market outlets. This will lead to marketing benefits, especially better prices.

**FINANCE.** Farmers operating as a group can usually better mobilize capital and finance than individual farmers can.

**PACKAGING AND HANDLING.** Farmers as part of a group are in a better position to handle and pack produce at lower cost. In this way higher prices can be attained.

## KEYS TO GROUP MARKETING SUCCESS

### Meet a specific need

Groups are most successful when they are established to fill a specific need, that is doing something that can be more successfully completed through group rather than individual action, for example processing.

### Commitment from all members

Groups also need a high degree of commitment from all members. Groups where a small number of people take powerful roles while the other members are passive are usually unsuccessful.

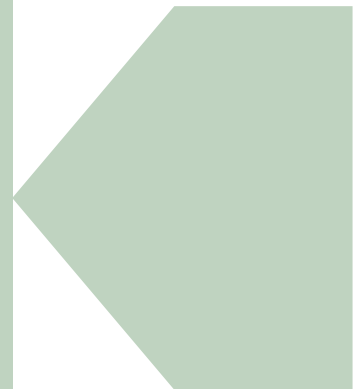
### Effective management

Proper management is essential for success. Successful groups generally hire professional managers early in their existence to ensure that goals are met and standards maintained. The quality of the manager is key to group success.

## BENEFITS OF PRODUCER GROUPS

Producer groups help farmers:

- Improve the bargaining power of resource-poor farmers when dealing with other business entities through combining the volume of several members to leverage their position.
- Reduce costs through bulk purchase of supplies and through lowering net costs for individual members.
- Expand existing and develop new market opportunities by offering larger quantities of assured types and quality to attract buyers.
- Improve product or service quality by adding value to products through improved facilities and equipment.
- Increase income through increasing members' bargaining power to improve prices directly with buyers.
- Create employment for skilled and unskilled labour to work for the group business.
- Help weaker members who cannot do business on their own improve their business by helping them gain access to better markets.
- Eliminate middlemen in transactions through increased bargaining power to negotiate better prices with buyers directly.





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Sellers compete to sell their produce in a market

*Farmers must be able to supply the market with the quality required and the reliability of supplies expected by the buyer and this frequently calls ...*

*... for collective action by farmers.*



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Supermarkets require quality farm produce supplied regularly and reliably



D Kahan



Community meeting to set up a farmer group

*The organization of farmers into groups is necessary to take advantage of value chain opportunities while linking farmers to suppliers, financial institutions and market outlets.*

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A milk collection centre as part of the value chain

Farmers should come together around products that create clear added value and have potential for linking producers to buyers. The benefits have to be proven and clearly visible to members in advance. Individual farmers may need encouragement to undergo entrepreneurship training. Undertaking and successfully completing training could be made a prerequisite for receiving loans to establish new enterprises or develop and expand existing businesses.

In most developing countries, public extension systems have been discouraged from organizing farmers because these groups could place political demands on the national government. It is often preferred that this role is taken over by NGOs or driven by buyers. However, in many countries NGOs and private sector drivers are few or even absent and the role of organizing farmers rests with the extension service.

While the work of organizing farmers into groups is given to the front-line extension workers, they often lack training in facilitating this or do not have the time to do this work. Further, there is also a need for support to develop and strengthen the farmer organization, enhance marketing and business skills and access markets and support services. These tasks require the support of specialist extension staff and, for agribusiness, this could come from those specializing in farm management.

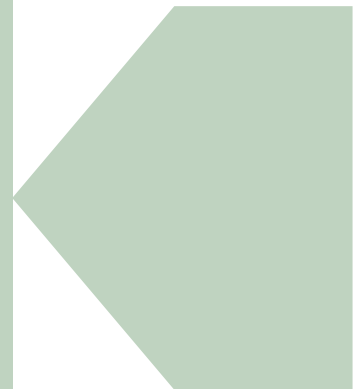
The need for facilitation in developing farmer organizations depends largely on the starting point of the producer groups. In the case of a weak organization, external facilitation and strengthening of organizational capacities may be needed. This includes linking the producer organization with higher-level networks among farmers and potential service providers along the value chain. The farm management specialist could facilitate the process of organizational development and supplement the farmers' local knowledge with external knowledge about potential markets, technology options and relevant training and advisory opportunities.

## **CAPACITIES TO BE STRENGTHENED AMONG MEMBERS OF FARMER GROUPS**

- Management skills and the capacity to prepare business plans, manage financial capital and assess costs and benefits.
- The capacity to secure inputs, financial services, and output markets.
- The capacity to support value-adding innovation.
- Practicing transparency, accountability, management efficiency and business growth.
- Literacy and numeracy skills to enhance the viability of the organization's administrative procedures, financial management and bargaining operations.
- Effective advocacy, representation, negotiation and lobbying.

## **OTHER AREAS OF CAPACITY BUILDING WITHIN FARMER GROUPS**

- Active participation of women and other marginalized social groups especially in decision-making roles and bodies.
- Accessing market information.
- Increasing access to physical, natural, economic, social and human capital.
- Market linkages.



Democracy and accountability within the farmer organization also need to be enhanced to foster sustainability

Of particular importance are commercial and managerial skills as they improve farmers' ability to mobilize local resources, gain better access to credit and engage more effectively in input supply and other marketing activities. The farm management specialist could oversee this work or provide guidance and support to front-line extension workers involved in this.

In contrast, strong farmers' organizations may need little or no help to negotiate with service providers and evaluate the received services. In such cases, the priority for management support could be to strengthen their networks in order to enhance the farmers' voice at higher levels (national, regional and international).

#### A CHECKLIST TO SUPPORT FARMER ORGANIZATION

- Are farmer groups needed to link with the identified market? If not, what are the advantages of working in groups (e.g. overcoming high individual transaction costs) compared to the costs that farmers may incur?*
- Have alternatives to forming new groups been considered, such as strengthening existing groups, identifying traditional groups or working with lead farmers?*
- Does the planned linkage require formal groups with a legal entity or would informal activities suffice?*
- What have been the experiences with collective farmer activities? Which type of farmer organization appears to work best?*

- What collective activities do the target farmers presently carry out? What have been the experiences with this?*
- What discussions have been held with farmers about forming a group or groups? What has been the initial reaction to the idea?*
- What is the social structure of the area? Does this lend itself to successful collaborative activities? Is there any danger of domination by an elite?*
- Would different types of groups be necessary to ensure homogeneity within a group, such as male and female groups or groups organized according to roles in the supply chain?*
- What size should the groups be? What structure should they have (officers, decision-making or other)? Is there a possibility of formally associating with other groups? What would be the advantages of this?*
- Have by-laws for the group been developed? Are they fully understood and accepted by all members?*
- Are there farmers who demonstrate leadership or management skills? Does the proposed activity justify the group recruiting a full-time manager?*
- What training will farmers require in group dynamics?*
- What training would group officers require in business management, marketing, accountancy? How will this be provided?*
- What legislation exists relating to farmer groups? Is it appropriate to the type of group envisaged?*
- Would the group be legally entitled to operate a bank account, if required?*



## VALUE CHAIN STRENGTHENING

*Farm management specialists can help link farmers to buyers by identifying traders and other buyers ...*

*... and arranging for them to meet with farmers to create formal market linkages*

Value chain stakeholders represent all the actors involved in product value chains linking production to final consumption. Farm management specialists can help link farmers to buyers by identifying traders and other buyers and arranging for them to meet with farmers to create formal market linkages.

