global forum for rural advisory services
forum mondial pour le conseil rural
foro global para los servicios de asesoría rural

Module 10: The Role of Extension in Supporting Value Chains
Part 1, Theory

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In 2012 GFRAS developed the "New Extensionist" document, which details the role that extension plays in an agricultural innovation system, and the strategies and capacities needed (at individual, organisational, and system level) http://www.g-fras.org/en/activities/the-new-extensionist.html. Based on this document the GFRAS Consortium on Extension Education and Training emerged to promote the New Extensionist, mainly through training, curricula review, and research on extension.

The Learning Kit contains 13 modules designed for self-directed, face-to-face, or blended learning and can be useful resource for individual extension field staff, managers, and lecturers.

The Role of Extension in Supporting Value Chains module is developed as part of the New Extensionist Learning Kit http://www.g-fras.org/fr/652-the-new-extensionist-core-competencies-for-individuals.html.

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Contents

1. Before you begin

1.1 General instruction

This module should be used in conjunction with the workbook provided. As you read through the module, you will find different visual features that are designed to help you navigate the document.

Figure 1: Icons used to highlight important information throughout the manual

The module makes use of keywords (difficult or technical words that are important for you to understand). To ensure that you receive the full benefit from the module, keywords will be marked the first time they occur and defined in a box containing the keywords symbol. Make sure that you read the definition of any words that you are unsure about.

1.2 Activities

Each session in the module will contain various types of activities to help you become knowledgeable and competent. The module contains three types of activities:

A **pre-assessment** is to be completed before reading through the module overview and introduction, and a **post-assessment** is to be completed once the entire module has been covered. This will measure the degree to which your knowledge has improved by completing the module.

Each session contains one or more **session activities** to be completed, in the workbook, where indicated in the module. These activities measure your ability to recall and apply theoretical knowledge.

At the end of each study unit a **summative assessment** needs to be completed. These assessments are longer than the session activities and will test your knowledge on all the work within the study unit.

1.3 Assessment instructions

Keep the following in mind before doing any of the assessments:

- All assessments are to be completed in the provided workbook.
- The manual contains all relevant information you will need to complete the questions, if additional information is needed, such as the use of online sources, facilities will be made available.
- Work through the activities in a study unit and make sure that you can answer all the questions before attempting the summative assessment. If you find that you are not certain of any part of the training material, repeat that section until you feel confident.
- The summative assessment must be done under the supervision of your trainer at the end of your learning period.

Module 10: The Role of Extension in Supporting Value Chains Part 1, Theory

Module outcomes

After completing this module, you will be able to:
1. Explain why agricultural marketing is important for farmers;
2. Explain the agricultural market, the value chain and the key actors in the value chain;
3. Assess market linkage methods; and
4. Analyse markets and value chains.

Module overview

The purpose of this module is to help extension agents, who are new to working with markets, understand the basic components of marketing value chains and the way in which extension agents can work with farmers and other key chain actors to target market opportunities and to develop an action plan that farmers can use to engage with markets successfully.

In the theoretical part of the module the focus is on the importance of agricultural marketing for farmers, the analysis of the agricultural market and the value chain, as well as market linkage methods.

Module introduction

For many years, the role of the extension agent was to help farmers produce more, which was an effective strategy when most farmers sold their goods directly to government. However, farming conditions and circumstances have changed and farmers currently work with or compete with local and international farmers to sell their goods at prices that enable them to cover their production costs and provide them with a profit. In this new and highly competitive market, the role of the extension agent has also changed, in that the new extension agent needs to support farmers in several areas.

An effective extension agent needs to:

- Help farmers to enhance their productivity by using sustainable and climate smart production methods;
- Support farmers in organising themselves, so that they can benefit from **economies of scale** and gain improved equity and trust through building their **social capital**; and
- Enable farmers to identify and engage with appropriate markets to improve their levels and consistency of income.

In order to ensure that farmers are successful in improving their production systems and market performance, the new extension agents must have a working knowledge of markets, agricultural marketing and agricultural value chains.

Economies of scale: The cost advantage resulting from an increased output of a product.
Social capital: A network of social or economic institutions and individuals that cooperate to create collective value change.

Complete the pre-assessment in your workbook.

Study unit 1: The agricultural market, value chain and key actors

Study unit outcomes

After completing this study unit, you should be able to:

- Explain the concepts of agricultural marketing, the market and the value chain;
- Explain the concepts of supply and demand, as well as their effect on the market;
- Identify the different types of formal and informal markets in the agricultural value chain;
- Describe the advantages and disadvantages involved in the different types of agricultural markets;
- Identify the key actors in a value chain;
- Explain the role of each key actor in a value chain;
- Identify key business development service providers in the agricultural market;
- Explain the role of business development services in the agricultural market;
- Describe the role of key regulators in the agricultural value chain; and
- Identify the most important food issues and standards in the agricultural market.

Study unit overview

The purpose of this study unit is to familiarise you with the key concepts in agricultural extension services, including agricultural marketing, the agricultural market, the value chain in the agricultural market and the key actors involved in the agricultural value chain.

Study unit introduction

It is estimated that 1,5 billion people across the world, who mainly live in rural communities, are involved in smallholder agriculture. Although they play an important role as food producers, the income opportunities of these farmers remain challenging. The main purpose of extension services is to support rural farmers in improving their livelihood prospects. In order to provide a supporting service to farmers, extension agents need to provide more than production-based services: they have to be familiar with the market in which the farmers operate and they have to understand the value chain in the market. This will enable them to support the farmers in identifying marketing opportunities.

Session 1.1: Agricultural marketing, the market and the value chain

Session outcomes

After completing this session, you should be able to:
- Define agricultural marketing;
- Describe the agricultural market;
- Recognise the connection between the agricultural market and the value chain;
- Explain the concepts of market supply and demand; and
- Explain the effects of market supply and demand on prices.

Introduction

In order to operate in the highly competitive agricultural market, it is crucial for farmers to market their products. Marketing is the management process responsible for identifying, anticipating and satisfying customer requirements profitably. The marketing process includes all the activities for creating, communicating, delivering and exchanging offerings (products and services) that satisfy customer needs or requirements and, thereby, have value for customers. In other words, marketing is the process of putting the right product in the right place, at the right price, at the right time.

Agricultural marketing, which specialises in a particular market and customer, is the set of business activities that are performed in the flow of products from the beginning of agricultural production to the hands of consumers.

The marketing function is always performed in a particular market context, which relates to the product and location. Therefore, it is important to understand the market and the way in which marketing relates to the market actors. In this session, you will explore agricultural marketing, the agricultural market in which farmers operate, as well as the roles of people involved in a value chain, which is part of the overall agricultural market.

Agricultural marketing: The set of business activities that are performed in the flow of products from the beginning of agricultural production to the hands of consumers.
Marketing mix: A set of tactics and strategies that a company (or farmer organisation) uses to promote its product in a particular market and that is made up of the so-called four Ps of marketing: product, price, place and promotion.

Agricultural marketing

Agricultural marketing deals with consumer needs and the profit that is made by satisfying consumer needs. Agricultural marketing consists of the following three basic elements:

- The customer;
- Factors that can be controlled, which are known as the **marketing mix**: product, price, place (distribution) and promotion; and
- Environmental factors, which cannot be controlled: political, economic, legal, technological factors.
- Agricultural marketing includes all the activities and services involved in moving an agricultural product from the farm to the consumer who buys the product. In this way, agricultural marketing includes activities such:
- Production planning;
- Growing and harvesting;
- Cleaning, grading and packaging;
- Storage and transport;
- Distribution;
- Advertising; and
- Sales.

In industrial countries, many farmers plant a crop only after they have found a buyer, agreed on the terms of sale and completed a business plan. Farmers in developing countries should do the same. A **marketing plan** helps farmers to understand which products are in demand and will provide a profit and then to decide on:

- What to plant;
- When to plant;
- How to produce a crop; and
- Who to sell the harvested crop to.

All marketing activities take place in a particular market and, in the next section, you will learn about the concepts of the **agricultural market** and the value chain.

The agricultural market and value chain

A market can be defined as the group of consumers or organisations who:

- Is interested in a particular product;
- Has the resources to buy the product; and
- Is allowed by regulations and or legislation to buy the product.

In other words, an agricultural market can be defined as the group of consumers and organisations that is interested in a particular agricultural product, has the resources to buy it and is legally allowed to buy the product.

Marketing plan: A document that outlines the current market position of a company, as well as the activities involved in meeting specific marketing objectives for a particular period (e.g. a year).
Agricultural market: The group of consumers and organisations who is interested in a particular agricultural product, has the resources to buy it and is legally allowed to buy the product.

In order for a market to exist, the following components have to be present:

- A product or **commodity** that can be bought and sold;
- Buyers and sellers;
- A business relationship between buyers and sellers; and
- A particular area, such as a region or a country.

Commodity: A raw product (e.g. copper) or an agricultural product (e.g. coffee) that can be bought and sold.

The following terms are used to describe the different levels in a market:

- Potential market: consumers in the total population who are interested in buying the product;
- Available market: consumers in the potential market who have enough money to buy the product;
- Qualified available market: consumers in the available market who are legally allowed to buy the product;
- Target market: the consumers in the qualified available market to whom a company decides to sell the product; and
- Penetrated market: the consumers in the target market who have bought the product.

Based on the nature of the product, the agricultural market differs from the market of manufactured goods in the following ways:

- The agricultural products are perishable: agricultural products can perish and their perishability varies during months and seasons;
- The agricultural products are not produced throughout the year: agricultural products are produced in a particular season;
- Most agricultural products are bulky: because of the bulkiness of the products, their transportation and storage may be difficult and expensive;
- Variation in quality: there is a large degree in variation in the quality of agricultural products, which makes it difficult to grade and standardise them;

- Irregular supply: agricultural production depends on natural conditions and, therefore, the supply may vary; and
- Agricultural products require processing: most agricultural products have to be processed, before they can be sold to the consumer.

A **value chain** is a set of connected activities that work together to add value to a product, while linking buyers, sellers and markets. An **agricultural value chain** can be defined as the goods, services and processes involved in an agricultural product moving from the farm to the final customer. This value chain is shown in Figure 1.

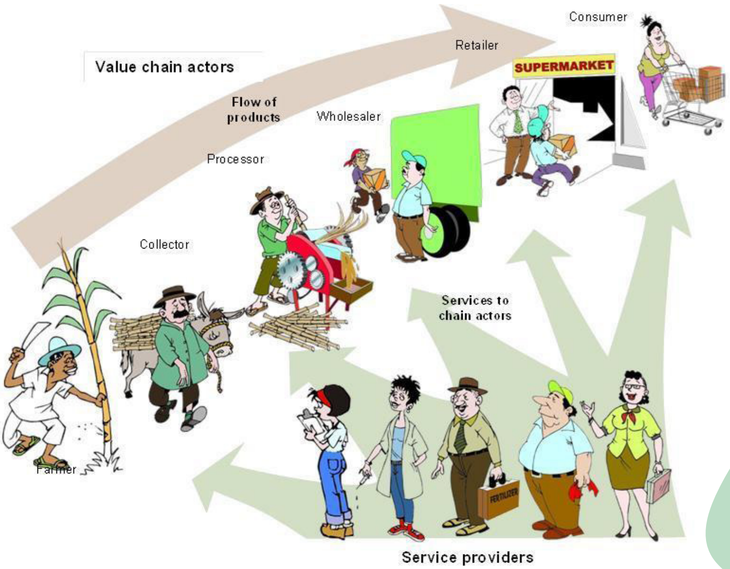

Figure 1: The agricultural value chain

Value chain: A set of connected activities that work together to add value to a product, while linking producers to processors and markets.
Agricultural value chain: The goods, services and processes involved in an agricultural product moving from the farm to the final customer.

An agricultural value chain usually includes a wide range of activities, including:

- Input supply;
- Farm production;
- Post-harvest handling and processing;
- Production and handling technologies;
- Grading criteria and facilities;
- Cooling and packing technologies;
- Storage and transport;
- Industrial processing;
- Finance; and
- Feedback from markets.

The different types of agricultural markets are discussed in Session 1.2.

Market segmentation

Market segmentation can be defined as the division of an overall market into segments of customers with common characteristics. Market segmentation can be based on geographic, demographic and behaviouristic characteristics.

For example, in a demographic segmentation, consumers can be segmented according to their age, sex, religion, personality, location, or income and, in this way, the following consumer segments can be identified:

- Young, well-off people in cities;
- Middle-aged, well-off people in cities;
- Young parents with families; and
- Children.

Different market segments have different needs and preferences. For example, young, well-off people may like to go shopping in supermarkets, while older people may buy their food in traditional markets. Figure 2 shows examples of market segments.

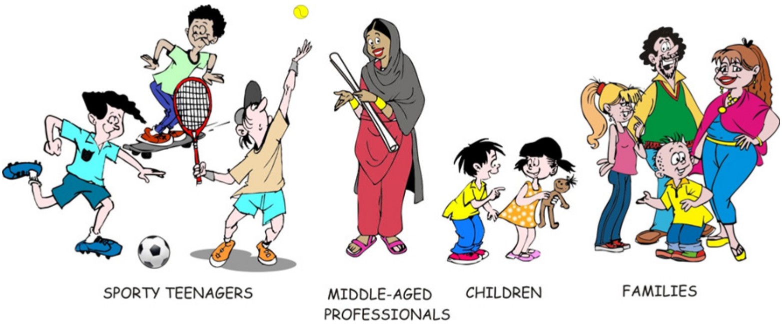

Figure 2: Examples of market segments

To help farmers sell products to a particular type of consumer, the extension agents need to target the marketing strategy to a specific market segment and understand what their needs and preferences are.

Market supply and demand

Market supply and demand are important concepts, because they influence the prices that farmers can get for their produce.

If farmers understand supply and demand, they can:
- Plan what crops to grow, when to plant and harvest, and where to sell;
- Plan to harvest their crops at the beginning or at the end of the season, when prices are higher;
- Grow a crop variety that is more expensive than the standard one, for example, red potatoes may be sold for more money than white potatoes;
- Decide to grow a more nutritious crop, such as vegetables or fruits instead of maize;
- Decide what would be the best time to sell their crop, for example, by storing it until the price goes up; and
- Try to increase the quality of the crop (for example, by protecting it from pests and diseases), so it can be sold for a higher price.

Market supply

Market supply is the quantity or amount of a product (maize, potatoes, tomatoes, eggs, and so on) that producers can offer to the market for sale. The supply of a product depends partly on its price and on local conditions. If farmers see that the price of a product is high, they will try to sell it immediately and they are also likely to grow more of the product next season. If the farmers see the price falling, they may keep their products in storage, until the price recovers. Low prices will also discourage them from planting the same crop the following season.

The supply of a product also depends on local conditions. For example, if there is a lot of rain in an area, farmers can harvest a great deal of grain, but if there is drought, the harvest is poor. Other local conditions that may also affect the supply of a product are:

- Pests and diseases;
- Availability of and access to fertiliser, water and seeds;
- Poor roads and transport vehicles;
- Poor farmer health and nutrition; and
- Pregnancy and child rearing (in the case of female farmers).

Market demand

Market demand refers to the amount of the product that customers are willing and able to buy, which partly depends on the price. If the price is low, more people will want to buy and each person may want to buy more of the product. If the price goes up, fewer people want to buy and each person will probably buy a smaller amount.

The demand for a product is also affected by many other factors and customers generally want to buy more:

- Staple foods (such as maize or wheat) or major vegetables (such as onions and tomatoes) and less unfamiliar types of food or items they use only in small quantities;
- High quality products rather than items that are low quality or damaged;

- Fresh products (such as fish) that have just been landed or vegetables harvested yesterday, rather than produce that was caught days before, or harvested weeks ago; and
- Scarce items, such as the first fruits of the season.

The effects of supply and demand on prices

Think of what happens just after the grain harvest. Numerous farmers want to sell their grain at the same time: they need money to pay their expenses, repay loans and buy seed for next season. They all bring their sacks of grain to the village marketplace on the same day. However, there are only a few people who want to buy grain and, therefore, a customer—typically a market trader—can offer a lower price to a farmer for a sack of grain. The farmer has to agree to sell, because he/she needs the money. In this way, the price of grain will fall when the supply is high (when there are many suppliers) and the demand is low (when there are the same number or fewer buyers). In other words, when supply goes up, the price goes down and when supply is low, then prices will increase.

