

# Rwanda Customized Module

## Marketing and Value Chains



## Student Guide

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## Acknowledgements

In 2016 the Global Forum for Rural Advisory Services (GFRAS) developed the New Extensionist Learning Kit (NELK) modules <https://www.g-fras.org/en/knowledge/new-extensionist-learning-kit-nelk.html> on functional skills for individual extension staff, in response to the demand from its network. GFRAS continues to develop new set of modules covering different technical skills. The Learning Kit contains modules designed for self-directed, face- to-face, or blended learning and can be useful resource for individual extension field staff, managers, and lecturers.

Responding to the growing demand from extension and rural advisory service providers worldwide to adapt the modules to the local contexts, GFRAS has embarked on the journey to support the NELK Customization process. NELK Customization is understood as a **guided process as permitted by GFRAS** aimed at adapting the original module to suit the local context. Details on this process can be found on the NELK Customization Guide.

This **Marketing and Value Chains Module** is development as part of the NELK Customized package adapted from *Module 10: The Role of Extension in Supporting Value Chains*.

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# 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.



Activity



Case Study



Did you know



Example



Keywords



Take note

**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.

### 1.4. End users

This training module is designed to be used by public and private Rwandan extension agents that face and interact with lead farmers (farmer promoters, Farmer field school facilitators) and most particularly smallholder farmers. The targeted categories, from 1 to 11 are included in Box 1.

### **Box 1: Rwandan Extension Categories**

- 1=Cell development officer (CEDO)/IDP
- 2=Sector agronomist
- 3=Sector livestock officer
- 4=District agronomist
- 5=District livestock officer
- 6=District veterinary officer
- 7=District director of agriculture, livestock and environment
- 8=Veterinary pharmacist
- 9=Crop/agronomic advisor for a private company
- 10=Crop/agronomic advisor for an NGO
- 11=Other field staff for an NGO
- 12=Farmer field schools facilitator
- 13=Farmer-promoter
- 14=Other

# The Role of Extension in Supporting Value Chains

## 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. Use market analysis tools
4. Explore value chain upgrading strategies
5. Assess market linkage methods; and
6. Analyse markets and value chains.

## Module overview

The purpose of this module on marketing and value chain is to help extension agents in Rwanda to 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 collaborate with farmers to develop an action plan that they can use to engage with the markets successfully.


In this 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. You will also be familiarized with the use of market analysis tools and value chain upgrading strategies

## 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.

The new extension learning kit highlights that 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.

## Pre-assessment

Complete the following pre-assessment in order to determine how comfortable you are with the topic of marketing value chains.

	Question	Self-assessment				
1	How well can you explain why agricultural marketing is important for farmers in Rwanda?	Low				High
		1	2	3	4	5
2	How well can you explain the agricultural market, the value chain and the key actors in the value chain?	Low				High
		1	2	3	4	5
3	Are you able to assess market linkage methods?	Low				High
		1	2	3	4	5
4	Can you analyse markets and value chains?	Low				High
		1	2	3	4	5
5	Can you confidently use market analysis tools?	Low				High
		1	2	3	4	5
6	Can you explore value chain upgrading strategies?	Low				High
		1	2	3	4	5

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

### Study unit outcomes

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

1. Explain the concepts of agricultural marketing, the market and the value chain;
2. Explain the concepts of supply and demand, as well as their effect on the market;
3. Identify the different types of formal and informal markets in the agricultural value chain;
4. Describe the advantages and disadvantages involved in the different types of agricultural markets;
5. Identify the key actors in a value chain;
6. Explain the role of each key actor in a value chain;
7. Identify key business development service providers in the agricultural market;
8. Explain the role of business development services in the agricultural market;
9. Describe the role of key regulators in the agricultural value chain; and
10. 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:

1. Define agricultural marketing;
2. Describe the agricultural market;
3. Recognise the connection between the agricultural market and the value chain;
4. Explain the concepts of market supply and demand; and
5. 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.



## 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.

**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 4Ps of marketing: product, price, place and promotion.



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.

**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).



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 that:


- 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.

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;
- Business relationship between buyers and sellers; and
- A particular area, such as a region or a country.

**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. 

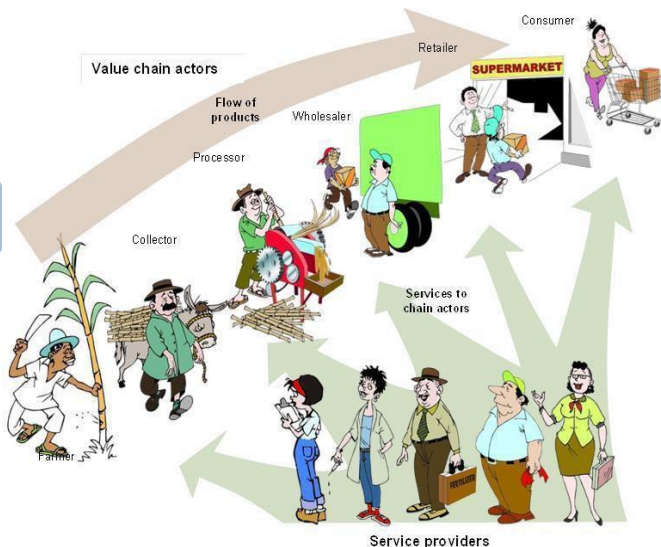
**Commodity:** A raw product (e.g. copper) or an agricultural product (e.g. coffee) that can be bought and sold.

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. 

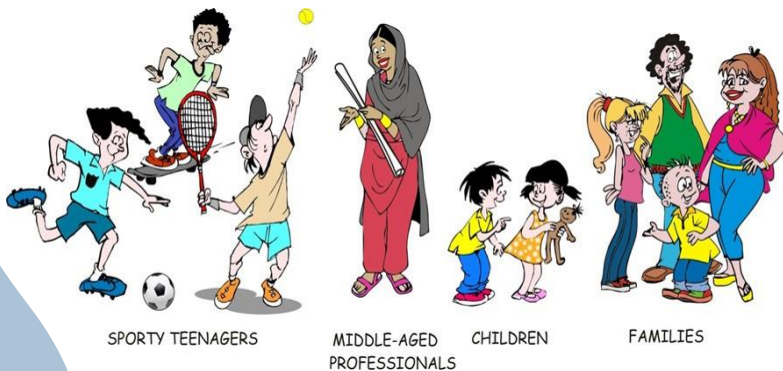
## Market segmentation

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 women 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 in 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 s/he 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:

1. Identify different types of formal and informal markets in the agricultural value chain; and
2. 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. In between, there are many 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 and, 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.

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.

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



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.

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



**Figure 4:** Example of a farm gate market

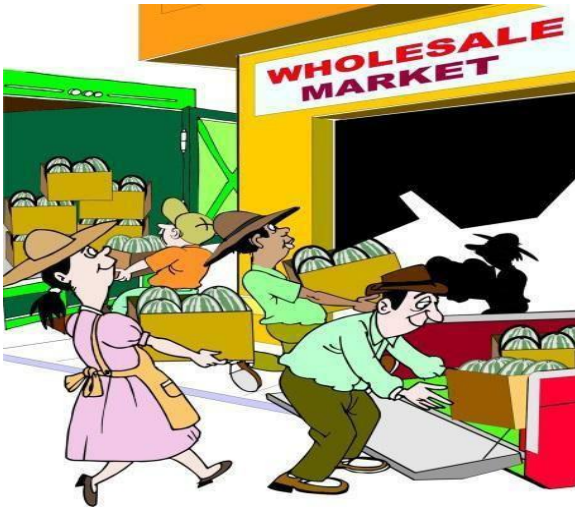
### **Informal assembly markets**

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.



**Figure 5:** Informal wholesale 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.

## Formal markets

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.

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

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 with 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

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.



**Figure 6:** Fresh produce in a supermarket

### Food processing markets

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

**Urbanise:** The population shift from rural to urban areas.



## 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 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:

1. Identify the key actors in a value chain; and
2. 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, who enable value chain actors to trade efficiently, and
- Level 3: the regulatory agencies who support the policies and standards within value chains.

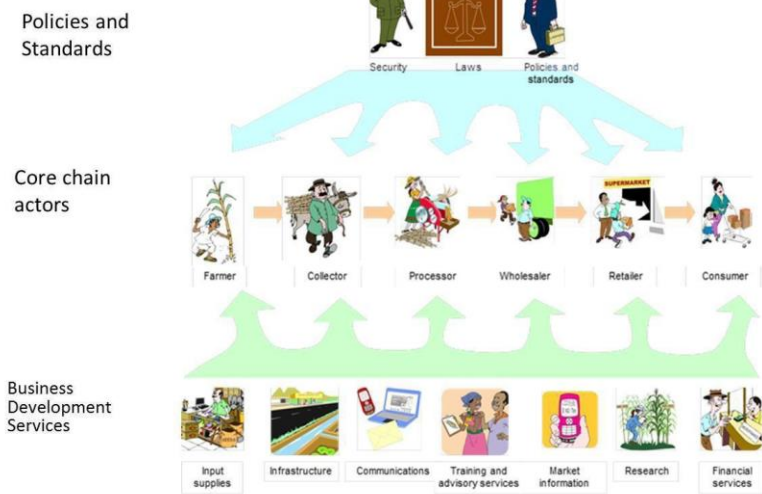
In this session, you will focus on the key value chain actors, including farmers, processors and traders, who perform the functions required to produce and market agricultural products. After production, each of the core value chain actors physically sells or buys the product. The number of actors can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

**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.





# Value chain Levels



**Figure 10:** Levels in the value chain

## 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	Examples of some value chain actors
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.	

<b>Value chain actor</b>	<b>Description</b>	<b>Examples of some value chain actors</b>
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.	
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.	

Value chain actor	Description	Examples of some value chain actors
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:

1. Identify key business development service providers in the agricultural market; and
2. 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;
- Non-government organisation (**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 on 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	<ul style="list-style-type: none"><li>• Fertiliser suppliers;</li><li>• Seed merchants;</li><li>• Millers;</li><li>• Transport.</li></ul>	<ul style="list-style-type: none"><li>• Market information price;</li><li>• Warehousing;</li><li>• Infrastructure (roads, electricity, water);</li><li>• Tele-communications.</li></ul>
Financial service providers	<ul style="list-style-type: none"><li>• Savings and loans groups;</li><li>• Savings and credit cooperatives;</li><li>• Micro-finance institutions.</li></ul>	<ul style="list-style-type: none"><li>• Formal banks;</li><li>• Insurance brokers;</li><li>• Mobile lenders or banks.</li></ul>



Type	Examples of service providers	Examples of services provided
General services providers	<ul style="list-style-type: none"> <li>• Input supply general;</li> <li>• Market intelligence;</li> <li>• Market brokerage;</li> <li>• Farmer organisations.</li> </ul>	<ul style="list-style-type: none"> <li>• Market research;</li> <li>• Business management;</li> <li>• Legal services;</li> <li>• Food safety, quality, compliance.</li> </ul>
Sector/product specific	<ul style="list-style-type: none"> <li>• Veterinary services;</li> <li>• Agricultural extension;</li> <li>• Technical assistance and training.</li> </ul>	Postharvest support: storage, processing, grading and packing.
New business model		<ul style="list-style-type: none"> <li>• Certification services;</li> <li>• Inclusive chain-wide service support.</li> </ul>



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:

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

### Introduction


Key regulators refer to the actors/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.

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



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.

### 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.

**Product grading:** The process of sorting units of a product into defined classes or grades of quality according to specified standards. 

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.

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.

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



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 **aflatoxin** 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 a food contaminant that is 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 become 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.

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

### Session outcomes

After completing this session, you should be able to:

1. Identify the different farmer segments and livelihood categories in the agricultural value chain; and
2. 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.

## 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.



**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.

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**.

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

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



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 and 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 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 Sixties 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.

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.

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



## NGO agricultural extension agents

Over the past 20–30 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 foster 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 many 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.

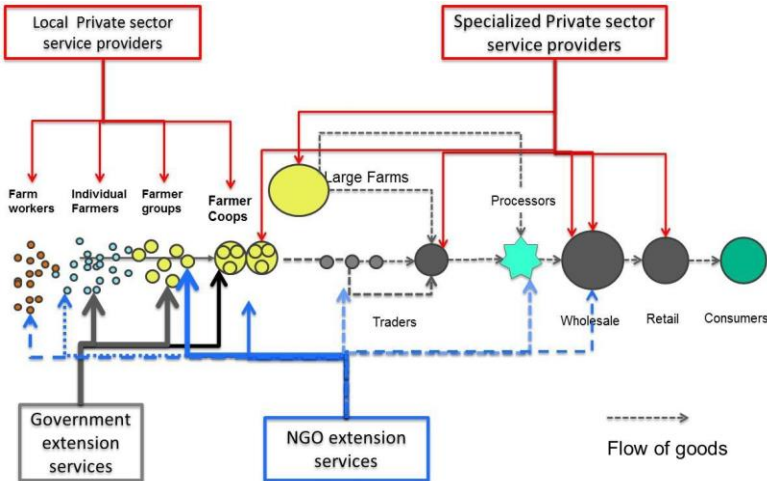
In some cases, lead farmers receive funds to feed farmers, who attend meetings and they may also receive uniforms and basic farming tools, particularly those who work with NGOs. Figure 11 shows the different types of extension services that are available.

### **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.



**Figure 11:** Types of extension services

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.



## 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.

**Agricultural inputs:** Products or resources that farmers use in farm production, e.g. seed, fertilisers and agro-chemicals.



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 1.6 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: Using market analysis tools

### Study unit outcomes

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

1. Identify and explain different market strategies and interventions;
2. Explain the market opportunity identification (MOI) process;
3. Identify market opportunities by following the steps in the MOI process;
4. Identify the key points that are evaluated in a value chain analysis; and
5. Identify and explain the steps involved in the value chain analysis.

### Study unit overview

This study unit provides more detailed information on the specific tools that are used in value chain development. The study unit includes examples of when and how to use the tools, as well as the types of results that are developed when using these tools.

### Study unit introduction

In order to operate successfully in the agri-food market, farmers should be familiar with marketing strategies, the method of identifying investment and development opportunities in the market, as well the value chain analysis. By advising smallholder farmers on applying these strategies and methods, extension agents can contribute to farmers increasing their income and improve their livelihood options.

## Session 2.1: Market strategies

### Session outcomes

After completing this session, you should be able to:

1. Identify and explain different market strategies and interventions.

### Introduction

In market-led or value chain approaches, there are differences in the investment approach, based on who the driver in the initiative is, as shown in Table 1.

**Table 3:** Market strategies

Type of strategy	Methods	Lead agency and partners	Market
Livelihood strategy	<ul style="list-style-type: none"><li>• Territorial assessments;</li><li>• Market opportunity identification;</li><li>• Market visits;</li><li>• Production planning;</li><li>• Profitability assessments;</li><li>• Environmental assessments; and</li><li>• Basic business plans.</li></ul>	<ul style="list-style-type: none"><li>• Farmer organisation; and</li><li>• First buyer link.</li></ul>	<ul style="list-style-type: none"><li>• Local market options;</li><li>• Generally informal markets; and</li><li>• Secure first buyer link.</li></ul>



Type of strategy	Methods	Lead agency and partners	Market
Value chain upgrading strategy	<ul style="list-style-type: none"> <li>• Territorial approach;</li> <li>• SMART skills for field agents and farmers;</li> <li>• Value chain analysis;</li> <li>• Business planning;</li> <li>• Service integration;</li> <li>• Implementation planning; and</li> <li>• M &amp; E processing.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>NGO</b> facilitator;</li> <li>• Farmer organisations;</li> <li>• Several links in value chain; and</li> <li>• Financial services.</li> </ul>	<ul style="list-style-type: none"> <li>• Local market;</li> <li>• Growth regional markets; and</li> <li>• Shift from informal to more formal markets.</li> </ul>
Intermediary firm business model	<ul style="list-style-type: none"> <li>• Inclusive business model;</li> <li>• Link method; and</li> <li>• Value links.</li> </ul>	<ul style="list-style-type: none"> <li>• Intermediary company that sets buying conditions; and</li> <li>• Finance.</li> </ul>	
Inclusive business model	<ul style="list-style-type: none"> <li>• Inclusive business model;</li> <li>• Link method; and</li> <li>• ValueLinks.</li> </ul>	<ul style="list-style-type: none"> <li>• Lead firm in value chain;</li> <li>• All suppliers in chain; and</li> <li>• Investors.</li> </ul>	<ul style="list-style-type: none"> <li>• Growth markets;</li> <li>• Formal markets; and</li> <li>• Value added markets.</li> </ul>

In the following sections, you will find more detailed information on each of these strategies. Figure 1 illustrates the market strategies.

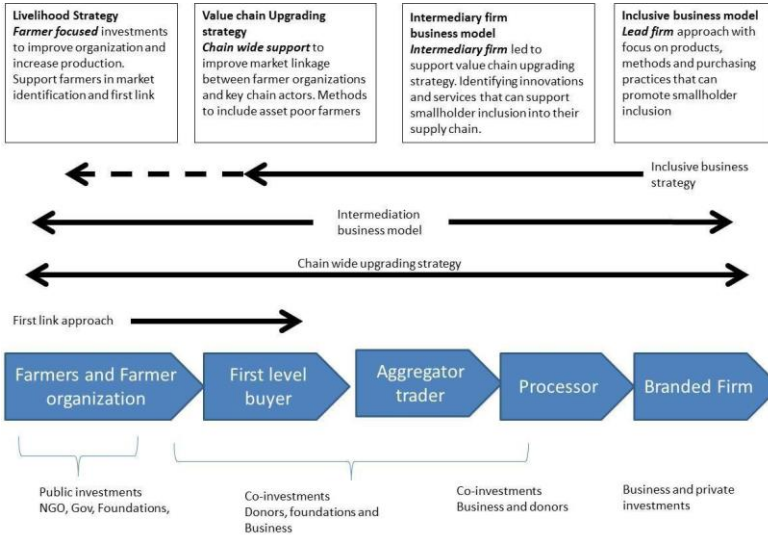


Figure 12: Market strategies and interventions

## Market strategies and interventions

### Livelihood strategy

This approach typically begins with a primary focus on supporting farmer organisations and identifying opportunities for farmers to enhance productivity, nutrition and market linkage. The intervention is regarded as a **livelihood strategy**, because it aims to assist farmers in adopting more sustainable production methods, promotes crop/enterprise diversification and support in other areas, such as savings and loans, as well as water and sanitation to stabilise farming families and build their resilience.

**Livelihood:** Individuals' ways of supporting their existence, both financially and in terms of their careers.



**Livelihood strategy:** 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.

More information about the strategy can be found in Table 4.

**Table 4:** Key information about the livelihood strategy

<b>Marketing approach</b>	Marketing methods focus on first link sales in the value chain
<b>Target clients</b>	<ul style="list-style-type: none"><li>• Pre-commercial farmers</li><li>• Farmers in groups; and</li><li>• Basic cooperatives.</li></ul>
<b>Lead agency</b>	<ul style="list-style-type: none"><li>• Government extension; and</li><li>• NGOs.</li></ul>
<b>Key service providers</b>	<ul style="list-style-type: none"><li>• Public research;</li><li>• Input supply;</li><li>• Lead farmers;</li><li>• Community mobilisers;</li><li>• Money lenders; and</li><li>• <b>Micro-finance institutions.</b></li></ul>
<b>Finance services</b>	<ul style="list-style-type: none"><li>• Money lenders; and</li><li>• Micro-finance institutions.</li></ul>
<b>Funding</b>	<ul style="list-style-type: none"><li>• Public sector;</li><li>• Governments;</li><li>• Foundations; and</li><li>• NGO co-investments.</li></ul>

**Micro-finance institution:** A financial institution that is designed to work with households and enterprises with smaller borrowing capacity than clients of commercial banks.