Value chain development often requires improved coordination between stakeholders. New forms of contractual relations will develop and the behaviour of stakeholders will also most likely have to change. Specialists can facilitate this change. Given the agenda to build the institutional and economic capacity of value chain actors, the extension service should encourage the value chain actors to make upgrading efforts by themselves and be in the position to adapt and develop new business opportunities in the future. They can also help develop the capacity of the value chain stakeholders to do this. Facilitation is needed all the way along the development process until this objective is reached.

### **Coordination and integration**

Any form of cooperation requires initiative from an experienced service provider who has the time and ability to develop linkages and coordinate activities among stakeholders.

Farm management specialists need to determine how to accurately identify, target and implement interventions – in partnership with other value chain actors - in ways that generate long-term benefits to all. An understanding is required of the different actors in the value chain and their roles in the market. Sustainable linkages can occur only if there is concerted action and mutual trust among key stakeholders.

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## THE FARM MANAGEMENT SPECIALIST AS FACILITATOR IN VALUE CHAIN DEVELOPMENT

- Create awareness and understanding on the importance of chain development.
- Help stakeholders get to know each other.
- Draw attention to economic objectives and business opportunities related to partnerships in the chain.
- Facilitate value chain mapping and analyses, especially jointly with stakeholders.
- Provide appropriate tools and methods.
- Help build a shared vision of the future.
- Forge a consensus on the objectives and strategy of value chain upgrading.
- Identify change agents and facilitators, and build partnerships.
- Facilitate planning and decision-making.
- Assist implementation of actions.
- Continuously monitor the process and provide feedback.
- Mediate in case of conflict.
- Facilitate exchange and joint experimental learning among value chain actors.
- Document and share experiences with the wider business community.
- Facilitate the coordination of different support agencies active in the value chain.
- Facilitate negotiation of contracts with and on behalf of farmers.
- Contribute to creating favourable enabling conditions.

***Farm management specialists can facilitate new forms of contractual relations ...***

***... leading to changes in the behavior of stakeholders to improve value chain coordination***

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In order to promote trust and to share the responsibilities and risks between actors, farm management specialists need to find and promote practical ways of getting these actors together to provide information, exchange experiences, resolve conflicts and negotiate relationships. Forums for negotiations, where a common understanding and vision among the stakeholders is created are central to orienting their actions towards common goals and balancing competitiveness and collaboration. They can facilitate this process together with other bodies such as NGOs and chambers of commerce, to name a few.

### **Support service provision**

Increasingly, business management and marketing advice is needed as a support service to a wide range of stakeholders involved in the production and value-addition of marketable products. Specialists in farm management have a responsibility to determine which business services can best address value chain constraints and potentials. To do this possible intervention criteria are needed such as:

- Extent of impact on farmers and rural enterprises.
- Number of farmers and enterprises that will benefit.
- Cost effectiveness  
(relationship between cost and impact).
- Potential for resulting in sustainable business services.
- Capacity of existing business service facilitators to implement or manage the interventions.
- Time frame for completing the intervention.
- Availability of resources (human and financial) and donor interest.
- Synergy of interventions among various business services.
- Ability to promote 'win win' relationships between farmers and larger firms.

The objective of any proposed action should be to develop markets for sustainable services to farmers and rural entrepreneurs. Interventions can address both supply and demand constraints. Regarding supply,



the capacity of private service providers to improve the products or services they offer farmers and rural entrepreneurs could be developed. Regarding demand, farmers and rural entrepreneurs need to be more aware of the services on offer. In both cases, farm management specialists should promote improved linkages between service providers and recipient clients.

The following are some possible interventions:

### ***Training interventions***

- Develop training materials for service providers
- Train input suppliers staff, government extension, cooperatives, NGOs and lead farmers.
- Facilitate meetings between service providers and training resource people.
- Collaborate with input supply firms to train distributors/stockists in technical aspects of the inputs they sell.
- Develop the capacity of input supply associations to offer training to distributors and stockists.
- Train producer groups in techniques of bulk buying.
- Train beneficiaries in financial management.

### ***Linkage interventions***

- Ensure interlocking linkages with market and processing outlets.
- Create linkages with financial institutions.
- Develop capacity of input supply companies to use their network of distributors and stockists to expand training and demonstrations.

### ***Input interventions***

- Promote supplier credit from microfinance.
- Encourage input supply companies to offer smaller packages of inputs.
- Encourage equipment supply companies to offer after-sale support



## Chapter 5

# Training and extension

*Access to technology and markets alone will not make a farm successful or profitable. At the centre of the enterprise is the farmer. Thus the development of the farmer is critical to success. One of the key functions in extension is human development. Awakening in farmers the consciousness and fostering the ability to understand and make choices about the operation of their farms is the primary concern of extension.*

*As important as this is, it is often the case that extension workers do not have knowledge and skills in human development. This section will provide some insight into this important aspect of extension.*



## HUMAN CAPITAL DEVELOPMENT

The objective of extension is to build human capital – to increase the technical and managerial skills of farmers and to expand their capacity to learn. This is particularly true in the areas of farm management and marketing. It is the key task of those specializing in management to design, organize and deliver training and extension programmes for extension workers, farmers, value chain stakeholders and programme managers.

*The objective of extension is to build human capital by increasing the technical and managerial skills of farmers and expanding their capacity to learn*

Building human capital requires specialized knowledge, skills, and understanding. It requires technical knowledge in farm business management and marketing; practical skills in applying farm management concepts and tools; skills in teaching extension workers and farmers; understanding human development processes and the contexts in which learning occurs; understanding the people, their values and their attitudes towards change; and a belief in the ability of farmers to recognize and make changes for their benefit.

In the past, extension and the training given to extension workers was traditionally oriented towards technical aspects of agriculture. Extension services generally responded to the day-to-day production problems that farmers faced. However, this happened, at the expense of dealing with longer-term strategic management and human development issues. The situation is now changing as farmers respond to market opportunities.

Training and extension in farm management has become relevant, and increasingly in demand. The trend towards market-led farming necessitates more highly-trained, specialized and competent extension staff and farmers who know where to obtain the information needed to make better management decisions and

find solutions to problems. Farmers need skills and knowledge to evaluate new options and learn how to successfully produce and market high-value products. Farmers need specific training and continuing assistance from extension workers on how to develop and manage these new opportunities. Developing the skills and competencies of extension workers in farm management and marketing is critical for the effective functioning of the extension service. This is a prerequisite for building the capacity of farmers.

Farm management as a discipline differs from general agricultural extension. General agricultural extension aims at delivering information to farmers for better decision-making. Farm management extension involves helping farmers learn how to analyse, interpret and define their managerial actions for themselves and support them in decision-making. Rather than providing ready-made solutions, farm management specialists need to work at getting farmers to think through their choices and learn from them.