Complete Activity 1.1 in your workbook.

Session 1.2: Agricultural market types

Session outcomes

After completing this session, you should be able to:

- Identify different types of formal and informal markets in the agricultural value chain; and
- Describe the advantages and disadvantages involved in different types of agricultural markets.

Introduction

In order to have a clear understanding of the value chain, you should understand the different components in the value chain, which include the different types of markets, value chain actors, consumers and regulatory organisations that support the smooth operation of a value chain. In this session, you will focus on the different types of agricultural markets.

Agricultural markets range from small local markets, where a few farmers get together to sell directly to a limited number of consumers, up to globally integrated modern markets, where thousands of farmers sell millions of tonnes of produce through a highly organised set of market actors, who sell on to mass consumer markets. Inbetween, there are hundreds of market types and market chains that make up the global food system.

When supporting farmers in linking to markets, you need to consider a range of market types and the benefits and disadvantages of these market types. Through dialogue with farmers, help them to make decisions on the markets that offer them the best returns at an acceptable risk.

In the following sections, the most important informal and formal agricultural market types will be discussed.

Informal markets

For the majority of smallholder farmers in developing countries, the most accessible markets are informal markets. These markets are termed 'informal', because they exist beyond the tax system and, therefore, they are off record. In most developing countries, informal markets trade more than 80%–90% of the agricultural goods and are, therefore, important markets for smallholder farmers.

Informal markets include the following produce transactions:
- The farm gate (on the farm);
- Roadside sales;
- Village markets;
- Rural assembly markets; and
- Sales within the main urban wholesale and retail markets.

Informal markets typically:
- Support all types of products produced by smallholders, including the high volume, lower value grain and pulse crops, as well as the higher value fruits, vegetables and meat products;
- Have no formal grades and no traceability systems;
- Rarely use standard measures;
- Set prices based on local supply and demand conditions;
- Offer few barriers to entry; and
- Are attractive to smallholder farmers, as they generally get paid in cash on delivery and have few, if any, rules and regulations.

Figure 3 shows an example of a massive informal market.

Figure 3: Example of a massive informal market - Mile 1 in Lagos (Nigeria)

The lack of regular grades and standards benefit small volume, low quality suppliers who can offer their produce to the highest bidder. The lack of grades and standard measures also benefit buyers, who are more interested in value and quantity than quality.

Although basic in structure, informal markets handle large volumes of produce and are generally highly efficient in terms of produce throughput. The markets are regulated by the trading associations, who have a tight network of traders, who travel across the country to collect and supply goods.

Efficiency within the markets is also surprisingly high. As there is no enforcement of grades, postharvest losses are lower than formal markets since there is considerable flexibility in the quality of goods that can be sold. This makes informal markets attractive to consumers, who can pick through goods for high quality produce, but also offers the sale of lower quality food that is more affordable to poorer consumers.

There are, however, the following disadvantages involved in informal markets:

- The markets are often ruled by local authorities and trader groups who limit competition, can enforce stall fees and rarely invest in upgrading market facilities;
- Lack of investment and poor levels of transparency often result in crowded and unsanitary conditions;
- Food safety issues are often overlooked and, in many countries, this has resulted in middle class consumers in developing countries seeking alternative market options;
- Informal markets have few modern trading facilities, relatively few have computerised systems and the markets do not attempt to operate in a coordinated manner; and
- The lack of a business outlook from the informal markets management limits their attractiveness for investment and growth.

Emerging economy: An economy with low to average income that is progressing to a more advanced economy by means of rapid growth or industrialisation.

Informal markets dominate the agricultural trade and lives of most smallholder farmers in emerging economies. The majority of agricultural goods are sold by farmers to traders, processors and consumers in developing countries without any consistent standards, few contractual arrangements and with minimal government taxation.

In the following sections, the different types of informal markets will be outlined.

Farm gate markets

Farm gate markets (on-farm markets) are the simplest market type; they sell directly from the farm. Farm gate sales occur when the farmers sell their products directly from their farm to their neighbours or traders, who travel in search of goods to buy, or to local buying agents.

Farm gate markets:
- Are convenient for the farmer;
- Have no additional marketing cost, such as loading or unloading; and
- Have no problems in reaching agreements with the other members of a marketing group before the sale is made.

Figure 4: Example of a farm gate market

Prices for these types of sales may be low, though. Figure 4 shows an example of a farm gate market.

Informal assembly markets

Informal assembly markets involve farmers and small local traders coming together regularly to sell their goods to larger traders. In other words, the buyers in assembly markets are traders, not consumers.

Assembly markets are normally found in rural areas or in small towns close to farming areas. Many assembly markets are held only once or twice a week and some are held in the harvest season only.

Informal wholesale markets

Informal wholesale markets, which are generally found on the outskirts of larger towns and cities, are markets where traders (and a few farmers) deliver produce in bulk. **Retailers** come to these wholesale markets to buy bulk goods, which they make into smaller lots to sell in their stalls and shops. Figure 5 shows an example of this type of market.

Retailer: A business that sells goods directly to individual consumers.

Informal retail markets

Informal retail markets are markets where consumers and small businesses (such as restaurants and street-food vendors) buy their daily or weekly supplies of food. It is possible for farmers to sell in bulk directly to retail markets, but in order to do so, they must work out a system with the retailer. Wholesalers may try to prevent farmers from selling directly to retailers.

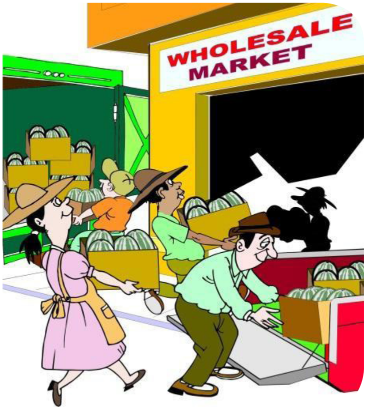

Figure 5: Informal wholesale market

Formal markets

Codex Alimentarius: A collection of internationally recognised standards, codes of practice, guidelines and other recommendations relating to foods, food production, and food safety.

As smallholder farmers become more organised and seek more profitable prices and more stable income streams, they tend to seek out the more formal market sectors. Formal markets consist of all the businesses, enterprises and economic activities within the agricultural and food sectors that are structured, monitored, protected and taxed by government and internationally recognised standards, such as the **Codex Alimentarius**. Formal markets systems also fall under specific private and public sector food safety regulations that are tied to economic standards. In order to sell in formal markets, farm products must meet these stipulated standards.

The advantages of the formal markets for sellers are:
- High levels of market organisation;
- Transparency; and
- Opportunities for developing long-term trading relationships between farmers and buyers.

Formal markets are attractive to consumers, as they:
- Focus on produce quality;
- Sell produce using grades and standards; and
- Have legal enforcement of these systems.

Formal markets:
- Do not always offer higher prices compared to the informal sector, but generally offer more consistent pricing methods and extended seasonal buying;
- Are highly competitive;
- Have strict quality standards and are subject to increasing levels of food safety regulations;
- Invest in **information and communication technology** (ICT), so that produce is traceable within the market chain;
- Monitor produce for quality;
- Record and share information on prices and volumes;
- Invest in storage systems; and
- Monitor sanitation through the market system.

The terms and conditions within formal market sectors tend to favour larger farmers and, therefore, if smallholder farmers want to engage with these markets, they need to be well-organised and fully adhere to the market requirements.

Information and communication technology: The integration of communication devices, applications and services, including computers and computer networks, mobile phones and television to enable users to access, store, transfer and manipulate information.

In the following sections, different types of formal markets will be discussed.

Supermarkets

Figure 6: Fresh produce in a supermarket

As towns grow, people want to buy in convenient, one-stop shops. Supermarkets enable consumers to buy a large variety of different types of goods at the same time. The food is attractively packaged and of good quality. In developing countries, supermarkets serve mainly middle to higher income urban people. Farmers can sell directly to supermarkets, but they must meet strict volume and quality requirements. Figure 6 shows fresh produce on supermarket shelves.

Food processing markets

Urbanise: The population shift from rural to urban areas.

As countries **urbanise** and incomes rise, consumer food habits change towards more processed and packaged foods. In the food and beverage industries, processors offer farmers and traders new markets and the prospect for long-term stable business relationships. Figure 7 shows an example of a food processing plant.

Figure 7: Example of a food processing factory

Hotels and restaurants

One of the market consequences of urbanisation and rising incomes is changing diets, with urban consumers buying higher quality food products and also buying higher value products, such as vegetables, meat and dairy products. Urban centres also concentrate large numbers of consumers whose lifestyle involves buying meals at restaurants in addition to food that is processed and prepared later.

Hotels and restaurants pride themselves on serving customers with food made with fresh, high quality produce. In order to ensure the supply of high quality goods, chefs often work directly with farmers or with reliable suppliers of high quality produce. The higher value of these markets offers new opportunities to farmers to sell their goods at better prices to higher income buyers.

Feed markets

In urbanised countries, consumers' diets have changed to include an increasing consumption of meat and milk products. This creates a growing demand for animal feed products, which is driving another new market opportunity for farmers.

Livestock feed processors require sources of both carbohydrates and protein in their feed products and formulations, which offers farmers the opportunity to grow a range of crops, including maize and soybean to supply these feed processor markets.

Export markets

Export markets involve goods produced in one location or country being sold and consumed in another country. Examples of export trade traditionally included a mix of food and fibre products, such as coffee, cocoa, tea, tropical fruits, nuts and cotton. However, nowadays the export trade in agricultural produce is a fully globalised process with goods moving in all directions.

The global trade in goods is particularly being fuelled by the current consumer demand for the year-round supply of all food products, which requires processors and retail outlets to have suppliers from across the world to provide their fullest inventory of goods through the local seasons.

Farmers have experienced major threats and benefits from the globalisation of agricultural markets, but the growth in this market sector offers farmers real opportunities to sell high volume, high value produce- if they can meet the increasingly strict food safety and traceability requirements of these markets.

Comparing market types

Each type of market serves a specific role. Each offers a different combination of quality, quantity, prices, and presentation of goods. Generally, farmers receive the lowest price if they sell unsorted produce at the farm gate. They can get higher prices if they sell the same goods to a modern supermarket. The more distant markets may offer higher prices, but marketing costs, particularly transport costs, are also higher. Supermarkets may offer the highest price, but farmers will need to meet many conditions and pay for many services to supply them.

All of the markets discussed in the sections above offer opportunities for sales of farm goods. Extension agents and programmes that are seeking to link farmers to markets need to be able to assess the right type of market outlet for a given product and type of farmer. Market agents also need to be able to assess multiple market options when selling their goods. For example, farmers in Uganda sold their highest quality potatoes to a fast food restaurant, in order to access the benefits of year-round sales at the highest market prices. However, this only represented 60% of their production and, therefore, the farmers needed to identify alternative markets for the rest of their produce.

Market trends in emerging economies

The processes of reform within the agri-food system that started in industrial economies are now moving into middle- and low-income countries. As countries urbanise, there is a shift to higher standards, thereby causing significant marketing and institutional changes that affect smallholder agriculture and the livelihoods of rural communities the world over.

Domestic markets across the world now cater to market demands from more sophisticated urban consumers with higher incomes, who want to buy conveniently and attractively packaged food, of high quality, consistency and safety. Domestic markets are undergoing rapid but uneven modernisation, with large supermarket chains and branded manufacturers growing alongside the informal market.

Emerging markets have also become increasingly attractive for the major grocery retailers, wholesalers, food manufacturers and food-service companies. These firms are investing in such markets with stores and associated supply chains.

More concentrated, high growth markets offer farmers:

- Access to higher profit margins;
- More stable incomes;
- Options for long-term trading relationships and value addition; and
- Greater access to knowledge and services, such as new production technologies and financial services.

The combination of more stable prices and access to services means that what farmers learn in working with one product line can also be applied to other parts of their farm enterprises.

Linking to modern markets generally requires farmers to organise themselves into effective and cohesive groups, so that they can supply larger quantities of produce to the buyers with agreed quality specifications. Working in structured business units provides farmers with a vital social network that supports future growth.

Being a supplier of a modern market also offers farmers the potential for differentiation of their production and sales and the ability to bundle different products around specific labels and brands.

Complete Activity 1.2 in your workbook.

Session 1.3: The core actors in the agricultural value chain

Session outcomes

After completing this session, you should be able to:

- Identify the key actors in a value chain; and
- Explain the role of each key actor in a value chain.

Introduction

As indicated in Session 1.1, the value chain is a set of connected activities and people working together to add value to a product, while linking producers to processors and markets. A value chain can be local—when farmers sell to nearby traders and retailers—but with modern market chain management, many value chains span countries and continents.

Figure 8 and Figure 9 are examples of a short and a long value chain.

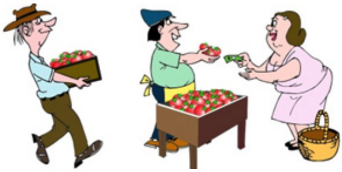

Figure 8: A short value chain (farmer sells to trader, who sells to consumer)

Figure 9: A long value chain (several intermediaries between the farmer and consumer, each with a particular function)

As you can see in Figure 10, there are three main levels in a value chain:

- Level 1: the core value chain actors, who buy and sell a product and link farmers and consumers;
- Level 2: the business development services (BDS), who enable value chain actors to trade efficiently, and
- Level 3: the regulatory agencies who support the policies and standards within value chains.

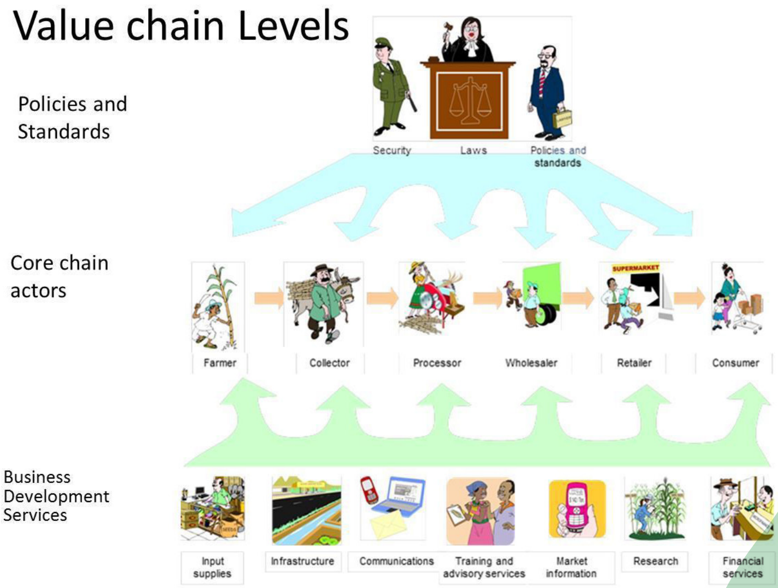

Figure 10: Levels in the value chain

Business development services: People and organisations who support the production, supply and marketing of goods, without owning the product involved, e.g. market access support, infrastructure support and training support.

In this session, you will focus on the key value chain actors, including farmers, processors and traders, who perform the functions required to produce and market agricultural products. After production, each of the core value chain actors physically sells or buys the product. The number of actors can range from two or three to ten or fifteen separate entities spanning multiple transactions.

Key value chain actors

Table 1 explains the roles of each of the core chain actors in the value chain.

Table 1: Key value chain actors

Value chain actor	Description
Farmers	Farmers grow crops or raise livestock and they or their family members do the initial processing (harvesting, drying, sorting, etc.). They occasionally sell directly to consumers (often other people in their village), but more usually they sell to traders.
Collectors	Collectors are small, local traders, who buy directly from individual farmers. They may buy a few bags of produce from many farmers and store them, until they have enough to sell to a larger trader or processor. Collectors have limited capital and trade small volumes. They may use motorbikes or may own or rent a small truck.

Value chain actor	**Description**
Processors	Processors, who transform the product in some way, include millers, feed manufacturers, butchers, leather workers, coffee roasters, juice makers, canners, and companies that make potato chips or that package frozen food. Processors vary from small household enterprises to big firms. They can be located in rural areas or in a town or city and they may use traditional or modern technologies.
Wholesalers	Wholesalers deal with much larger volumes than collectors. They own or rent a bigger vehicle, and have their own storage warehouses. They buy most of their supplies from smaller traders or processors, but some also buy directly from farmers. Wholesalers supply retailers in towns and cities.
Retailers	Retailers sell products to consumers. Supermarket chains are large companies that handle big volumes of many different products. In contrast, small shops and market vendors sell much smaller volumes and fewer goods, and do not keep sizeable stocks.
Consumers	Consumers, who are at the end of the value chain, are the people who buy and use the product. They include the end-users, who eat or drink the food, or wear clothes made of wool or cotton. Consumers also include companies that use the product to make something else, such as a restaurant that uses peanut oil to fry food.