## Value chain upgrading strategy

Value chain upgrading follows a chain-wide approach. Value chain analysis leads to the identification of key actors within a sub-sector who are interested in working together to improve their competitive advantage. More information about the strategy can be found in Table 5.

**Table 5:** Key information about the value chain upgrading strategy

<b>Marketing approach</b>	Identifying key actors in a value chain
<b>Target clients</b>	<ul style="list-style-type: none"><li>• Semi-commercial farmers;</li><li>• Farmer cooperatives; and</li><li>• Trader associations.</li></ul>
<b>Lead agency</b>	<ul style="list-style-type: none"><li>• NGOs working with governments; and</li><li>• Intermediary firms.</li></ul>
<b>Key service providers</b>	<ul style="list-style-type: none"><li>• Public research;</li><li>• Extension from public and private sector;</li><li>• Input supply;</li><li>• Farmer groups;</li><li>• Chain actors; and</li><li>• Finance institutions.</li></ul>
<b>Finance services</b>	<ul style="list-style-type: none"><li>• Money lenders;</li><li>• Micro-finance institutions; and</li><li>• Banks.</li></ul>
<b>Funding</b>	<ul style="list-style-type: none"><li>• Public sector;</li><li>• Governments;</li><li>• Foundations; and</li><li>• NGO co-investments.</li></ul>

## Intermediary firm business model

The intermediary firm business model takes on a chain-wide approach, but it is selective in that the work is channelled towards a single or a small number of firms. These firms are

normally major aggregators within a sub-sector or processors. They are not at the end of a market chain: they are supplying other larger processors or retail firms. This approach seeks to align suppliers more effectively and to improve efficiency in the series of actors who supply them. Many value chain projects work around a large intermediary firm, which often provides the bridge between informal and formal business operations. This is a particularly important partnership process for smallholder farmers who are often unaware of the product requirements for formal and higher value markets. More information about the strategy can be found in Table 6.

**Table 6:** Key information about the intermediary firm business strategy

<b>Marketing approach</b>	Intermediary firm has identified market with links to target buyers.
<b>Target clients</b>	<ul style="list-style-type: none"> <li>• Business partners from farmers;</li> <li>• Traders;</li> <li>• Business development services;</li> <li>• Finance services; and</li> <li>• Government support for business.</li> </ul>
<b>Lead agency</b>	Intermediary firm working with NGOs
<b>Key service providers</b>	<ul style="list-style-type: none"> <li>• Public research;</li> <li>• Input supply;</li> <li>• Farmer groups; and</li> <li>• Value chain actors.</li> </ul>
<b>Finance services</b>	<ul style="list-style-type: none"> <li>• Banks; and</li> <li>• Impact investors.</li> </ul>
<b>Funding</b>	<ul style="list-style-type: none"> <li>• Private sector co-investment;</li> <li>• Public sector;</li> <li>• Foundations; and</li> <li>• NGO co-investments.</li> </ul>

## Inclusive business model

The inclusive business model is an approach based on lead firms that build robust and long-term trading links with a set of established business partners, from production through to retail. The traditional business model focuses on a single firm, whereas the inclusive business model aims to provide a set of core business principles that are supportive of partners along the chain and specific attention is paid to the types of procurement practices and support services that are required to improve the stability of trade with smallholder farmers. The lead firm identifies a market to align suppliers more effectively and to improve efficiency in the series of actors who supply them. Many value chain projects work around a large intermediary firm, who is often the bridge between informal and formal business operations.

More information about the strategy can be found in Table 7.

**Table 7:** Key information about the inclusive business strategy

<b>Marketing approach</b>	Identify a market to align suppliers more effectively
<b>Target clients</b>	All suppliers in the value chain that support the lead firm, with particular emphasis on trading conditions and relations with smallholder farmers.
<b>Lead agency</b>	Lead firm working with NGOs and target suppliers.
<b>Key service providers</b>	All required core chain and service providers necessary for the smooth operations of the market chain.
<b>Finance services</b>	<ul style="list-style-type: none"><li>• Banks; and</li><li>• Trade finance through business partners.</li></ul>
<b>Funding</b>	<ul style="list-style-type: none"><li>• Private sector; and</li><li>• Co-investment from public sector</li></ul>



Complete Activity 2.1 in your workbook.

## Session 2.2: Market opportunity identification (MOI)

### Session outcomes

After completing this session, you should be able to:

1. Explain the market opportunity identification (MOI) process;
2. Help clients to spot the market gap;
3. Conduct a market visit to assess market options;
4. Identify market opportunities by following the steps in the MOI process; and
5. Help clients to select a product for investment.


### Introduction

The aim of **market opportunity identification (MOI)** is to provide farmers and field agents with a simple and systematic participatory method for the rapid collection of market information to identify and select products and services for investment and agri-enterprise development. The MOI process can be adapted for large, complex investment projects, but it can also be reduced to a simple version, which enables local producers to undertake market studies and identify investment options, based on their local knowledge and on market demand. This approach is a participatory approach that provides an alternative to relying on pre-selected products that have been selected by external experts. The ability to identify market opportunities is a core skill that farmers and field agents need to acquire, if they are to engage with markets successfully, particularly when an externally funded marketing project ends and skilled service providers are removed.



The market opportunity identification process helps agents and farmers to:

- Evaluate market demand for a range of products;
- Select products of most interest to a farmer, farmer group, or cooperative;
- Decide which **market strategy** to pursue; and
- Compare different products and explore Market options for **value added products**.

**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.

**Value-added products:** A products that has been produced or processed in a way that increases its value, e.g. processing wheat into flour.

Farmers can invest in the following four main types of market strategies:

- Market penetration;
- Product development;
- Market development; and
- Diversification.

These strategies are based on the type of product and market as shown in Table 6.

**Table 6:** Market strategies based on market and product type

	Existing product	New product
Existing market	1. Market penetration	3. New product
New market	2. Market development	4. Diversification

The decision on the type of market strategy depends on the farmer’s assets, resources, aspirations and appetite for risk. The lowest risk strategy is market penetration, whereas the highest risk strategy is diversification.

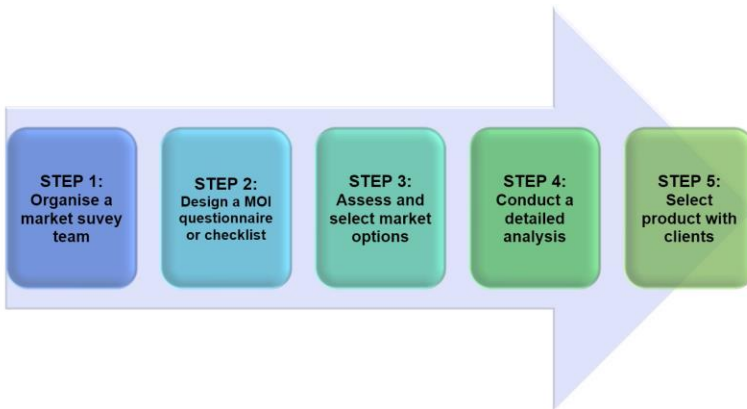
The market opportunity identification (MOI) follows the same basic steps as a value chain assessment, but is generally more geographically focused.

### Steps in MOI

In the following sections, the different steps in the MOI processes are explained:

- Step 1: Agent works with clients to organise a market assessment team;
- Step 2: Agent helps to design the questionnaire;
- Step 3: Clients assess products of interest in target markets (long list);
- Step 4: Clients conduct a detailed analysis of a few products (short list); and
- Step 5: Clients make final selection on which product to investing in for their enterprise.


Figure 13 illustrates these steps.



**Figure 13:** Steps in the MOI process

## Step 1: Organise the survey team

The first MOI step is to organise a **market survey** team to support the client—whether it is a farmer, farmer group or a cooperative team—to conduct a market survey. The marketing team will be responsible for gathering information from the farmer group, collecting data and information from the market, analysing information and either preparing an investment plan or working with farmers to make a decision on a product for further investment.

**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. 

The survey team should be small (3–5 members) and should include two or three representatives of the clients, i.e., farmers, as well as one or two technical members. It is important to include smallholder producers in the team, because:


- They are the clients in the research and, therefore, their point of view is important;

- They participate in the decision-making when market options are selected and discarded; and
- The survey will gain more credibility from the rural community if smallholder producers, who are their equals, are included in the team, thereby increasing the possibility of implementing research results.

## Step 2: Design a first level MOI survey questionnaire or checklist

The extension agent will need to help the farmers or cooperative team to develop survey **questionnaires** or checklists. The questionnaire can be basic to determine key aspects such as product demand and basic buying conditions in the local market, or the survey instruments can be quite complicated, particularly if there are several interesting market options.

As with all surveys, the questionnaire will be used to collect **primary market information** on product options in the target markets. In many cases, primary data collection is supported by **secondary information**, which is information that has already been collected and is available in existing records, for example price information from a market information service. The information collected by means of the questionnaire and other sources is used to help compile lists of product options, based on market demand.

**Questionnaire:** A list of questions that are asked to respondents (e.g. consumers of a particular product) to obtain specific information. 

**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.

**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.

## Basic survey questions

The following types of questions may be included in the survey questionnaire:

- Where can the buyers be reached (i.e. buyers' contact information)?
- What are the trends in demand for the (selected) products?
- Which products in this market are in highest demand and why are they in high demand?
- Which products are in low supply and why?
- What are the price of the main products of interest?
- What is the seasonality of the main products of interest?
- What are the **buying conditions**, i.e.:
  - Volume;
  - Quality;
  - Minimum purchase lots; and
  - Buying frequency?
- What are the terms of payment?
- Would you (i.e. selected buyer) be interested in working with our farmers?

**Buying conditions:** Product, price, quality, sales conditions and payment terms.

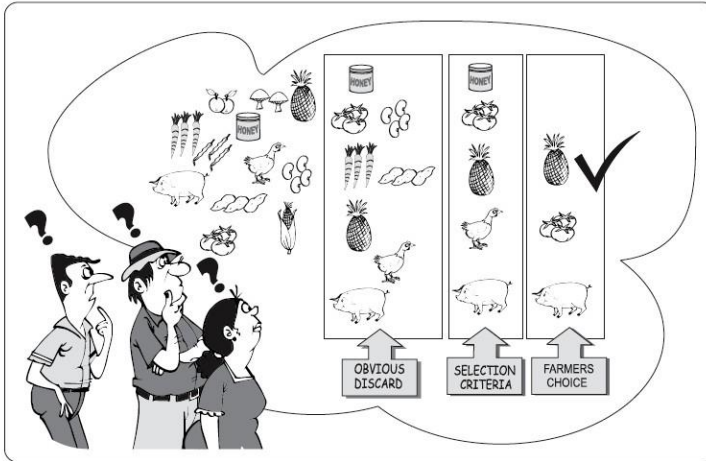


## Step 3: Assess and select market options

In some cases, the first market survey may be enough for farmers to make a selection on a production and a buyer. This is often the case, if farmers already have a good idea of what they want to produce and sell.

However, discussions with farmers and market surveys may generate many products of interest. If there are too many choices generated during this initial stage, the market teams need to remove some market options. The process of filtering down from a long list of products down to the right product for investment may involve one or two further steps.

The first way of making choices can be done using a simple set of discard criteria. The following section outlines three levels of filtering products, so that investors can make a decision on how to invest, based on sound market information. Figure 3 illustrates the levels of product filtering.



**Figure 14:** The three levels of product filtering

### **Filter 1: Removing obvious discards**

The first level of filtering removes products that are not suitable for further consideration. This filtering eliminates products that cannot be grown in the area for agronomic or environmental reasons, as well as products that are unsuitable for smallholder producers, in that they require a level of investment that is too high, sophisticated production methods, or they are culturally or socially unacceptable.

### **Step 4: Conduct a detailed market analysis**

The second level of analysis provides more detail about a product, including agronomic, marketing and financial information. Collecting this information takes more time than the

first basic survey, but this analysis provides important information for business development.

For a more detailed analysis, the survey team may use or adapt the questions given in the tables below. The results of this type of questionnaire can be used to determine:

- Production requirements;
- Expected yields;
- Product demand;
- Costs;
- Potential profit levels;
- Investment needs; and
- Return on investment (**ROI**).

**Return on investment:** A measure of the profit of an investment, expressed as a percentage of the original cost.



## Product data collection form

Table 7 gives an example of the product data collection form.

**Table 7:** Product data collection form

Product name	Time for complete cycle	Pre-production cycle	Technical demand	Soil requirements	Soil pH	Water requirements
	Years	Months or years	Low, average or high			mm/year
Planting period	Labour needs	Irrigation needs	Altitude / temperature	Major pests and diseases	Planting density	Annual expected yield
		Yes or No			Number of plants/ha	t/ha

### Livestock production form

Table 8 is an example of a livestock data collection form.

**Table 8:** Livestock data collection form

Product	By-products	Technology level	Capacity	Number of breeders	Period of Growth	Nutrition regime
		Low med high				
Inputs	Main disease and pests	Equipment needs	Working capital	Investment	Annual sales	Gross margin

### Marketing collection form

Table 9 is an example of a marketing data collection form.

**Table 9:** Marketing data collection form

Product	Sold currently	Perishability	Type of client	Services to the client or supplier	Type of market
	Yes or No	High Medium Low	SM = Supermarket FI = Food industry I = Industry Rest = Restaurant	TA = Tech assistance CR = Credit	L = Local R = Regional N = National Exp = Export
Product	Growth of demand	Quality requirements	Packaging needs	Delivery requirements	Commercial relations
	High Medium Low	High Medium Low		PZ = Delivered at zone PW = Delivered at warehouse	Ag = Agreement AL = Alliance C = Contract



## Financial data collection form

Table 10 is an example of a financial data collection form.

**Table 10:** Financial data collection form

Product	Level of technology	Price stability	Production investment	Average # of workdays / year	Sales per workday	Profit analysis
	High, med, low	High, med, low	\$/ha		\$	\$
Product	Cash flow workday	IRR without financing	IRR with financing	NPV without financing	NPV with financing	NPV without financing
	\$	%	%	(\$)	(\$)	(\$)

## Income and revenue data form

Table 11 is an example of an income and revenue data form.

**Table 11:** Income and revenue data form

<b>Product type</b>		<b>Currency</b>			
<b>Land area</b>		<b>Currency per \$</b>			
<b>Date</b>	<b>Materials</b>	<b>Units</b>	<b>Quantity</b>	<b>Price per unit</b>	<b>Cost</b>
		Kilograms, bags, etc.	A	B	A × B
<b>Pre-production</b>					
	<b>Tools</b>				
	<b>Land rental</b>				
<b>Total pre-production costs</b>					
<b>Production</b>					
	<b>Seed</b>				
	<b>Fertiliser</b>				
	<b>Agrochemicals</b>				
<b>Total production costs</b>					
<b>Post-harvest</b>					
	<b>Bags</b>				
<b>Total post-harvest costs</b>					
<b>Marketing costs</b>					
	<b>Transport to market</b>				
	<b>Market fees</b>				
	<b>Com- munications</b>				
	<b>Other</b>				
<b>Total marketing costs</b>					
<b>Total consumable materials costs</b>					
<b>Total consumable materials costs (\$)</b>					

## Analyse profitability

The profitability analysis focuses on elements such as:

- Cost of production;
- Expected revenue (income), based on past experience/unit area; and
- **Gross margin.**

**Gross margin:** The total sales revenue (income) minus the cost of goods sold, divided by the total sales income and expressed as a percentage.

Figure 4 shows the profitability analysis of a farmer growing beans in Uganda.

GROSS MARGIN ANALYSIS FOR CLIMBING BEANS: INCOME/ACRE

Costs/acre	Shillings	Notes
Land preparation	40,000	Animals hired for ploughing.
Seeds	24,000	New Variety.
Planting	5,000	
Staking - Supports	60,000	240,000 for Staking materials but will be used Over 4 Seasons.
Weeding x3	15,000	used mainly family Labour. Some Costs not included.
Fertiliser	25,000	
Pesticides	6,000	
Labour for harvesting	18,000	
Packaging	1,000	
Transport to market	5,000	
Market fees	1,000	
<b>TOTAL COSTS/ACRE</b>	<b>200,000</b>	
Harvest Kgs	1,200	
Market price/kg	750	
<b>INCOME</b>	<b>900,000</b>	
<b>GROSS MARGIN</b>	<b>700,000</b>	

**Figure 15:** Example of a profitability analysis

The level of detail that the team requires should be decided in consultation between the field agents and the clients (farmers, groups, cooperative, agri-entrepreneurs, etc.). At this stage, critical business skills are also built, which the teams will need as their businesses grow.

### **Step 5: Select products with clients**

The final filtering in the MOI process involves the clients selecting a product. The decision has to be based on preferences of the investor. This process can be done for mixed groups or through a series of meetings with producers according to their wealth ranking, so that investment options can be made according to the levels of risk that producers want to take on.

The detailed MOI survey provides farmers with information on the:

- Production requirements;
- Market demand; and
- Financial costs and revenues for a specific product.

The farmer group and the survey team need to write up, systemise and analyse this information, so that they can present it to the full farmer organisation, who uses the information to make an informed decision about what product(s) they should invest in for their production and collective marketing strategy. Figure 16 shows an example of sharing survey results with farmers



**Figure 16:** Sharing survey results with farmers

Following the decision on which product to develop as an agri-enterprise, the survey team then:

- Sets up a planning session to link their production targets, so that they meet the needs of the target buyers; and
- Works with the farmers so that they can develop both a business plan and an implementation plan.

 Complete Activity 2.2 in your workbook.

## Session 2.3: Value chain analysis and upgrading

### Session outcomes

After completing this session, you should be able to:

1. Identify the key points that are evaluated in a value chain analysis; and
2. Identify and explain the steps involved in the value chain analysis.

### Introduction

The value chain analysis can follow a MOI survey, but, in most cases, a value chain analysis is based on a prior product selection process. This is a more extensive analytical method, which provides a systematic process to assess market options. It aims to change the existing buying and selling culture from the realm of occasional and opportunistic sales transactions from individual farmers and transient traders to a more consistent sales approach that builds relationships between organised groups of farmers selling into a known set of trading partners, who are linked to growth and higher value or higher volume markets.

The key issues that are evaluated in a value chain analysis are outlined in Table 12.