As discussed earlier, there is a close relationship between farm management diagnosis and investigation, and planning activities and extension. On the one hand, there is information from farm management analyses and plans that need to be extended to farmers to improve their farm management activities. On the other hand, farm management investigations can be used by extension services to aid their understanding of farmers' information needs and their effectiveness in meeting them. The work of specialists in this is gathering, interpreting and disseminating information. They are a key channel feeding information to farmers and other stakeholders.

While this is the general function of farm management extension, the task is divided between farm management specialists and front-line extension workers. To use their skills efficiently farm management specialists must work closely with front-line extension workers (who may have had limited formal training in

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farm management and marketing). This work entails providing a framework for the activities of front-line extension workers, developing training and advisory service programmes and providing front-line extension workers and farmers with reliable farm management information.

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### **Training extension workers**

In public sector extension services there is often a large variation in the academic qualifications of extension workers and subject matter specialists. This has led to gaps in competencies and skills. Budgetary cutbacks have resulted in limited funds for training. As a result, extension personnel are often insufficiently trained. Shortages of adequately trained extension staff limit the effectiveness of the advice offered. Capacity and skills in farm business management are also weak in the private and NGO extension services. Staff are often young and lack the practical experience and specialized expertise to provide effective and credible management advice.

For farm management extension to be effective, training is essential at all levels; from front-line extension workers (public, private, NGO sectors) to subject matter specialists to policy-makers and programme managers. Special guidance is needed for each of these categories of extension staff through tailor-made programmes. This is a key role for the farm management specialist.

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### **Training farmers**

Training and extension in farm management can serve the needs of farmers by providing the knowledge and skills needed to select new farm enterprises and appropriate technologies. This can be achieved by helping farmers develop their own capacity to define problems and seek solutions on their own initiative. Training is especially needed for women farmers as they are actively involved in many aspects of farming.

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### **Training other stakeholders**

There is also a demand for business management training among other stakeholders in the value chains including representatives of marketing organizations, processing companies, traders, consumers and input suppliers. Those specialized in farm management are well placed to provide that support in addition to their farm-level focus.

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\* \* \*



### **TRAINING SUPPORT**

Training of extension staff contributes directly to the development of human resources within the organization. Training programmes are necessary to improve the job performance of extension staff and develop new skills and competencies. As noted earlier, most extension staff are well-trained in technical agriculture. What they generally lack are skills, exposure and experience in marketing, farm business management and economics. As a result they are ill-equipped to provide solutions to some of the key issues faced by farmers.

There are four broad categories of training to which farm management can be applied:

- pre-service
- induction
- in-service
- promotional training



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Extension workers attending an in-class training session

*Human development is a key function of extension workers. Farm management specialists have a crucial role to develop the business and management skills of front-line extension workers so that they can work more effectively with farmers.*



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Farmers attending a training class on material pertaining to their farms





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Farmers being counselled by an extension worker

*Developing farmer's skills and competencies should be the predominant goal of farm management training and extension. Training is essential to empower farmers to make their own decisions.*



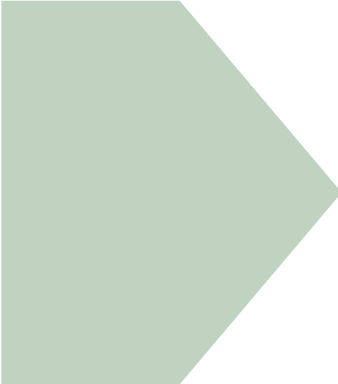
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The members of a learning group share ideas to strengthen decisions-making

## **CATEGORIES OF TRAINING IN FARM MANAGEMENT**

### **1**

#### **Pre-service training**



Professional training received before extension workers are appointed to the extension service. As there are usually few professionals at undergraduate or diploma levels, it is sometimes necessary to employ graduates of secondary vocational schools. Such graduates will not have the breadth or depth of training obtainable in college or university. As it is essential that front-line extension workers are better trained than farmers with whom they work, what may be lacking in pre-service academic training must be made up to the extent possible in induction and in-service training.

### **2**

#### **Induction or oriented training**

Providing a general understanding of the organization and the role of extension workers within it. All extension workers need special training to prepare them for their particular jobs and orient them toward what farm management extension is, its principles, objectives and methods of teaching and extension support. Induction training should also develop an attitude of personal dedication to the service of farmers. This kind of training supplements whatever preservice training the new personnel may have had and gives it a context for the extension worker's new job.

### 3

#### **In-service training**

On-the-job training and scheduled training while away from the job. On-the-job training can be ad hoc or structured with planned learning outcomes scheduled around the work of the trainees. Farm management specialists are well positioned to offer such training. (Trained extension workers can conduct similar training for farmers.) There are different forms of in-service training including refresher courses, remedial training, mini-training programmes, practical workshops, study tours, seminars and field trips.

### 4

#### **Training for promotion**

After serving for a period in the extension service, many extension workers feel the need for additional academic training to improve performance in their present positions or to qualify for promotion. Those extension workers aspiring to become subject matter specialists could take courses leading to graduate degrees in farm management or marketing.

#### **Note on 'remedial training'**

Remedial training is aimed at correcting or improving knowledge and skills in a particular area – in this case farm management and marketing. Such programmes assume that extension workers on the programme would have been exposed to farm management as a discipline during their formal education. Remedial training is intended to complement their technical skills with training in farm management. Remedial training could be conducted as induction or in-service training programmes.

An approach that is sometimes followed is for a farm management specialist to train extension workers who in turn train farmers in extension or learning groups. In this way, the specialist is a Core Trainer supporting front-line extension staff and subject matter specialists. This approach develops an in-house training capacity for future use.

### **Design of training programmes**

Training in farm management, as does any technical area, calls for specialized knowledge and skills. These include communication and facilitation skills, and farm management as well as practical skills in applying the concepts and tools in rural areas.

***Training in farm management, calls for specialized knowledge and skills***

***Trainees should participate in designing the training programme***

***Training should be experiential, based on principle of 'learning by doing'***

As a starting point the farm management specialist should be responsible for conducting a training needs assessment. Once the training needs have been identified, the next step is to design the training programme. The specialist should lead this process and work with the participants to design the training programme. Decisions need to be taken regarding the objectives, learning outcomes, content, teaching methods, assignments, lesson plans, exercises and assessments. The programme should include clear statements about the knowledge, skills, attitudes and behaviours to be acquired. The programme should also identify who will be conducting the training in addition to the specialist.

Training should be as experiential as possible; based on principle of 'learning by doing'. In this approach the participants are active in influencing the training and learning processes. The training needs to be practical and the content demand-driven and tailor-made to the needs of the trainees and the context within which they will operate.

The specialist should ensure a structured approach to training. It should not be haphazard or arbitrary but be based on an analysis of the existing skills and competencies of the extension staff selected for training and the design of training curriculum for use in the field by extension workers.