Complete Activity 1.3 in your workbook.

Session 1.4: Business development services in the agricultural value chain

Session outcomes

After completing this session, you should be able to:

- Identify key business development service providers in the agricultural market; and
- Explain the role of business development services in the agricultural market.

Introduction

As indicated in the previous session, the key business development services, which are essential in supporting the core market chain actors in performing their commercial functions, operate on the second level in the value chain. Business development services include:

- Market access support (identifying markets, facilitating relationships, contract negotiation);
- Infrastructure support (transport, communication, warehousing);
- Training;
- Technology support; and
- Input supplies and finance.

For example, producer groups may:

- Need advice and assistance in becoming organic or Fair Trade certified;
- Require working capital at the start of the harvest season to pay farmers in advance; or
- Need to build silos for storage or facilities for processing and packaging.

Business development services are essential for helping the core value chain actors build and grow their businesses and they are often critical in driving competitiveness and sustainability of actors within value chains. Although these services are essential for a productive and competitive value chain, farmers often face multiple challenges that prevent them from accessing the services.

Farmers and traders need different types of services at different times in the season and at different stages in the value chain, for example:

- At the beginning of the season, farmers need loans for seed, fertiliser and labour, which are repaid only after the harvest;
- At mid-season, farmers need loans for weeding, which they will be able to repay after harvest;
- At harvest time, they may need loans to harvest the crop, or that so they can hold onto their crops until the price has risen; and
- Traders need short-term loans, so they can buy products to sell and, in some cases, buy produce to store and sell.

Business services provide various types of support at different stages in the value chain. Some (such as seed suppliers and field agents) serve farmers, whereas others (such as transport companies) provide services to traders and processors.

Different financial services serve different parts of the chain. Farmers can get loans from informal savings and credit groups and microfinance institutions, while banks and insurance companies provide formal financial services to large processors and retailers.

Key business development service providers

In the following sections, the key business development services and the roles of each of these service providers will be described.

Input suppliers

Input suppliers provide the key products that farmers need to grow crops and raise animals, including seed, agro-chemicals, veterinary medicines, irrigation pumps and pipes, farm tools, equipment such as threshers, and spare parts. In other words, input suppliers essentially provide all the basic materials and equipment that farmers need for production.

Communication services

Smooth information flow is vital for the proper functioning of a value chain. Communication may occur face-to-face, by telephone or email, on the Internet, or by means of a traditional postal service. Mobile phones and email are becoming more important in the developing world. Many buyers now purchase only from suppliers who have a mobile phone.

Training and agricultural advisory services (extension)

Farmers and other actors in the chain need specialised information and advice about production, post-harvest, processing, marketing, management, finances and business strategy.

The following are examples of agricultural advisory (extension) services:

- Agricultural extension officers;
- Lead farmers;
- NGO field agents;
- Private sector field agents; and
- Consultancy firms

Market information services

Farmers need various types of information on product prices, including:

- Spot prices: the price of the product at a certain place at a specific time;
- Price trends: price variations from place to place and from season to season; and
- Price premiums: the prices offered for specific grades or standards of produce, or for larger or smaller amounts of the product.

This information helps farmers make more informed decisions about what to grow, where to sell, when to sell and how to sell their products.

In addition, farmers also need other types of market information, including:

- Links with potential buyers;
- Information on product quality and quantity;
- Frequency of delivery; and
- Payment conditions, such as how the payment is made (e.g. in cash, by check or by bank transfer) and when the payment will be made (e.g. on delivery, at the end of the month, after 30 days, after 90 days, etc.).

Financial services

Financial services provide the capital that actors in the value chain need to keep their business viable. Farmers need credit to buy seeds and fertiliser, pay labourers to plough, weed and harvest, buy sacks and crates, to mill their grain, and take produce to market. Similarly, traders and processors also need credit to buy produce, pay for transport and storage, and so on.

Credit providers include local moneylenders, savings and loans clubs, microfinance institutions and banks. Other types of financial services include savings, insurance, leasing, warehouse receipts, and loan guarantees.

Research support

Research provides farmers with new products and better methods to produce. New crop varieties may be higher yielding, resist pests and diseases, have higher nutrient content, or tolerate drought. New farming methods may enable farmers to increase their productivity or reduce their risks and costs. Research also helps farmers become more competitive, improve their quality, reduce their losses, or add value to their output.

Effective extension services should be a direct link between the research community and farmers.

Table 2 is a summary of the different types of business development and support services in the agricultural value chain.

Table 2: Types of business development and support services in the agri-food sector

Type	Examples of service providers	Examples of services provided
Single service providers	• Fertiliser suppliers • Seed merchants • Millers • Transport	• Market information price • Warehousing • Infrastructure (roads, electricity, water) • Telecommunications
Financial service providers	• Savings and loan groups • Savings and credit cooperatives • Micro-finance institutions	• Formal banks • Insurance brokers • Mobile lenders or banks

Type	Examples of service providers	Examples of services provided
General services providers	• Input supply general • Market intelligence • Market brokerage • Farmer organisations	• Market research • Business management • Legal services • Food safety, quality, compliance
Sector-specific/ product-specific	• Veterinary services • Agricultural extension • Technical assistance and training	• Postharvest support: storage, processing, grading and packing
New business model		• Certification services • Inclusive chain-wide service support

Complete Activity 1.4 in your workbook.

Session 1.5: Key regulators in the agricultural value chain

Session outcomes

After completing this session, you should be able to:

- Describe the role of key regulators in the agricultural value chain; and
- Identify the most important food issues and standards in the agricultural market.

Introduction

Standard: A grade or level of quality that products have to conform to.

Key regulators refer to the actors or role players and agencies on Level 3 in the value chain that set formal and informal policies, **standards** and legal regulations that govern the way in which the core actors and business service providers conduct their businesses and deliver their products or services. These rules and standards are often applied through public sector agencies, such as ministries of finance, ministries of agriculture, standards bureaus and tax authorities or customs officials. In addition to government rules and regulations, there is also an increasing number of private sector standards and certification systems that set rules to suppliers about food safety and food production systems.

The importance of key regulators in the value chain is frequently overlooked, although they play a critical role in the functioning of markets and the ability of agri-enterprises to participate in the value chain successfully. The legal framework is a critical part of operating modern markets, as this allows distant producers and traders to operate together within a system of **arbitration** that allows for rapid **dispute** settlements if trade agreements are not met.

Arbitration: Settling a dispute between parties by a neutral third party (known as the arbitrator), without taking court action.
Dispute: A conflict in the legal or business environment, e.g. a conflict of claims, rights, prices or demands of one party that are met by opposing claims from another party.
Product grading: The process of sorting units of a product into defined classes or grades of quality according to specified standards.

The role of standards in modern markets

In many developing countries, production standards and food safety standards are rarely considered, measured, inspected or enforced in the market chain. In this unregulated situation, there are few quality standards or standardised methods, agro-chemical limits or **product grading**. Instead, food products are grown according to traditional methods, combined with the increasing use of productivity enhancing agro-chemicals. Products are traded by using local measures, which vary according to product, market type and location.

Although most countries are part of a global agreement, known as the Codex Alimentarius, few developing countries actually put these measures into practice. In most points of sale, from roadside stalls to wholesale and retail markets, sellers use their local systems of sale and sales units, such as bowls, bags and cartons. Sanitary conditions at the farm or at points of sale along the chain are generally not inspected regularly, which means that handling conditions are subject to various forms of risks and hazards associated with infections, contaminations and highly variable produce quality. For the most part, conditions are such that food remains fit for consumption and the lack of standards in the food systems benefits consumers, in that it probably reduces food prices.

When problems arise in these types of food systems, such as spoiled food products, contamination, infections and occasional mass poisoning, there is no consumer protection and only limited ways of tracing the source of contaminated products.

Trade agreement: An agreement between two or more countries that stipulate the terms according to which goods and services can be exchanged.

As consumers become more informed and knowledgeable about their food systems and more aware of the risks of unregulated markets, they tend to seek out markets that offer them standardised goods. The most important driver of improving production and food safety enforcement is based on **trade agreements**. Countries that wish to sell their goods in more regulated markets must meet international conditions and trade agreements and the effects of global and modern market systems are slowly penetrating into emerging economies.

Because of distances involved in trading, buyers and sellers rarely meet. Therefore, trust is reinforced through the use of clearly defined standards, supported with documentation and certification. Standards are generally enforced through some form of agreement or contractual basis and the effectiveness of this system depends on a reliable legal system.

Food safety issues and standards

Markets across the world are changing rapidly and consumers are becoming increasingly aware of the benefits of good, wholesome food in their diets and the hazards of low quality and contaminated food. If farmers want to sell their produce in the more formal market options, they need to be aware of the market requirements and the penalties that they face, should their goods be unsuitable for sale or worse, found to be contaminated.

The food landscape across the world is ever-changing and organisations such as the United Nations Food and Agriculture Organization, (FAO) and the United States Department of Agriculture (USDA), combined with national food laboratories, are involved in major changes to manage the areas of food production systems, food quality, food handling, food processing and food distribution. This includes:

- Inspecting domestic products, as well as imports and exports;
- Conducting risk assessments; and
- Educating the public about the importance of food safety.

Based on a combination of public and private sector regulations, food safety and inspection services set standards to ensure that a nation's food supply—be that grains, fruits, meat, poultry or processed foods—are wholesome, safe and that the products are properly labelled.

Key areas of concern are finding ways to avoid infections caused by unsanitary food and water sources, leading to **cholera** and **typhoid infections**. Poor storage may also lead to major hazards, such as exposure to **aflatoxins** and **mycotoxins** and chemical build up.

Cholera: An acute infection that results in diarrhoea, severe dehydration and death.
Typhoid infection: A bacterial infection that can spread throughout the body and affect several organs.
Aflatoxin: A class of toxic compounds that are produced by certain moulds in food and that may cause liver damage and even cancer.
Mycotoxin: Any toxic substance that is produced by a fungus in food.

There are specific problems that are associated with food safety. These problems are outlined in the following sections.

Foodborne illness

Foodborne illnesses are the most general risk with food. These illnesses are usually caused by low sanitation production, storage and livestock facilities.

Food contaminants

While bacterial and viral contamination that cause foodborne illness are most people's primary food safety concern, there is also a wide variety of other substances that may be found in food and cause health issues. Heavy metals, such as lead, mercury and cadmium, are occasionally found in food. Ingesting heavy metals may lead to serious cases of poisoning and related diseases.

Pesticide exposure

Pesticides are food contaminants that are of increasing concern, particularly in countries with unregulated or unmonitored food production systems. Pesticides are used in many agricultural operations, from fruit and vegetable production to animal feeding operations.

Pesticide: A toxic substance that is used to kill weeds and insects.

GLOBALG.A.P.

The GLOBALG.A.P. originated in 1997 as EUREPGAP, which was an initiative by retailers belonging to the Euro-Retailer Produce Working Group. British retailers working together with supermarkets in continental Europe became aware of consumers' growing concerns regarding product safety, environmental impact and the health, safety and welfare of workers and animals. Their solution was to integrate their own standards and procedures and to develop an independent certification system for Good Agricultural Practice (GAP). The EUREPGAP standards helped producers to comply with European accepted criteria for food safety, sustainable production methods, worker and animal welfare, the responsible use of water, **compound feed** and **plant propagation materials** (PPMs).

Compound feed: A mixture of animal or vegetable products that are fresh or preserved or come from the industrial processing of these products that is created to feed livestock.
Plant propagation: The process of cultivating or creating new plants from sources such as seedlings, cuttings, bulbs and other parts of plants.
Plant propagation material: Plants and parts of plants that are used for plant cultivation or propagation.

Over the next ten years, the process spread throughout the continent and beyond. Driven by the impact of globalisation, a growing number of producers and retailers around the globe joined in, giving the European organisation global significance. To reflect both its global reach and its goal of becoming the leading international G.A.P. standard, EUREPGAP changed its name to GLOBALG.A.P. in 2007. GLOBALG.A.P. is currently the world's leading farm assurance programme, translating consumer requirements into good agricultural practice in a rapidly growing list of countries.

Complete Activity 1.5 in your workbook.

Complete Activity 1.6 in your workbook.

Session 1.6: Types of farmers and extension agents in agricultural value chains

Session outcomes

After completing this session, you should be able to:

- Identify the different farmer segments and livelihood categories in the agricultural value chain; and
- Explain the roles of different types of extension agents in the agricultural value chain.

Introduction

There are many different types of farmers, based on their assets, natural resources, farm size, expertise, technology use, access to markets, level of organisation, access to agricultural services and the types of products that they produce. Extension agents will come into contact with all types of farmers who they have to offer appropriate levels of support to. Therefore, they should be able to identify the type of farmers they are assisting, define their key attributes in terms of assets, risk profiles, investment levels and drive, and develop systematic plans in providing their limited resources effectively.

Farmer segmentation in the agricultural value chain

Farmers can be divided into the following segments (as identified by Bill Vorley):

- Rural World 1: Farmers who are globally competitive, embedded in agri-business, commodity producers and processors, politically connected, linked to formal markets and often export-driven;

- Rural World 2: Locally orientated farmers with access to and control of land, multiple enterprises, often undercapitalised and declining in terms of trade; and
- Rural World 3: Farmers known for their fragile **livelihoods**, limited access to productive resources, multi-occupational migrants straddling rural and urban residencies, unskilled and uneducated, and dependent on low-waged, casual family labour.

Livelihood: Individuals' ways of supporting their existence, both financially and in terms of their careers.
Livelihood strategies: The combination of activities that people choose to perform, in order to achieve their livelihood goals, e.g. productive activities, investment strategies and reproductive choices.

Categories of livelihood strategies

Categorising farmers and understanding their marketing aspirations is a critical step in providing them with effective extension services. In the increasingly challenging agricultural marketplace in emerging economies, farmers can also be categorised into the following three types of **livelihood strategies** (as identified by Andrew Dorward):

- Stepping up: Farming activities and investments aim to expand the farm enterprise, with a view to increasing production, income and the overall workings of the enterprise (an example might be accumulating productive dairy livestock);
- Hanging in: Assets are held and activities are carried out to maintain a certain livelihood level, often in the face of adverse socio-economic circumstances. For many of these farmers, agriculture provides only part of their income and that income level declines over time, compared to the income from other sources such as off farm work; and
- Stepping out: Existing activities are maintained with a view to provide a base for moving into different non-farming activities that have initial investment requirements, leading to higher

and or more stable returns, e.g. accumulating livestock as savings that can be sold to finance children's education or support a marriage. Alternatively, farmers may hold assets until they are sold to support urban migration, or to invest in other off farm social or political contacts and advancement.

Andrew Dorward's typology suggests that there is a group of progressive smallholders who are seeking long-term livelihoods gains through farming. There is also a larger section of farmers with a more limited livelihood horizon in farming, who may not be able to secure their livelihoods through single value chains. In order to improve their market opportunities and to play a more active economic role in the farming community, poorer farmers need additional types of support to build their use of technology and strengthen their business skills, so that they can take on a more commercial level of farming. Many poorer farmers also need support to diversify their incomes with other off farm and non-farming options to make ends meet.

The next generation of farmers will have grown up using ICT, such as mobile phones and computers, and will be seeking to integrate the advantages of this technology to improve their farming systems and link it with farm support services. In order to reach more farmers, this approach will have to be deepened, as farmers become more progressive and increasingly use technology to support and enhance their efforts in working with higher value and knowledge intensive systems, such as **horticultural crops**.

Horticultural crops: Garden crops that include fruits and nuts, vegetables, flowers and medicinal plants.

The different types of farmers require different types of extension services, ranging from the needs of individual farmers to farmer groups and cooperatives. This range of clients will pose challenges for extension services in supporting the next generation of farmers.

