

UNIT
14



Value Chain Approach



LEARNING / FACILITATING MATERIALS

CITRUS PRODUCTION
NATIONAL CERTIFICATE I



NEPAD
TRANSFORMING AFRICA



implemented by
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Introduction

Welcome to the start of your career in citrus value chain approach.

A career in citrus value chain approach has never been as popular as it is now; competition is strong and the standards are getting high. So you too must aim higher, particularly if you see it as opportunity to build up your lifelong career.

There have been significant changes in the citrus industry over the years which have brought new standards, techniques, products and opportunities. Many career options are also available within the citrus value chain approach.

This unit will also look at the, value chain approach and selection criteria, value chain analysis, upgrading strategies, market linkages and standards and certifications

While training, you should make an effort on improving your personal habits, skill and knowledge to get along well with the numerous opportunities in the citrus industry.

Congratulations for making the decision to study in the citrus value chain approach. You have taken the first step towards a very interesting and satisfying career.

This learning material covers all the Learning Outcomes for Value chain approach for the **Certificate I Programme**



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Demonstrate knowledge of value chain approach and selection criteria

In this LO, you will learn about value chain approach and its importance, sketch the value chain map, explain the principles and scope of value chain and, examine the priority areas for value chain development.

PC (a) Explain value chain approach and its importance

Value Chain is a sequence of productive processes (functions) that a firm operating in a specific industry performs in order to deliver a valuable product or service for the market. The concept comes from business management and was first described by Michael Porter (1985).

The Value Chain is a business-oriented approach, which aims at capturing the best value at all stages of production, processing and trading from farmers through traders, processors and retailers to the final consumer.

Value chain approach necessitates understanding of a market system in its totality i.e. the firms that operate within an industry from the provision of specific inputs for a particular product to primary production, transformation and marketing up to final consumption.

Importance of the Value Chain approach.

The value chain approach which includes different actors, affect each of them in a positive but different manner. Below shows the importance of value chain with respect to the actors involved:

For producers

- improved market access (marketing)
- improved or wider product offer (value addition)

For processors

- access to more reliable and improved raw materials (supply)
- improved or wider product offer (value addition)
- access to more reliable distribution channels (marketing)

For consumers

- wider choice of better products
- healthier food at affordable prices

PC (b) Sketch the value chain map

Value chain map is a graphical representation of management principles, designed and used to analyze the flow of materials and information required to bring a product or service to a consumer. It is recommended that value chain mapping should be conducted in two phases,

- i. an initial basic map after the collection of initial data, illustrating participants and functions,
- ii. adjusted mapping which is conducted following additional follow-up interviews.

Note: The details of the map depend on mission, objectives and requirements established at the onset.

The following are some steps to help in sketching a value chain map. These steps help to organize key information about who is doing what in the value chain.

- Collect data from secondary sources, key informants and/or surveys.
- Use a function/participant worksheet which includes the following elements:
 - i. input supply
 - ii. production
 - iii. assembly
 - iv. processing
 - v. wholesale
 - vi. export

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								

PC (c) Explain the principles and scope of value chain.

Value chain principles are rules used to choose among solutions to a problem. Below are some principles used in the Value Chain Approach:

- Evaluate opportunities from the market perspective by assessing consumer demand as the starting point.
- Value Chain actor's access markets in a joint effort.
- Take advantage of value addition potential to supply competitive products

Scope of value chain

Scope of the value chain refers to the detailed information on all actors involved from the input stage to the consumer. In determining the scope of value chain, collect information (both quantitative and qualitative) on each Value Chain in relation to the actors involved in the table below.

Value chain actors	Materials/equipment involved
Inputs dealers	Seeds, tools and equipment, seedlings
Farmers	Small, medium and large scale farmers.
Handlers	Pack house, transportation
Processors	Fruit concentrate and juice industry, oil industry
Trade	Export, local markets (whole sales, retailers)

PC (d) Examine the priority areas for value chain development

Production

- I. Site selection
- ii. Land clearing
- iii. Planting
- iv. Weed control
- v. Soil amendments
- vi. Pest and disease control
- vii. Pruning
- viii. harvesting

Processing

- I. fruit juice, concentrate
- ii. fruit jam
- iii. oil

Marketing

- I. wholesale
- ii. retailers

Distribution

- I. wholesalers and retailers
- ii. exporters
- iii. transportation



Self-assessment

PC (a)

- 1a. Explain the term Value Chain Approach

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- 1b. State the importance of Value Chain Approach as a citrus farmer

PC (b)

- 1a. Sketch the Value Chain map for citrus farming
1b. Indicate the major actors on the map sketched (in 1a) above

PC (c)

- 1a. Explain the following related to Value Chain Approach
- I. Evaluate opportunities from the market perspective
 - ii. Value Chain actor's access markets in a joint effort.
 - iii. Take advantage of value addition potential

- 1b. Explain the scopes of Value Chain Approach

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PC (d)

1. Explain the priority areas for citrus value chain development by completing the table below;

Development areas	State two Priority areas
Production	
Processing	
Marketing	
Distribution	

Demonstrate understanding of value chain analysis

In this LO, you will learn about the overview of value chain map, including operators and their function, the opportunities of citrus value chain and the challenges of citrus value chain.