## Example of a training programme

### **Module 1. The Farmer, the farm and decision-making**

- Session 1. The farm and its enterprises
- Session 2. The farm and its resources
- Session 3. Social capital
- Session 4. Inputs and markets: where profits are made
- Session 5. The farmer and decision-making
- Session 6. Resources and farm management
- Session 7. Decisions about inputs and markets
- Session 8. Risk, vulnerability and sustainability
- Session 9. Information and farm management

### **Module 2. Farm Management Tool Box**

- Session 1. Constraints and opportunities analysis
- Session 2. Gross margin budgets
- Session 3. Market margins
- Session 4. Break-even
- Session 5. Sensitivity analysis
- Session 6. Food requirement
- Session 7. Labour analysis
- Session 8. Cash flow
- Session 9. Records

### **Module 3. The Farm Plan**

- Session 1. The planning process
- Session 2. Farm performance analysis
- Session 3. Planning for the market
- Session 4. The farm plan

The training programme for both extension workers and farmers could ultimately aim at preparing farm business plans. The content of the training should include topics that allow the business plans to be prepared.

Graduation from training programmes should be formalized with certificates given to those who adequately complete the programme. Certification should confirm a basic level of professional competency. This is often an important incentive for the trainees. However, the success of training programmes rests not in the certificates, but in the impact the participant has in the field. Long-term success also depends heavily on the selection of motivated participants with the capacity and skills to train others.

Training farmers in farm management should not be provided as a single one-off activity. It should continue throughout the development of the farm business. And farmers should be encouraged to continue learning on their own during and after formal programmes are completed.

Some of the farm management specialists themselves may also require support to build their own capacity. Perhaps they are under-qualified staff or have been unable to update their knowledge and skills. A training programme for them could cover topics such as the general role of the farm management specialist; farm business management and marketing; their role in developing extension programmes; effective techniques for farm management extension; working relationships with other staff members and how to analyse, interpret and disseminate farm management information.

This guide could be used as a resource for such training. As with the other training programmes, those for the management specialist personnel must be structured. It should not be haphazard or arbitrary. It should be based on an analysis of their existing skills and competencies and contextualized in the work they will perform in the field.

Senior managers and policy-makers have to be made aware of the farm management training programmes so that they are willing to provide the resources and support to replicate and expand them to reach a broad base of extension workers and farmers.

Such programmes often require considerable financial support and a need for programme managers to lobby the relevant ministries responsible for budget allocations. To facilitate this, programmes for senior decision-makers in extension organizations to raise awareness and advocate the training should be developed.

***Training farmers  
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***... it should continue  
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## **‘GOOD PRACTICES’ IN TRAINING**

### **1**

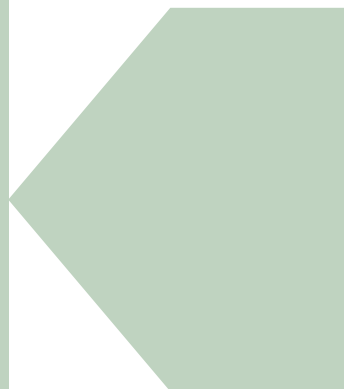
#### **Training programmes should be designed on the basis of client demand**

Close attention should be given to training requests from farmers. However, farmers may be unaware of their own training needs. By demonstrating the financial benefits to be made from the training, demand can be stimulated. More advanced topics of business management might be introduced as the capacities of the trainees develop over time.

### **2**

#### **The content of training programmes must be tailor-made**

They should be relevant to situation and requirements of the target recipients, their level of literacy and ability to assimilate the information provided.



**‘GOOD PRACTICES’** continued**3****Training design should explore innovative ways of building local capacities**

Counselling, learning by doing and success-case replication should be considered ways of promoting developing entrepreneurship skills.

**4****Training of extension personnel and farmers should be practical, continuous, regular, participatory and closely monitored**

Priority should be given to short courses provided in manageable doses with practical timing. The programme should include assessment and follow-up on application in the real world on what has been learned.

**5****Training should be cost-effective and aimed at maximizing outreach**

This can be achieved by utilizing local training capacity, organizing farmers into extension groups to reduce costs and identifying, training and deploying potential trainers from among extension staff and farmers

**Note**

Facilitation skills of trainers need to be enhanced. Competent local facilitators are rarely available especially within public sector agencies and more effort in this area is needed.



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## BACK-UP SERVICES

Extension workers and farmers need to be supported after they complete a formal training programme. Front-line extension workers similarly need to be backed up as they work with farmers to ensure that they are correctly applying the concepts and tools taught and are able to respond to problems among farmers that may arise.

Ideally, the support should be linked to the training programme. This will enhance coherence in training, reinforce learning and increase the overall effectiveness of the training programme.

***Training programmes should ...***

***... explore innovative ways to build local capacity ...***

***... be practical, continuous, regular, participatory and closely monitored ...***

***... be cost-effective and aimed at maximizing outreach***

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**\* \* \***



## EXTENSION SUPPORT

The role of the farm management specialist in supporting extension workers comprises many activities including training extension workers, providing training and extension material, providing relevant and updated information, assisting in creating and organizing extension/counselling/advising services, advocating farmers groups and the farm business school concept and assisting in their implementation and management.

## **THE FARM BUSINESS SCHOOL**

**This establishes ‘business schools’ within villages. Farmers work in small groups, studying farm management at their own pace. The venue, time and duration are chosen by the farmers to fit into their workload in alignment with their production activities – minimizing disruptions to operations.**

**This system is being tested in different countries. Experience suggests that, with a minimum of specialized training, front-line extension workers and lead farmers can follow this curriculum helping participating farmers to learn and apply basic farm management practices to their farm businesses.**

Ultimately, farm management specialists are responsible to support extension workers by providing information and advice on ways farmers, and other stakeholders in the value chain, can increase their income through better business management. The information should help them to:

- select profitable crops and improved production techniques;
- improve marketing strategies to increase sales, improve quality of produce, and achieve better prices;
- reduce costs and losses.

### **Enterprise selection and production techniques**

Information is needed regarding which enterprises generate better profits and what are the most appropriate production practices to use. To do this the farm management specialist must know the products produced in their respective areas, the demand for these products on a range of markets, the systems of marketing and the systems of production.

The farm management specialist should identify profitable enterprises and identify suitable markets. Farmers need to know:

- how to grow new crops which may offer good profits;
- the profitability of growing these crops;
- where to buy seeds for new crops and new varieties;
- techniques required for off-season production and any of the additional costs that may occur;
- post-harvest handling, packaging for new crops and value-adding possibilities;
- how much can be sold in the market.

**The farm management specialist needs to make sure that this information is available to extension workers before encouraging farmers to move into new, possibly risky, business ventures.**

### **Improve market strategies**

From speaking to farmers, farm management specialists should be in the position to learn what the main marketing problems are and to identify solutions. They can help farmers improve sales by providing back-up support to front-line extension workers when organizing farmers into producer groups. They can help improve access to buyers and markets and help farmers identify which products have expanding demand. Specialists should analyse seasonal price changes and trends for products and provide farmers with this information to support their negotiations for better prices.

### **Reducing costs and losses**

Farm management specialists also need to be aware of the costs and returns of farm enterprises at farm-level and along the marketing chain and of ways to reduce these costs. With this knowledge, they can advise extension workers in helping farmers to reduce costs through such interventions as encouraging farmers to share transport or buy inputs in bulk.