**Table 12:** Key points to be evaluated in a market chain survey

<b>Key points</b>	<b>Detail</b>
Dimensions of the market study	<ul style="list-style-type: none"><li>• Map of the area, market chain, market channel and product flows;</li><li>• Rapid overview of the economic status of the countries;</li><li>• Macro-economic developments; and</li><li>• Trade and competitiveness: recent reforms, performance and market access.</li></ul>
Product case studies and analyses	<ul style="list-style-type: none"><li>• Production zones;</li><li>• Importance of the product to earnings, rural livelihoods, poverty alleviation and economic growth;</li><li>• Principle production and marketing constraints limiting the product export expansion; and</li><li>• Medium and long term market outlooks across the product, for national, regional and export trade.</li></ul>
Clients for study	<ul style="list-style-type: none"><li>• Exporters;</li><li>• Commercial buyers;</li><li>• Processors;</li><li>• Farmer associations; and</li><li>• Service providers.</li></ul>

Key points	Detail
Demand analysis	<ul style="list-style-type: none"> <li>• Growth categories (exponential growth, steadily increasing demand, stagnant);</li> <li>• Market size (estimate volume of the market, key segments products, segments buyers);</li> <li>• Market opportunities identified by market type, (local, district, national, regional, export);</li> <li>• Price trends over past 5–10 years;</li> <li>• Volume trends over similar period;</li> <li>• Principal buyers of this product, competitors and the advantages they enjoy;</li> <li>• Market barriers;</li> <li>• Market requirements in this product area for which customers/importers will pay;</li> <li>• Quality and health standards that have to be met;</li> <li>• Processing and packaging requirements;</li> <li>• Volume and delivery time requirements; and</li> <li>• Product differentiation needed to succeed.</li> </ul>
Supply analysis: analysis of the market chain	<ul style="list-style-type: none"> <li>• Production costs and margins down the market chain;</li> <li>• Possible changes that would overcome any bottlenecks within the system;</li> <li>• Principal constraints to production of this commodity;</li> <li>• Costs of production;</li> <li>• Finance/credit; and</li> <li>• Quality control measures.</li> </ul>
Major challenges to market entry within the identified markets	<ul style="list-style-type: none"> <li>• Organisation;</li> <li>• Technology;</li> <li>• Services; and</li> <li>• Policy.</li> </ul>



Key points	Detail
Institutional and market barriers	<ul style="list-style-type: none"> <li>• Market barriers on local, national and regional level;</li> <li>• Finances;</li> <li>• Price information;</li> <li>• Grades, standards and health certifications; and</li> <li>• Market linkages.</li> </ul>
Institutional and policy constraints	<ul style="list-style-type: none"> <li>• Private sector organisation/institutional set-up along the production/marketing chain;</li> <li>• Government barriers; and</li> <li>• Trade barriers.</li> </ul>
Regional comparison of competitive advantages	<ul style="list-style-type: none"> <li>• Highlights of the most competitive areas and products;</li> <li>• Analysis of areas with comparative advantage that are being exploited and other areas that may have comparative advantage but are not able to realise this potential; and</li> <li>• Suggestion of specific types of investment that would provide the highest economic gain, given that future research and development investment is limited.</li> </ul>
The way forward: Production and market growth strategies for the product market chain	<p>Development of strategies for the sub-sector on national and regional advantage basis:</p> <ul style="list-style-type: none"> <li>• Growth markets and product areas;</li> <li>• Priority requirements (changes in production, processing and quality control and enhancement, product differentiation, technology and investment);</li> <li>• Respective roles and actions of private and public sectors; and</li> <li>• Short-term and long-term actions needed (balancing poverty reduction and growth objectives).</li> </ul>

Key points	Detail
Priority government intervention to support the production and export development strategy	<ul style="list-style-type: none"> <li>• Areas where government or donors have greatest impact growth from this market chain;</li> <li>• Infrastructure development;</li> <li>• Improved planting material/product improvement;</li> <li>• Processing and processing efficiency;</li> <li>• Market information;</li> <li>• Attracting foreign investment and technology;</li> <li>• Policy, legislative and institutional support;</li> <li>• Indicative costing, timing, phasing and prioritisation of these proposals; and</li> <li>• Areas in which donor assistance may be best applied.</li> </ul>
Conclusions	<ul style="list-style-type: none"> <li>• Major finding; and</li> <li>• Recommendations and steps in interventions for future research and development and/or commercial applications.</li> </ul>

Whether a market process is led through a company, an extension agent, a farmer organisation or a chain facilitator, the process generally consists of the following steps:

- Select the survey team, organise support staff and meet lead clients (training and innovation);
- Identify key issues for analysis;
- Conduct a literature review;
- Select market and key informants;
- Map the market chain;
- Prepare a market survey questionnaire or checklist;
- Visit markets and key informants in the market chain to collect information:
  - Hold focus groups with farmers (supply side analysis);
  - Interview buyers to understand market requirements (demand analysis); and
  - Assess services available through the supply chain, (efficiency);

- Gather information on opportunities to improve trading relations;
- Collect information for business plan (production, marketing, finance, risk, competition);
- Analyse data from the surveys; and
- Prepare a series of reports to share with target clients: investors, donors, researchers, partners, lead firms, service providers, farmers.

## **Step 1: Select the survey team, organise support staff and meet lead clients**

A first step in the design of a value chain survey is the formation of the team that will plan and carry out the survey. This team will be responsible for:

- Collecting information;
- Conducting the analysis; and
- Writing the final report.

The composition of the market assessment team can vary, depending on the resources available and the objective of the market assessment. The team should not exceed five or six members to enable open personal discussion of potentially sensitive commercial information. The entire team should be involved in the design and implementation of the survey. Where possible, team members should have different and complementary skills and expertise. The requirements that the survey team should meet, are outlined in the following sections.

### **Knowledge and skills**

Ideally, at least one person in the team should have a strong background in market research and the analysis of agricultural commodities. One team member should have strong technical knowledge about the production of the target product, including production, post-harvest, and processing issues. If possible, one team member should have contacts in the trading community (i.e. traders, transporters and processors working with the target

commodity). Team members should be motivated, have good facilitation and interviewing skills and should work well in a team.

### **Including government staff**

Where possible, the participation of relevant national, provincial and/or district government staff should be included. Including government staff in the survey team contributes to mainstreaming results from the study as a decision-making tool within government and enhances the influence of the market survey on future policy and market development interventions. Extension workers should take part in the market study and they should be able to conduct a market survey as part of their routine work.


### **Visiting clients and farmer communities**

If possible, bring the team to meet farmer communities or the lead firms to gain a clear view of the clients, their ambitions and needs.

Some or all the participants in the survey team may need training on the market assessment method, or they should have attended refresher sessions to enhance and/or update their communication, facilitation, interviewing, documentation and analytical skills prior to the survey.

## **Step 2: Identify key issues for analysis**

Market chains are complex systems involving a range of activities, actors, relationships and regulations. In order to be efficient in the information collection stage, the survey must focus on the key purpose of the value chain analysis and design the interview process to address the most relevant issues. Particular attention should be given to any specific requests for information by the commissioning agency and from clients/future beneficiary groups.



For example, farmer groups, who normally sell fresh cassava roots, may want to know more about processing methods, processors and the prospects of dried cassava and technologies associated with storage of dried cassava products. In this case, the survey group should ensure that questions address both fresh and processed goods and that the survey team members are well informed about these areas, before they go to the field. This will help the team members to discuss relevant issues with market chain actors from an informed position.

To help make decisions on the focus of the analysis, the survey team should build a survey checklist similar to the one given in Table 13.

**Table 13:** Key issues checklist

Areas of investigation	Issues	Reasons for investigating
Commodity characteristics	<ul style="list-style-type: none"> <li>• Grades and end uses;</li> <li>• Degree of bulkiness and perishability;</li> <li>• Handling and storage requirements;</li> <li>• Degree/type of processing;</li> <li>• Type and magnitude of post-harvest losses; and</li> <li>• Packaging methods and materials.</li> </ul>	<ul style="list-style-type: none"> <li>• Commodity characteristics influence the performance of the whole marketing system, including the type of marketing functions performed, how they are performed and the relative cost at which they are performed;</li> <li>• The nature of the production process influences the timing and magnitude of producer sales and marketed flows; and</li> <li>• The identification of the causes and means of reducing post-harvest losses can expand food availability and improve the incomes of all participants in the marketing chain.</li> </ul>

<b>Areas of investigation</b>	<b>Issues</b>	<b>Reasons for investigating</b>
Consumption patterns	<ul style="list-style-type: none"> <li>• Seasonal and long-term trends in domestic and export markets;</li> <li>• Consumption patterns for different socio-economic and ethnic groups; and</li> <li>• Future market prospects.</li> </ul>	<ul style="list-style-type: none"> <li>• Demand drives (or pulls) production, processing and marketing;</li> <li>• The strength and seasonality of demand affect production and storage incentives, as well as the direction and size of product flows; and</li> <li>• Post-harvest losses are high in many countries and identifying the causes and means of reducing these losses can expand food availability and improve the incomes of all participants in the marketing chain.</li> </ul>
Supply situation	<ul style="list-style-type: none"> <li>• Production by year and by region for recent years, noting trends and variability; and</li> <li>• Flows from major supply areas to major markets, including exports and imports.</li> </ul>	<ul style="list-style-type: none"> <li>• Production levels and variability affect prices and risk levels; and</li> <li>• Shifts in supply over time may indicate response to policies, technological change, the institutional environment, etc.</li> </ul>

<b>Areas of investigation</b>	<b>Issues</b>	<b>Reasons for investigating</b>
Prices	<ul style="list-style-type: none"><li>• Long-term trends in real prices at the farm-gate, wholesale and retail levels;</li><li>• Long-term trends in real export prices;</li><li>• Seasonal and cyclical trends in prices; and</li><li>• Changes over time in input and output prices.</li></ul>	<ul style="list-style-type: none"><li>• Prices provide a measure of incentives facing participants in the marketing system;</li><li>• Changing input and output prices may indicate shifts in production and marketing incentives; and</li><li>• The domestic pricing structure relative to international prices provides insight into regional and national comparative advantage.</li></ul>



<b>Areas of investigation</b>	<b>Issues</b>	<b>Reasons for investigating</b>
<p>Organisation of marketing systems</p>	<ul style="list-style-type: none"> <li>• Marketing channels and stages;</li> <li>• Important assembly, wholesale and retail markets;</li> <li>• Types, numbers and geographical distribution of firms at key stages in the marketing system; and</li> <li>• Existence and importance of alternative institutional arrangements, such as contracts, vertical integration, direct marketing, cooperatives or associations and open market sales.</li> </ul>	<ul style="list-style-type: none"> <li>• The structure of the marketing system influences the conduct of participants, which, in turn, affects performance; and</li> <li>• Analysts need to examine the benefits and costs of alternative institutional arrangements.</li> </ul>

Areas of investigation	Issues	Reasons for investigating
<p>Operation of marketing systems</p>	<ul style="list-style-type: none"> <li>• Practices and strategies of market participants regarding input purchases and product sales, processing and storage;</li> <li>• Vertical coordination mechanisms: sale arrangements, risk sharing, information dissemination;</li> <li>• Sources, uses and distribution of production and marketing information;</li> <li>• Responsiveness of market participants to shifting supply and demand and policy changes; and</li> <li>• Evidence of monopolistic or <b>oligopolistic situations</b> in the market.</li> </ul>	<ul style="list-style-type: none"> <li>• The behaviour of market participants affects the performance of the marketing system;</li> <li>• Access to information affects the ability of different market participants to respond to changing market conditions; and</li> <li>• Better vertical coordination can improve the matching of supply and demand and reduce risk.</li> </ul>

<b>Areas of investigation</b>	<b>Issues</b>	<b>Reasons for investigating</b>
Marketing infrastructure	<ul style="list-style-type: none"> <li>• Transport infrastructure (roads, ports, airports, waterways and railway);</li> <li>• Market places;</li> <li>• Storage and processing facilities;</li> <li>• Communications;</li> <li>• Electricity;</li> <li>• Water supply; and</li> <li>• Infrastructure adequacy and bottlenecks (evidence of excess or underutilised capacity).</li> </ul>	<ul style="list-style-type: none"> <li>• In many countries, infrastructural constraints cause severe bottlenecks to marketing; and</li> <li>• Excess, underutilised capacity suggests uneconomic investments and deficient allocation of resources.</li> </ul>

Areas of investigation	Issues	Reasons for investigating
<p>Government, marketing institutions and policies</p>	<ul style="list-style-type: none"> <li>• Regulations: rules, input and product regulations, laws affecting marketing and trading, property rights;</li> <li>• Public marketing institutions;</li> <li>• Macroeconomic policies: price policies, exchange rate policies, labour policies, <b>fiscal</b> and <b>monetary policies</b>; and</li> <li>• Banking and credit policies.</li> </ul>	<ul style="list-style-type: none"> <li>• The regulatory environment affects the incentives facing market participants and their behaviour;</li> <li>• Public marketing institutions influence the organisation, operation and performance of marketing systems;</li> <li>• Macroeconomic conditions shape the environment in which market participants make production and marketing decisions; and</li> <li>• Banking and credit policies determine who has access to formal credit.</li> </ul>

Areas of investigation	Issues	Reasons for investigating
International trade and commodity competitiveness	<ul style="list-style-type: none"> <li>• Commodity exports and world market situation;</li> <li>• Imports of the commodity or substitutes, as well as their impact on production, markets and prices;</li> <li>• Trends in exports and imports;</li> <li>• Likely changes in exports and imports and emerging market opportunities or dependencies; and</li> <li>• Competitiveness of exports in particular foreign markets.</li> </ul>	<ul style="list-style-type: none"> <li>• International trade affects production and marketing incentives and opportunities, consumption patterns and preferences, as well as the behaviour of market participants; and</li> <li>• International market conditions influence a country's comparative advantage in production and export of agricultural commodities.</li> </ul>




**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.

**Fiscal policy:** The policy by means of which a government adjusts its spending levels and tax rates, in order to monitor the national economy.

**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.

### Step 3: Conduct a literature review

One or several team members should undertake the task of conducting a **literature review**, or, alternatively, a consultant can be hired for this purpose. This decision is based on the resources and time available, as well as the analytical skills of team members.

**Literature review:** A critical assessment of the literature (secondary information sources) related to the value chain survey, in order to identify what is already known about the area of investigation. 

It is easier and faster to collect secondary than primary data and it is often more accurate. For example, quantitative data is frequently available from government statistics and previous studies, which enables the team to gain an understanding of the seasonality and historical trends in demand and supply, as well as the prices for a specific product. In addition, detailed information on export markets can sometimes be obtained from existing sources, without actually visiting those markets.

The literature review, which is based on the information in secondary sources, should precede the collection of primary data from the field. The literature review provides the team with information on:

- The production and marketing system;
- Gaps to be filled by the primary data; and
- The essential background for subsequent fieldwork and analysis.

Key sources of secondary information include:

- Official statistics from statistical departments;
- Ministries of agriculture, trade or finance;
- Donor agencies;
- The Internet;
- NGO reports;

- Specialised journals;
- Bulletins and newsletters;
- Documentation of trade associations and chambers of commerce; and
- Other rural development projects.

This information is cheaper to access than primary data from the field and it should provide the team with an important framework from which to assess information given at the interview stage.

## **Step 4: Select markets and key informants**

The value chain survey team needs to decide on the type and number of markets that will be visited and the type and number of key informants who will be interviewed.

### **Key informants**

The following two types of key informants should be interviewed: market participants and knowledgeable observers. These types of informants are outlined in the following two sections.

#### **Market participants**

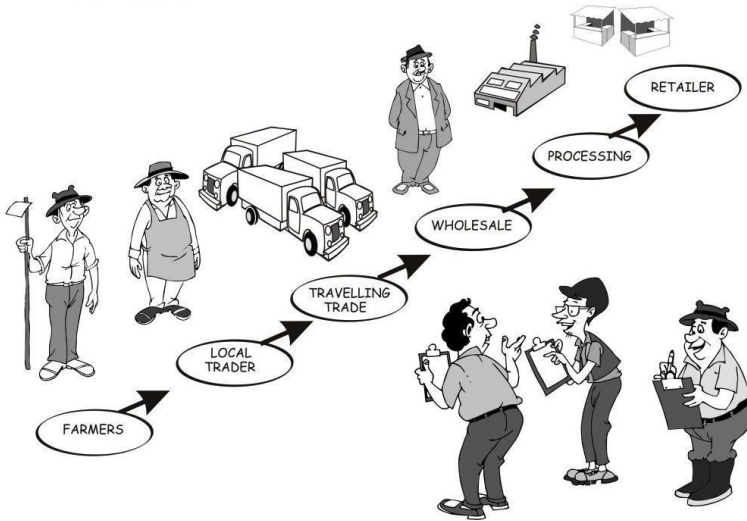
Market participants are the actors involved in the production, marketing and processing of the agricultural commodity that is being analysed. Examples of market participants include:

- Input suppliers, farmers;
- Traders;
- Transporters;
- Storage service providers;
- Processing firms;
- Importers; and
- Exporters.

#### **Knowledgeable observers**

In most value chain studies, there is a small number of insightful, knowledgeable people, who do not participate in the production or marketing of the commodity, but who can offer a broad, and

sometimes detailed, perspective on the sub-sector. Figure 6 shows an example of the key informants in the value chain survey.



**Figure 17:** Key informants in the value chain survey

When selecting key informants, the survey team must answer the following four questions:

- Who should be interviewed?
- What is their role or function?
- How many interviews are needed at each level?
- Which interview method should be used to ask the questions?

### Sample

A sample unit is part of the population of the survey.

**Population** refers to the entire group of people (key informants) that should be studied/interviewed, whereas a **sample** is a selected group that is defined from the population. Sampling is used because it enables the survey team to collect information from a smaller, more manageable part of the population. Based on what they learn about the sample, they can draw conclusions about the population.



**Population:** The entire group of people that should be studied/ interviewed in the value chain analysis.



**Sample:** A selected group that is defined from the population.

A local market study focuses on village, community and perhaps district and provincial markets. In this case, the key informants will include local input dealers, farmers, collectors, traders and processors, as well as extension officers and staff from local government agencies and development projects.

A broader market study will cover all the critical nodes (points) in the market chain—from producer to retailer and exporter—and all major types of markets (commune, district, provincial and national) should be visited. Other key informants will include policy-makers, researchers, technical and administrative staff from government and non-government agencies, as well as representatives from donor agencies. A list of key informants that can be included in the sample unit, and the advantages and disadvantages of including them, is given in Table 14.

**Table 14:** Key informants in the sample unit of the value chain survey

<b>Types</b>	<b>Advantages</b>	<b>Disadvantages</b>
Importers and/or exporters	Know trade figures	May know little of informal activities
Institutional buyers	Major buyers	Little knowledge of chain up to themselves
NGO staff	Inform local social situations	Often production biased
Extension agents	Detailed knowledge of farmers	Poorly supported

Types	Advantages	Disadvantages
Agricultural producers	Know input system, costs	Many are subsistence
Processors	Knowledge of chain	Focused on one section
Brokers	Detailed knowledge of local situation	Know little of area beyond activities
Wholesalers	Located at a key node in the system	Very busy, may be uncooperative
Retailers	Located near to consumers	Generally suspicious about giving prices

### Sample size

It is important that the survey team selects a representative sample, which means that the sample resembles the population in as many ways as possible, because it allows the team to generalise the survey results accurately. As a general sample size rule, a minimum of three to five interviews should be conducted for each stage of the market chain.

### Sampling procedure (technique)

Sampling procedure refers to the way in which key informants are selected for the interview. The team can opt for a purely random sampling—i.e. interviewing informants who are available—or the team may start by interviewing larger or well-known/respected traders and processors within a specific market chain, as they are likely to have the most insight into the market dynamics.

As the fieldwork progresses, the survey team may feel the need to interview additional key informants, in order to improve the quality of the data and information collected and gain a deeper

understanding of key issues. The team may also become aware of new markets and key informants as the fieldwork progresses.

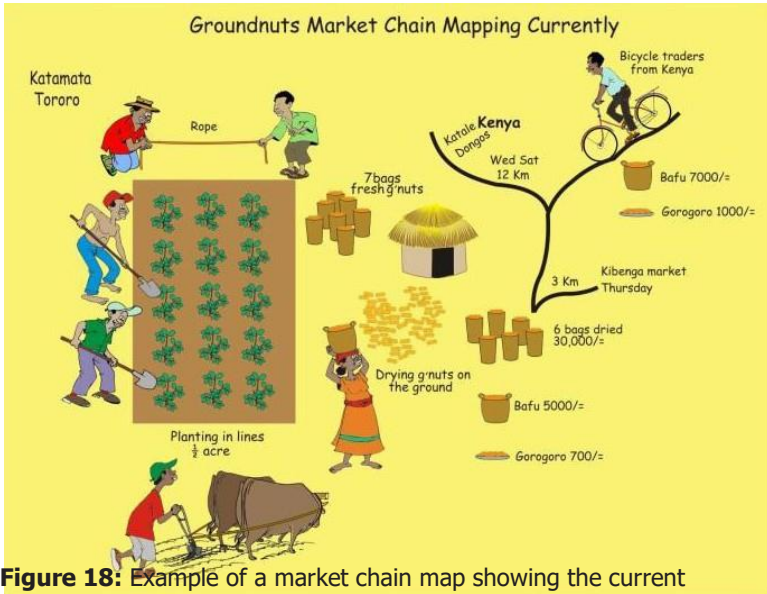
## **Step 5: Map the market chain**

A simple but effective method of supporting the market survey planning is to make a first level sketch of the existing market chain. This method is also a useful exercise for more formal analytical marketing teams and for field agents working with farmers. This first level approach aims to answer the following questions:

- Who are the known actors in the market chain?
- Who are the core chain actors?
- Who are the service providers?
- Where are they located?
- What are their roles or functions?
- How do they relate to each other?