For extension agents working with poor people, these studies highlight the importance of taking people's current livelihoods and their longer term aspirations into account when developing extension programmes, particularly those programmes that aim at improving the market linkage options for different types of farmers. The changing demographic situation in rural areas also means that extension systems need to cater for more women and younger farmers in the future, which should stimulate:

- A shift in the gender ratios of research and extension agents to farmers; and
- A major shift in the use of communication technology to support more farmers with more timely and diverse information.

Extension agents in the agricultural value chain

Given the complex nature of the agricultural sector and the competitive nature of extension services, there are actually no organisations that can provide the full set of advisory needs that farmers require.

In the post-independence era, farmers relied upon government extension agents for their advice on production and storage options, as governments had marketing boards that procured farm produce. These government extension services were comprehensive and free.

However, since that time, governments have slowly withdrawn from buying goods and their ability to invest in comprehensive advisory services has dramatically declined. Most governments still retain a relatively strong research base for agriculture and they do have extension teams, but there are not nearly enough field agents to provide a proper advisory service. In some cases, there are several thousand farmers in the working area of one government field agent.

As the role and size of government extension has declined over the past 30 years, there has been a steady rise in the number of

NGOs that provide various types of agricultural advisory support to farmers. The NGOs are funded through a combination of foreign governments, international agencies, wealthy individuals and citizens who want to support smallholder farmers.

The NGOs and government contractors are often better resourced and offer more targeted support to farmers than the support that can be provided through government services. The NGO community has become fairly specialised over the past 15 years and their work is closely monitored and influenced by groups of experts who work with them, as well as the donor community.

In addition to the NGO community, there is also a growing number of private sector agricultural advisors. The private sector advisors cover a broad range of services, but they typically focus on supporting higher value commodity products, such as coffee, cotton and tobacco.

More recently, there has been a trend, which is supported by NGOs, to train local community members as fee-based service providers. This approach has been adopted to expand the range of service providers, but also to provide greater sustainability to the services being offered. NGOs typically only work in one place for a specific number of years, generally not more than five years.

Given the choice of service provision, farmers are selecting the type of service that helps them most and there is a trend among farmers to seek fee-based service provision, particularly among those who are gaining experience in market linked production systems.

In the following sections, the trends in the types of extension agents and the different roles each of these actors play within the value chain will be outlined.

Extension services for groups versus individual farmers

In the past, government and NGO sectors have focused much of their efforts on supporting the needs of farmer groups and farmer cooperatives. This may change with the increasing choice of service providers and it is likely that private sector providers will support individual farmers as well as groups of farmers.

National government agricultural extension agents

Traditionally, farmers in many countries have relied on agricultural advice and information from government extension agents. These agents are often long-term employees, which enables them to acquire a depth of experience about local cropping and livestock systems. They focus their efforts on specific geographic areas and they have close ties to national research organisations.

Because of changes in the extension environment, government agents often form the backbone of the long-term provision of advisory services, but in most countries they do not have enough resources to meet the demands of extension services.

As populations have risen, the ratio of extension agents to farmers has increased from a level of 1:50 in the 1960s to more than 1:1000 in many countries today. This significant increase in farmer numbers has not been met with a corresponding increase in government field agents and, as a result, many farmers never receive visits from government extension agents.

Many countries are also shifting their political structures from centralised governments to a more federated or decentralised system of assembly and service provision. This approach may improve the nature and efficiency of local services, but it also means that government extension services have to be managed within many local clusters. This may lead to inconsistent staffing and expertise across the country.

In order to fill the gaps, countries are increasingly turning to pluralistic advisory service approaches, which integrate government agents with other forms of service providers, including:

- **Lead farmers**;
- Local volunteer agents;
- Commission agents;
- NGO field agents; and
- Private sector service providers.

Lead farmers: Farmers who lead farmer-to-farmer extension services, based on their agricultural expertise.

All these services use various forms of communications systems to complement the knowledge of the field agents. However, there are only a few countries in which the various types of advisory service providers are linked into a common information network.

NGO agricultural extension agents

Over the past 20 to 30 years, there has been a rapid establishment of NGO-based extension agents who support an intensive investment programme in emergency and development programming. Although the NGO field agents do not have as long-term a tenure or as broad a coverage as the government extension systems, they are often better resourced and they have more clearly defined objectives and work plans.

The accountability and management expertise of the international NGOs and contracting companies for short-term interventions has often favoured them as implementing partners for externally funded agricultural projects. The contracting companies' access to resources has enabled them to strengthen their extension services.

Most government extension agents focus on basic production systems, whereas many NGO field agents have broadened their types of services to include issues such as financial education, savings and loans, business planning, nutrition and comprehensive farm planning, which includes diversification.

This complementary service can provide a more balanced service to the farming community.

The future of externally funded NGOs is not certain. Many observers are critical of the lack of sustainability of short-term project interventions and also the lack of coordination among the the hundreds of NGOs that operate in a single country. Also, as more countries shift from developing to middle income and the local talent pool expands, there will be less need to support such projects externally. It is likely that civil society will continue to provide development services, such as agricultural extension, but that the NGO agencies will be operated with national staff and resources, rather than relying on international and external talent and funding.

In the past, there has been a loose association and at times some rivalry between government and NGO extension services. Both systems and the farming community would benefit if the links between them were more accountable to a clear national plan and if the services were better coordinated.

Lead farmers and community-based agents

For many years, government and NGO field agents have relied on lead farmers to reach the larger farming community. Lead farmers are often the more progressive farmers within a particular community and they have a higher level of education than their peers. This means that they are likely to be literate and numerate, although this is not a general rule.

The lead agent acts as the host for field agent visits and organises the farmer group or farmer field school. The lead farmers typically have a demonstration plot, where they set aside land to show the benefits of new varieties, new production methods and provide a training point for demonstrating techniques like using agro-chemicals safely.

Lead farmers are a vital means of testing new ideas at a specific location and helping to scale out new innovations with other farmers. In some countries, lead farmers specialise in one area, such as crops, large livestock, small ruminants, tree crops, horticultural crops and fisheries, as no one farmer will have all of these skills and enterprises on their land. This differentiation of extension services helps to scale out information from field agents to the local farming community.

Lead farmers are usually not paid for their services, but the incentives for them to be part of the local system include:

- First point access to advice;
- Access to innovations;
- Local convening power; and
- Local respect and status as a leading member of the local farming community.

In some cases, lead farmers receive funds to feed farmers, who attend meetings and they may also receive uniforms and basic farming tools, particularly those who work with NGOs. Figure 11 shows the different types of extension services that are available.

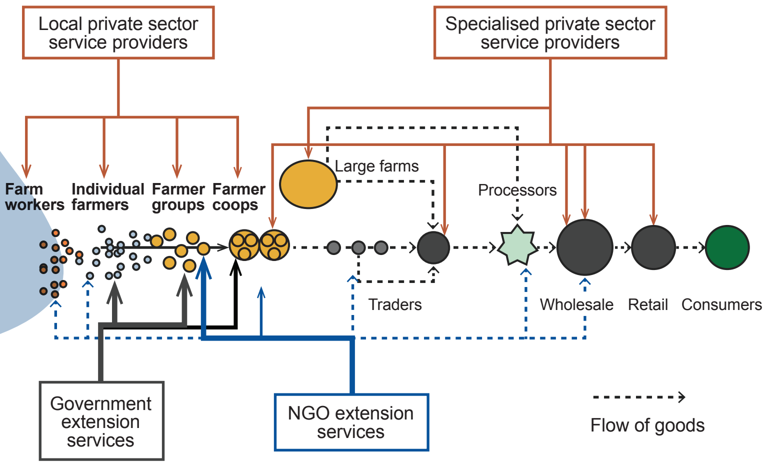

Figure 11: Types of extension services

Volunteer agents and mobilisers

Rising rural populations have stretched the traditional government and lead farmer model to a point where government extension agents cannot support the number of farmers in a local area. In order to address this problem, several countries have introduced a system in which lead farmers take on apprentices and mobilisers to share the information they receive. These apprentices, who are second **tier** agents referred to as mobilisers, attend meetings with the lead farmers and extension agents, after which they share the information with the farmers in their communities. The second tier farmers often set up their own demonstrations, but because they have to rely on their own resources, the quality of the second tier process is questionable.

Similar to the lead farmers, the volunteers and mobilisers access information and links with outside agencies. Other than transportation allowances or a bicycle, they do not receive financial rewards and gains, but they do receive the respect of their peers as local **knowledge brokers**.

Tier: A level within the hierarchy of an organisation or a system.
Knowledge broker: An individual or an organisation that develops relationships and networks with and between the producers and users of knowledge by providing linkages and knowledge sources.
Agricultural inputs: Products or resources that farmers use in farm production, e.g. seed, fertilisers and agro-chemicals.

Commission agents

As farmers make the shift towards more commercial and knowledge-intensive farming, they require access to improved **agricultural inputs**, such as improved seed of new varieties, fertilisers, tools and agro-chemicals. Input suppliers are steadily expanding their input supply outlets and networks to meet this demand. However, distance, knowledge and credit remain considerable barriers in terms of farmers taking on new technologies. In order to accelerate the process of marketing inputs to farmers, local input firms are hiring farmers as agents to help advertise their goods and to inform farmers about the benefits of using improved technologies.

Input supply agents can, in many ways, replace the traditional, production-based extension agent. This is because they have a good local knowledge of varieties that do well and they can give farmers advice on the most effective combinations of technologies and best practices in their local area. This has been seen in most industrialised countries.

This type of service through an input supplier is often called an 'embedded service' and the agents who provide the embedded service are known as 'commission agents'. In this case, the cost of the agent is not directly charged to the farmers, but is included in the cost of the products that they sell.

The commission agents' payment is based on their success at selling goods and services to the farming community. The more they sell, the higher their commissions will be. Many input supply agencies also double up as commodity buyers and credit agents, which offer the commission agents additional income streams through interest rates on credit and a share of the sales price as deals are made between farmers and traders.

Fee-based agents

As NGOs transition their roles from a large, paid field force to a lighter and more sustainable approach, there has been a shift from paid field agents and free services to farmers, to fee-based service providers. In this case, field agents are trained by NGOs to become local knowledge brokers, offering their services to the farming community at a fee.

In the past, farmers have been reluctant to pay for any services that were offered by the government for free. However, many farmers now realise that they are unlikely to receive the levels of support they need from government services. It has also become clear that farmer organisations need support from a range of service providers if they are to run competitive enterprises.

As such, there is a trend towards fee-based service providers and field agents, who offer services such as:

- Seed supplies;
- The application of agro-chemicals in field and in storage;
- Veterinary products and services;
- Financial education and links to credit;
- Farm business planning;
- Farmer group financing; and
- Advanced production advice.

These services are linked to the market and farmers are willing to pay for such support to enhance their financial and market performance.

The performance-related payments of fee-based agents are based on the sales of goods and services.

Private sector field agents

There are various forms of private sector extension services, such as those paid by producers and those paid by a lead firm. Private sector field agents are paid by a farmer or a farmer organisation to provide specialised training targeted at a specific product or sector. These extension agents work with farmers to help them sell higher volumes of quality produce to meet market requirements.

More commercial farmers pay for these services to increase their share of produce that will achieve the highest premium prices. For example, farmers want to sell more of the highest quality coffee to target buyers offering premiums, rather than selling average quality produce into the commodity markets.

When lead firms offer private extension services to farmers, it is often part of a contractual sales agreement. The extension agent is paid to work with farmers or farmer organisations to enhance production and quality. The field agents essentially ensure that certain production practices are maintained, that farmers grow a specific variety and that they are using a tested production system to meet the necessary quality specifications.

The field agents providing these services are assessed by the lead firm in terms of their ability to improve the supply of goods from the farmers. Farmers are keen to access this type of support, because it enhances their ability to increase income through sales of higher value goods.

The performance payments of the agents are based on sales of goods and services.

The power of partnerships

Given the large numbers of farmers seeking advice to improve their agricultural production and market success, there is an urgent need to find new ways of coordinating the various types of extension services offered to farmers—particularly with agricultural projects that have a limited timeframe.

In order to improve project implementation, there is a growing trend towards developing partnerships between organisations, so as to create a more comprehensive extension system and to provide a more coherent and sustained extension service to the farming community. Partnerships typically focus on particular areas or territories in which organisations can target specific farmers and farmer groups and in which extension agents can provide specific types of advice to farmers, based around a limited number of value chains.

This strategy of bringing together different extension agencies is the key to successful pluralistic extension efforts and, if it is done well, it can play a transformational role in linking farmers to markets.

Complete Activity 1.7 in your workbook.

Concluding remarks

Smallholder farmers in emerging economies play a significant role in agricultural and food production. However, these farmers are faced with several challenges in terms of entering the market and, therefore, they need the support of extension services and agents. Extension agents must understand the agricultural market in order to provide a meaningful support service to smallholder farmers. In this study unit, the agricultural market was explained as well as the value chain in the agricultural market.

Complete the summative assessment in your workbook.

Study unit 2: Market linkage methods

Study unit outcomes

After completing this study unit, you should be able to:

- Report on the changing conditions in and roles of rural communities;
- Explain different marketing strategies and approaches commonly used by smallholder farmers in rural areas;
- Identify the ways in which extension agents can help farmers gain a better understanding of their market options;
- Define the basic concepts involved in value chains and market linkage; and
- Demonstrate an understanding of the use of value chain methods for market linkage.

Study unit overview

One of the key responsibilities of extension agents is to help smallholder farmers to expand their productivity, extend their marketing options and improve their physical infrastructure. In order to do so, extension agents have to support farmers in identifying:

- The best practices to improve production for key crops; and
- Marketing opportunities.

One of the most important tools that can be used in supporting smallholder farmers is market linkage, which will be explored in this study unit.

Study unit introduction

For several decades, there has been a misconception that most farmers in rural communities and in the developing world are subsistence farmers. The image is that farmers grow food to eat and, if their harvests are poor, they starve. The truth is that all farmers, with the exception of those who are in crisis, are frequently linked to markets. Many sell their crops into the market after harvest and buy similar produce during the lean season. In this way, they use the market as a form of storage and cash flow instrument.

Misconception: A wrong conclusion, based on faulty facts.
Subsistence farmer: Self-sustaining farmer who only grows enough food to feed his/her family.

Session 2.1: Changing rural communities and marketing strategies

Session outcomes

After completing this session, you should be able to:

- Report on the changing conditions in and roles of rural communities;
- Explain different marketing strategies and approaches commonly used by smallholder farmers in rural areas; and
- Identify the ways in which extension agents can help farmers to gain a better understanding of their market options.

Introduction

Rural conditions are changing and rural communities are more varied and complex in their operations than they were 20 to 30 years ago. Rural people have increasingly diverse sources of income, which include income from the farm, but these are often complemented with income from off farm work, as well as income from seasonal work in nearby cities. Also, many rural families gain support through **remittances**.

Today, rural communities are not only seeking to improve the agri-enterprise opportunities for their traditional family farm, they are also seeking alternative options for learning, generating business options and improving the lives of their family members. Families are seeking better nutrition, better access to education and entertainment and improved medical facilities. If these options are not available in the rural areas, many members of the younger generation simply **migrate**.

Remittance: Funds that family members send from the city or that **expatriates** send to their families in their country of origin.
Expatriate: A person living in a country other than his/her country of citizenship.
Migrate: Relocate or resettle.
Smallholder farmers: A farmer who owns a small plot of land, on which they grow self-sustaining crops, and rely mainly on family labour.

Marketing strategies and approaches

Although farmers do engage with markets (as indicated in the Introduction), there are millions of farmers who do not have strong marketing skills, and many are not associated with some form of business organisation that could help improve their market performance. In this section, you will learn about the types of marketing strategies that are common with **smallholder farmers** in rural areas and different ways in which extension agents can help farmers gain a better understanding of their market options.

Opportunistic market sales

The majority of smallholder farmers in emerging economies produce sufficient food crops for their family needs. They work as individuals and are generally not part of a marketing team that is focused on production targets, achieving a specific quality or meeting new market requirements that offer premium prices. When harvests are good, these farmers sell small amounts of surplus produce of mixed quality to their nearest buyer, immediately after harvest. These farmers typically sell from their farm gate to local farmers or to travelling traders, who the farms use at harvest time. In some cases, the farmer sells the crop in the field and the traders make arrangements for harvesting and loading.

This type of passive or opportunistic approach to marketing has few costs and minimal risks, but this marketing strategy also attracts the lowest price for their goods. These farmers are often referred to as price takers, because they simply seek to offload surplus produce for the first offer of cash. It is common to find that these farmers do not know their production costs and, therefore, they may be selling their goods for less than what they have paid to produce them.