## FARM MANAGEMENT SPECIALIST INPUT CAN HELP FARMERS

- Decide whether or not to produce new products and when to produce them.
- Decide whether or not to produce existing products at different times of the year.
- Decide whether or not to store.
- Calculate realistic estimated gross margins and profits.
- Prepare a production plan and a marketing plan.

### **Broadening the scope of extension services**

In addition to requiring marketing and business management support, farmers increasingly require support in other areas to strengthen their position in the value chain. One such area is legal support particularly with respect to contracts drawn up between producer groups and traders, processors and retailers. Further, to improve chances of success, farmers also need organizational and management skills, such as problem-solving and conflict-resolution, that will help the groups operate independently. Training of extension workers should therefore also include these topics.

*Farm management specialists must be like a 'business doctor' who examines each 'patient', diagnoses the problems and prescribe the right remedies*

### **Farm management extension strategy and methods**

Farm businesses are often diverse, varying quite markedly. Even if the enterprises are very similar, the sources of inputs, the selection of markets and the management decisions of farmers can vary widely between one farm and another. Farm management specialists must be capable of doing more than pass on standard instructions and check that these have been followed. Sometimes, they must be like a 'business doctor' who examines each 'patient', diagnoses the problems and prescribe the right remedies.

In other cases they must be facilitators helping the farmer assess a situation and make his or her own decision about it. They must therefore be more than simply transmitters of information.

To do this, farm management specialists must gather information from other farmers in the area by enquiry and observation and develop a true picture of the farm business and its problems and opportunities. With this understanding of the situation, the extension worker will be able to give practical and relevant recommendations.

The scarcity of suitably qualified farm management staff and the need for specific tailor-made advice makes the provision of one-on-one farm management support unrealistic. In order to reach many farmers, the specialists have to work through more general front-line extension workers. It may also be necessary to organize farmers into extension or learning groups.

Some extension services have introduced a new position – the marketing extension worker. These are front-line extension staff who specialize in marketing, but also provide farmers and rural entrepreneurs with support in farm management. Farm management specialists have a role in directing and advising them. Alternatively, some farmers have been identified as ‘lead farmers’ to provide advice to other farmers in farm management and marketing on a voluntary basis.

The idea of working with less qualified lead farmers or extension workers can be easily justified and understood. Farms are scattered throughout rural areas and travel to some of these areas may be difficult and costly. Farmers from within the local community, if properly trained are more likely to be trusted, improving communication with farmers.

The idea of training farmers in extension could lead to transforming the nature of extension support to farmers. Over time, the extension service could reduce its focus on direct farmer support to a focus on building

***The farm management specialist works with front-line extension staff as well as with lead farmers to promote good farm business management practice***

***Over time, the extension service could reduce its focus on direct farmer support towards building capacity among farmer groups to take on an extension role***

capacity among farmers and group leaders to take on this role. As such a programme advances and farmer capacity develops, farmers can be deployed, expanding the extension service and making it more cost effective. This could be extended to engage other actors in the value chain.

To make this possible extension workers and farmers without specialized farm business management expertise will need training so they will know what to look for in the farm business, how to identify the important factors which identify problems, opportunities and appropriate lines of action. Specialists can train and assist extension workers and farmers to better diagnose the problems of the farm and propose relevant solutions.

When working in this mode, there will probably be a need to adapt and simplify traditional farm management concepts and tools. This provides a challenge for specialists. They need to identify and design farm management techniques that are less dependent on data and rely on the skills and support of front-line staff. Innovative techniques need to be developed that use simple and basic data and are applied through simple methods and practices. Specialists have a role to play in all aspects of this including collecting data and generating and disseminating information.

There are a number of ways to approach this, depending on the capacity of the farmers and extension workers. Some farmers may keep records and analyse data on profitability by themselves, while others may require assistance. A number of options exist:

- Data can be collected and analyzed by the farmer with the help of the extension worker.
- Data can be collected by the farmer and analyzed by the extension worker.
- Data can be collected and analyzed by the extension worker who then reports the results.

Whatever the approach, the dynamic should be to move from training and building capacity towards developing relationships among the stakeholders along the value chain. This will redirect focus away from dealing solely with individual farmers towards farmer groups and other stakeholders along the value chain taking up the work. The objective is building capacity along the value chain to strengthen the position of smaller-scale farmers entering the market place.

One way for farm management specialists to support front-line extension workers in their day-to-day work with farmers and farmer organizations is by arranging study visits and establishing learning networks. Visits to successful farmers can help create awareness of 'good practices'. In some cases the 'successful' farmers can help provide training or advice to farmer groups.

The future competitiveness of a farm depends on the farmer's ability to 'learn' from other farmers and stakeholders. Building learning networks among farmers facilitates this learning. Networking could range from group purchases of inputs and equipment to joint marketing initiatives. Based on information gathered, feedback and the results of farmer interactions, the strategies and operations of farmers may be revised.

Farm management specialists are in a good position to promote learning networks. They could encourage farmers to join the network and organize learning activities and other events that create face-to-face contact among network members for sharing experiences and knowledge, and get to know each other better to promote sustained learning.

***The objective is to build capacity along the value chain to strengthen the position of smaller-scale farmers entering the market place***





## COACHING AND MENTORING

***Farm management specialists have an important task of coaching and mentoring front-line extension workers and farmers***

Beyond their training and advisory roles, farm management specialists also have the important task of coaching and mentoring front-line extension workers and farmers. This involves providing support to extension workers and farmers on a regular basis. Coaching involves seeing how the skills and knowledge acquired through formal training are applied and, hopefully, extended.

This follow-up is an important task for farm management specialists. It is about developing the capacity of extension workers and farmers beyond their current capacity – including knowledge, skills and behaviour. Coaching and mentoring help ensure that the capacity of extension workers and farmers is genuinely developed and opportunities for growth are maximized.

***True learning takes place when learners translate what has been learnt into action and make sustained changes to their thinking and behaviour***