There are no rigid rules for value chain mapping and there are many variations of the theme of market maps.

Figure 18 shows a simple map of the market chain that was developed by using a participatory approach with farmers.



**Figure 18:** Example of a market chain map showing the current situation



**Figure 19:** Groundnuts market chain mapping

In this case, the farmers created a market map, showing the current situation. This approach is usually complemented with a second map that shows the desired market situation, which is the vision of what the farmers would like to achieve through a market chain upgrading process.

Other market maps indicate the flow of goods from input suppliers through farmer to end markets. The map in Figure 8 shows a market chain map reflecting the desired future, with the farmers having information on the way in which livestock flows through the different market actors to the end markets.

In most cases, these maps do not include specific named chain actors. The survey part of the process will provide that additional level of detail.

Figure 20 gives an example of a market chain map in tabular format.

Generic Worksheet Crossing Function with Participants/Actors

FUNCTIONS	PARTICIPANTS / ACTORS							
	Village Stores	Input Supply Companies	Small-Scale Producers	Producer Associations	Medium-Scale and Commercial Producers	Traders	Processors	Wholesalers
Export								
Wholesaling								
Processing								
Assembly								
Production								
Input Supply								

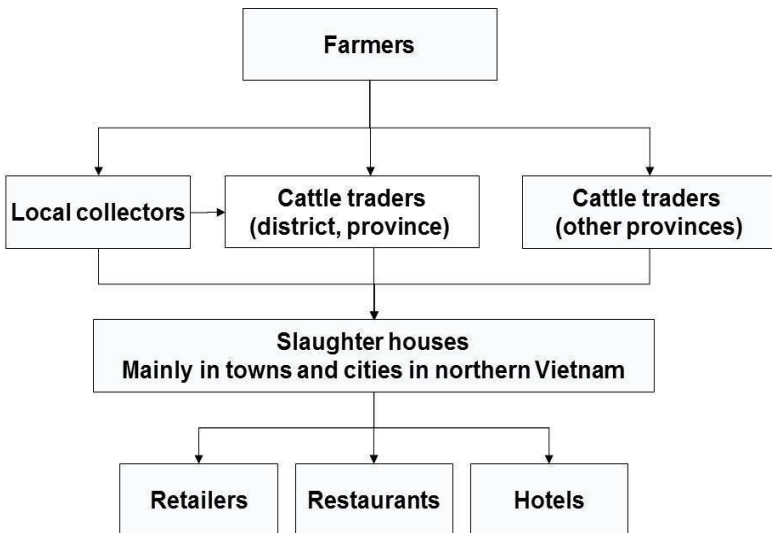
**Figure 20:** Tabular approach to the market chain map

In this diagram, the approach enables the team to develop a checklist of market actors. This is a useful tool to apply before developing survey instruments or questionnaires and checklists,

as the team can be sure to develop survey tools for each type of market actor. Using this tabular approach, the market team can:

- List end markets across the top of the map;
- List functions down the left side of the map;
- Fill in participants/actors according to their functions and markets, presented as block forms with inserted text in each entry;
- Draw the linkages between participant blocks with arrows in the direction of the product flow; and
- Clearly define market channels in a vertical manner, culminating at end markets at the top of the map.

If participant/actors are involved in more than one function or market, the block can be extended to reach the relevant functions/markets. If their functions are not consecutive in the chain, the skipped function block is presented with dotted lines. Actors should be grouped by categories of firms rather than individual firms by name as shown in Figure 21.



**Figure 21:** Actors grouped by categories of firms

## Step 6: Prepare a market survey questionnaire or checklist

The survey team has to prepare a questionnaire or a set of checklists, which will be discussed in the following two sections.

### Value chain analysis questionnaires

A structured questionnaire consists of a series of carefully prepared questions, which focus on the key issues that have been identified in Step 2 and are asked in a logical sequence. In a structured questionnaire, close-ended questions are used, which means that each question has a number of options that the key informants have to choose their responses from. In an unstructured questionnaire, use open-ended questions. Open-ended questions do not have suggested answers or options which gives the key informant the freedom to answer the questions based on his/her personal knowledge and/or experience.

Questionnaires can be developed into digital format, which can speed up data collection and analysis. If you are planning to use digital forms for data collection, you need to make sure that the team fully understands the survey instrument and that they have tested it before going to the field.

The following are examples of simple questions that can be included in the value chain analysis survey questionnaire:


1. For each of the markets (buyers) where farmers sell their product:
  - Is the market for this product growing, stable or declining?
  - Who buys the product?
  - How big is the market?
  - How many similar buyers are there?
  - What are the purchase conditions?
    - At what price?
    - What quality?
    - What time?

- What volume?
- How often do they sell and buy?
- What is the form of payment?
- Are there price fluctuations during the year?
- Are sellers and buyers happy with existing relationships? Why?
- Do they purchase from smallholder producers? If not, why not?
- What are the major constraints that buyers face?
- Do they recognise any opportunities to improve their business?

## Value chain analysis checklists

Checklists are abbreviated questionnaires that the survey team interviewers use as a guide to major issues that need to be discussed with the key informants—i.e. the issues that have been identified in Step 2.

Checklists differ from questionnaires in that they serve as a prompt for an interview with an individual informant or a **focus group**. When using checklists, a team often works with one person leading the conversation and another person writing down the key informants' responses. The skill in conducting the interviews is the ability to have a normal conversation with the interviewee (key informant), while collecting detailed information and probing the person for valuable information.

**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. 

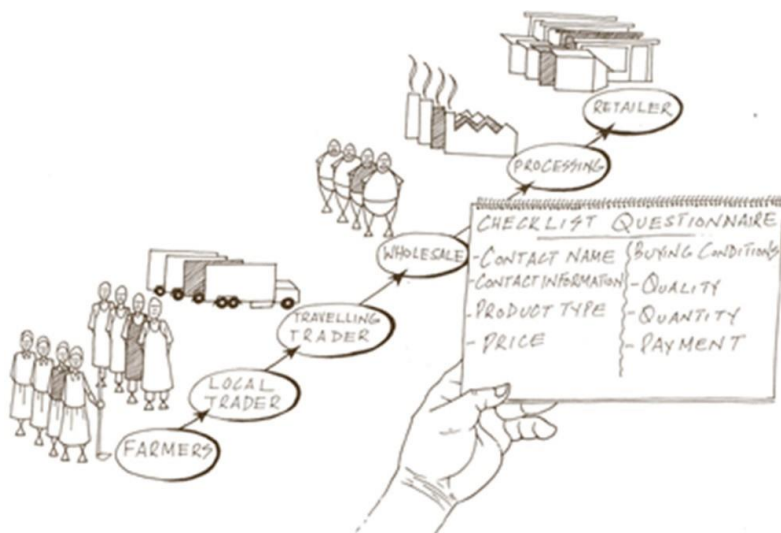
Teams should prepare different checklists for different types of key informants, because each type of key informant is particularly knowledgeable about specific issues, based on their position and function within the marketing system. For example, farmers may



be able to provide useful information about local input supply and market channels, but they may lack a clear understanding of processing, the export trade and key policy and regulatory issues. Transporters may be knowledgeable about product flows, the state of road infrastructure and the availability and cost of transport services, but unaware of prices, storage practices, and marketing arrangements between different market chain actors.

It is recommended to test the checklist with several people before using it for field work to make sure that the questions are understood, the time allocated is appropriate, the sequence of the questions is logical. Based on the outcome of this test, the checklist can be reviewed (if necessary).

See Figure 22 for an example of a value chain analysis checklist.



**Figure 22:** The value chain analysis/survey checklist

Table 15 provides a checklist that can be adapted for different actors in the value chain.

**Table 15:** Detailed checklist to be adapted for different actors and service providers

Input traders	
Background information	<ul style="list-style-type: none"> <li>• Location;</li> <li>• Years in operation; and</li> <li>• Type of product X and other products traded.</li> </ul>
Procurement and sale of product X	<ul style="list-style-type: none"> <li>• Volumes traded per type of product X (month, year);</li> <li>• Seasonality in product X sales;</li> <li>• Suppliers of product X and their location;</li> <li>• Buyers of product X and their location; and</li> <li>• Current wholesale and retail prices for different product X.</li> </ul>
Trends	<ul style="list-style-type: none"> <li>• Trends in product X sales (e.g. over the past three years) and reasons behind these trends;</li> <li>• Perception of future product X demand trends (e.g. over the next three years) and key driving factors;</li> <li>• Trends in product X prices (e.g. over the next three years) and reasons behind these trends; and</li> <li>• Perception of future price trends (say over the next 3 years) and key factors that are likely to drive these trends.</li> </ul>
Transactions	<ul style="list-style-type: none"> <li>• Buying arrangements/conditions, e.g. sales on credit, prompt cash payment, etc.; and</li> <li>• Selling arrangements/conditions, e.g. sales on credit, prompt cash payment, payment in kind, etc.</li> </ul>

Input traders	
Policies and regulations	<ul style="list-style-type: none"> <li>• Key policies and regulations; and</li> <li>• The influence of key policies and regulations on the development of product X trading.</li> </ul>
Constraints and opportunities	<ul style="list-style-type: none"> <li>• Key constraints to the development of the product X trading business;</li> <li>• Solutions to these problems;</li> <li>• Key opportunities to develop the wholesale business;</li> <li>• Factors that may enable this development; and</li> <li>• Recommendations for improving farmers' access to product X.</li> </ul>

More experienced market analysts tend to prefer using short checklists, rather than large questionnaires, which may be cumbersome and the process of asking many prepared questions may have a negative effect on the key informant). Analysts often find that they get more useful information if they use a short checklist and have a more natural conversation about a business. In this case, the checklist serves as a reminder of the types of questions to ask and the areas of information that need to be covered. An example of such checklist is given in Table 16.

**Table 16:** Example of a short checklist for informal interviews

Commodity characteristics	<ul style="list-style-type: none"> <li>• Grades;</li> <li>• Types; and</li> <li>• Varieties.</li> </ul>
Consumption patterns	<ul style="list-style-type: none"> <li>• Seasonality; and</li> <li>• Trends.</li> </ul>
Supply situation	<ul style="list-style-type: none"> <li>• Production;</li> <li>• Demand;</li> <li>• Storage; and</li> <li>• Trade flows.</li> </ul>

Price relationships	<ul style="list-style-type: none"> <li>• Seasonal and cyclical; and</li> <li>• Supply and demand.</li> </ul>
Actors in the chain	<ul style="list-style-type: none"> <li>• Market channels; and</li> <li>• Marketing arrangements.</li> </ul>
Marketing behaviour	<ul style="list-style-type: none"> <li>• Practices;</li> <li>• Vertical integration; and</li> <li>• Market power</li> </ul>
Market infrastructure	<ul style="list-style-type: none"> <li>• Roads;</li> <li>• Markets; and</li> <li>• Communications.</li> </ul>
Government	<ul style="list-style-type: none"> <li>• Regulation;</li> <li>• Marketing; and</li> <li>• Price fixing.</li> </ul>
Global trade	<ul style="list-style-type: none"> <li>• World market situation;</li> <li>• Tariffs;</li> <li>• Sanitary and phytosanitary (<b>SPS</b>) measures; and</li> <li>• Technical barriers to trade (<b>TBT</b>).</li> </ul>
Timing of the study	Timing of study relative to market cycle.

### Step 7a: Plan survey time in the field

The timing and duration of the market survey depends on:

- Target product;
- Number of market places visited;
- Number of key informants selected; and
- Type of information required.

The survey team needs to consider the most appropriate period and time for conducting the market assessment. The peak marketing season is usually the best time to find traders, observe transactions and to collect price data. On the other hand, producers may be on their farms harvesting the crop and,

therefore, they may be absent from the community. Traders may also be very busy conducting their business.

## **Time of day**

The team must choose the time of the day of the interviews carefully. For example, most trade in perishable products takes place during the night and very early hours of the morning. These periods may be the best times for interviews, if the objective is to observe transactions, but far from ideal for interviewing busy people.

## **Duration**

The duration of survey varies. Two to four days may be sufficient when the objective is to collect information on a particular product within local markets only. A more complex market survey, for example on the national level, would involve more key informants and could take between four to five weeks to complete the field work and then two to three weeks to finalise the report.

## **Step 7b: Survey sequencing**

There are no firm rules of where to start a value chain analysis. The point at which the survey team starts may depend on the scope of the exercise and it may also be driven by the overall aim of the intervention—i.e. is the survey being developed to support farmer market linkage or it is an intermediary firm who wants to strengthen trading links? One option is to start by interviewing exporters or larger traders in wholesale and terminal markets, which will give you an immediate overview of the market scope. The first interviews will help to identify next level options for interviews with actors going upstream towards the producers. Starting with the larger buyers will give the team a quick and broad perspective of the market chain, which may help in orienting the team before engaging with local market participants. This strategy, is particularly sensible if the survey

outcome is to support a policy approach or a lead firm-based value chain upgrading process. The alternative option is to start with focus group discussions at the farmer community level and then move down the market chain. The team first interviews farmers, then local traders and processors, before moving onto market participants at regional level and finally traders, processors, exporters and importers at the top end of the market chain.

### **Step 7c: Data collection tools**

There are several methods and tools that the survey team can use for collecting data from a range of actors in the market chain, including farmers, traders, processors and retailers. These people operate in different worlds and, therefore, require different ways of engagement. The following list provides some ideas on tools that the survey team can use to match approaches with specific situations:

- Focus group;
- Product ranking and prioritisation;
- Historical calendars;
- Market mapping;
- Evaluation of service provision;
- Market visits;
- Learning journeys;
- Checklists or semi-structured interviews;
- Structured interviews; and
- Direct observation.

These tools can be used either alone or in combination and the survey team should decide which tools are best suited for the scale and scope of the marketing chain survey being undertaken. It is extremely unlikely that any survey would use all these data collection tools. Instead, the survey team should select the tools that are most appropriate to meet the needs of the purpose and terms of reference of the survey.

See Table 17 for more information on these data collection tools.

**Table 17:** Data collection tools for value chain surveys

<b>Data collection tool</b>	<b>Reasons for use</b>	<b>Time to use</b>	<b>Time</b>
Focus group	<ul style="list-style-type: none"><li>• To gain information on a specific issue or product from a representative group of people, who can provide information on behalf of a community;</li><li>• Can also be used with consumers if information on their perception about certain products is required.</li></ul>		

Data collection tool	Reasons for use	Time to use	Time
Ranking and weighting	<ul style="list-style-type: none"> <li>• To find out what farmers are growing and the priority of these products in relation to food products market products and income and market linkages; and</li> <li>• Can also be used to rank constraints in production and marketing.</li> </ul>	At the participatory diagnosis phase to select and prioritise products for further market investigation	2–3 hours
Historical calendar	<p>To find out:</p> <ul style="list-style-type: none"> <li>• When major events happened in the community over the past 10–15 years</li> <li>• Who has supported the community; and</li> <li>• What went well and what did not work.</li> </ul>	<p>At the participatory diagnosis phase to:</p> <ul style="list-style-type: none"> <li>• Determine what has worked;</li> <li>• List local service providers; and</li> <li>• Evaluate their value to the community.</li> </ul>	2–3 hours



<b>Data collection tool</b>	<b>Reasons for use</b>	<b>Time to use</b>	<b>Time</b>
Market mapping	Enables farmers, traders and service providers to draw a picture of their marketing system, which is 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. You can also do an existing market map and a desired future market map, thereby combining mapping and visioning, which is very helpful for a team.	2 hours
Evaluation of BDS	Rapid assessment to gain an inventory and quality score of service providers that work/worked in the project area and identify successful innovations, gaps and options.	At the outset of the survey to discover existing services and how these support market access.	2 hours

<b>Data collection tool</b>	<b>Reasons for use</b>	<b>Time to use</b>	<b>Time</b>
Market visit	All market surveys collect information from a range of marketplaces, but participatory market visits enable the survey team to bring together chain actors, such as farmers or extension officers, into the process and to expose them to basic market analysis.	In situations where market surveys include a high degree of participation (e.g. farmer participation) and for capacity building processes.	1–3 hours depending on survey scope
Learning journey	The method enables actors from along the value chain to come together and follow products down the 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

<b>Data collection tool</b>	<b>Reasons for use</b>	<b>Time to use</b>	<b>Time</b>
Semi-structured interview	This is rapid and flexible method that is used to collect data from diverse actors and determine critical issues; particularly to opportunities, constraints efficiencies and incentives.	Throughout value chain survey to collect information on services access from all actors within the market chain.	1 hour per interviewee
Structured interviews	Focused and standardised approach to collect information and compare responses to common questions across defined response groups.	Before or after a semi-structured interview, in order to gain insights on more specific issues.	1 hour
Direct observation	Method used to compare and interviewee's information against their behaviour or marketing activities.	Throughout value chain survey to: <ul style="list-style-type: none"> <li>• Clarify information that is unclear; and</li> <li>• Confirm the scale and scope of an activity.</li> </ul>	15 minutes

## Step 7d: Interview guidelines

You may want to keep the following guidelines in mind, when conducting survey interviews:

- Introduce yourself and your organisation;
- Always be polite and professional when interviewing key informants;
- Be clear about the purpose and timing of the interview;
- Stress confidentiality;
- Be friendly and relaxed;
- Use humour;
- Follow a logical sequence in your questioning;
- Ask simple and clear questions, one idea at a time;
- Avoid leading questions and complicated questions;
- Ask most sensitive questions last;
- Do not ask prices until later in a conversation;
- Be prepared to listen and learn;
- Engage the respondent (key informant), for example:
  - Do not be afraid to challenge the accuracy of the information provided;
  - Use diagrams to assist discussions; and
  - Offer to buy a tea or coffee if the interview is taking longer than planned;
    - Investigate new areas of interest as they arise;
    - Avoid lengthy interviews; rather follow up if necessary
    - Use the information from one interview to guide and improve your next interview; and
    - Ask the informant whom you should interview next.

## Step 8a: Select methods to analyse data

Given the range of information that can be collected from the various chain actors, there are also different types of analyses used in value chain surveys. It is not necessary to use all methods: the survey team should assess the most relevant types of tools for the target study. The sections below provide a summary of some methods of analysis that you can use with a more detailed outline of the most useful tools follows.

## **Step 8b: Data analysis: cross-check data and information in the field**

The importance of checking the validity of the information and views provided by key informants cannot be overemphasised. Market participants may have their own agendas and interests, which may influence the accuracy of the information provided and affect their views on particular issues.

### **Data cross-checking methods**

The methods that are commonly used to check the quality and validity of the data collected during fieldwork are outlined in the following sections.

#### **Mirror imaging**

This type of interviewing consists of asking the same set of questions to informants at the same stage and or at adjacent stages in the marketing chain and then checking the consistency of their answers. A strong difference in responses may require further investigation.

#### **Triangulation**

Triangulation involves interviewing informants with different perspectives to arrive at a better understanding of particular issues. It also makes it possible to check if there is consistency in the answers across different actors.