Informal sales agreements

For many farmers, a legal sales agreement is not an attractive option because it increases their marketing costs and requires a greater level of commitment to their co-farmers and to buyers. Farmers are often reluctant to take on these responsibilities, as they prefer the options of not selling, selling to an alternative buyer offering a better price or selling to a buyer at a time that is most convenient to them.

Smallholder farmers, who are more organised and who make plans to sell through their **cooperatives** often set up basic sales agreements with buyers. These sales agreements are not formal or legal documents, but they do help farmers to coordinate their activities with other farmers and assemble or combine their goods to sell to larger buyers. These informal sales agreements are often made on a handshake or through a letter of intent to sell.

Cooperative: An organisation that is owned and run jointly by its members (e.g. a group of farmers), who share in the profits.

Buyers have learned that it is often difficult to force informal farmers into legal contracts and have opted to offer farmers a sales agreement that indicates that the buyer has first offer of sale. Due to the volatility of market prices, few buyers set fixed price agreements, but they work on the principle that prices will be negotiated at the time of sale. These basic market agreements are a helpful first step in strengthening trading relationships. They allow buyers to provide specifications of sales, in terms of volume and quality aspects. They also allow farmers to set a target with the buyers, thereby helping with their internal production and marketing plans.

The advantage of the informal sales agreement is that it has no legal commitments and it can be set up quickly. The disadvantage of this approach is that it can easily be broken, as farmers fall back into **opportunistic selling** or **side selling**.

Opportunistic selling: Selling products at prices that are higher than their fundamental value.
Side selling: Selling products to another buyer who is not part of the sales agreement.

Contract farming and marketing

Contract farming provides smallholders with a direct sales agreement into a target market. The agreement is typically based on specifications such as price, quality standards and sales volumes. Contracting has many variations, but is generally supported by an intermediary firm, who secures the market and then sources produce with smallholders to increase supply volumes and control quality. These intermediary firms often support financing, technology and produce logistics which significantly reduces risks for smallholders.

Contracting is used in many formal trading arrangements for goods such as coffee, cocoa, cotton and high value horticultural produce for both domestic and export markets. As countries urbanise and food systems formalise, contracting is also used to meet food quality standards in food supply chains. The rise in formal food markets, such as fast food restaurants and supermarkets, has also increased contracting farming and marketing.

Contracting holds the following benefits for farmers:
- Access to a more consistent market;
- Highly competitive pricing, which, at times, (during times of market scarcity) may offer farmers slightly below prevailing market prices;
- Access to new technologies and finance; and
- Improved social capital through farmer organisations that provide opportunities for learning and future market opportunities.

The disadvantage of contract farming is that smallholder inclusion is often limited to start up phases, until the market is filled by larger, more competitive farmers. Smallholder farmers often carry the most risks and, if they accept loans to support production and the crops fail, they need to find some means of paying off debts, which may lead to selling their land and valued assets.

Vertical integration

Vertical integration is a business arrangement in which a single company owns the activities along a supply chain. In the classical vertical integration systems, a company owns the product from production to retail. The supply chains are typically made up of different actors and firms working together in a collaborative or contractual manner.

A more common approach to vertical integration is through production and marketing contracts, in which case businesses are locked into exclusive, long-term business arrangements to produce and supply a product. This model of integrated production and marketing is common for livestock—particularly poultry production across the world. Under production contracts, growers raise animals owned by integrators according to the conditions of the integrators. Production contracts include detailed conditions for growers who are paid, based on the efficiency of the use of feed, provided by the integrator, to raise the animals. The contract dictates:

- The construction of facilities;
- **Feeding regimes (rations)**, housing and medicating the animals;
- Handling of manure; and
- Disposal of carcasses.

Under these marketing contracts, farmers agree in advance to sell their animals to integrators under an agreed price system. These contracts generally protect the integrator from liability for the grower's actions and the only negotiable item is price.

Feeding regime/ ration: Specific nutrition formula that is fed to animals at different stages in their growth, e.g. chick mash, layer mash, and broiler mash when feeding chickens.

Certification schemes

Certification schemes, such as Fair Trade, have been supporting smallholder production for more than 20 years. Certification schemes are common in the retail sector and there is a number of leading certification agencies that offer marketing channels for smallholder farmers, including:
- Fair Trade;
- Organic;
- UTZ Certified; and
- Rainforest Alliance.

Recently, the certified market segment has been significantly promoted by major food processors, such as Mars Incorporated (a food and beverage manufacturer) and Ben & Jerry's (a leading U.S. ice-cream manufacturer), who are aiming to certify all their products. This approach is attractive to retail companies seeking to appeal to more ethical consumers, who want to buy goods that have a positive impact on the supplier and offer sustainable supplies.

Unlike contracting, which focuses on supply coordination, fair trade certification is based on cooperation. The schemes usually provide farmers with a minimum floor price for their goods and a premium price for highest quality goods. Apart from the commercial advantages, these schemes also offer a social development dimension, such as health clinics, schools and local road building.

Inclusive business models for building sustainable trading relationships

As formal markets expand and major companies extend their sourcing reach into local farming communities, there has been a rise in opportunities for smallholders to become suppliers of large corporate buyers. This association can be through direct sales or through aggregators or intermediaries selling into the formal system. Global trading companies and global brands, such as Unilever, Danone and Nestlé, are exploring ways to develop market chain partnerships that integrate smallholders into their global supply chains. For example, in the context of **market globalisation**, smallholder coffee farmers in Rwanda or cocoa cooperatives in Ghana can now access and compete on an entirely new level.

In general, the business case is a combination of firms that want to:

- Use **story-based selling** to reach the growing **ethical consumer market**;
- Seek ways to gain greater legitimacy in domestic markets in developing countries; and
- Develop new and different sources of supply to reduce their buying risks and to secure future growth in supply.

One of the best examples of story-based selling is a video—called Back to the Start—that Chipotle Mexican Grill created in 2011. The video tells the story of the heart and values of the company and its workers. The story became so popular that it became Chipotle's first national television commercial. You can watch Back to the Start on YouTube here:
https://www.youtube.com/watch?v=aMfSGt6rHos

Market globalisation: The decline of barriers to selling in foreign markets, thereby making it possible to sell products internationally.
Story-based selling: Selling in which storytelling and emotion is used to connect with customers' feelings of trust and liking.
Ethical consumer market: A market that is characterised by ethical and environmental concerns, such as animal rights, human rights and pollution.

Challenges with supply availability, consistency and quality when working with smallholder farmers increase the importance of partnership and co-investment, so as to ensure that the trade is well-structured and that producers reach market specifications. When successful, such partnerships can reduce risks for all parties and gradually build mutual trust.

A third-party facilitator, who understands the separate worlds of commerce and development, can play an essential role in supporting the creation of new and sustainable trading relationships. This type of third-party facilitation aims to bring value chain actors together and offer safe spaces where partners can learn about one another's challenges, share experiences and consider new ways of improving their individual businesses, while supporting overall chain-wide efficiency.

Creating a bridge between the worlds of informal and modern trading offers smallholder farmers the potential for more stable and profitable income. However, smallholders will only be successful in these markets if they can consistently meet the higher-quality requirements, volumes and competitive nature of the formal marketplace.

Case studies have shown that the following types of investments increase the chances of reaching poorer producers and improving the possibility of creating durable and beneficial trade:

- Adapting the trading relationships through the value chain to fit the unique needs of small-scale producers;
- Public co-investment in infrastructure, the management capacity of producer organisations and introducing technology options to enable farmers to meet market requirements and food safety regulations; and
- Changing the procurement policies, communications, strategy and culture of the lead firm where necessary to support the new trading relationships and maximise value.

Shifting from production to market chain approaches

For many years, development projects and extension teams have focused their attention on helping farmers to produce more. This approach works well when there are readily available markets and support services and farmers can access the markets without major challenges. However, this is rarely the case and interventions with a production focus have experienced numerous challenges to their long-term success. The most common problem is that, as farmers produce more when they use new technologies, they can rapidly over supply local markets, which results in low market prices.

A second phase of projects helped farmers to access improved production methods and then assisted them in their market linkage needs. Many projects invested heavily in helping farmers by taking on the role of local service providers and market agents. This approach can be successful, if farmers learn the skills that the extension team are providing. However, if farmers fail to understand the role of the support agencies, the seemingly successful farmers find it difficult to maintain their new levels of production and sales, when these services are withdrawn (e.g. at the end of a project). If they can no longer access the technologies, skills and market networks that were provided by the project staff, they rapidly slide back to their former low levels of production and sales.

In order to improve the sustainability of development projects and to avoid the problems involved in the previous two approaches, extension teams from civil society (NGOs) and the private sector have designed a more integrated approach and developed methods that invest more efforts into the production and marketing system. This integrated approach to development, which facilitates activities and builds relationships between input suppliers, farmers, traders, processors, wholesalers, retailers and consumers has become known as the supply chain, market chain or value chain approach.

Complete Activity 2.1 in your workbook.

Session 2.2: Value chains and market linkage

Session outcomes

After completing this session, you should be able to:

- Select the level of market analysis;
- Identify the clients of a market analysis;
- Identify the scope of a market analysis; and
- Explain the value chain approach to market analysis.

Introduction

Marketing systems in the agricultural sector are changing rapidly and extension agents are recognising the need to link farmers to markets and consumers. In order to address the changes and demands in the agricultural sector, the value chain approach is being followed. In this session, the importance of the value chain approach for modern extension service providers will be explored.

Terminology

There are various terms to describe the linkages between farmers and consumers. The most common terms include the idea of a chain of actors working together to support the flow of goods, knowledge and finance between the people. For the most part, these terms are used interchangeably, but there are some slight differences, which will be pointed out in the following sections.

Market chain

A market chain can be defined as a set of linkages between actors with no binding or sought-after formal or informal relationships, except when goods, services and financial agreements are purchased or sold. The term market chain is also referred to as supply chain.

Market chain actors

Market chain actors refer to the individuals, companies, organisations and associations within a market chain or value chain that are involved in producing, transporting, processing, trading or consuming a particular product. Depending on their position along the chain, other 'upstream' and 'downstream' actors seek to capture market share, increase profit margins and deliver maximum value for the least possible cost.

Supply chain

A supply chain is a market chain that supplies a particular customer, meeting their particular product specifications and procedures. Most large agri-food companies operate supply chains processes and procedures and many have preferred suppliers, but they may not have long-term business strategies that link them to suppliers. Supply chains often do not have direct links to specific farmers, which means that the supply chain approach begins with a market supplier.

Value chain

A value chain is a specific type of supply chain in which actors support one another, so that they can increase their overall efficiency and competitiveness. Value chain actors invest time, effort and financial resources and build relationships of trust with other actors to reach a common goal of satisfying consumer needs and increasing profits.

Figure 12 illustrates the comparison between the value chain and the traditional supply chain.

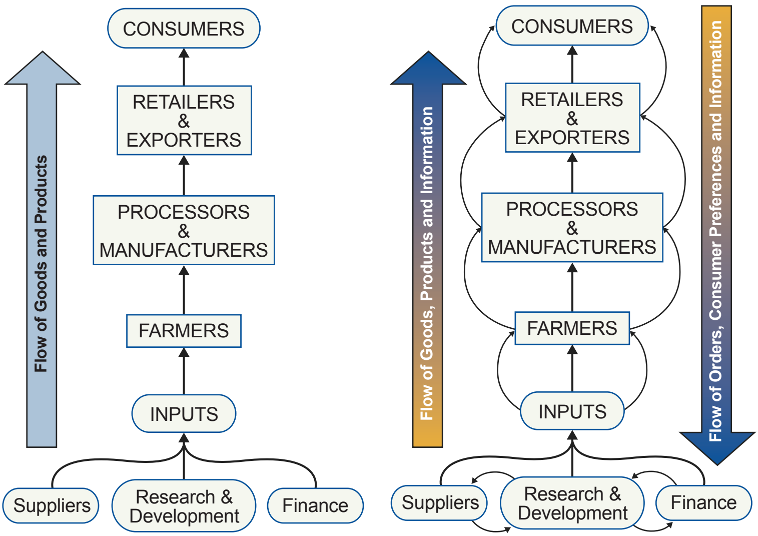

Figure 12: Traditional supply chain (left) and value chain (right)

Value chains for market linkage

One of the most successful methods for linking farmers to markets that has emerged in the past 20 years in the agriculture sector is the value chain approach. This methodology not only assists farmers, but takes a systems view with support all along a chain of interested actors who work together to improve their marketing prospects.

A typical value chain project begins with a product selection process. Based on this decision, a market analysis is conducted for that product. Based on the results from this analysis, the marketing team leading the work then sets up meetings to introduce like-minded actors along a chain to explore prospects for developing business linkages. The value chain process then brings together interested actors from the core chain, BDS and other regulatory agencies, if needed, to develop and invest in a value chain upgrading approach.

The goal of an extension organisation and individual agents in a value chain process is not only to identify markets and establish value chain trading relationships, but also to build the capacity of local farmer organisations and their service providers to link into existing or emerging value chains and help them to scale out the market linkage approaches. In the long term, the aim of the value chain approach is to improve the chain-wide, systems level operations, so that more people in the value chain or sector benefit from an upgrading process that establishes durable trading relationships.

Key steps in a value chain approach

Value chain upgrading varies in intensity, depending on available funds and the interest of partners. An upgrading process may be low cost and local, or it may include major investment from many sources, with diverse improvement areas. However sophisticated the investment, the following basic steps are followed:

- Targeting products and locations for upgrading and development;
- Market analysis to identify demand and supply flows for a product;
- Selecting like-minded partners interested in investing in a value chain upgrading process from inputs through production, processing, trading to retail;
- Identifying and organising farmers who are either already working on the target product or are interested in investing in production to supply the target traders and processors;
- Prioritising investments along the chain to improve efficiency in productivity, quality, processing efficiency, market share and prices;
- Farm level support:
    - Farmer organisation and establishing governance;
    - Business plan development;
    - Identifying improved production technologies to enhance productivity;

  - Identifying financial services to meet business plan investments;
  - Post-harvest management to maintain produce quality after storage;
  - Sales of standardised units of sale of an agreement quality;
  - Agreements of terms and conditions for sale to first link buyer;
  - Basic value addition to produce such as:
    - Aggregation/bulking of goods after harvest;
    - Cleaning;
    - Grading;
    - Packaging;
    - Storage;
- Chain actor support, which includes:
  - Selecting chain actors engaged in target product and location;
  - Identifying inefficiencies in the existing chain;
  - Identifying financing options;
  - Analysing and developing investment options to:
    - Increase market share;
    - Improve premiums/percentage of higher grades;
    - Identify higher value markets;
    - Link in associated products;
  - Business development services: analysing existing and required business services;
    - Financial services review;
    - Policy review and analysis, including a review of the business environment and political economy; and
    - Chain wide support:
  - An agreed process of upgrading with metrics to assess performance;
  - Sharing information on prototyping and upgrades; and
  - Co-investment plans.

The importance of the value chain approach for modern extension organisations

The value chain approach is one of several market systems approaches that are used in market-based agricultural development projects. The value chain approach seeks to understand the needs of core chain actors—i.e. those people who buy and sell products from farmers, traders, processors, wholesalers and retailers, as well as consumers. This approach also seeks to identify the key business development services, such as input suppliers, advisory services and financial services that support the competitiveness and efficiency of value chain operations. The value chain approach is popular with donors, companies and development teams, as the principles of the approach can be applied to a broad range of products, locations and types of farmers. The approach can be used for vulnerable farmers who are seeking basic market linkages with a local informal buyer up to sophisticated value chains. These value chains include many different levels of buyers and services and particularly those types of business relationships which stretch across the informal to formal market sectors.

End markets and levels in the value chain

The end markets—local, regional or international—into which a product or service is sold, provide the opportunities and set the **parameters** for economic growth. Generally, there are multiple actual and potential end markets, each with different demand characteristics and returns. Therefore, it is important to provide details on each of the potential end markets, what is required to compete in them, and what benefits and risks can be expected by selling into them. As all markets are dynamic, the identification of **trends** should complement information about the current situation.

Parameter: An element or a characteristic that defines, limits or controls a particular system or sets the conditions of its operation.
Trend: A general direction, course or tendency.