PC (a) Describe the overview of value chain map including operators and their Functions

Value chain map including operators and their functions

Value chain	Input suppliers	Production	Collection	Transformation	Trade	Consumers
Actors	Cooperatives and private input suppliers	Citrus farmers	Handlers	Processors	Exporters Importers Retailers	Consumers
Functions	Providing required supplies	Growing Harvesting Grading Sorting	Gathering Storing Grading Transporting Waxing	Sorting Mould prevention Storing Drying	Receiving Quality control Storing Selling Transporting Drying	Consume

PC (b) State the opportunities of citrus value chain

Citrus industry holds great potentials to increase the country's foreign exchange earnings and employment creation. Some of these opportunities are;

- i. Seed extracting for root stock
- ii. Budding
- iii. Seedling production (nursery)
- iv. Cultivation (production)
- v. Trading (wholesale, retail, exports)
- vi. Processing
- vii. Policy making (thus enabling legal, political and administrative framework conditions).

Pc (c) State the challenges of citrus value chain

Factors affecting performance of the chain are further analyzed to characterize opportunities and constraints to competitiveness. These factors are:

- problems in relationship (trust, inter-firm relationships)
- poor technology and logistics capacity
- financial constraints
- poor road network
- inadequate markets
- poor business environment
- inadequate vertical and horizontal linkages



Self-assessment

PC (a)

- 1a. Describe the overview of Value Chain Map of citrus production.
- 1b. State the operators of Value Chain Approach Map and their functions

PC (b & c)

1. Complete the table below by filling in the opportunities and challenges of citrus value chain

Opportunities of citrus value chain	Challenges of citrus value chain

Demonstrate knowledge of upgrading strategies.

In this LO, you will learn about the advantages and challenges of the upgrading strategies, the strategy for further improvement and set achievable objectives for upgrading

PC (a) State the advantages and challenges of the upgrading strategies

Upgrading strategies involve what the value chain actor must do to become more competitive and to generate greater value. Process product and functional upgrading can enhance value chain productivity and competitiveness of a firm.

Upgrading entails not only improvements in products but also investments in people, know-how, processes, equipment and favourable work conditions

Below are some advantages and disadvantages of upgrading strategies;

Advantages	challenges
<ul style="list-style-type: none">• Competitive• Meet global standard (HACCP, GAP)• Open up market opportunities• Quality assured products	<ul style="list-style-type: none">• Financial• Time consuming• Difficult to go through upgrading process and technology• Increase in labour cost

PC (b) Explain the strategy for further improvement.

Upgrading in firms can take place in the form of processing, production and marketing.

Processing

Process upgrading involves improving value chain efficiency by

- increasing outputs volumes
- reducing unit cost of production
- use of modern technologies

Production

Product upgrading involves activities such as;

- improving planting materials and techniques
- improving agronomy to enhance yields that result in higher sales
- investment in irrigation infrastructure

Marketing

Marketing upgrading involves activities such as,

- Improving quality of fruits
- Proper handling and storing of fruits
- Improving system of transportation
- Proper packaging of produce and products

PC (c) Set achievable objective for upgrading

Objectives for upgrading are strategies set to address problems affecting the performance of the value chain.

Below are procedures used for setting objectives for upgrading in value chain:

- develop value chain map.
- analyze the chain's economic performance and competitiveness. This analysis will help identify opportunities and constraints.
- identify strategic activities to address constraints based on analysis.



Self-assessment

PC (a)

1. You want to upgrade your citrus production. State four (4) advantages and challenges each that may confront you? Supply your answers in the table below.

Advantages	Challenges
1.	1.
2.	2.
3.	3.
4.	4.

PC (b)

1. As a citrus fruit farmer, you are faced with several challenges. State how you will improve upon your production by completing the table below.

Value chain areas	Strategy
Processing	1. 2.
Production	1. 2.
Marketing	1. 2.

PC (c)

1. You are encountering problems with the performance of your citrus value chain; describe how you will set achievable strategies for upgrading

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Demonstrate understanding of market linkages.

In this LO, you will learn to identify and explain types of market linkages, explain the importance of market linkages and design basic contract form.

PC (a) Identify types of market linkages.

The term linkage obviously implies a physical connection between the producer and the ultimate consumer. Linkages also involved financial transactions, the selling and buying of goods - and can be broadly defined in four different ways:

- Financial transactions
- Channels through which transactions occur (wholesale and retails)
- Transport and communications network
- By the spatial distribution of transactions

PC (b) Importance of market linkages

A market linkage is meant to facilitate the flow of produce between the different levels of the marketing system. The input to the process is the agricultural production (the supply) and the output is the consumption of that produce by consumers (the demand).