#### **Observation**

Observation involves checking the views of market participants and the information provided against their actual behaviour. Direct observation methods should be employed during visits to villages, market centres, processing facilities, warehouses, etc. During these visits, the survey team can observe production activities, post-harvest handling, sorting and grading practices,

storage technologies, transport of produce and transactions. This will enable them to compare what key informants are saying, e.g. regarding their scale of operation or the quality of produce handled, to their behaviour and the way in which they are organised.

It is important to note that direct observation is not only a validation method, but it can also be used as a method to collect additional data. For example, much can be learned from going to a site and watching what is happening. For example, an empty warehouse may tell you something about the state of the business operations.

### Supervision of interviewers

Supervision of interviewers is optional but recommended. This can be done by phoning or visiting key informants to confirm that they have, indeed, been interviewed and that key issues have been discussed.

### Data analysis methods

Some of the more important methods used in data analysis are outlined in Table 18.

**Table 18:** Data analysis methods

Analytical method	Reason for use
Right size the analysis	Make sure to collect the right level of data for your study, e.g. do not collect national statistics if you are studying market options for a district: always collect the data at the appropriate level.
Trend analysis	To gain a better understanding of the changes in the market over time.

Analytical method	Reason for use
Market volume analysis	To gain an understanding of the size of the market that is being evaluated.
Profitability analysis	Tools such as gross margin analysis, internal rate of return (IRR) and net present value (NPV) determine the profitability of an existing enterprise or proposed business.
Margin analysis	To provide a measure of the efficiency of a market systems and to observe margin equity along the chain.
Projections	Method to predict changes in demand for a selected product based on specific market drivers, such as population growth, changing incomes, urbanisation and consumer habits.
SWOT	This is a <a href="#">strategic planning</a> tool that is used to evaluate the strengths, weaknesses, opportunities, and threats in a <a href="#">project</a> , <a href="#">business</a> venture, or any other situation in which an organisation or individual requires a decision in pursuit of an objective.
Problem tree	To identify and prioritise problems and to map out the causes of a particular problem.
Solution tree	To find solutions to the problems identified and to develop a series of interventions to overcome the problems systematically.
Scenario building	A technique used to lay out potential plans for specific types of client. The method requires the analyst to identify the most promising agri-enterprise opportunities and then to provide information on target market, investment needs, potential partners, likely gains and risks.

In the following sections, these methods are discussed in more detail.

### Updated marketing maps

Modern mapping using geospatial information systems (**GIS**), and data collection systems allow for highly accurate recording of where interviews take place and where specific types of actors and services are located. Where possible, survey teams should collect GIS data as part of their survey questions.

Digital data collection systems and digital survey tools enable survey team members to:

- Collect information on locations;
- Take photos and create videos;
- Record audio files; and
- Link all this information to the data upload.

This functionality can be very helpful in collating data more rapidly, cleaning data, determining distances, locations and mapping other types of data to the survey points.

### Trend analysis (Time series data)

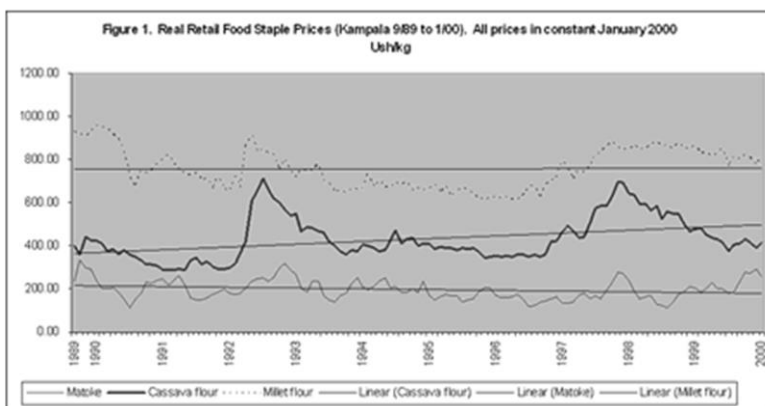
Based on a combination of secondary and primary data, the market survey team can collect information on trends in prices and market growth for a selected product, in order to identify patterns or trends. Market information services are a good source of this type of information, as they collect price data over long periods. Time series data can be used in a simple linear regression analysis, available in Microsoft Excel, to show whether prices for the selected product are increasing, staying the same or decreasing. To avoid problems with changes in the value of currency over time, it is standard practice to deflate all prices by using the national bank **commodity price index (CPI)**. This enables the analyst to compare real prices over time.



**Commodity price index:** An index of weighted average of selected commodity prices that may be based on spot or futures prices.



This type of analysis can be applied to areas such as growth projections, yield or production, prices and other forms of key trends influencing market opportunities as shown in the graph in Figure 23.



**Figure 23:** A graph based on trend analysis

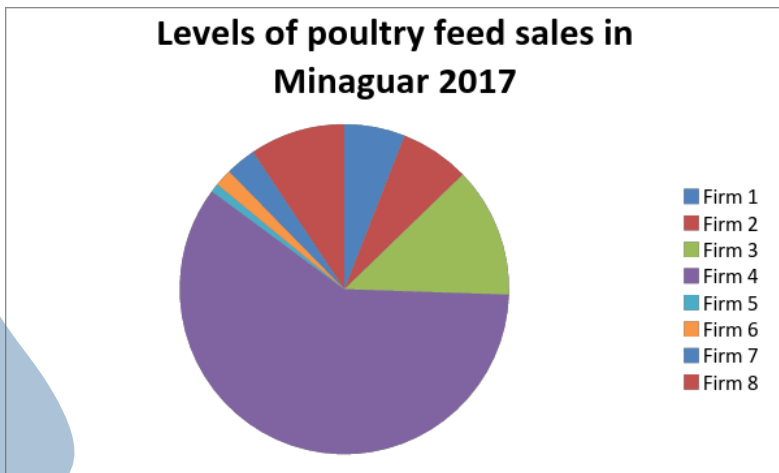
## Market volume trends

Using a combination of secondary and primary data, the survey team should develop an estimate of the size of the market being analysed. This usually requires a combination of information based on production data and sales or export data for the selected product.

Sources of secondary data may include household survey information of the target project area, sub-national data from district or provincial government sources and national data sets. For major food and export products, this data is often included in government statistics, developed for the budget, agricultural

census data, or available at organisations such as the World Bank’s Living Standards Measurement Study, (**LSMS**) and the Food and Agricultural Organization (**FAO**).

It is important to note that the data in global information sources may not be entirely accurate, because it does not always take seasonal variations into account. Therefore, it is recommended to compare global figures to local information given by larger traders. It should also be noted that if production data is used in the analysis of market volume, the analyst should take the ratio of the product used by the household and that sold into the market into account. This information can be obtained from household data and, to a degree, through focus groups with farmers. See Figure 24 for an example of market volume trends.




**Figure 24:** Example of market volume trends

### Projections and regression analysis

Following trend analysis of existing market prices or volumes, market researchers can use regression techniques to indicate future directions of markets. In order to do this type of analysis, the survey team needs to make certain assumptions and use multipliers for specific market drivers that will affect the future demand.

The simplest form of this type of analysis is to project future demand based on changing population. This analysis is based on current levels of consumption multiplied by national growth rates over time. Rates of urbanisation is also a useful multiplier.

For example, rice production in Vietnam was approximately 39,1  million metric tonnes (mt) in 2009/10 (26,1 million mt, milled basis).

Vietnam used to be a major exporter of rice, but with increasing population, these exports are declining.

Depending on the amount exported in a given year, we will estimate a 5% export level, the total consumption level would be 2 479 000 mt. Given a growth rate of 2,4%, the demand for rice on a population growth rate alone will increase by approximately 59 508 mt/year.

In other cases, demand for certain products may be in decline, due to other drivers, such as increasing income, which enable consumers to buy preferred substitute products, thereby causing a decline in the demand for the inferior good. This type of analysis is useful to gain an understanding of future demands and, therefore, whether an investment in that sector is justified.

**Metric tonne:** A unit of weight that is equal to 1 000 kg. 

## Profitability analysis

The most critical aspect of marketing is to provide customer satisfaction at a profit. However, many farmers do not keep reliable records and they are often not sure about their costs, actual revenues or profit margins. It is important to determine current levels of profitability, which can be used to determine the likely gains in profitability that may occur with investment in new market interventions.

### Gross margin analysis

The simplest form of financial analysis is a gross margin analysis, which is shown in Figure 14. This analysis typically provides the information for an agricultural business venture over a one-year period. This approach can also be used as a means of verification of profit at the end of the season, to confirm whether the plan has accurately met the forecasted figures.

**GROSS MARGIN ANALYSIS FOR CLIMBIG BEANS: IN COME/ ACRE**


Costs/ acre	Shillings	Notes
Land preparation	40.000	Animals hired for ploughing
Seeds	24.000	New variety
Planting	5.000	
Staking - Supports	60.000	240.000 for staking materials but will be used over 4 seasons
Weeding x 3	15.000	Used mainly family labour Some costs not included
Fertiliser	25.000	
Pesticides	6.000	
Labour for harvesting	18.000	
Packaging	1.000	
Transport to market	5.000	
Market fees	1.000	
<b>TOTAL COSTS/ACRE</b>	<b>200.000</b>	
Harvest Kgs	1.200	
Market price/ Kg	750	
Income	900.000	
<b>GROSS MARGIN</b>	<b>700.000</b>	

**Figure 25:** Gross margin analysis for bean production

Financial data can be projected over time, so that the business investor can see how costs, revenue and profits change over time. In many cases, the initial period of investment means that profits are low in the first one to three years, due to the costs of start-up. However, profits generally increase, as loans and capital outlays are paid off.

## IRR and NPV

To review profitability over time, a slightly more complicated financial analysis can be performed using methods such as the **internal rate of return (IRR)** and **net present value (NPV)**. These methods give the investor an idea of how revenue and profit will change over a fixed time frame, such as the next five or up to ten years and, in this way, the profitability of an investment can be calculated. These types of analyses can be done by using Microsoft Excel, which has specially formulated macros and tutorials to explain the correct way of undertaking these analyses.

**Internal rate of return:** A metric that is used to measure the profitability of potential investments. 

**Net present value:** The difference between the present value of cash inflows and cash outflows.

## Margin analysis

Margin analysis provides a measure of the efficiency of a market system. The survey team can collect prices and costs of a business along the value chain and by using this information, the team can build a picture of the efficiency of the transactions along the chain and also identify areas in which excessive margins are being extracted within the chain.

Margin analysis also:

- Reveals where there are major costs in doing business;
- Shows whether traders are taking more profit from the value chain than others (although generally, they are not); and
- Helps farmers to see their share of the final market price, which can help them in terms of sales price negotiations and also motivate them to upgrade their business methods to capture more value from their products.

For example, Table 19 shows an example of a margin analysis.

**Table 19:** Costs and margins in the dried cassava trading chain

Elements in the trading chain	Cost	Cost margin
Farmer	Ugandan shilling(Ush) /100 kg	% of selling price
Selling price	10 000	
Village assembler		
Purchase price	10 000	
Selling price	12 000	
Gross margin	2 000	16,70%
Costs		
Transport	1 176	
Net margin	824	6,90%
Urban Retailer	Ush/100 kg	% of selling price
Purchase price*	22 000	
Selling price*	30 000	
Gross margin	8 000	26,70%
Costs		
Overhead	4 875	
Variable	300	
<b>Total costs</b>	<b>5 175</b>	
Net margin**	2 825	9,4%
* Equivalent flour price after adjusting for 2% milling losses		

## Evaluation of business development service providers

Evaluating **business development services** gives the survey team an inventory of service providers, their roles in the value chain and a measure of the quality of their services. The quality could be assessed by users in a particular target area, or by target value chain actors.

**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.



Unlike secondary data, which provides averaged information, this type of analysis aims to find out current information from value chain clients:

- Whether services of public sector agents or private business support services are available;
- If they are being used frequently; and
- The way in which their quality is perceived.

This type of analysis needs to provide a picture of the services that a community or a set of value chain actors have access to. The inventory can be collected as part of the value chain survey.

The survey team collect the data to show:

- Trends in service provision;
- How these have changed and how farmers and/or other value chain actors perceive or approve of the changes being made;
- Whether the services are free or require payment and whether they are affordable;
- Which services are missing; and
- The best service providers to link up with in any agro-enterprise project.

It is important to try to capture the formal service providers, as well as those people that provide informal services, e.g. traders who lend money or provide information on prices in different markets.

Figure 26 shows an inventory of services received by Ttaago Village in Tanzania.

NAME OF ORGANISATION	ROLES	TIME ARRIVED	RANK
Vanya Agr. Dev. Project	Credit ( Seeds, fertilizers) Agricultural development	1982	😊😊😊😊😊😊
Crops Agric. Research	Research - demonstration on improved varieties of beans	1991	😊😊😊
Local Government	General administration	1990	😊😊😊😊😊😊
Taanwero	Pest Control of army worm	Only Came 1998	😊😊
Muvahil	A new CBO initiated by Sanya ADP as a federation of 235 groups	July 2003	😊😊😊😊😊😊
Dido	Agricultural extension, training, demonstrations, linking with other partners	1985	😊😊😊😊😊😊😊😊😊😊
Agri - Service	Sun flower processing, marketing of pigeon peas, Promised to link farmers to external markets of pigeon peas	2002	😊😊
Action 2000	Just started with quality protein maize no sure about market potential	2003	😊

**Figure 26:** Institutional inventory of services received by Ttaago village (Tanzania)

### SWOT analysis

When a market survey is used to identify a market opportunity, a **SWOT** analysis can be used to evaluate the strengths, weaknesses, opportunities and threats for supply to a target agro-enterprise.

The SWOT categories are shown in Table 20.



**Table 20:** The SWOT analysis matrix

	Helpful (To achieving the objective)	Harmful (To achieving the objective)
Internal (Attributes of the organisation)	Strengths	Weaknesses
External (Attributes of the external environment)	Opportunities	Threats

The lists in Table 21 provide ideas of what can be reviewed when a SWOT analysis is done as part of the product/agri-enterprise analysis.

**Table 21:** Issues to be reviewed during a SWOT analysis

<b>Strengths and weaknesses</b>	<ul style="list-style-type: none"><li>• Financial and intellectual resources;</li><li>• Location, customer service;</li><li>• Efficiency;</li><li>• Infrastructure;</li><li>• Quality;</li><li>• Staff;</li><li>• Management;</li><li>• Price;</li><li>• Delivery time;</li><li>• Cost;</li><li>• Capacity;</li><li>• Relationships with customers;</li><li>• Brand strength;</li><li>• Local language knowledge;</li><li>• Ethics; and</li><li>• Principles.</li></ul>
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<b>Opportunities and threats</b>	<ul style="list-style-type: none"><li>• Political/legal elements;</li><li>• Market trends;</li><li>• Economic conditions;</li><li>• Expectations of stakeholders;</li><li>• Technology;</li><li>• Public expectations;</li><li>• Competitors and competitive actions;</li><li>• Bad public relations (PR), criticism;</li><li>• Global markets;</li><li>• Security; and</li><li>• Climate change.</li></ul>
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The SWOT analysis can be used by the survey team to create profiles of competitors, which are compared with the target agri-enterprise group, focusing on their relative competitive strengths and weaknesses, as identified in the SWOT analysis.

Depending on the detail of the exercise, the marketing team can use this method to examine competitors' costs, sources of profits, resources and competencies, competitive positioning, product differentiation, business linkages and other factors. If the marketing team can define the current market situation and the existing agri-enterprises, this can assist the marketing team, to identify a niche for the client in the market and or strategies that would best suit the client group to be competitive within the market given the profiles of competitor groups, companies and other regions.

### **Problem tree analysis**

Problem and solution trees are participatory tools that can help a survey team to think through a specific challenge and to identify the range of problems that prevent a goal from being achieved. In the marketing context, the problem tree can be used to identify problems that reduce market performance for a specific product in a selected market chain.

The **problem tree** exercise begins with a brainstorming session in which participants list all problems that affect the market

performance of a selected product and work out the relationships between problems. In a group situation, it is useful to write down the problems on individual cards, one problem per card, so that cards can be moved according to their importance.

**Problem tree analysis:** A planning tool that maps out the causes and effects of an identified issue or problem.

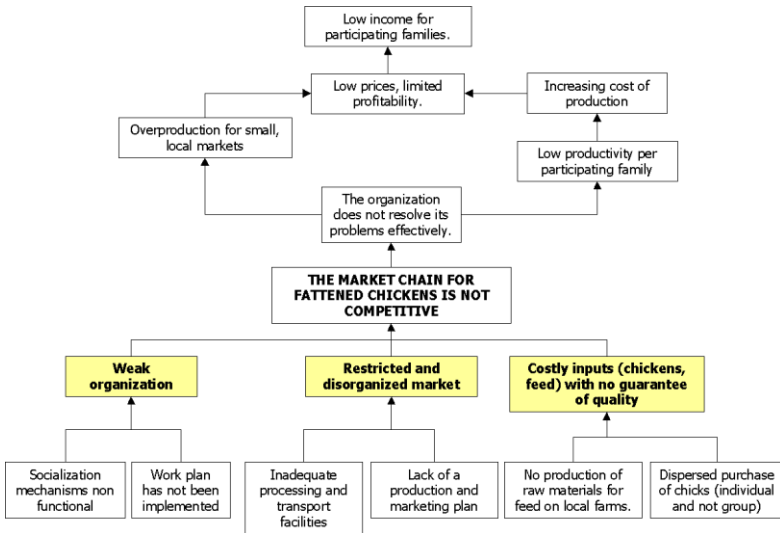


When analysing the causes of the problem, it is important to define the real cause. This will lead to suitable and effective interventions. For example, one constraint is lacking access to governmental credit. The real cause of this constraint may not come from the lack of a credit programme, but from inadequate information provision. Tools such as the problem tree can assist in making logical decisions and developing more effective interventions.

Once all the problems have been shared and discussed, the second task is to arrange the cards into a logical hierarchy and draw links between them. The group should work towards a priority problem that is identified as the core problem—i.e. it is linked to most other problems. In the example below for the fattened chickens, the core problems were defined as weak organisation of the farmers, poorly organised marketing linkages and costly inputs.

The next stage deals with related problems and issues, which are divided into cause and effects, based on the core problem. To link this to the tree analogy, problems are considered as roots and effects as branches. The discussion should try to find all cause and effect relations and the cards should be moved accordingly. There can be more causes to one effect or more effects to one cause. Links should be shown clearly on the diagram, in order to show cause-effect relationships. The horizontal links show joint causes and combined effects.

See Figure 27 for an example of a problem tree.



**Figure 27:** Example of a problem tree

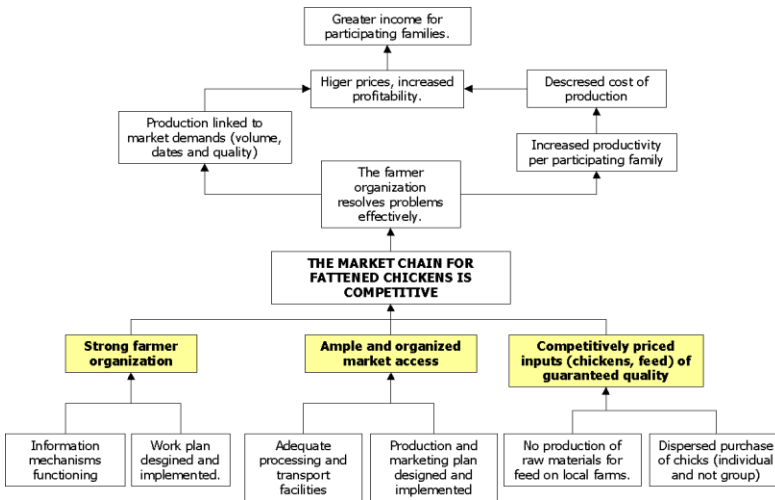
### VC: Solution tree

In this exercise, the survey team takes the [problem tree](#) and inverts all the problems into positive objective statements. In this way, the central problem becomes the central objective.