Methods of analysis include:

- Average price trends at target markets over five years;
- Changes in demand for a target product; and
- Market integration information.

Understanding the role of the different levels in the value chain is fundamental to the value chain approach. The value chain analysis (which will be discussed in the next study unit) should provide information on:

- The roles and importance of the core actors, business development services and the governance structures;
- The power dynamics within a chain; and
- A review of the business environment and maturity.

Power dynamics and governance

The power dynamics describe the organisations or companies in a value chain that determine and enforce the terms according to which actors in the chain operate. In many value chains, there will be a lead firm that seeks to drive change. These firms may also provide detailed information on the specifications of the products they want to buy, as well as requirements for the method of production, storage and packaging of a product.

The form of value chain governance is influenced by the characteristics of the product, the level of formality within the market and the type of end market. Governance patterns also develop over time as markets, products and inter-firm relationships change.

Quality of relationships between actors in the value chain

The quality of relationships between different stakeholders is a key factor affecting a value chain's function. Strong, mutually beneficial relationships between market actors and firms facilitate the transfer of information, skills and services, all of which are essential to upgrading.

Value chain opportunities and constraints generally require a coordinated response by multiple firms in the chain—which

Social capital: A network of social or economic institutions and individuals that cooperate to create a collective value chain.

requires trust and a willingness to collaborate and often to co-invest at specific points in the chain. In this way, the value chain approach emphasises building **social capital**, which is critical to business and competitiveness.

In contrast to the enterprise development work that was done in the past, the value chain approach involves more than solving specific farmer-based production and marketing problems. Directly solving farm-based problems may create some initial momentum, but building the internal capacity to address value chain constraints empowers stakeholders, reduces dependency and ensures sustainability of investment impacts.

Therefore, the focus of the value chain approach is on transforming relationships, particularly between individual actors, organisations and firms linked vertically in the value chain. When this is applied to smallholder farmers, the process seeks to:

- Identify markets that farmers can access and supply;
- Identify value chain partners to support market access for smallholder farmers;
- Facilitate upgrading farmers and value chain partners to become more competitive within a target value chain;
- Build capacity to adapt to changes in end markets, in the enabling environment or within the chain, to remain competitive;
- Support value chain actors to make upgrading decisions based on a variety of financial and non-financial incentives; and
- Create a capacity and drive for continual upgrading and innovation to meet the needs of dynamic markets.

In order to influence the uptake of new market behaviours, the value chain approach seeks to understand business and cultural norms, risk tolerance levels, environmental factors and other non-financial factors. The role of agricultural advisory services is to find the right mix of partners who can support this process, combined with a set of upgrading activities that are supported by the actors.

Limitations of value chains

Although the value chain approach has been proven as a highly successful methodology, it does not solve all the problems that farmers experience. In spite of its success in extension services, the value chain does have a number of limitations, including:

- Farmers may be extremely effective and efficient at growing a particular product (e.g. high quality coffee), while remaining extremely poor;
- Market forces are beyond the control of farmers and market prices for a single commodity can plunge to below production costs, sometimes for many years. For example, if there is a massive overproduction of coffee in Brazil, it may mean that no traders in El Salvador or Uganda want to buy the coffee from their countries;
- Value chain projects also tend to work on only one product that a farmer grows. Most farms produce a multitude of different products, but the support they need to be competitive in honey or fish production will not be provided by coffee value chain interventions;
- In the most advanced cotton value chain, farmers may still find that they are not making ends meet if the entire farm is considered as an enterprise; and
- Many smallholder farmers need help with farm planning, as well as additional support in other areas, such as:
  - Being food secure;
  - Effectively running a mixed model farm; and
  - Improving the overall well-being, diets, education and medical needs of their families by using their farm assets optimally.

Beyond value chains

Despite these limitations, value chain methods are not likely to disappear soon and the approach has many aspects that are attractive to farmers and companies alike. However, since there are limitations, extension agencies need to consider these challenges when creating the next generation of support services.

New approaches must consider the profile of farmers in the future in terms of questions such as:
- Will the next generation of farmers be younger than the current average of 55 years?
- Will they be better educated?
- Will more farms be fully operated by women when the men migrate to urban jobs?
- Will farm sizes continue to reduce or will there be a new type of rural investor who starts to collect land to improve the economies of scale for farm lots?

The next generation of farmer support interventions will need to understand trends in the rural farm space fully and find new ways of combining:
- Working with different types of institutions;
- Public and private partnerships;
- Single value chain enterprise options versus whole farm business planning;
- Developing diversification plans from the outset of a project;
- Part time/off farm livelihood strategies;
- New financial models; and
- Use of ICT in knowledge brokering and market linkage.

Complete Activity 2.2 in your workbook.

Concluding remarks

In this study unit, the changing conditions in rural communities were explored, as well as rural people's need to improve the agri-enterprise opportunities for their traditional family farm. The different types of marketing strategies that are common with smallholder farmers were also discussed. These include opportunistic market sales, informal sales agreements, contract farming and marketing, vertical integration, and certification schemes.

As a result of the changing conditions in rural communities, marketing systems in the agricultural sector are also changing. Therefore, extension services are applying the value chain approach—in an attempt to address the changes and demands in the agricultural sector. In this study unit, the key steps in a value chain approach were discussed.

Complete the summative assessment in your workbook.

Study unit 3: Analysing markets and value chains

Study unit outcomes

After completing this study unit, you should be able to:

- Define the type, scale and level of the market analysis; and
- Outline the nature and use of the most important toolkits and approaches to value chain development.

Study unit overview

This study unit focuses on the analysis of the market. The scale and level of the **market analysis** will be addressed, as well as the use of different toolkits and approaches to value chain development.

Study unit introduction

In the agricultural context, a market analysis is generally defined as the study of the demand and supply characteristics and the roles of market actors for a particular product (e.g. maize), or a sub-sector (e.g. grains) within a defined geographic area. The purpose of the market analysis is to provide a potential client or investor with information about the opportunities and threats involved in a particular market opportunity. The results from the survey should help the client to make a decision on whether to invest in the target market or not.

Market analysis: The study of the demand and supply characteristics and actors for a particular product (e.g. maize), or a sub-sector (e.g. grains) within a defined geographic area.

A market analysis provides information on:

- Market size, demand and growth rate;
- Mapping the market locations and market flows
- Identifying key actors in the market and their roles;
- Trends in the market;
- Product grades, prices, volumes and quality;
- Distribution channels;
- Industry cost structure;
- Investment levels required for entry into the market by client type;
- Key success factors;
- Risk factors:
    - Production requirements; and
    - Financial requirements;
- Market profitability;
- Time from investment to first income;
- Time to the **breakeven point**;
- Policy options; and
- Research needs.

Breakeven point: The income that is needed to cover the total amount of the expenses of a business during a particular period.

Session 3.1: Defining the type, scale and level of the market analysis

Session outcomes

After completing this session, you should be able to:

- Select the level of market analysis;
- Identify the clients of a market analysis;
- Identify the scope of a market analysis; and
- Explain the value chain approach to market analysis.

Introduction

A market analysis requires basic planning parameters, which should include answering the following questions:

- Who is the target client(s) for the study?
- What is the target product(s)?
- What is the purpose of the study?
- What is the geographic scale of analysis for the study?
- What is the budget for the study?
- What is the timeframe for the study?
- Who are the team members involved in the analysis?

Key areas of interest for all the types of agricultural marketing studies are:

- Demand analysis (growth, trends, potential);
- Supply analysis (actors, margins, bottlenecks);
- Major challenges (threats) and opportunities (technology, organisation, services, policy); and
- Realistic business opportunities (maturity of the market and client focus).

This session outlines the most important aspects of planning a market analysis, as well as the methods that are used to define the market study.

Type, scale and level of the market analysis

In the following sections, the most important elements involved in planning a market analysis are discussed.

Selecting the level of market analysis

One of the first decisions to make when planning a market analysis is to decide on the level of analysis. The five levels of market analysis are outlined in Table 3.

Table 3: Levels of market analysis

Level	Type of analysis	Examples
Sector analysis	Broadest level of analysis. Focuses on the product sector at a national level.	All the cereals grown in a country (i.e. nationally).
Sub-sector analysis	Focuses on one or a cluster of products from a sector, e.g. maize. Typically national level.	Maize sub-sector, focusing on the main producers and main markets.
Territorial analysis	Focuses on a product within a target area. Provides more details on the product marketing system as it applies to a particular geographic region.	Maize production and marketing within a county. Useful for local government studies.

Level	Type of analysis	Examples
Value chain	Focuses on a set of specific actors who are producing, buying and selling a specific product and targeting an identified set of end markets.	Discrete set of actors who are working together to produce and sell maize to a target buyer, e.g. maize being sold into a specific miller, who is selling high quality maize to richer urban clients.
Community market	Focuses on a particular set of markets that are typically close to the producers.	Generally enables farmers and their extension agents to be involved in a specific market study.

Clients of a market analysis

Market studies are now a common requirement for policy analysis, project development, investment plans and as part of the information that farmers require for their business planning. The type of market analysis and the level of detail in a market report depends on:

- Who is financing the study;
- Who is conducting the analysis; and
- The intended level of investment based on the study.

International development agencies who are bidding for a large development project are frequently required to undertake a general market analysis for a specific area and product(s), in order to determine the plan for future investments. This type of study needs to collect information required by a project assessment committee to assess the bidding team's ability to define logical investment options with evidence of market demand.

If a bank is looking for information on a forthcoming investment to upgrade a sector or a product or to finance a localised project, it will require more attention to the financial and profitability forecasting of the intended plan.

Farmers looking to gain a better understanding of their market options within the nearest cluster of markets need to focus on how to collect and assess market options quickly from local buyers, prices and volumes of procurement, so that they can decide on which product to invest in as a marketing group.

In each case, the marketing study lead needs to work with the client to define the most critical areas of information required and the level of detail needed, so that the client can make an investment decision.

Geographic and product scope

The scale of a market analysis should fit the investment plans and the needs of the target clients. The geographic scope of the analysis also depends on the associated scale of expected interventions based on the study.

Global analysis

In order to provide the context for a market analysis, it is often useful to collect the basic global market conditions for a product. For example, in a market analysis of cocoa with the aim of increasing the national production of a target country, information on the existing global market conditions should be collected, as national level interventions are likely to impact on global conditions. Therefore, the key areas of the study should cover these points.

Global market studies focus on high level information and essentially aim to provide a useful framework in which to assess the implications of, for example, upgrading a target sub-sector. This type of analysis provides information on:

- Trends in the global marketplace;
- Key factors such as volumes, prices and major players in the market;
- Critical challenges or risks;
- Product varieties; and
- The quality specifications linked to target market outlets and price premiums.

Sub-sector market analysis

For large development projects, market studies tend to focus on a particular sector or a cluster of product(s) within a country or a region. At this level of analysis, the marketing team focuses on aspects such as the levels of production or supply at the major production zones, which provides a better understanding of the national supply channels. The sub-sector analysis determines the main markets on the demand side, where the product(s) are sold, and provides information on major trends in market demand, geographic supply channels, lead firms, major opportunities and key challenges within the target market.

A sub-sector analysis provides the following types of outputs:

- Market demand criteria with opportunities and challenges;
- Overall perspective of product flow;
- Major technical opportunities and challenges;
- Basic competitiveness of the sector in target areas;
- Identification of key business players operating in this sector;
- Main business prospects;
- Main competitors or competition;
- Financial services;
- Maturity of the business environment;
- Review of the political economy;
- Innovation and research needs; and
- Major policy implications.

At the sector and sub-subsector levels of analysis, the information will be general in terms of the actors involved. This type of analysis generally does not provide specific investment information, but rather gives the overall perspective of the business maturity and key market opportunities.

Territorial analysis

At the sub-national area, the territorial approach is a market-based analytical method that is focused on agricultural development studies at the district or county levels. This type of analysis is increasingly relevant as countries decentralise and you, as the extension agent, need to understand the market opportunities to support your areas of operation and your territories.

The territorial approach goes beyond a market only assessment by also taking social and environmental issues into consideration. Territorial analysis has become popular because of the increasing concern for the environment that has prompted international organisations and development finance institutions to realign their portfolios to support methods that combine productivity gains, social support and natural resource management when investing in farmer livelihoods.

This approach advocates for local development institutions and private services within a defined geographic area to work with farmers to establish and build agri-enterprises that are both economically viable and environmentally sound. The three essential criteria for selecting an enterprise focus on:

- An accessible market;
- Profitable production potential; and
- Smallholder farmers producing a product without damaging the environment.

Results from a territorial study are specific to a particular geographic area, which allows for more detailed results than the sub-sector analysis. At the farm level, the territorial analysis places focus on the following three key areas:

- Productivity;
- Profitability; and
- Environmental sustainability.

However, the results will provide the following types of outputs:

- Geographic boundaries;
- Asset list from the target area: population, landholdings, roads, power, key markets, etc.;
- List of key products:
  - Insights into comparative advantages for target products; and
  - Overall perspective of product flow;
- Supply side information for target products:
  - Main production zones;
  - Production methods;
  - Costs of production; and
  - Farmer organisations;
- Market demand for target products:
  - Major production opportunities and challenges; and
  - Competitiveness (global, national, local);
- Identifying key business players operating in the territory and product portfolio:
  - Main business prospects;
  - Constraints to business development; and
  - Major firms, insight into the competitors or competition;
- Financial services;
- Availability and capacity of BDS;
- Innovation and research needs; and
- Major policy implications.

Figure 13 illustrates territorial analysis.

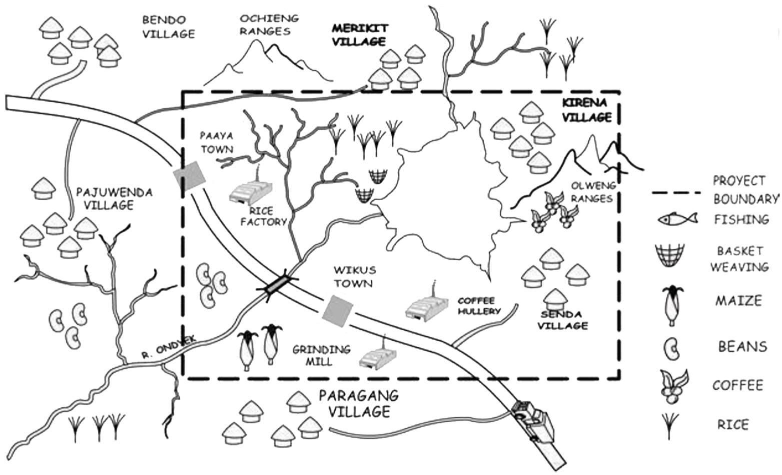

Figure 13: Illustration of territorial analysis

Community level market analysis

At the more local level, e.g. at the sub-county or community level, farmers and farmer organisations can work with local service providers to conduct market analyses. This is typically done through market visits, but instead of farmers only going to the market to sell, they visit the markets to collect and record market information and to report to their member farmers in the village. Participatory market studies require farmers to work with their extension agents to identify target traders and transporters, who are working on products that they want to sell, and set up a systematic approach for asking them about their buying habits and discussing terms and conditions of sale. At this local level, farmers focus on a few target markets and a specific product or short list of products.

Community level analysis uses a simple set of repeatable questions that can be applied at the market, to travelling traders and to various other market actors in a market chain. The questions focus on the following information:

- Name and contact details of the person being interviewed;
- Product type of interest;
- Price being offered to buy;
- Annual changes in prices;
- Times of highest demand;
- The times of lowest supply;
- The quality of the product required;
- The volume or quantity that the person intends to buy;
- Frequency of buying;
- Any key quality traits (variety, colour, size, dry matter, etc.) that improve prices; and
- Terms of payment.

Value chain analysis

Value chain approaches aim to both upgrade opportunities for farmers in the informal markets and to explore opportunities to link informal small-scale producers to more formal markets, at the local, regional and export market levels. The value chain approach takes a systems perspective with each project, focusing on a single product or a sub-sector. For the world's estimated 500 million smallholder farmers, shifting from opportunistic sales to participation in more consistent and formal agricultural value chains brings opportunities for more stable and increased income. However, the aim of value chain work should not be to link the most vulnerable farmers to highly demanding markets. In most cases, upgrading within informal markets is the most practical strategy and, although connecting small-scale producers to more formal and global markets may offer more lucrative markets, it should be noted that this is not a simple task.