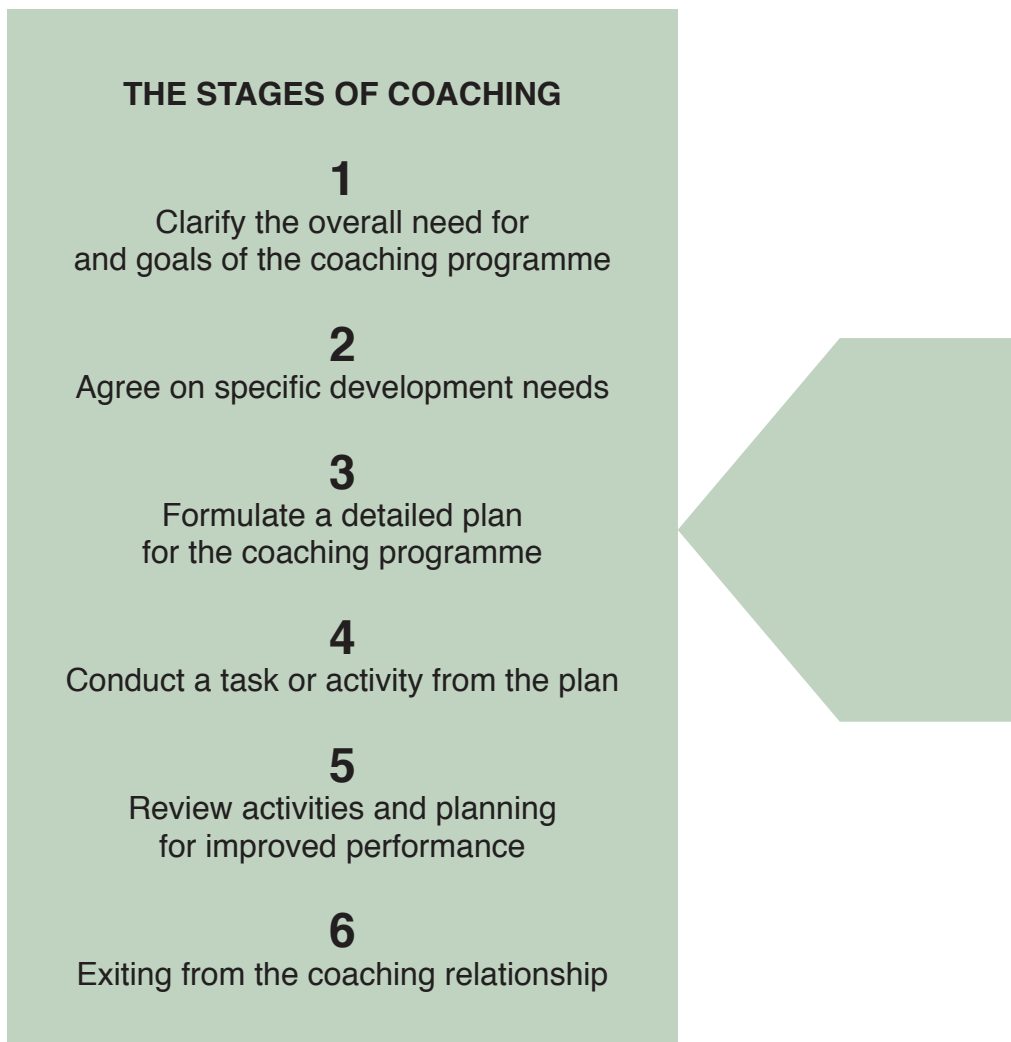
While farm management training provides extension workers and farmers with the tools to do their job better, only so much can be learned through training. True learning takes place when learners have translated what has been learned into action in the ‘real world’ and made a sustained change to their thinking and behaviour. This is where specialist coaching is needed. It moves performance to a higher level. The coach assists extension workers and farmers who have been exposed to farm business management concepts and tools, to reflect on their performance to help them implement their learning and foster a posture of continuous learning.

Coaching has the benefit of flexibility. It can be applied where it is not generally possible to take groups of extension workers or farmers away for formal training. It can also be used to address one-off needs as and when they arise, and to guide longer-term development of capacity. Extension workers and farmers can gain



practical and realistic help to achieve their full potential and work on their areas of weakness – they can be provided with targeted and practical assistance. It is both cost effective and flexible.

Training and coaching functions are complementary. When coaching a front-line extension worker, specialists in farm management may realize that the extension worker does not have certain knowledge or skills needed to provide effective support for farmers. At this point the coaching would stop and further training organized.





## **COUNSELLING**

Business counselling is another task of farm management specialists although it can only be applied in special situations. Business counselling requires one-on-one contact as well as close communication, trust and confidence. It can be applied to help extension workers and farmers deal with specific problems that they face.

As mentioned before, in smallholder agriculture, extension advice is channelled through front-line extension workers. In larger-scale agriculture, the FMS has direct client contact creating the opportunity to develop a greater empathy with the farmer. Currently in developing countries where small-scale farming is the norm, the counselling function is rare. But as farmers become more commercially minded and, in some cases as the scale of farming grows, the potential for one-on-one counselling is growing.

Farm management specialists could also provide marketing and business counselling to rural entrepreneurs and other businesses in product value chains. Counselling should aim to assist these businesses to understand the changing economy and develop new strategies for dealing with these changes. Specialists do this by getting to know the entrepreneurs and building a professional and confidential relationship with them to discuss important and perhaps sensitive issues. Every business has different needs, and counselling should respond to them accordingly. Specialists should help rural entrepreneurs question the way they look at things and the way they behave and react to situations with a view to developing more appropriate responses. However, given the size of some of these ventures the opportunity to offer counselling is also rare.

## **COUNSELLING, EXTENSION, CONSULTING, MENTORING**

### **Counseling**

A process by which a counsellor uses skill and knowledge to aid clients in identifying their needs and courses of action. Clients are supported to help themselves. The client owns the issues and remains responsible for the decisions made and their outcomes.

### **Extension**

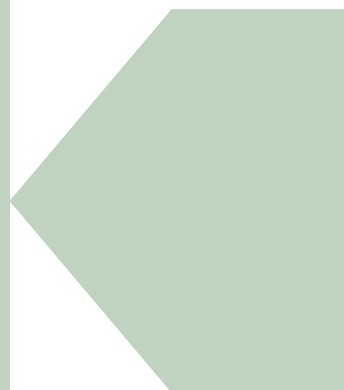
Engaging with clients in a practical learning experience through the mutual sharing of knowledge and experience. While clients are helped to help themselves, the advisor has more direct influence in the decisions taken. Decisions and their outcomes remain with the client.

### **Consulting**

A consultant does business by giving professional help to clients needing their specialist knowledge. Consulting assumes that the consultant is significantly more capable of addressing issues than the client is.

### **Mentoring**

Mentoring is the ongoing relationship between an experienced counsellor and a client. This relationship covers a diverse range of topics as a business develops over time. It often includes accompanying the client through the decision-making process and the application of decisions in practice.





## Chapter 6

# Communicating information

*The success of specialists in farm management depends to a large extent on their skills in communicating information. The materials presented here are intended to provide guidance to specialists on the various ways to effectively communicate their findings of farm management analyses to policy-makers, extension workers and farmers.*



## EFFECTIVE COMMUNICATION

*The findings of farm investigations analyses are of value only if they are shared and effectively communicated*

Communicating farm management information to policy-makers, extension workers and farmers must be effective so that the findings of farm management investigations and diagnoses can be easily understood and appropriate actions taken. People generally prefer to receive information that is brief and clearly presented. It is the job of the specialist to turn farm management data into information that can be effectively communicated. The method and choice of presentation depends on the audience and their capacity and skills.

The findings of farm investigations analyses are of value only if they are shared and effectively communicated. It is also not enough to identify solutions to farm management problems. The solutions need to be broadly communicated to policy-makers, extension workers and farmers. Communication can be presented in different forms — verbal, written or graphic. Whatever form is used, information should be factual, backed up with evidence and presented in simple and clear language; methods used and data sources should be included. This strengthens the credibility of the information.