This process of converting problems into solutions builds a hierarchy of development objectives and interventions. The problem and solution trees provide a simplified view of cause and effect relationships. In this way, the survey team can identify ways in which the farmer group or client can prepare its target market options and implementation plans to tackle key issues.

The solution tree is essentially used as the basis for the design of the implementation programme. The direct causes of the problem become specific objectives and causes can be translated into targets. The lower level causes of problems are then turned into solutions and these become activities for specific interventions.

Figure 28 illustrates a solution tree for improving market competitiveness of chickens.



**Figure 28:** Example of the solution tree

## Scenario building

Scenario building is another technique that is used to lay out options for plans for specific types of clients. This method requires the survey team to identify the most promising agri-enterprise opportunities for specific types of clients. For example, selecting opportunities for a cluster of farmer groups requires the survey team to match local assets, skills and leadership qualities with investment and market access options. The scenario also needs to provide:

- A simple plan outlining the scale or volume of the target market;
- Buyers;
- Quality issues;
- Supply issues;
- Investment requirements;
- Potential partners involved and their responsibilities; and
- Likely gains and risks.



As an example, the marketing team who worked with potato farmers in south western Uganda, considered the following market options for the farmers:

- Sales of potatoes in the local market;
- Sales of potatoes in the nearest large city, 80 km from the farms;
- Sales of potatoes in a fast food restaurant in the capital city 400 km away; and
- Sales of potatoes in the wholesale market in the capital city.

Scenarios can be developed to highlight market opportunities for a range of clients, including BDS options, niche market options, export market options and market linkage options to supply industrial and or high-value markets.

The potential market scenarios presented must all be based on findings and results from the survey. These scenarios are not intended to be detailed plans and their purpose at this stage is to highlight options for presentation to farmers and/or other clients.

## **Step 9: Results and interpretation**

As the results are assembled, the value chain survey team's task is to build a common understanding of the market system for the studied commodity. Both secondary and primary data and information should be used to describe the market system. To help organise their thinking, you and your team can start by answering the following questions:

- What are the different channels and key stages in the value chain?
- What are the main production areas and wholesale and consumption centres?
- What are the scales of operation at each stage of the value chain?
- Who are the key players?
- How profitable is this value chain for target producers, traders and processors?

## **Step 9a: Preliminary diagram of the marketing chain**

You and your survey team may consider using the preliminary maps/diagrams that are outlined in the following sections.

### **Core chain actor's map**

Sketch a diagram of the value chain and update this with new information collected in the survey. You could rework this diagram to include the different channels observed in the survey and add new participants and their functions at each stage.

### **Business services map**

Sketch out a map showing where the key service providers are located and identify the gaps in the service provision. Indicate whether the services are quality coded.

### **Infrastructure**

The infrastructure map shows the main flows for the studied commodity, from production sites to the markets and areas of consumption. This map could show roads, lakes, rivers and locations of the main markets, so that the group members can see where key activities are taking place.

Drawing these diagrams in the initial stages of the analysis helps the survey team to process, analyse and visualise the data and information collected and to share it with others. It also makes it easier to identify areas where further information may be required. The value chain diagram can then be refined, while fieldwork progresses and the analysis is further developed.

## **Step 9b: Results from the demand study**

This step involves the following actions:

- Identify the major products, markets and market chains;
- Provide figures on the size of these markets, and a figure of the total market demand for the product in question within the target territory;

- At the product level, information is required on price, volume, trends, quality criteria and uses;
- The results should prioritise products in terms of where the enterprise can increase sales, increase product value and volume of trade (i.e. how to be more competitive); and
- The demand analysis should record the names of traders, buyers and processors, so that any future intervention can be developed in partnership with these actors after the analysis of the results have been made.

### **Step 9c: Key results from the supply study**

Key results from the supply study involve in the following information:

- A map of the country or district being studied with major production zones of the selected commodity identified;
- Information on the seasonality of producing a commodity;
- Seasonal and trend information on prices of the target raw commodity and, if possible, for processed products derived from the raw material, e.g. cassava roots, cassava chips, cassava flour, cassava starch, etc.;
- Marketing costs along the value chain, showing costs paid by and to the intermediaries from the farmer to the consumer;
  - Marketing costs along the value chain should include margins along the chain; and
  - Flows of the commodity through the main supply chains, coming from the major areas of production

Other areas to explore include:

- Price trends and behaviour;
- Market requirements;
- Market participants and their behaviour;
- Efficiency of the marketing system;
- Relevant research that aims to address key constraints; and
- Policy and institutional environment.



## Step 10: Recommendations for interventions

One of the ways to develop interventions is to apply the solution tree methodology as outlined earlier. The next step is to analyse the feasibility of recommended interventions. This can be done either before or after writing the report, but a critical analysis of objectives must be done prior to discussing the value chain survey results. The priority of the interventions should also be clarified with related stakeholders.

The following key questions are relevant:

- Has this intervention/solution been applied before?
- If it has been applied, what are the reasons for its failures or successes?
- If it has failed, but still has merit, what must be done to ensure success?

For new interventions, the survey group should review how practical they are by using the feasibility matrix shown in the example given below. This matrix will assist in answering the following questions:

- What can each stakeholder contribute to the implementation of the intervention/solution (human or financial resources, etc.)?
- What is the potential benefit (short and long term) of the intervention/solution for each stakeholder?
- What does each stakeholder need to do to ensure the long-term and sustainable benefit?
- What are the risks or difficulties of each stakeholder when implementing the intervention/solution?
- What are the related costs involved for each stakeholder?

Below is an example of a feasibility matrix

<b>Problem: Limited market opportunities for seed potatoes</b>				
Recommended solution/intervention: Production and marketing of both seed and ware potatoes to high value markets, using new varieties and irrigation and storage facilities				
<b>Related potential stakeholders participating in the implementation of the intervention</b>	<b>Contribution</b>	<b>Potential short and long-term benefit</b>	<b>What should be done to ensure the sustainability of the intervention?</b>	<b>Possible risks or difficulties</b>
Farmer group	<ul style="list-style-type: none"> <li>• Land;</li> <li>• Labour; and</li> <li>• Management.</li> </ul>	Increase in productivity, quality and income.		<ul style="list-style-type: none"> <li>• Drought;</li> <li>• Mismanagement; and</li> <li>• Lack of discipline.</li> </ul>
Extension/NGO	<ul style="list-style-type: none"> <li>• Provision of training in the use of new technologies; and</li> <li>• Cost share in testing new methods.</li> </ul>	Increased skills and ability to adapt to existing and new challenges.	Work with more than one extension agency.	Short-term support.
Research	Pilot testing of new technologies.	<ul style="list-style-type: none"> <li>• Improved yields;</li> <li>• Better disease resistance and ability for year round production.</li> </ul>	Introduction of new varieties, methods and irrigation.	Lack of funds to support the process.
Input supply merchant	Improve access to fertiliser and agro-chemicals.	Long term supply of essential inputs to boost yields.	Clear business planning that includes input supply.	Inability to supply at competitive or affordable price.

Micro-finance agency	Provision of loan options to meet long production cycle.	Access to reliable and lower cost finance than moneylenders.	Building relationship with MFI to develop and promote new loan options for farmers.	Low repayment rates, better option for loans.
Buyer	Provision of agreement for year round procurement.	Steady income.	Constant focus on improving production and sales performance.	Quality criteria too high, volumes not met, alternative buyer.

## Step 11: Write a survey report

The team leader should be the main author of the survey report. They should be responsible for coordinating report writing and editing the draft and final versions. The allocation of tasks among different team members will depend on their specific skills and experience and their availability. All survey team members should provide comments to draft versions, before these are sent to other reviewers. In addition, some members can be responsible for writing specific sections or preparing some annexures of the report.

The structure, writing style and content of the report depends on its purpose and the audience. A report aimed at providing the basic findings of the survey for producers to improve their production activities is clearly different from a report targeting a donor who is interested in more strategic, systems level investments. The report should be understandable to the target audience.

When preparing a market report for a stakeholder's group or a potential lender or investor, then more details should be added. For this second type of audience, a short written report could be circulated before the meeting and this report should include all the financial records.

Market reports generally have the following structure:

- Executive summary;
- Introduction;
- Target clients for the study;
- Methodology;
- Key findings
- Specific recommendations to the target clients:
  - Technical;
  - Marketing;
  - Finance; and
  - Policy;
- Conclusions; and
- Annexures.

The report should clearly identify how target clients can use the results to make decisions in their planned agri-enterprise projects. In more formal written documents, the report should also contain sections with references and annexes.



Complete Activity 2.3 in your workbook.

## Study Unit 3. Value chain upgrading strategies

### Study unit outcomes

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

1. Identify the assumptions and decision points in value chain upgrading;
2. Explain the value chain investment process;
3. Assess value chain upgrading strategies on farmer and extension agent level; and
4. Design a business plan for the implementation of a value chain upgrading strategy.

### Study unit overview

This study unit provides information on the way in which intervention teams can use the results of market assessments and value chain analyses to move from analysis to action. The types of interventions you will use depend on the focus of the project, the location, the type of clients that are being targeted and the scale of planned intervention and upgrading process. Target clients may include farmers and farmer groups and a combination of marketing actors in a value chain, including traders, processors, retailers and the service providers that are linked to a specific market opportunity.

### Study unit introduction

The main purpose of the value chain analysis is to assess and implement value chain upgrading strategies that will enable farmers to expand their market and livelihood options. Value

chain upgrading can occur in different categories, including product upgrading, functional upgrading and channel upgrading. In this study unit, you will focus on value chain upgrading initially at the farm and extension agent level, but you will also explore broader value chain upgrading approaches. Once the value chain upgrading strategies have been identified, the farmers/clients should be assisted in the development of a business plan for the implementation of the strategies.

## Session 3.1: Value chain upgrading strategies

### Session outcomes

After completing this session, you should be able to:

1. Identify the assumptions and decision points in value chain upgrading;
2. Explain the value chain investment process; and
3. Assess value chain upgrading strategies at the farmer and extension agent level.

### Introduction

There are several stages in a value chain upgrading process that you need to consider, including:

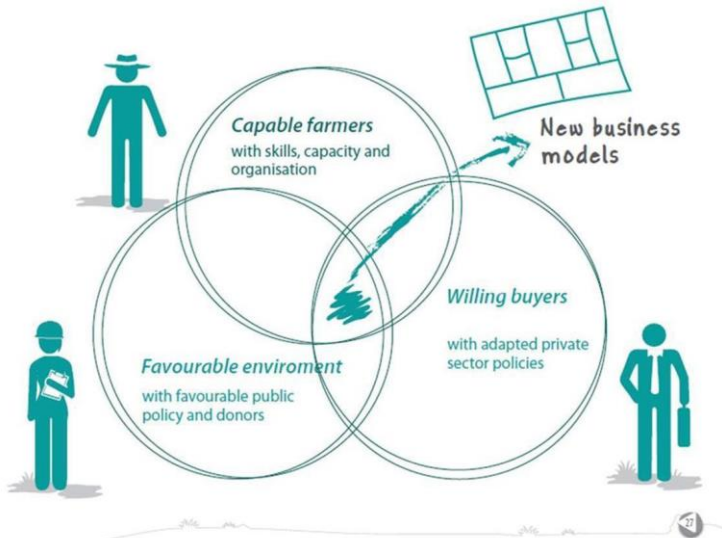
- Demand analysis and key supply channels;
- Identify chain actors for supply of goods to target market;
- Develop and prioritise key interventions at each stage in the chain:
  - Organisation;
  - Production technologies;
  - Marketing strategies; and
  - Research and Policy;
- Provide training that may be required; and
- Establish a monitoring and evaluation process to set targets and measure performance.

Depending on context, the value chain upgrading strategy seeks to bring together the following three key areas or sets of actors:

- Capable farmers, who have the necessary skills, capacity and organisation;
- Willing buyers, who have inclusive procurement practices; and
- Business-minded policy makers from national and local

government that foster a conducive business environment for growth.

This is shown in Figure 29.



**Figure 29:** Key areas of value chain upgrading

With these assumptions, facilitation groups, such as NGOs, can work with these players to identify market opportunities, prioritise areas for support and co-invest in new business arrangements, often referred to as inclusive business models, which will enable equitable market growth that provides opportunities for smallholder integration.

### **Assumptions and decision-points for value chain upgrading**

The value chain upgrading strategy is based on the following assumptions and decision-points:



- There are capable, organised farmers who can produce target product sustainably at a profit;
- Farmers share a common vision;
- There are capable extension services to support a chain wide intervention;
- There are willing buyers:
  - Markets have been identified; and
  - Value chain studies have been completed;
- A value chain upgrading process has been planned and agreed on by chain partners;
- Value chain partners are willing and able to commit to an upgrading process;
- There are available funds and or access to financing for upgrading processes to take place;
- There is trade finance available to support the business transactions;
- The necessary business development services are in place; and
- There is a conducive policy environment for market growth.

In many situations, not all of these assumptions hold true, in which case additional work is required to meet the necessary conditions to begin or accelerate the upgrading process. For example, if farmers are not well organised, they need to work with extension agents to build their capacity to be reliable suppliers of quality goods in the target value chain.

If extension agents do not have the necessary skills to train farmers in specific aspects of the upgrading plan, such as business planning, then the project facilitation team either has to find alternative extension agencies with those skills or the existing agents will require training in business to support their target farmers.

Each of the assumptions needs to be evaluated and, if the conditions are not met, a plan needs to be put in place to address the situation.

## Chain-wide development

The chain-wide facilitation team needs to identify the right service providers for each stage in the value chain upgrading process. Figure 19 shows an example of chain-wide development for a project entitled New Business Models for Sustainable Trading Relationships. The purpose of this project was to explore the development of a new business model that would be inclusive for smallholder farmers in Ethiopia.

The overall chain-wide facilitation team organised three sets of support teams, each focusing on upgrading a specific part of the value chain. The decision to specialise service provision was made to support the three different types of market actors. The aim of the project work was to increase sales of white pea beans produced by smallholder farmers in Ethiopia to the baked bean canning markets in the United Kingdom.

The three different groups of service providers had skills in and supported:

- Farmer to first link buyer;
- Intermediary firm to canning factory; and
- Factory to retail.

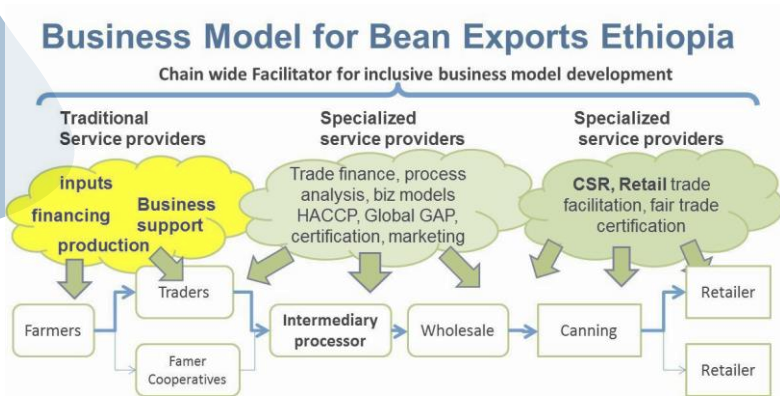


Figure 30: Example of chain-wide development in Ethiopia

As shown in the figure, the upgrading approach and associated services were different for each of these areas, which required hiring different types of service providers and experts to support a chain-wide approach.

At the time that this project was designed in 2007, most of the beans being exported from Ethiopia were going to lower value markets across the world, largely to the Middle East and Eastern Europe. A company called ACOS, established a joint venture business in Ethiopia to target the higher value canning industry in the United Kingdom and the fair trade market in the Netherlands.

## **Value chain upgrading strategies on farmer level**

Linking farmers to markets is a complicated process. The general idea is that, when working with the poorest and most marginalised farmers, the approach generally starts with building the organisation and social capital of farmers and helping them to organise farmers into basic groups.

Intervention at the farmer group level includes:

- Visioning;
- Exchange visits;
- Market visits for deal making;
- Identifying chain champions;
- Market liaison agent go between;
- Learning journeys revisited;
- Developing a business plan and associated intervention plan; and
- Piloting.

In the following sections, different strategies for upgrading the value chain will be outlined.

## **Commercialising smallholder farmers**

By its nature, the private sector focuses on target markets, profit and sustainability planning. The more formal agricultural companies often work with the more progressive larger farmers,

where they can source higher volumes of produce. However, these larger firms have come to realise that, as the demand for food products continues to grow, they need to reach out to ever more marginal farming communities. This raises a critical question as to whether these firms have the investment capital and commercial appetite to invest in the business development of what are largely pre or semi-commercial farmers.

The more marginal farmers require basic skills building to strengthen their organisation and improve their productivity before they can embark on upgrading their business and financial skills. Once they have acquired basic business skills, these farmers will be more able to navigate modern market chains, and these farmers will seek market opportunities more aggressively.

### **Shifting the competency model from production to business services**

Over the past 20 years, farmer organisations and their service providers have gravitated away from an almost exclusive focus on production to include a more business facing approach. This shift has been taken up by the private sector, particularly through input supply companies and non-government organisations (NGOs and project contractors), who have adopted the business methods as part of the value chain approach. Government extension organisations are also taking on more of the business aspects of service provision through hiring more agri-business specialists, but there is a need to find ways of accelerating and expanding this business development service area within Government agencies.

With the growing pluralism of extension agencies, farmers are gaining access to business support services, through the different types of agencies providing support. To meet the business needs of farmers and farmer organisations and to enable them to compete more effectively in a target markets, the new extension or more diversified service industry need to build their ability to help farmers acquire skills in the following areas:

- Analysing market opportunities and market demand;
- Mapping market chains;
- Making production and demand led decisions for product(s) selection;
- Defining and recording production costs;
- Undertaking profitability analysis;
- Keeping financial records;
- Evaluating which business development services are needed to improve their competitiveness;
- Being able to develop a common business vision for investment; and
- Both preparing and helping farmers to invest in a business plan.

As the business skills of farmers and their organisations become more sophisticated the groups will also need to learn more about:

- Meeting product specifications at a profit;
- Negotiating new business models with chain partners;
- Evaluating profitability on a seasonal basis;
- Linking research with their innovation methods;
- Diversifying from single value chains to whole farm planning and profitability; and
- Generating long-term upgrading plans that include chain wide processes.

## **Factors affecting market access**

Enterprise development is an inherently risky area in terms of investment and business options, particularly rain-fed agriculture. Farmers working as individuals or in farmer groups are exposed to the risks of erratic weather, volatile market prices, intense competition and the often high costs of capital.

There are many failures in early-phase businesses—in agri-enterprise as much as any business sector. It should come as no surprise that millions of smallholders in developing countries still face serious challenges in making the shift from low input, low

return farming into the more risk prone areas of higher invest and higher income pathways.

Studies that have been done in this field make it possible to calibrate the types of investments and outcomes that extension projects should expect. These studies also emphasise that market linkage is not the ultimate or only solution. It is likely that, even with business support, large numbers of smallholder farmers will not make the shift to high income pathways. Therefore, extension services need to be flexible in terms of working with and meeting the needs and aspirations of more progressive higher investment farmers and in supporting the stabilisation of low input farmers.