Formal markets are highly attractive to farmers and their cooperatives because of the access to better prices, better services and new technologies, but these markets also come with increasingly strict requirements—including quality and food safety standards, consistency and traceability, and often certified standards, which require regular communication and coordination along the value chain. Value chain processes recognise the following three dimensions that need to be understood and analysed to build business plans for farmers:

- Regulation and infrastructure;
- Core chain actors; and
- Services.

Figure 14 shows the three dimensions of the value chain process.

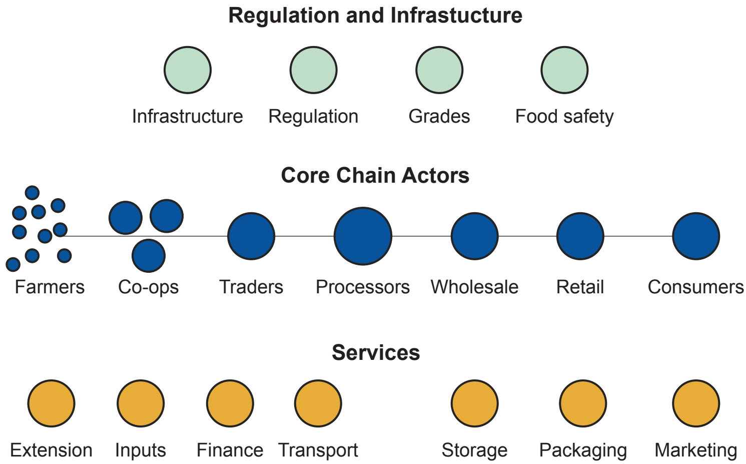

Figure 14: Three dimensions of the value chain process

Throughout the value chain analysis the lead investigator—be that an extension agent, a markets expert or a researcher—has to make sure that information is collected at the three key levels of the value chain:

- Core chain actors;
- BDS (including finance); and
- Regulatory and policy actors.

A value chain analysis is the basis for investment and, therefore, it is more detailed and provides the following type of information:

- Supply chain diagram;
- Price graphs (seasonality, trends, etc.);
- Price margins along the value chain;

- **Problem tree analysis**; and
- **SWOT analysis.**

The participatory tools that can be used in a value chain analysis are outlined in Table 4.

Problem tree analysis: A planning tool that maps out the causes and effects of an identified issue or problem.
SWOT: Strengths, weaknesses, opportunities and threats.
SWOT analysis: A framework that is used to analyse the internal strengths and weaknesses of a company or a project and the external opportunities and threats.

Table 4: Participatory tools used in a value chain analysis

Tools	Reasons for using the tools	When to use the tools	Time
Focus groups	To gain information on a particular issue or product from a representative group of people who can provide information on behalf of a community. Can also be used with consumers, if information on their perception about certain products is required.	Any stage in the analysis that provides an opportunity to collect information from representative groups in the market chain, such as farmers, traders and consumers.	2–3 hours

Tools	**Reasons for using the tools**	**When to use the tools**	**Time**
Ranking and weighting	To find out what farmers are growing and the priority of these products in relation to income and market linkages. May also be used to rank constraints (restrictions or limitations) in production and marketing.	At the participatory diagnosis phase to select and prioritise products for further market investigation.	2–3 hours
Historical calendars	To determine: When major events in the community occurred over the past 10–15 years. Who supported the community. What went well and what did not work.	At the participatory diagnosis phase to find out what has worked, list local service providers and evaluate their value to the community.	2–3 hours
Market mapping	Provides farmers, traders and service providers with a simple means to express their current understanding of their market links and relationships for specific products.	Having selected a product, this method is used to map out the production and marketing links and relationships.	2 hours

Tools	Reasons for using the tools	When to use the tools	Time
Evaluation of BDS	To gain an inventory and quality assessment of BDS that work/worked in the project area and to identify successful innovations.	At the outset of the analysis to discover existing services and how these support market access.	2 hours
Market visits	All market surveys will collect information from a range of marketplaces, but market visits enable the team to incorporate chain actors, such as farmers or extension officers, into the process to expose them to basic market analysis.	In situations that involve a high degree of participation of farmers, for example, and for capacity building processes.	1–3 hours, depending on the scope of the analysis
Learning journeys	A method that enables actors along the chain to come together and follow products down the market chain to experience and appreciate the constraints and opportunities of each actor.	Commonly used by larger corporate buyers who are unfamiliar with their market chain beyond their direct suppliers.	1 week

Tools	Reasons for using the tools	When to use the tools	Time
Semi-structured interview	A flexible investigative method that is used to collect information from diverse actors and determine critical issues, particularly in terms of opportunities, constraints efficiencies and incentives.	Used throughout market analysis to collect information on access to services from all actors within the market chain.	1 hour per interviewee
Structured interviews	Focused study approach to collect information in a standardised manner and to compare responses to common questions across defined response groups, e.g. rich/poor farmers/traders, etc.	Before or after a semi-structured study to gain insights into more specific issues.	1 hour
Direct observation	Used to compare an interviewee's information against their behaviour or marketing activities.	Used to clarify information that is unclear, to confirm the scale and scope of an activity.	15 minutes

Complete Activity 3.1 in your workbook.

Session 3.2: Extension toolkits for value chain development

Session outcomes

After completing this session, you should be able to:

- Outline the nature and use of the most important toolkits for and approaches to value chain development.

Introduction

During the last few years, extension and aid agencies have shown a keen interest in market development approaches, while there is a growing interest among businesses about social investment, sustainable business practices and fair trade. In all these approaches, value chain development is seen as essential for sustainable development.

The value chain approach has distinctive features in terms of both the scope used in analysing an industry and the tangible and intangible considerations used in designing and implementing interventions. The following features of the value chain approach are also relevant to other economic development approaches:

- A market system perspective;
- A focus on end markets;
- Understanding the role of value chain governance;
- Recognition of the importance of relationships;
- Facilitating changes in firm behaviour;
- Transforming relationships;
- Targeting leverage points; and
- Empowering the private sector.

Toolkits and approaches to value chain development

In the following sections, the most important value chain development approaches, initiatives and toolkits will be discussed.

Microlinks

Microlinks is a platform for sharing good practice in inclusive market development around the world. The site is supported by ACDI/VOCA and it documents the USAID value chain approach to drive economic growth with poverty reduction through the integration of large numbers of micro and small enterprises (MSEs) into increasingly competitive value chains. By influencing the structures, systems and relationships that define the value chain, USAID helps MSEs to improve or upgrade their products and processes, thereby contributing to and benefiting from the competitiveness in the chain. Through this approach, USAID enables MSEs—including small-scale farmers—to create wealth and to escape poverty.

You can access the Microlinks website here: https://www.microlinks.org/

Making Markets Work for the Poor (M4P)

Making Markets Work for the Poor (M4P) is an approach to poverty reduction that donors such as DFID, DFAT, Sida and SDC have been supporting since the early 1990s. The central idea is that the poor are dependent on market systems for their livelihoods and, therefore, changing the market systems to work more effectively and sustainably for the poor will improve their livelihoods and consequently reduce poverty. More accessible and competitive markets make it possible for poor people to find their own way out of poverty by providing them with more real choices and opportunities. Competitive markets also have the benefit of stimulating investment and encouraging firms to innovate, reduce costs and provide better quality jobs, goods and services to more people (The World Bank, 2016).

Territorial approach to agri-enterprise development

The territorial approach to rural agri-enterprise development includes a number of methods and tools that have been developed over the past 20 years by the Rural Agro-enterprise Development Project team and its partners through the project work in Latin America, Africa and Asia. The aim of this set of methods and tools is to meet the entrepreneurial development needs of service providers—i.e. institutions and agencies that support the development of rural communities.

The methods can be used for capturing and systematising market information for the development of new agri-enterprises and effective local business development services. The goal of this work is to enable service providers to empower rural communities to engage more effectively in the marketplace, so as to increase their income, their capacity to innovate and ultimately to expand their livelihood options.

The International Centre for Tropical Agriculture (CIAT) and the Catholic Relief Services (CRS) team developed the Territorial Approach to Rural Agro-enterprise Development, which has the following four components:

- Participatory guide to developing partnerships, area resource assessment and planning together;
- Identifying market opportunities for rural smallholder producers;
- Guide to participatory market chain analysis for smallholder producers; and
- Guide to strengthening BDS in rural areas.

Since the development of this first series, the following three supplementary guides have also been developed:

- Market facilitator's guide to participatory agri-enterprise development;
- Advice manual for the organisation of collective marketing activities by small-scale farmers; and
- Guide to rapid market appraisal for agricultural products.

These guides can be downloaded from the website via the following link: http://www.crsprogramquality.org/

SMART skills for smallholder farmers

The territorial agri-enterprise development guides were written for project teams and their managers to design and implement agri-enterprise projects. However, as the projects were being implemented, it was found that field teams also needed more basic learning materials to help the field agents working directly with farmers. Based on this requirement, the CRS team worked with a number of other NGOs to develop and test a series of training materials that would provide support directly to the field teams and field agents when working with farmers and farmer groups.

As part of the research conducted by CIAT and the Agro-Enterprise Learning Alliance of the CRS, one of the research questions was: What skills do smallholder farmers need in order to succeed in the marketplace? The research revealed that farmers living in the poorest areas around the world were all trying to acquire the same five skills, which were named **SMART skills**.

SMART skills: Skills for Marketing and Rural Transformation.

Contrary to traditional development interventions, which often focus on helping farmers strengthen their capacity in one skill at a time, the SMART skills approach aims to strengthen all the skills that farmers need in order to create effective and sustainable linkages to markets. The curriculum presents an integrated and sequential approach to strengthening the capacity of farmers—both men and women—to link with markets and to manage their resources.

The SMART skills curriculum

CRS created the SMART skills curriculum, with the support of 132 practitioners from 19 organisations and twelve countries. These partners helped to develop, test and refine the modules, which were published for further testing, while the Modernizing Extension and Advisory Services (MEAS) of USAID provided financial support. The SMART skills curriculum has also been endorsed by the Technical and Operational Performance Support (TOPS) program, funded by USAID/Food for Peace.

Each module in the curriculum has the following four parts:
1. Lessons that provide the necessary technical information and guidance on delivery methods that field agents should use to teach the SMART skills to farmers;
2. Quizzes for field agents to test their own knowledge;
3. Staff exercises that give field agents the opportunity to practice their skills; and
4. Field exercises to use when training farmers.

The following manuals are used in the SMART skills curriculum:
- Introduction to the SMART Skills for Rural Development;
- Organizing and Managing Farmers' Groups;
- Facilitating Savings and Internal Lending Communities;
- Financial Education;
- Understanding Natural Resources;
- Managing Natural Resources;
- Marketing Basics;
- The Seven Steps of Marketing; and
- Promoting Innovation.

CRS is also publishing the content as e-learning modules, which can be accessed via the following link: http://www.crs.org/smart-skills-smallholder-farmers

Table 5 provides a step-by-step process map for the activities in the seven steps of agri-enterprise development.

Table 5: Step-by-step process map for the activities in the seven steps of agro-enterprise development

	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7
Steps	Organise staff and meet community.	Identify products and select groups.	Collect information for a business plan.	Build business plans and implementation schedules.	Marketing as a group.	Reviewing agri-enterprise performance.	Scaling up
Sub-steps	Hire staff; Train staff; Identify partners; Do participatory appraisal; and Plan with community.	Identify target farmers; Select products; Register groups; Develop work plans; and Plan training.	Survey market; Select production options; Review finance; and Review business services.	Write business plan; and Work with groups on implementation plans to produce crops or livestock.	Store product; Grade product; Negotiate with buyers; Bulk product; and Sell collectively.	Analyse profit; Check volume and sales; and Check group work.	Reinvest; Choose products for next cycle; Draw up new business plan; Form new groups; and Recruit new field agents.

	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7
Field work	Rapid participatory appraisals to learn about location, businesses and community.	Wealth ranking; Product selection; and Registration.	Production data; Market surveys; Financial analysis; and Service analysis.	Production of crop or livestock product; and NRM activities.	Planning sales; and Identifying buyer.	Review sales by group and farmer.	Plan for next season or next year
Key decisions	Agree on process and entry point.	Select products; and Organise groups.	Collect data, analyse and compile data.	Compile business plans; and Implementation schedules lead into production cycle.	Agree on sales; Agree on where to sell; Agree on buyers (whom to sell to); Agree on price; and Sell goods.	Evaluate agri-enterprise performance.	Select new market option; and Scale activities.
Time-frame	2–3 weeks up to 2–3 months	2–3 weeks	Depending on number of products, 3–4 weeks	1–2 weeks	1–2 weeks (or more if stored)	1–2 days	1–2 weeks

Integration with digital information systems

Modern extension approaches are becoming increasingly complicated and, therefore, field agents working with large numbers of farmers also need new types of tools to help them with information and data management (i.e. apart from capacity building material).

There are now a number of digital toolkits that can be used by value chain teams to support larger scale capacity building programmes and also support the collection of business information. Many of the digital systems such as Farmbook, SourceTrace, Farmforce, and Cropster support knowledge and information areas such as:

- Registration methods which allows for the registration and tracking of field agents, farmers and farmer groups, by linking information with Geospatial maps such as **ArcGIS**;
- E-learning training modules, which provide instruction in key areas, such as the CRS SMART skills that provides courses in farmer group management, financial services, production methods, marketing and innovation to help farmers increase production, income and effective market engagement;
- Profitability calculators, which help farmers to create records about their costs of production and expected revenue and to calculate their expected profit; and
- The ability of farmers to provide feedback on services, which can be done by using a basic digital form that captures farmers' information on their level of satisfaction with extension services that are provided.

The CRS team have incorporated these four components together to promote the holistic development for transformative and sustainable results. This is shown in Figure 15.

ArcGIS: A geographic information system for maps and geographic information that can be used to create and use maps, analyse map information, compile, share and discover geographic data and manage geographic information in a database.

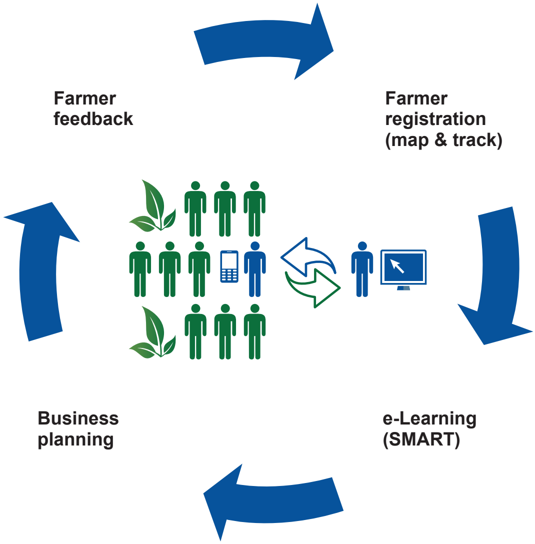

Figure 15: Components of the Farmbook Suite of ICT tools

There are a number of other value chain development toolkits, which are outlined in the following sections.

ValueLinks

The International ValueLinks Association e.V. was founded in June 2009 as a network of development practitioners working on value chain development. The International ValueLinks association e.V. aims to promote:

- Pro-poor economic growth in developing countries;
- Experience exchange and international contacts among ValueLinks users;
- Quality standards in the application of ValueLinks;
- Information flows for ValueLinks training and consulting services; and
- Outreach and further development of the approach.

ValueLinks, which was developed by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), is an action-oriented approach for promoting economic development with a value chain perspective. It provides essential know-how on ways to enhance employment and the income of micro, small and medium sized enterprises and farmers by promoting the value chains they are operating in. The ValueLinks methodology provides a comprehensive set of tools and approaches to identify and provide methods for upgrading value chains. The ValueLinks manual is intended for use by development projects or by public agencies promoting specific agri-business, handicraft or manufacturing sub-sectors of the economy. It has no specific sectoral focus. However, the emphasis is on those product markets that offer opportunities for the poor.

The ValueLinks manual, which is now being developed by a growing community of development practitioners, is one of several knowledge products that use the ValueLinks methodology. The ValueLinks training seminars, which are offered by recognised ValueLinks trainers for professional staff of public agencies and development programmes, comprise an important instrument for sharing know-how. Figure 16 illustrates the ValueLinks methodology.