**Verbal presentations** are valuable in communicating the results of studies. Clients are sometimes reluctant to read reports and are more open to listening to a presentation. Face-to-face verbal communication encourages two-way communication which is vital to good communication and feedback. Verbal presentations followed by discussions maximize the impact of the analyses.

**Written reports** tend to be more trusted than verbal communication as they usually provide more details than verbal reports can. They also offer 'evidence' of what was communicated thus reducing the chance of misunderstandings and allow for repeated study. Written

reports such as area profiles and compendiums are also important forms of reference material. Where possible, pictures and other graphics should be included.

**Graphics** such as pie charts, bar graphs, diagrams, photographs and drawings often make the results of farm management analyses more easily understood. Care should be taken when selecting graphics as some people may have difficulty interpreting them. Graphics should be used only when there is confidence that it can enhance a presentation.

*In practice all three forms of communication  
are most often used together.*

*Farm management specialists must possess  
the skills to balance this effectively.*

\* \* \*



## COMMUNICATION FOR EXTENSION

Extension workers use different methods to communicate with policy-makers, other extension workers and farmers. These can be divided into three forms – mass media, direct interpersonal communication and Information and Communication Technology (ICT).

### **Mass Media**

Mass media refers to communication systems which expose large numbers of people to the same information at the same time. The advantage of mass media to disseminate information is the high speed and low cost of communicating over a wide area. Being relatively inexpensive, mass media allows extension services to provide a basic service to many farmers at the same time. The main disadvantage is that it is generally a one-way communication.

Mass media has been used effectively to convey market information including prices, quantities purchased in particular markets, and market advice on quality and safety standards. It also has potential to convey farm management information – although this is less frequently used.

### **Forms of mass media**

There are three main forms of mass media: sound, moving pictures and print. Sound includes radio, audio cassettes and CDs. Moving pictures includes television, film, video, CD, and DVD. Print includes materials such as posters, newspapers and leaflets.

**Radio.** This is a very powerful way to reach large numbers. Farmers in remote areas are less isolated if they have a radio. ‘Listening groups’ and systems for sharing radios between farmers are particularly useful where the cost of owning a radio is high.

The cost of producing and transmitting radio programmes is usually high, but when looked at on a per listener basis, radio is definitely more cost-effective than direct extension interaction with farmers. Producing extension material for radio broadcasts is part of the function of the farm management specialist.

Radio broadcasts can also be used for training purposes. However, as radio is a one-way communication, the content would have to be the same for everyone whatever their level of understanding and or farm circumstances.

A new innovation for radio is ‘reality radio’ where farmers are included in the programmes to share their successes and challenges with other listeners. Extension messages combined with reality radio programming can be a power tool for extension.

**Printed media.** With this media words and graphics are combined to present information. The advantage of printed media is that they can be looked at for as long



as the viewer wishes, and can be referred to repeatedly. This makes printed media ideal as permanent reminders of extension messages. They are especially useful for broad areas of common concern to farmers. They are particularly useful in areas where a reasonable proportion of the population can read, but, if cleverly put together, can also be effective in areas with low literacy rates. Printed media used in farm management extension include posters and leaflets, compendiums, and handbooks, among others.

**Posters and leaflets.** Posters are useful for reinforcing messages that farmers receive through the other forms of media. They are usually displayed in places where large numbers of people regularly pass by. The most effective posters carry a simple message, catch people's attention and are easy to interpret. Leaflets are used to summarize the main points of messages or provide information that is not easily remembered simply by hearing it. Examples are sources of inputs, lists of buyers, terms of lending, market prices and brief explanations of various farm management tools.

**Compendiums.** A compendium is a specifically compiled collection of information such as area profiles. These are reference sheets that could be used by planners, extension workers and policy analysts.

**Farm management handbooks.** Farm management handbooks are written publications issued periodically (e.g. annually) presenting the findings of related investigations. The handbooks are often based on the findings of farm business surveys that typically consist of gross margin data for specific crops and livestock enterprises under different farm sizes, dates of planting and levels of farm performance.

This information is of value for extension workers, farmers and policy-makers. Published enterprise budgets are used by policy-makers to assess credit requirements of government programmes.

The handbooks are also used as an extension tool by front-line extension workers. The data on enterprise profits are used as benchmarks to compare the profitability of farm enterprises against benchmark standards for different categories of farms as given in the handbook.

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## USE OF MASS MEDIA

*Cost effectiveness  
makes mass media excellent for:*

- Spreading awareness of new ideas and creating interest in farming innovations and new enterprises or products. Radio is one of the best media reaching large numbers of people and to publicize extension activities.
  - Giving timely information about market prices, input costs and market outlets and sources of inputs.
  - Multiplying the impact of the results of farm management investigations by reporting them in newspapers and on the radio.
  - Sharing success stories of farmers to stimulate similar action among other farmers or producer groups. Farmers are also often interested in hearing about the problems of other farmers and how they have overcome them. Community stories can also be shared in this way.
  - Answering questions and advising on problems common to a large number of farmers.
  - Reinforcing or repeating information and advice. Information heard at a meeting or passed on by an extension agent can soon be forgotten. It will be remembered more easily if reinforced by mass media.
-

### **Direct interpersonal communication**

While mass media has considerable potential to convey farm management messages widely, it cannot substitute for the main tasks of an extension worker. It is through direct personal contact that tailor-made advice is conveyed to farmers and practical skills are taught. It is in this personal contact that genuine learning is fostered. And it is through personal contact that extension messages can be conveyed to policy-makers.

*It is through direct personal contact that tailor-made advice is conveyed to farmers and practical skills are taught*

**Communication with farmers.** While interpersonal direct communication is more costly than mass media, it has the greatest impact. Group extension is one way to reduce costs and yet maintain the quality of the communication message and interaction. The group method is more cost-effective than extension work with individual farmers – offering the possibility of greater extension coverage. Group-based extension, however, requires the active participation of farmers in order to be effective. The group method has become even more relevant as specialists and front-line extension workers extend their work to different actors along value chains.

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### ADVANTAGES OF GROUP EXTENSION

- Greater coverage and cost-effectiveness.
- More effective learning environment through interactions, mutual reinforcement, group pressure.
- Greater focus for joint action of group activities.
- Bring together farmers with similar problems.
- Encourages group action in areas like marketing and buying inputs.

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Farm management specialists do not organize farmer groups; this is the role of the front-line extension worker. But they do support extension in this and in developing extension workers' capacity to extend farm management and marketing advice to farmers.



## COMMUNICATION WITH POLICY-MAKERS

Policy-makers, just like farmers, need relevant information to make decisions. Timely and effective communication through a well-planned strategy will create awareness, improve knowledge and induce long-term changes in the perception, mindset and decisions of policy-makers. Farm management specialists are well positioned to do this and to bridge the gap between policy-makers and extension workers and farmers.

*The farm management specialist is well positioned to bridge the gap between policy-makers and extension workers and farmers*

In advocacy roles, specialists should have the skills to help raise the awareness of policy and decision-makers of the importance of farm management and marketing and the usefulness and relevance of farm-level data. It is also important to communicate to policy-makers the need for better coordination of policies between decision-makers and the people (especially farmers) affected by them.