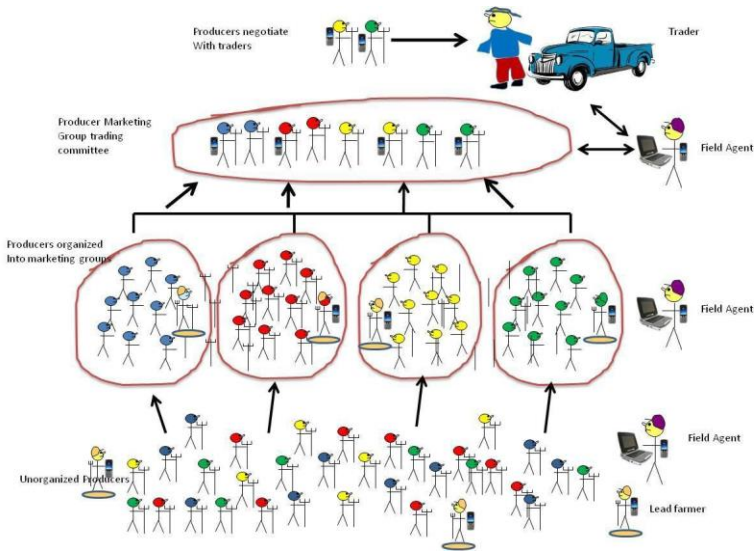
There is a number of factors that restrict farmers' ability to engage in value chains and, if these factors can be overcome, it may help to raise the prospects for more successful value chain approaches and market linkages. These factors include:

- Location and business maturity within a target area;
- Access to infrastructure, such as roads and power, agricultural services, water and production technologies; and
- The skills, education and organisation of the farming community in terms of their ambitions, discipline and ability to prepare plans, set goals and follow a common implementation schedule.

When decisions are made to invest in a particular area, these factors should be taken into account to ensure that project designs actually improve market linkage prospects—both during and after a project.

### **Farmer organisations to support collective marketing**

For extension to be effective, the limited numbers of extension agents can increase their reach to farmers by working with organised farmers, rather than individuals. Organised farmers gain economies of scale, so that they can compete with larger farmers and supplies from imports. An example of an organised farmer organisation is shown in Figure 31.



**Figure 31:** Organised farmer organisation

Extension agencies need to approach projects and programmes with a view to investments that build the capacity of farmers to buy inputs in bulk and then support bulked sales of the produce.

A typical value chain project includes a basic market analysis and an upgrading package that can be used to improve production technologies to enhance productivity, bulk harvest and develop trading relationships with identified buyer(s). The ultimate goal of an extension process is to leave behind either an empowered and democratic farmer organisation or a confident agri-entrepreneur, who is able to support a growing market opportunity with durable trading relationships. This section explores some of the farmer organisations that are being testing and scaled by various extension services that have successfully linked farmers to markets.

Smallholder farmers, who operate as individuals, generally receive poor market prices for inputs, services and produce sales, particularly farmers selling lower value field crops. One of the

most important reasons for farmers working together in groups is that it enables them to come together and enjoy the benefits of economies of scale, so that they can compete more effectively with larger farmers. Farmer groups can use their social power to plan together and buy inputs at a lower cost through bulk procurement, for example. Farmers can also use their economies of scale in groups and cooperatives to support bulk sales of aggregated goods in order to access better unit prices, higher volume and higher value markets.

A key role of extension agencies and agents is to help farmers organise themselves into groups and build their capacity to plan together, buy inputs in bulk and work towards a group planning process that supports bulked sales of their produce.

The main reasons farmers participate in collective marketing are:

- Improving economies of scale;
- Lowering transaction costs;
- Increasing quality control;
- Gaining an incentive to increase production;
- Improving access to finance;
- Obtaining communal equipment and services; and
- Creating social advantages, such as building bonds by learning together and testing new ideas.

## **Value chain upgrading on extension agent level**

In the following sections, the upgrading strategies on the extension agent level will be discussed.

### **Acquisition of knowledge, competency and advisory skills**

As discussed in Study Unit 2, there are different types of agencies and organisations involved in providing advisory services to farmers, ranging from the public, civil society and private sector. All these service providers need to collect information and gain certain levels of knowledge and competency before they can



provide meaningful advisory services to farmers. Farmers also have a choice in terms of the types of advisory services they need and that they can access through various means, such as kinship, memberships, partnerships, alliances and business relationships.

There is a growing range of extension topics and needs for which most teams and individual agents cannot provide a comprehensive set of services. The more pluralistic nature of modern extension means that farmers have considerably more choice in the types of advice they access, the way they access information and knowledge and whether or not they pay for services. In order to play an effective role, extension agents tend to specialise in specific advisory services.

Extension teams need to define their area of support and agents need to acquire the right set of skills in a particular area, be that input supply, production, post-harvest, marketing, nutrition, gender, innovation, etc. These core sets of skills change with time and as research identifies new needs and clients make investment decisions.

Depending on the types of services, there are many ways in which service providers gain skills and competencies in their professions. Some extension agents are specifically trained in an area through formal national education systems, such as university degrees or college diplomas, while others take courses as part of their working duties and gain certification for specific skills over time and others learn through long-term experience on the job.

Many extension agents are certified or affiliated with an organisation in some way. These certifications and affiliations give the agents legitimacy to provide quality services, which enables the agents to build networks and trust with their clients, whether these are farmer organisations or individual farmers. The long-term nature of extension-agent relationships is based on their performance and also on the means of supporting the service.

Government extension agents tend to be open ended contractors, which allows for decades of support within an area. Most civil society organisations are more project-oriented and, therefore, time bound. The duration of private sector support is driven by market performance.

To maintain relevance and keep up with current thinking and trends, extension agents need to refresh their skills from time to time and the process of on-the-job training is important to maintain effectiveness.

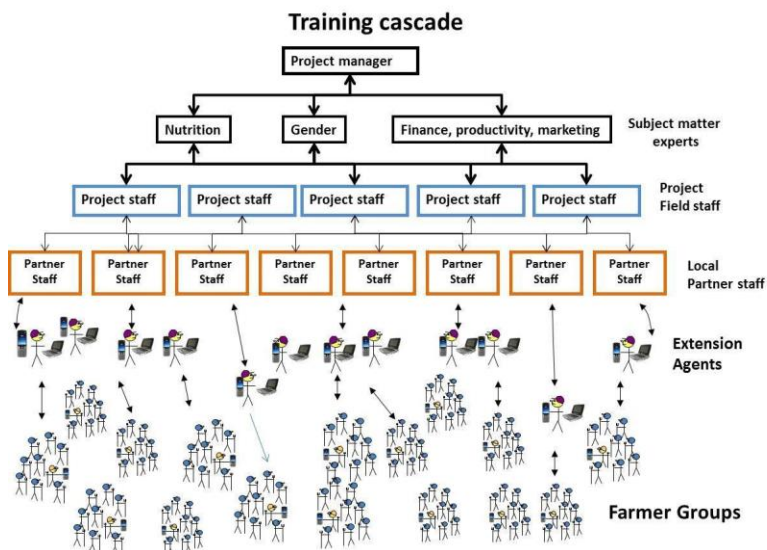
### **Training opportunities in the NGO community**

In the NGO community, there are several ways and opportunities of staying up-to-date with current practises, for example:

- Attending official training courses;
- Attending short term face to face training events and specialised meetings;
- Accessing knowledge through books and bulletins;
- Accessing e-learning modules or online courses;
- Accessing information on the Internet; and
- Peer to peer learning.

### **Training opportunities in the project setting**

In the project setting, field extension agents are typically provided with training by means of cascade training. A lead or subject matter expert is required to develop training materials, after which training events are organised where trainers are trained to build the capacity of the agents below them. This cascade can include several layers of people, as illustrated in Figure 32.



**Figure 32:** Training cascade

The effectiveness of the training systems, and particularly training cascades, that reach down to farmer groups and individual farmers is something that remains uncertain. Although there are some programmes that have been very successful in providing a clear skills building process, there are still many gaps in the system and it is hard to access data on skills levels. More needs to be done to support agricultural advisors at the field level, particularly those who need to develop new skills to complement the more traditional production-based advisory services.



Complete Activity 3.1 in your workbook.

## Study unit 4: Market linkage methods

### Study unit outcomes

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

1. Report on the changing conditions in and roles of rural communities;
2. Explain different marketing strategies and approaches commonly used by smallholder farmers in rural areas;
3. Identify the ways in which extension agents can help farmers gain a better understanding of their market options;
4. Define the basic concepts involved in value chains and market linkage; and
5. 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 farmers who only grows enough food to feed his/her family.

## Session 4.1: Changing rural communities and marketing strategies

### Session outcomes


After completing this session, you should be able to:

1. Report on the changing conditions in and roles of rural communities;
2. Explain different marketing strategies and approaches commonly used by smallholder farmers in rural areas; and
3. 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 20–30 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.

## 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.

**Smallholder farmers:** A farmer who owns a small plot of land, on which they grow self-sustaining crops, and rely mainly on family labour. 

## 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.



## Farmer organisations to support collective marketing

For extension to be effective, the limited numbers of extension agents can increase their reach to farmers by working with organised farmers, rather than individuals. Organised farmers gain economies of scale, so that they can compete with larger farmers and supplies from imports.

## 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, 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 US 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.

**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.

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>

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 4.1 in your workbook.

## Session 4.2: Value chains and market linkage

### Session outcomes

After completing this session, you should be able to:

1. Select the level of market analysis;
2. Identify the clients of a market analysis;
3. Identify the scope of a market analysis; and
4. 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 must be 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 shares, 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 though 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 profit margins.

Figure 33 illustrates the comparison between the value chain and the traditional supply chain.

## Traditional Supply chain versus a Value chain

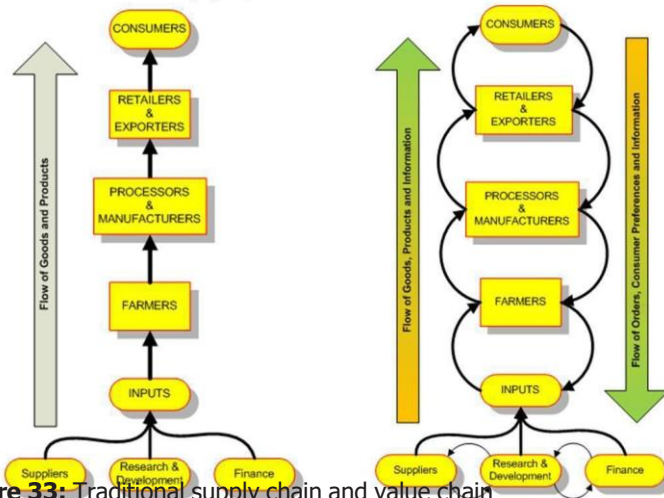


Figure 33: Traditional supply chain and value chain

## 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, business development services (**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 sustainably.

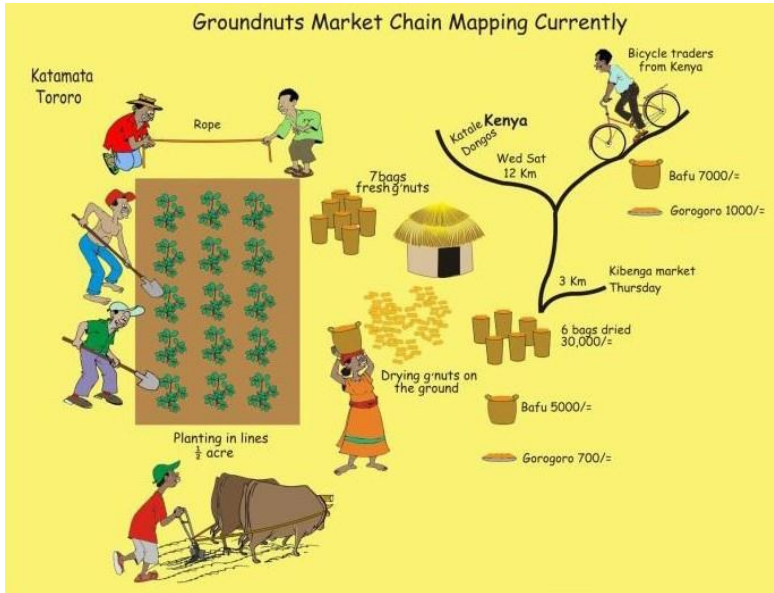
### **Key steps in a value chain approach**

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 likeminded 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:
  - Farmers 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/percent 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.

Example of a simple map of the market chain that was developed by using a participatory approach with farmers.



**Figure 34:** example of a simple value chain

## 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—and 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 which 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.

Methods of analysis include:

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

**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.

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 describes 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 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.

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



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 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 4.2 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 5: Analysing markets and value chains

### Study unit outcomes

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

1. Define the type, scale and level of the market analysis; and
2. 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.
- Scale up strategies

**Market analysis:** The study of a market, in order to determine the attractiveness of the market in a particular industry and to understand the opportunities and threats in the market, as they relate to the strengths and weaknesses of a company.

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



## Session 5.1: Defining the type, scale and level of the market analysis

### Session outcomes

After completing this session, you should be able to:

1. Select the level of market analysis;
2. Identify the clients of a market analysis;
3. Identify the scope of a market analysis; and
4. 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 22.

**Table 22:** Levels of market analysis

Level	Type of analysis	Examples
<b>Sector analysis</b>	Broadest level of analysis;  Focuses on the product sector at a national level.	All the cereals grown in a country (i.e. nationally).
<b>Sub-sector analysis</b>	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.
<b>Territorial analysis</b>	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
<b>Value chain</b>	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.
<b>Community market</b>	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:

- Rationale for the Analysis
- Who is financing the study;
- Who is conducting the analysis; and
- The intended level of investment based on the study.
- Overall targeted impact across all value chain actors

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, 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.

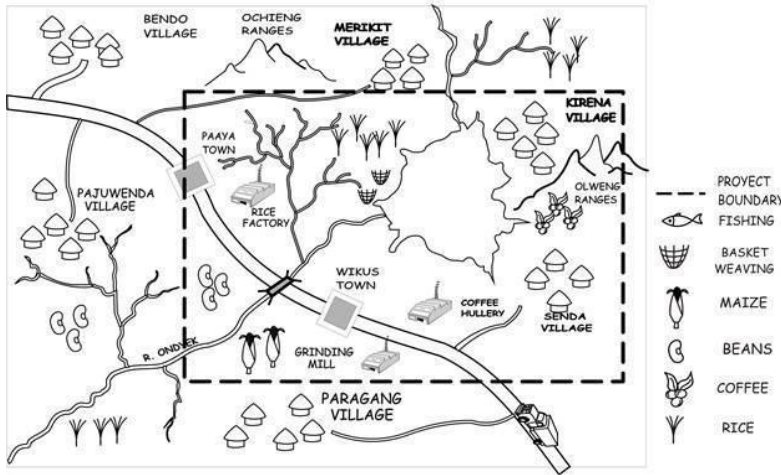
Results from a territorial study are specific to a particular geographic area, which allows for more detailed results than the sub-sector analysis. At the farm level, the territorial analysis places focus on the following three key areas:

- 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 business development services;
      - Innovation and research needs; and
      - Major policy implications.

Figure 35 illustrates territorial analysis.



**Figure 35:** 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**

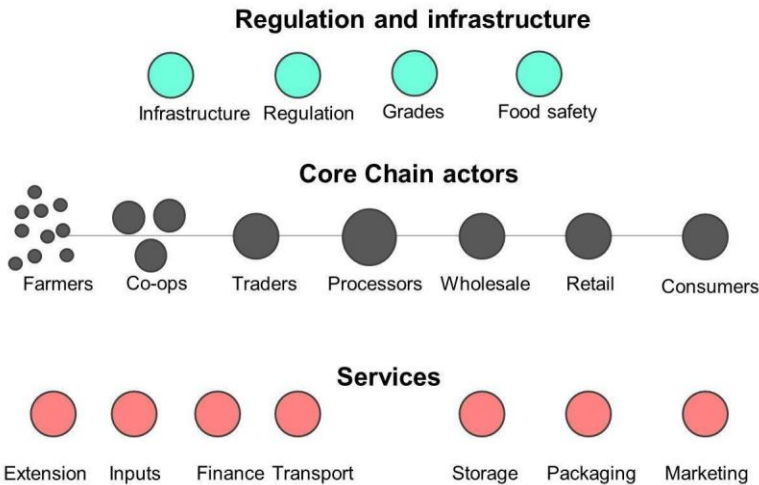
Value chain approaches aim to both upgrade opportunities for farmers in the informal markets and to explore opportunities to link informal small-scale producers to more formal markets, at the local, regional and export market levels. The value chain approach takes a systems perspective with each project, 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 36 shows the three dimensions of the value chain process.

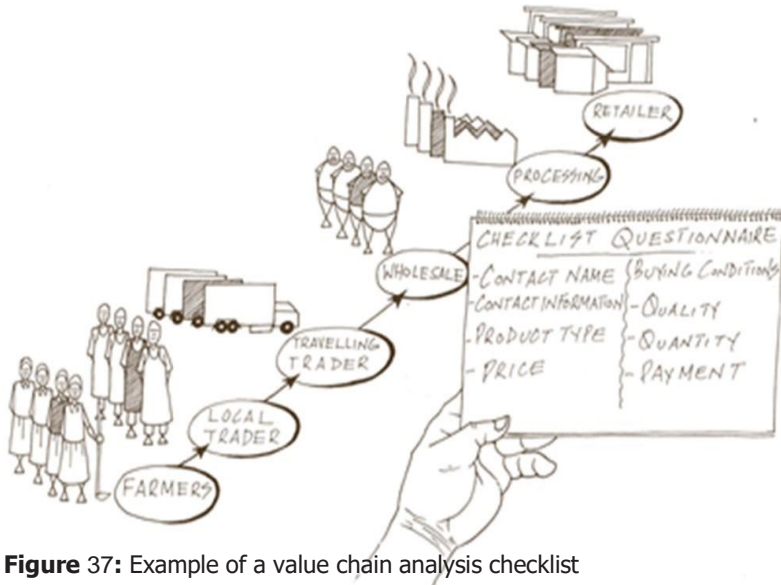


**Figure 36:** Three dimensions of the value chain process

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;
- Business development services (including finance); and
- Regulatory and policy actors.

Example of a value chain analysis checklist



**Figure 37:** Example of a value chain analysis checklist

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.

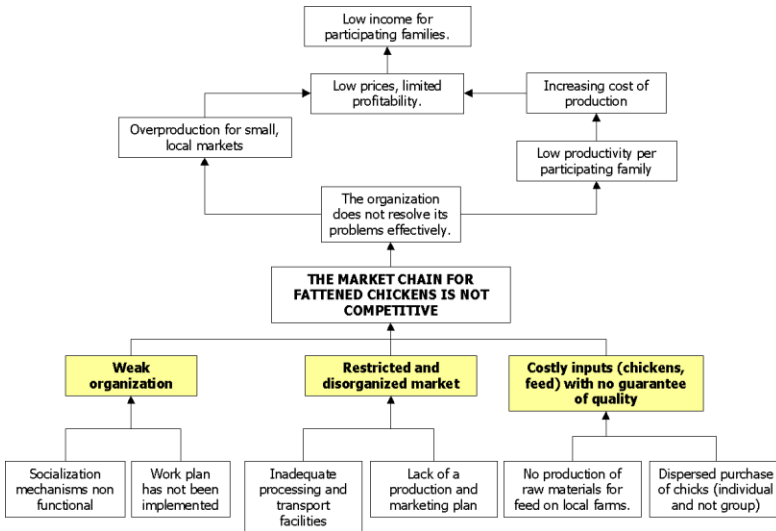


**SWOT:** Strengths, weaknesses, opportunities, threats.

**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.



## EXAMPLE OF PROBLEM TREE



**Figure 38:** EXAMPLE OF PROBLEM TREE

**Table 23:** Participatory tools used in a value chain analysis

Tools	Reasons for using the tools	When to use the tools	Time
Focus groups	<ul style="list-style-type: none"> <li>• To gain information on a particular issue or product from a representative group of people who can provide information on behalf of a community;</li> <li>• Can also be used with consumers, if information on their perception about certain products is required.</li> </ul>	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
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

<b>Tools</b>	<b>Reasons for using the tools</b>	<b>When to use the tools</b>	<b>Time</b>
Historical calendars	To determine: <ul style="list-style-type: none"> <li>• When major events in the community occurred over the past 10–15 years;</li> <li>• Who supported the community; and</li> <li>• What went well and what did not work.</li> </ul>	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
Evaluation of BDS	To gain an inventory and quality assessment of business development services (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

Tools	Reasons for using the tools	When to use the tools	Time
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
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

<b>Tools</b>	<b>Reasons for using the tools</b>	<b>When to use the tools</b>	<b>Time</b>
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 5.1 in your workbook.