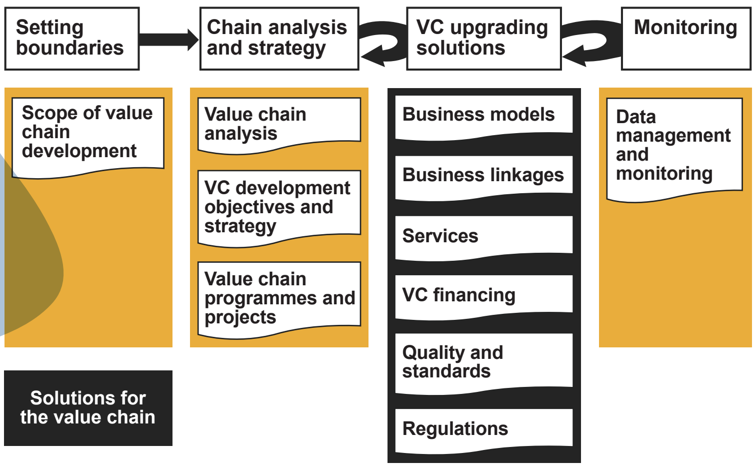

Figure 16: ValueLinks methodology

You can access the ValueLinks website here: http://www.valuelinks.org/

LINK method for linking smallholder farmers to inclusive business models

This guide is mainly aimed at facilitators who mediate the processes between sellers and formal buyers. The LINK toolkit, as shown in Figure 17, can help an organisation facilitate a systematic learning process between actors from a selected value chain and discover new opportunities for innovation, based on the application of a participatory toolkit, with the following four main tools:

- The value chain map, which is used to understand the **macro context of markets** and the businesses that link rural producers with buyers;
- The business model canvas, which is used to understand each business that links rural producers with buyers in more detail;
- The New Business Model principles, which are used to determine whether each business that links rural producers with buyers is truly inclusive; and
- The prototype cycle, which is used to improve the inclusivity of every business that links rural producers with buyers continuously.

Macro context of markets: The broad economic context in which the market operates.

By the end of the LINK process, you should be able to:

- Understand the relationship between specific business models (buyer and seller) and the overall value chain;
- Identify critical areas for improvement;
- Design, implement, evaluate and improve on the innovation prototype for the business model you have selected; and
- Evaluate the effects of these changes on smallholder farmers and on the business itself.

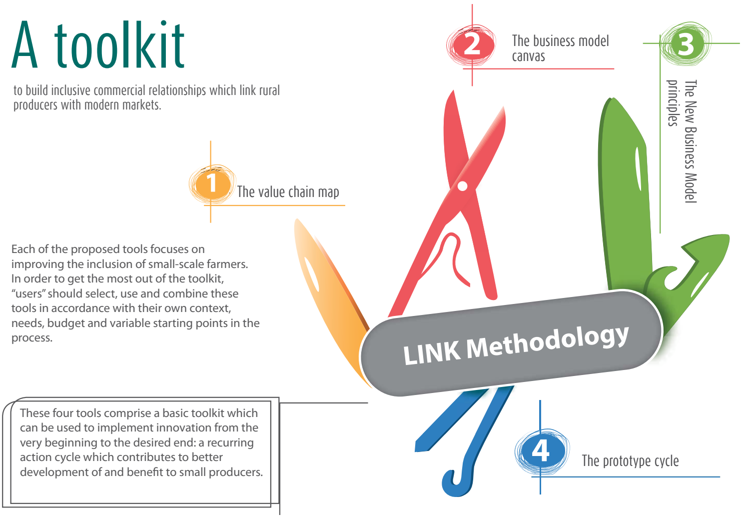

Figure 17: The LINK toolkit

You can access the following website for more information on the LINK methodology:

http://ciat-library.ciat.cgiar.org/articulos_ciat/LINK_Methodology.pdf

Chain-wide learning for inclusive agri-food market development

Modern agri-food markets are dynamic and rapid changes in food production, processing and sales in wholesale and retail markets affect the entire value chain, from producer to consumer. This is particularly true in countries with developing and emerging economies, where the pace of change brings significant challenges for small-scale producers, policy makers and business.

This guide, which forms part of the Regoverning Markets project of the International Institute for Environmental Development (IIED), provides concepts and tools for working with actors along the entire value chain, so that modern markets can be more inclusive of small-scale producers and entrepreneurs.

The guide:

- Explains the drivers of change in modern agri-food markets;
- Provides a framework for analysing how institutions and policies shape the risks and opportunities for small-scale producers and entrepreneurs;
- Shows how to design multi-stakeholder processes that help actors along the chain work to realise common interests and secure domestic and regional markets inclusive of small-scale producers and entrepreneurs; and
- Offers practical ideas for facilitating workshops and policy dialogues.

You can access the IIED guide for chain-wide learning at the following website:

http://edepot.wur.nl/248994. The IIED website is available via the following link: http://www.iied.org/

Complete Activity 3.2 in your workbook.

Concluding remarks

The focus area in this study unit is the analyses of markets and value chains. The type, scale and level of market analysis were discussed, after which the levels of value chain analysis were explained—i.e. core chain actors, BDS and regulatory and policy actors. The participatory tools that are used in a value chain analysis were also identified. The study unit was concluded with an outline of the nature and use of the most important toolkits for and approaches to value chain development.

Complete the summative assessment in your workbook.

Complete the post-assessment in your workbook.

Glossary

Definitions

Word	Definition
Aflatoxin	A class of toxic compounds that is produced by certain moulds in food and that may cause liver damage and even cancer.
Agricultural inputs	Products or resources that farmers use in farm production, e.g. seed, fertilisers and agri-chemicals.
Agricultural market	The group of consumers and organisations that is interested in a particular agricultural product, has the resources to buy it and is legally allowed to buy the product.
Agricultural marketing	The set of business activities that are performed in the flow of products from the beginning of agricultural production to the hands of consumers.
Agricultural value chain	The goods, services and processes involved in an agricultural product moving from the farm to the final customer (consumer).
Arbitration	Settling a dispute between parties by a neutral third party (known as the arbitrator), without taking court action.

Word	Definition
ArcGis	A geographic information system for maps and geographic information that can be used to create and use maps, analyse map information, compile, share and discover geographic data and manage geographic information in a database.
Breakeven point	The income that is needed to cover the total amount of the expenses of a business during a particular period.
Business development services	People and organisations that support the production, supply and marketing of goods, without owning the product involved, e.g. market access support infrastructure support and training support.
Capacity building	Social or personal development that focuses on the obstacles that prevent or hinder individuals, governments and international organisations from reaching their development goals.
Cholera	An acute infection that results in diarrhoea, severe dehydration and death.
Cloud computing	A computer network of remote servers (rather than local servers or personal computers) that is hosted on the Internet and used to store, process and process data.
Codex Alimentarius	A collection of internationally recognised standards, codes of practice, guidelines and other recommendations relating to foods, food production, and food safety.

Word	Definition
Commodity	A raw product (e.g. copper) or an agricultural product (e.g. coffee) that can be bought and sold.
Commodity price index	An index of weighted average of selected commodity prices that may be based on spot or futures prices.
Consortium	An association consisting of two or more organisations, companies or governments that participate in a common activity by sharing their resources.
Cooperative	An organisation that is owned and run jointly by its members (e.g. a group of farmers), who share in the profits.
Dispute	A conflict in the legal or business environment, e.g. a conflict of claims, rights, prices or demands of one party that are met by opposing claims from another party.
Diversification	The strategy of entering a new market or a new industry, in order to increase sales and profitability.
E-learning	Learning that is conducted via electronic media, usually the Internet.
Economics of scale	The cost advantage resulting from an increased output of a product.
Emerging economy	An economy with low to average income that is progressing to a more advanced economy by means of rapid growth or industrialisation.

Word	Definition
Expatriate	A person living in a country other than his/her country of citizenship.
Feeding regime	Specific nutrition formula that is fed to animals at different stages in their growth, e.g. chick mash, layer mash, and broiler mash when feeding chickens.
Focus group	A small group of key informants (usually six to twelve informants) who are conduct a discussion, which is facilitated by the interviewer, on the key issues of the value chain survey.
Fiscal policy	The policy by means of which a government adjusts its spending levels and tax rates, in order to monitor the national economy.
Gross margin	The total sales revenue (income) minus the cost of goods sold, divided by the total sales income and expressed as a percentage.
Horticultural crops	Garden crops that include fruit and nuts, vegetables, flowers and medicinal plants.
Information and communications technology	The integration of communication devices, applications and services, including computers and computer networks, mobile phones and television to enable users to access, store, transfer and manipulate information.
Internal rate of return	A metric that is used to measure the profitability of potential investments.

Word	Definition
Knowledge broker	An individual or an organisation that develops relationships and networks with and between the producers and users of knowledge by providing linkages and knowledge sources.
Lead farmers	Farmers who lead farmer-to-farmer extension services, based on their agricultural expertise.
Learning management system	A software application that is used for the delivery, administration, documentation and reporting of electronic courses and training programmes.
Literature review	A critical assessment (evaluation) of the literature (information sources) related to the value chain survey, in order to identify what is already known about the area of investigation.
Livelihood	Individuals' ways of supporting their existence, both financially and in terms of their careers (occupations).
Livelihood strategies	The combination of activities that people choose to perform, in order to achieve their livelihood goals, e.g. productive activities, investment strategies and reproductive choices.
Macro context of markets	The broad economic context in which the market operates.

Word	Definition
Market analysis	The study of the demand and supply characteristics and actors for a particular product (e.g. maize), or a sub-sector (e.g. grains) within a defined geographic area.
Market opportunity identification	A systematic, participatory method for collecting market information to identify and select products and services for investment and agro-enterprise development.
Market strategy	A model that directs the way in which a producer will focus limited resources on the best opportunities, in order to increase sales.
Market survey	The systematic collection of market-related data (e.g. data on target markets and customers) from a population or part of a population to determine the present status of a situation, event or process.
Marketing	The process responsible for identifying, anticipating and satisfying customer requirements profitably.
Marketing mix	A set of tactics and strategies that a company uses to promote its product in a particular market and that is made up of the so-called four Ps of marketing: product, price, place and promotion.
Marketing plan	A document (plan of action) that outlines the current market position of a company, as well as the activities involved in meeting specific marketing objectives for a particular period (e.g. a year).

Word	Definition
Marketing strategy	A model that directs the way in which a producer will focus limited resources on the best opportunities, in order to increase sales.
Metric ton	A unit of weight that is equal to 1,000 kg.
Migrate	Relocate or resettle.
Misconception	A wrong conclusion, based on faulty facts.
Monetary policy	The policy by means of which the monetary authority (the Reserve Bank) controls the size and growth rate of the money supply in the country.
Mycotoxin	Any toxic substance that is produced by a fungus in food.
Net present value	The difference between the present value of cash inflows and cash outflows.
Oligopolistic market situation	A situation in the market which numerous suppliers in a market compete to sell their product to a small number of buyers and their actions may affect the prices and costs of their competitors.
Opportunistic selling	Selling products at prices that are higher than their fundamental value.
Parameter	An element or a characteristic that defines, limits or controls a particular system or sets the conditions of its operation.
Pesticide	A toxic substance that is used to kill weeds and insects.

Word	Definition
Plant propagation	The process of cultivating or creating new plants from sources such as seedlings, cuttings, bulbs and other parts of plants.
Plant propagation material	Plants and parts of plants that are used for plant cultivation or propagation.
Population	The entire group of persons or key informants that should be studied/ interviewed in the value chain analysis.
Primary data source	Written or oral information obtained from a direct witness of, or a participant in, an event or a process, e.g. direct accounts, correspondence and speeches.
Problem tree analysis	A planning tool that maps out the causes and effects of an identified issue or problem.
Product grading	The process of sorting units of a product into defined classes or grades of quality according to specified standards.
Questionnaire	A list of questions that are asked to respondents (e.g. consumers of a particular product) to obtain specific information.
Ration	See: Feeding regime.
Remittance	Funds that expatriates send to their country of origin.
Retailer	A business that sells goods directly to individual consumers.
Return on investment	A measure of the profit of an investment, expressed as a percentage of the original cost.

Word	Definition
Sample	A selected group that is defined from the population.
Secondary data source	Primary data that has been analysed and or processed, thereby providing second-hand information about an event or a process, e.g. books, journal articles, newspapers and collected consumer information made available by consumer research organisations.
Side selling	Selling products to another buyer, who is not part of the sales agreement.
Smallholder farmer	A farmer who owns a small plot of land, on which he/she grows self-sustaining crops, and relies mainly on family labour.
SMART phone	A mobile phone that performs all or many of the functions of a computer, including Internet access and an operating system that can run downloaded applications.
SMART skills	Skills for Marketing and Rural Transformation.
Social capital	A network of social or economic institutions and individuals that cooperate to create collective value change.
Standard	A grade or level of quality to which products have to conform.
Subsistence farmer	Self-sustaining farmer who grows enough food to feed his/her family.

Word	Definition
SWOT analysis	A framework that is used to analyse the internal strengths and weaknesses of a company or a project and the external opportunities and threats.
Tier	A level within the hierarchy of an organisation or a system.
Trade agreement	An agreement between two or more countries that stipulate the terms according to which goods and services can be exchanged.
Trend	A general direction, course or tendency.
Typhoid infection	A bacterial infection that can spread throughout the body and affect several organs.
Urbanise	The population shift from rural to urban areas.
Value chain	A set of connected (linked) actors that work together to add value to a product and increase efficiency and competitiveness, while linking producers to processors and markets.
Value-added product	A products that has been produced or processed in a way that increases its value, e.g. processing wheat into flour.

Abbreviations

Abbreviation	Meaning
ACDI/VOCA	An international development (non-profit) organisation that promotes economic opportunities for cooperatives, enterprises and communities through the application of sound business practice.
ArcGIS	A geographic information system for maps and geographic information that can be used to create and use maps, analyse map information, compile, share and discover geographic data and manage geographic information in a database.
BDS	Business development services
CIAT	International Centre for Tropical Agriculture
CPI	Commodity Price Index
CRS	Catholic Relief Services
DFAT	Department of Foreign Affairs and Trade (Australia)
DFID	Department of International Development (United Kingdom)
FAO	Food and Agriculture Organisation
G.A.P.	Good Agricultural Practice
GIS	Geographic information system
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GPS	Global positioning system
ICT	Information and communications technology

Abbreviation	Meaning
ICT	Information and communications technology
IFPRI	International Food Policy Research Institute
IIED	International Institute for Environment and Development
IRR	Internal rate of return
IRRI	International Rice Research Institute
LMS	Learning management system
LSMS	Living Standards Measurement Study
M4P	Making Markets Work for the Poor
MEAS	Modernizing Extension and Advisory Services
MOI	Market opportunity identification
MSE	Micro and small enterprises
NGO	Non-governmental organisation
NPV	Net present value
PPM	Plant propagation material
SDC	Swiss Agency for Development and Cooperation (Switzerland)
Sida	Swedish International Development Cooperation Agency (Sweden)
SPS measures	Sanitary and phytosanitary measures
SSA	Sub-Saharan Africa
SWOT	Strengths, weaknesses, opportunities and threats

Abbreviation	Meaning
TBT	Technical barriers to trade
TOPS	Technical and Operational Performance Support
USAID	United States Agency for International Development, which provides economic and development assistance around the world.
USDA	United States Department of Agriculture

Resources

The following resources were used in this manual:

- http://www.premiumtimesng.com/news/top-news/200289-lagos-reopens-mile-12-market-clashes.html
- http://www.crs.org/sites/default/files/tools-research/guide-to-strengthening-business-development.pdf
- http://thenextweb.com/shareables/2011/01/31/real-future-store-the-supermarket-of-the-future/#gref
- www.ictinagriculture.org/ictinag/node/105
- http://labs.harvestchoice.org/2011/08/yield-reliability-room-for-improvement/

Other modules of the New Extensionist modules are:

1. Introduction to the New Extensionist
2. Extension Methods and Tools
3. Extension Programme Management
4. Professional Ethics
5. Adult Education for Behavioural Change
6. Knowledge Management for RAS
7. Introduction to Facilitation for Development
8. Community Mobilisation
9. Farmer Organisational Development
10. **The Role of Extension in Supporting Value Chains**
11. Agricultural Entrepreneurship
12. Gender in Extension and Advisory Services
13. Risk Mitigation and Adaptation

Other related modules developed by GFRAS are on:

- Evaluation of Extension Programmes
- Policy Advocacy for RAS