A dilemma facing farm management specialists and other technical staff is how to effectively communicate the results of farm investigations to senior management and policy-makers. Policy change requires close communication between specialists and policy-makers. Policy workshops can facilitate this. Depending on the purpose of the workshop the workshops should be attended by different combinations of stakeholders, including farmers, extension workers and researchers and private sector business owners and entrepreneurs. The workshops would provide a platform to conduct an advocacy campaign with Government on policies and strategies that impact negatively on the business environment for farming.

In preparation for the workshops, specialists should prepare and disseminate to all participants briefs on farm management-related topics that are likely to impact and affect the situation of farmers in the field.

By including farmers in these workshops they can influence the policy-making process and contribute to ensuring that policies are relevant. Farmers should, as a matter of principle, be part of the communications strategy. They can serve as advocates and lobby and influence policy-makers to bring about changes that support their interests and needs. Ultimately, policy change requires trust that can only be established once a long and stable relationship between farmers and policy-makers can be secured.



## **INFORMATION AND COMMUNICATION TECHNOLOGY**

Rapid changes are taking place in the use of Information Technology (IT) to support extension. The development of the personal computer (PC), together with that of the Internet, has great potential. IT is tremendously powerful and needs to be harnessed by extension organizations for the benefit of farmers. Information and Communication Technology (ICT) also has an important role to play in informing farmers about management and marketing issues and has the potential to erase physical barriers.

ICT provides a dual communication system where interaction can occur between the sender and receiver of information. It includes basic systems like the telephone to more sophisticated devices such as the mobile phone and PCs that offer multimedia services such as television, radio and telephone. These are potentially powerful tools for farm management specialists.

*Effective communication is a two-way flow of information  
that requires close interaction  
between extension worker and farmer.*



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An extension officer presenting results of a farm management exercise



© FAO/24691\_0522/ G Napolitano

Extension worker explaining farm planning to a group of farmers

© FAO/18195/G Bizzarri



Farmers watching training materials on video

© FAO/18627/G Bizzarri



Editing a video for training purposes

© FAO/16888/L Demattéis



Disseminating information by radio

*Communication occurs through three main forms:  
mass media, direct interpersonal communication,  
and Information and Communication Technology (ITC).*

*Farm management specialists and front-line extension workers  
have to develop these skills to communicate in these varied ways.*

ICT has great potential to increase the outreach and impact of extension services and to distribute information to multiple stakeholders in the agricultural sector. ICT can greatly improve access to information urgently needed by all stakeholders in the value chain. Further, ICT can provide a means of communication between all interested parties about matters related to agriculture in general and farm management in particular.

***Access to ICT gives significant advantage to farm businesses, so long as farmers and extension workers possess the skills to use it effectively***

***Farmers can also use ICT to share information among themselves and to make contacts along the value chain, including export markets***

### HOW FARM MANAGEMENT SPECIALISTS CAN USE INFORMATION AND COMMUNICATION TECHNOLOGY

- Provide information to small-scale farmers regarding input and market prices.
- Retrieve information from farmers on yields, costs of production and market prices attained.
- Disseminate farm management and marketing information over distances, at lower costs and in visual, written and audio form.

Importantly, farmers have the opportunity to do the same. Two-way communication is critically important in extension work as farmers often require regular support in their production and marketing operations. Farmers can also use ICT to share information among themselves and to make contacts along the value chain, including export markets.

ICT facilitates access to information from many sources anywhere in the world. This in turn facilitates data collection and the preparation of area compendiums and profiles. With appropriate planning and programming assistance, specialists can create 'knowledge networks'. These are groups of people, who are geographically separated, but who communicate regularly and share knowledge about matters of interest. Over time, this information can be stored and made available to all interested parties via websites and databases



## LINKING LOCAL LEARNERS

The Rural Knowledge Network supported by IFAD and FAO is an example of public and private partnerships establishing market information flows in which small-scale, local market-oriented enterprises collect and disseminate market information through the use of mobile phones and PCs with internet connection.

(<http://www.linkinglearners.net/>)

Using ICT, farm management specialists can more easily maintain contact with front-line extension workers and other organizations working in a local area. There is also great potential to train extension workers and keep them updated on the latest information. In turn, extension workers can train farmers to use ICT thus widening two-way access. Specialists can support these programmes and monitor and evaluate them.

Finally, using ICT, specialists can be in regular contact with various levels of administration at local and national level. This can help in sharing important information between the various administrations and specialists. It is a good starting-point for championing possible projects required for an area.

Incorporating ICT into existing information services requires careful planning, training and a long-term perspective. ICT needs strong linkages between national and regional or state and local organizations responsible for extension, as well as the involvement of credible individuals at national, regional and local levels that act as intermediaries or facilitators. For example, a facilitator at local level needs to be knowledgeable about ICT, have the capability and support to maintain the local ICT system, provide training in using ICT devices and, most importantly, be credible and trustworthy to the local people.

***The value of taking full advantage of ICT cannot be overlooked by the well informed farm management specialist***

The potential for the use of ICT is great, but it needs to be harnessed in the most appropriate manner. It must be used with relevance to farmers' needs. ICT has to be considered in the wider spectrum of the role of farm management specialization and fully integrated into this role.

However, ICT requires considerable support for its diffusion within a national context to become fully effective. This rests in the hands of policy-level decision-makers. There must be a national policy that grants access by all to telecommunications and provides a supportive regulatory environment. Only when ICT is universally accessible and affordable can it be of use to extension services and farmers.



## **PRESENTATION OF RESULTS**

The attention given to presentation and dissemination of results is often inadequate. In preparing presentations, farm management specialists should know:

- to whom the information will be presented;
- the level of decision-making;
- at what time and with what frequency information is required;
- in what form results should be presented.

The relevance of the studies will be enhanced if the results are practical and can be easily translated into action. Recommendations might be divided into immediate and longer-term priorities. As decision-

makers are concerned about net costs, presentation should include the budgetary implications in the context of the benefits to be realised.

Different users require different levels of detail and forms of presentation. As one moves along the decision-making structure from field-level worker to technocrat to policy-makers, the information presented needs to be briefer, less demanding in technical knowledge and more oriented to presenting conclusions and options for decisions. Farmers and extension workers need detail; policy-makers need broader information.

Timeliness is the key to successful information transmission. Careful consideration should be given to when the information should be shared. It is useful for information to be linked to the farmers' production programmes. Information also needs to be 'fresh'; particularly price and other market information.

Effective use of the results of analysis can be improved through giving more attention to the preparation of presentation material bearing in mind the various ways in which information can be transmitted, as discussed earlier.

Using computers, spreadsheets and electronic presentation applications, analysed data can easily be presented visually in an attractive format rather than simply figures in a table. This improves the chances of attracting the interest and attention of the audience.

Accuracy of data is important. Before a report is finalized, stakeholders should have the opportunity to review a draft report to make sure the report does not omit or misrepresent important points of view. This can be achieved through field presentations and workshops and through circulating draft findings and reports for comment. This will help cross-check findings, generate new insights, communicate results and help different stakeholders understand varying opinions and views.



## Further reading

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