## Session 5.2: Extension toolkits for value chain development

### Session outcomes

After completing this session, you should be able to:

1. 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 nineties. 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 business development services 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**.

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.

**SMART skills:** Skills for Marketing and Rural Transformation.



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

**Table 24:** Step-by-step process map for the activities in the seven steps of agri-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; Plan with community.	Identify target farmers; Select products; Register groups; Develop work plans; Plan training.	Survey market; Select production options; Review finance; Review business services.	Write business plan; Work with groups on implementation plans to produce crops or livestock.	Store product;  Grade product; Negotiate with buyers; Bulk product; Sell collectively.	Analyse profit; Check volume and sales; Check group work.	Re-invest; Choose products for next cycle; Draw up new business plan; Form new groups; 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; Registration.	Production data; Market surveys; Financial analysis; Service analysis.	Production of crop or livestock product; NRM activities.	Planning sales; Identifying buyer.	Review sales by group and farmer.	Plan for next season or next year

<b>Key decisions</b>	Agree on process and entry point.	Select products; Organise groups.	Collect data, analyse and compile data.	Compile business plans; Implementation schedules lead into production cycle.	Agree on sales; Agree on where to sell. Agree on buyers (whom to sell to); Agree on price; Sell goods.	Evaluate agri-enterprise performance.	Select new market option; Scale activities.
<b>Time-frame</b>	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).

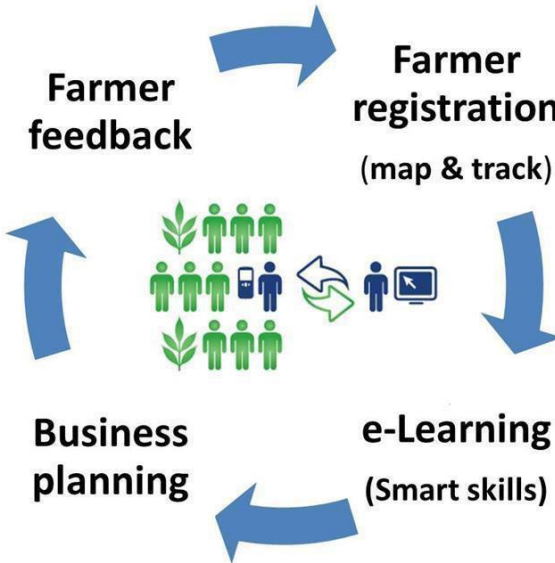
There are now a number of digital toolkits that can be used by value chain teams to support larger scale capacity building programmes and also support the collection of business information. Many of the digital systems such as Farmbook, SourceTrace, Farmforce, and

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 39.



**Figure 39:** Components of the Farmbook Suite of ICT tools

**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. 

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

In order to realise the ICT transformation in the agricultural development sector, organisations from both the public and private sectors need to create new types of partnerships and business networks with the millions of smallholder farmers in the developing world.

Table 25 provides a list of ICT initiatives in agricultural development.

**Table 25:** Examples of ICT technology used in agricultural extension

ICT enhanced service	Examples of ICT based extension service providers	Who is doing this?	Target client	Technology needed	Links to services
Basic phones	<p>First generation phone technology enables buyers and sellers to make contact and discuss or negotiate on terms of offers, bids and sales directly. The mass penetration of the mobile phone network is a leading source of communication across developing nations, which is rapidly transforming service options.</p> <p>Farmers receive information on market prices, input supply, transport, loan options, having access to mobile phone for business is having a transformative effect on how people approach the production and sales of their goods.</p>	<ul style="list-style-type: none"> <li>• Frontline SMS;</li> <li>• Voto mobile;</li> <li>• Human Network International;</li> <li>• Government extension services; and</li> <li>• NGOs.</li> </ul>	Farmers directly	\$20 phone	<p><a href="https://www.votomobile.org/">https://www.votomobile.org/</a></p> <p><a href="http://hni.org/what-we-do/3-2-1-service/">http://hni.org/what-we-do/3-2-1-service/</a></p>
SMS technology	<p>The use of text messages is a lower-cost means of communication, costing from 4 cents to 20 cents per message.</p> <p>The method has the advantage of documenting and recording retrievable information.</p>	<ul style="list-style-type: none"> <li>• Seed companies; and</li> <li>• Weather services</li> </ul>	Farmers directly	\$20 phone	

ICT enhanced service	Examples of ICT based extension service providers	Who is doing this?	Target client	Technology needed	Links to services
Voice mail	Due to issues with illiteracy, companies are establishing robo-calling centres to make contact with farmers to give them basic advice on key farming practices		Farmers directly		
Call centres	Data and call centres, staffed by experts who provide services to clients with mobile phones	<ul style="list-style-type: none"> <li>• Kencell;</li> <li>• Esoko; and</li> <li>• Human Network International</li> </ul>	Farmers directly		
Java-enabled phones	Second generation phones that have colour screens and can combine communication with basic video capability.	Purdue University: PICS bags. See videos.		\$40 phone	<a href="http://aq.purdue.edu/ipia/pics/Pages/home.aspx">http://aq.purdue.edu/ipia/pics/Pages/home.aspx</a>
SMART phones				\$150 phone	
Television	The use of television has not yet been fully explored to support farming communities in most developing countries, but the television series in Kenya entitled Shamba Shapeup is now one of the most successful programmes on the national network.				Shamba Shapeup: <a href="http://www.shamba.shapeup.com/">http://www.shamba.shapeup.com/</a>



ICT enhanced service	Examples of ICT based extension service providers	Who is doing this?	Target client	Technology needed	Links to services
Radio	<p>Farm Radio international develops radio scripts, information packages, a weekly electronic news service, and a special online community called Barza, and shares them with thousands of African broadcasters. They, in turn, use these resources to research, produce and present relevant and engaging programmes for their audience of tens of millions of farmers. These resources are:</p> <ul style="list-style-type: none"> <li>• Aimed at increasing food supplies and improving nutrition and health;</li> <li>• Simple, safe, affordable and practical;</li> <li>• Ecologically sound and environmentally sustainable;</li> <li>• Suitable for communication by radio;</li> <li>• Proven useful and transferable within the developing world; and</li> <li>• Appropriate to both female and male small-scale farmers.</li> </ul>	Farm Radio International	Directly to farmers	Radio	Farm Radio international: <a href="http://www.farmradio.org/">http://www.farmradio.org/</a>

ICT enhanced service	Examples of ICT based extension service providers	Who is doing this?	Target client	Technology needed	Links to services
Call centres	<p>Call centres with systems in place to receive calls and respond with a network of agricultural experts.</p> <p>The call centre provides basic extension support to farmers who are unable to access information through traditional face to face extension services.</p> <p>Examples: KenCall, Ghana Call and Mali Shambani</p>				
Websites linked to innovation	There is a huge number of agencies, e.g. Google Farmer's Friend, FAO				
Videos to share ideas	Digital Green				
Distance learning	Brainhoney, Moodle, Lingos				

ICT enhanced service	Examples of ICT based extension service providers	Who is doing this?	Target client	Technology needed	Links to services
Data collection systems*	<p>There are a number of companies that provides tools to build standardised survey forms, many of which also offer automatically linked cloud associated databases. In some cases, such as with IFormBuilder, the forms can be filled in offline and synched with a database on return to connectivity.</p> <ul style="list-style-type: none"> <li>• Supports rapid data entry, transfer and analysis;</li> <li>• Reduces re-entry error; and</li> <li>• Accelerates information use.</li> </ul>	<ul style="list-style-type: none"> <li>• IFormBuilde;</li> <li>• Do Forms;</li> <li>• Dimagi;</li> <li>• ODK.</li> </ul>			
Mapping		<ul style="list-style-type: none"> <li>• ESRI;</li> <li>• Google Earth;</li> <li>• Poimapper</li> </ul>			
Financial services	Rapidly expanding area of	<ul style="list-style-type: none"> <li>• MPESA;</li> <li>• Opportunity bank</li> </ul>			
Performance monitoring		<ul style="list-style-type: none"> <li>• Kimetrica;</li> <li>• COSA</li> </ul>			

ICT enhanced service	Examples of ICT based extension service providers	Who is doing this?	Target client	Technology needed	Links to services
Market linkage	<ul style="list-style-type: none"> <li>Provision of market information to millions of smallholder farmers and rural traders;</li> <li>Types of information include commodity prices, weather alerts, input service reports, and crop monitoring alerts.</li> </ul>	<ul style="list-style-type: none"> <li>Reuters Lite;</li> <li>Esoko;</li> <li>KIT-Uganda;</li> <li>RATIN</li> <li>Farmforce</li> <li>We farm</li> <li>My farmer</li> <li>Source trace</li> <li>Chainpoint</li> </ul>			
Market information	<ul style="list-style-type: none"> <li>Provision of market information to millions of smallholder farmers and rural traders;</li> <li>Types of information include: commodity prices, weather alerts, input service reports, and crop monitoring alerts.</li> </ul>	<ul style="list-style-type: none"> <li>Reuters Lite;</li> <li>Esoko;</li> <li>KIT-Uganda;</li> <li>RATIN.</li> </ul>			
Marketing links	Source Trace				
Farmer group business tools	Farmbook				
Community agents	Grameen Community Knowledge Worker ( <b>CKW</b> )				

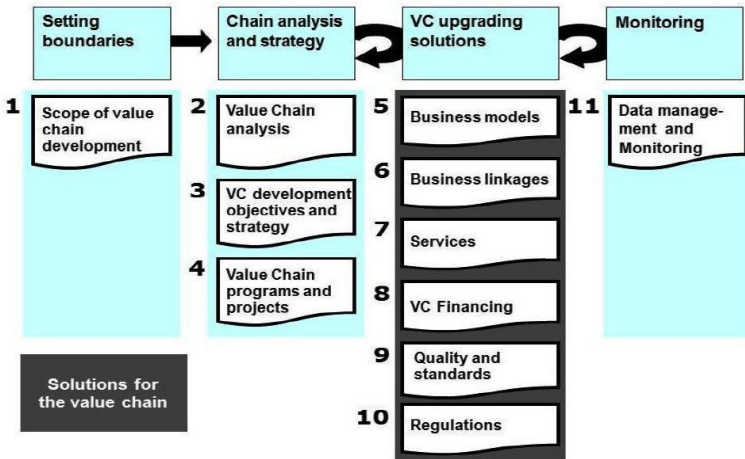
## ValueLinks

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 agribusiness, 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 40 illustrates the ValueLinks methodology.



**Figure 40:** ValueLinks methodology

You can access the ValueLinks website here:


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

## LINK method for linking smallholder farmers to inclusive business models

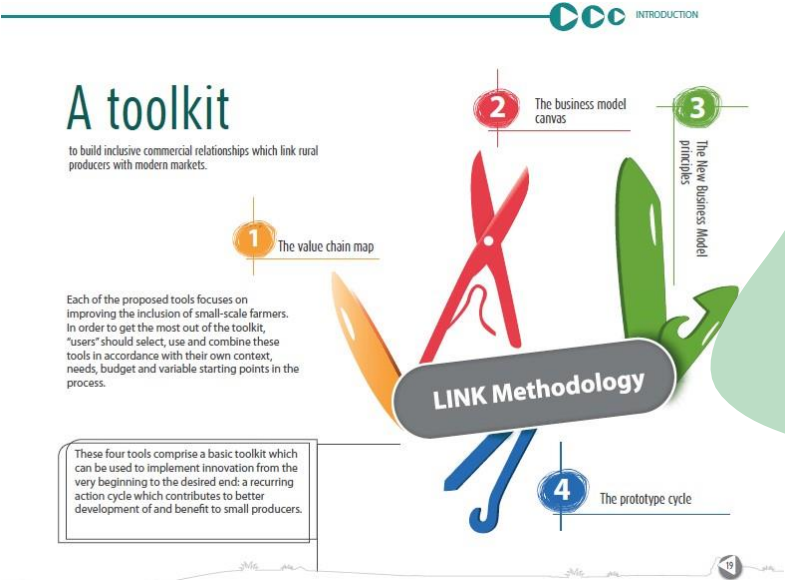
This guide is mainly aimed at facilitators who mediate the processes between sellers and formal buyers. The LINK toolkit, as shown in Figure 17, can help an organisation facilitate a systematic learning process between actors from a selected value chain and discover new opportunities for innovation, 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 model 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 41:** 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](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 5.2 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, business development services 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.

## Post-assessment

	Question	Self-assessment				
1	How well can you explain why agricultural marketing is important for farmers?	Low				High
		1	2	3	4	5
2	How well can you explain the agricultural market, the value chain and the key actors in the value chain?	Low				High
		1	2	3	4	5
3	Are you able to assess market linkage methods?	Low				High
		1	2	3	4	5
4	Can you analyse markets and value chains?	Low				High
		1	2	3	4	5

## Glossary

### Definitions

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

<b>Word</b>	<b>Definition</b>
<b>ArcGis</b>	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.
<b>Breakeven point</b>	The income that is needed to cover the total amount of the expenses of a business during a particular period.
<b>Business development services</b>	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
<b>Capacity building</b>	Social or personal development that focuses on the obstacles that prevent or hinder individuals, governments and international organisations from reaching their development goals.
<b>Cholera</b>	An acute infection that results in diarrhoea, severe dehydration and death.
<b>Cloud computing</b>	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.
<b>Codex Alimentarius</b>	A collection of internationally recognised standards, codes of practice, guidelines and other recommendations relating to foods, food production, and food safety.

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

<b>Word</b>	<b>Definition</b>
<b>Expatriate</b>	A person living in a country other than his/her country of citizenship.
<b>Feeding regime</b>	Specific nutrition formula that is fed to animals at different stages in their growth, e.g. chick mash, layer mash, broiler mash when feeding chickens.
<b>Focus group</b>	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.
<b>Fiscal policy</b>	The policy by means of which a government adjusts its spending levels and tax rates, in order to monitor the national economy.
<b>Gross margin</b>	The total sales revenue (income) minus the cost of goods sold, divided by the total sales income and expressed as a percentage.
<b>Horticultural crops</b>	Garden crops that include fruit and nuts, vegetables, flowers and medicinal plants.
<b>Information and communications technology</b>	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.
<b>Internal rate of return</b>	A metric that is used to measure the profitability of potential investments.

Word	Definition
<b>Knowledge broker</b>	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.
<b>Lead farmers</b>	Farmers who lead farmer-to-farmer extension services, based on their agricultural expertise.
<b>Learning management system</b>	A software application that is used for the delivery, administration, documentation and reporting of electronic courses and training programmes.
<b>Literature review</b>	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.
<b>Livelihood</b>	Individuals' ways of supporting their existence, both financially and in terms of their careers (occupations).
<b>Livelihood strategies</b>	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.
<b>Macro context of markets</b>	The broad economic context in which the market operates.
<b>Market analysis</b>	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.



<b>Word</b>	<b>Definition</b>
<b>Market opportunity identification</b>	A systematic, participatory method for collecting market information to identify and select products and services for investment and agro-enterprise development.
<b>Market strategy</b>	A model that directs the way in which a producer will focus limited resources on the best opportunities, in order to increase sales.
<b>Market survey</b>	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.
<b>Marketing</b>	The process responsible for identifying, anticipating and satisfying customer requirements profitably.
<b>Marketing mix</b>	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 4Ps of marketing: product, price, place and promotion.
<b>Marketing plan</b>	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).
<b>Marketing strategy</b>	A model that directs the way in which a producer will focus limited resources on the best opportunities, in order to increase sales.

<b>Word</b>	<b>Definition</b>
<b>Metric ton</b>	A unit of weight that is equal to 1,000 kg.
<b>Migrate</b>	Relocate or resettle.
<b>Misconception</b>	A wrong conclusion, based on faulty facts.
<b>Monetary policy</b>	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.
<b>Mycotoxin</b>	Any toxic substance that is produced by a fungus in food.
<b>Net present value</b>	The difference between the present value of cash inflows and cash outflows.
<b>Oligopolistic market situation</b>	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.
<b>Opportunistic selling</b>	Selling products at prices that are higher as their fundamental value.
<b>Parameter</b>	An element or a characteristic that defines, limits or controls a particular system or sets the conditions of its operation
<b>Pesticide</b>	A toxic substance that is used to kill weeds and insects.
<b>Plant propagation</b>	The process of cultivating or creating new plants from sources such as seedlings, cuttings, bulbs and other parts of plants.

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

Word	Definition
<b>Secondary data source</b>	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.
<b>Side selling</b>	Selling products to another buyer, who is not part of the sales agreement.
<b>Smallholder farmer</b>	A farmer who owns a small plot of land, on which he/she grows self-sustaining crops, and relies mainly on family labour.
<b>SMART phone</b>	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.
<b>SMART skills</b>	Skills for Marketing and Rural Transformation
<b>Social capital</b>	A network of social or economic institutions and individuals that cooperate to create collective value change.
<b>Standard</b>	A grade or level of quality to which products have to conform.
<b>Subsistence farmer</b>	Self-sustaining farmers who grows enough food to feed his/her family.
<b>SWOT analysis</b>	A framework that is used to analyse the internal strengths and weaknesses of a company or a project and the external opportunities and threats.

<b>Word</b>	<b>Definition</b>
<b>Tier</b>	A level within the hierarchy of an organisation or a system.
<b>Trade agreement</b>	An agreement between two or more countries that stipulate the terms according to which goods and services can be exchanged.
<b>Trend</b>	A general direction, course or tendency
<b>Typhoid infection</b>	A bacterial infection that can spread throughout the body and affect several organs.
<b>Urbanise</b>	Become more industrial or city-like.
<b>Value chain</b>	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.
<b>Value-added product</b>	A products that has been produced or processed in a way that increases its value, e.g. processing wheat into flour.

## Abbreviations

<b>Abbreviation</b>	<b>Meaning</b>
<b>ACDI/VOCA</b>	An international development (non-profit) organisation that promotes economic opportunities for cooperatives, enterprises and communities through the application of sound business practice.
<b>CPI</b>	Commodity Price Index.
<b>ArcGIS</b>	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.
<b>BDS</b>	Business development services.
<b>CIAT</b>	International Centre for Tropical Agriculture.
<b>CRS</b>	Catholic Relief Services.
<b>DFAT</b>	Department of Foreign Affairs and Trade (Australia).
<b>DFID</b>	Department of International Development (United Kingdom).
<b>FAO</b>	Food and Agriculture Organisation.
<b>G.A.P.</b>	Good Agricultural Practice.
<b>GIS</b>	Geographic information system.
<b>GIZ</b>	Deutsche Gesellschaft für Internationale Zusammenarbeit.
<b>GPS</b>	Global positioning system.

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

<b>Abbreviation</b>	<b>Meaning</b>
<b>SWOT</b>	Strengths, weaknesses, opportunities, threats.
<b>TBT</b>	Technical barriers to trade.
<b>TOPS</b>	Technical and Operational Performance Support.
<b>USDA</b>	United States Department of Agriculture.
<b>USAID</b>	United States Agency for International Development, which provides economic and development assistance around the world.



## 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://www.ictinagriculture.org/ictinag/node/105)

<http://labs.harvestchoice.org/2011/08/yield-reliability-room-for-improvement/>