Market linkages are important for the following reasons:

- Easy flow of products within the chain
- Identify inaccessible markets
- Create mutual corporation between actors

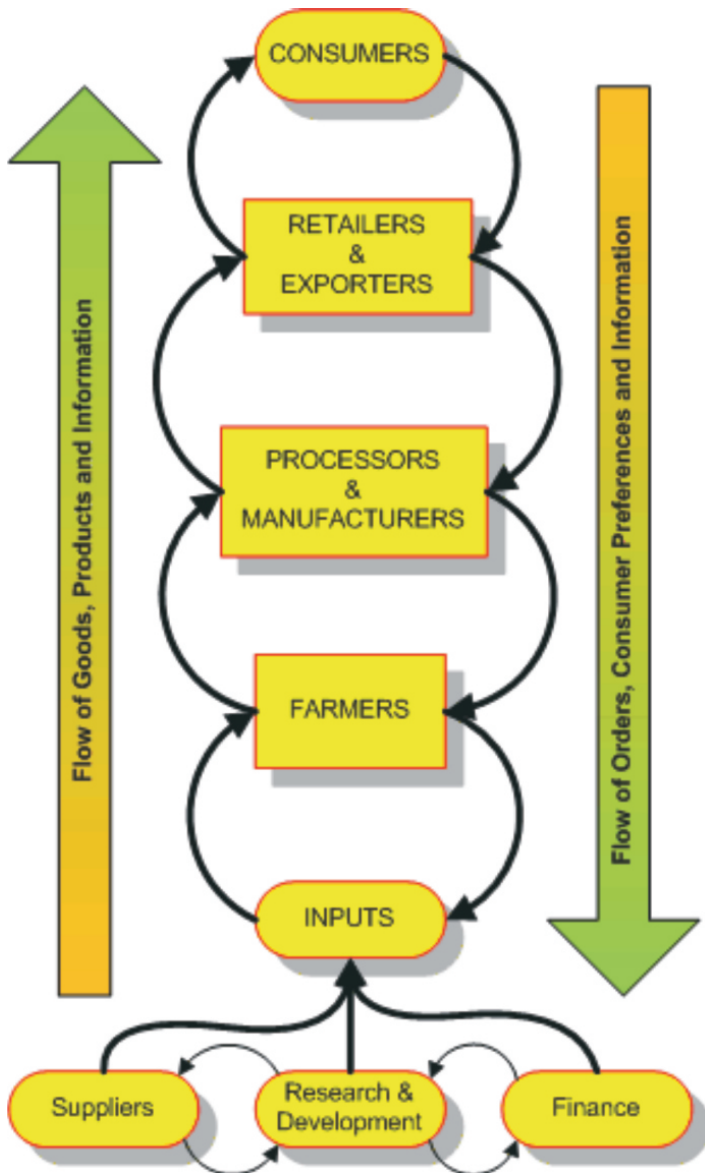


Diagram showing market linkages

The following diagram shows the flow of good, products and information from the input stage (suppliers, research and development and finance) through the various actors in the chain up to the final consumer. From the consumer down to the inputs stage is the flow of information, consumer preference and orders.

PC (c) Design basic contract form

Below is a sample of a contract form.

AGREEMENT FOR CONTRACT FARMING

Agreement between.

Sir.....S/o.....R/o.....Village.....Taluk

.....District..... hereinafter referred to as contract farming Producer or simply Producer.

AND

M/s.....Address.....Hereinafter referred to as contract farming Sponsor or simply Sponsor. We, the above said contract farming Producer and contract farming Sponsor mutually agree on the following terms and conditions for production and purchase and sale of..... (Commodities). The Producer owns/taken on lease an extent of Acres of land in Survey No..... ofVillage Taluk..... District.....

2. The Producer agreed to produce..... (Commodity) required by the sponsor during..... Season of..... (Year/years).

3. The Sponsor agreed to provide the services with service charge specified hereunder/for production of the said commodity/commodities by the Producer. The producer agreed to recover the service charges from the sale proceeds payable to him.

4. The sponsor agreed to purchase the commodity conforming to specifications at the rates explicitly given hereunder.

Commodity	Specification	Rate per kg. / qty.

5. The Sponsor cannot demand damages if the produce harvested does not conform to the specifications and quantity agreed upon.

6. The sponsor has agreed to purchase the entire quantity/..... quintals produced by the producer at the rate/s as at clause 4 above.7. The

Producer has agreed to deliver the agreed quantities of commodities first to the sponsor and if and only if there is any leftover quantity, he is at liberty to dispose of the commodities to others.

8. The Sponsor has agreed to take delivery of the commodity at the farm/villages after weighment and payment by incurring all expenditure incidentals therefore, like handling, weighment, cost of containers, etc.

9. The sponsor has agreed not to refuse to take delivery of the quantity of produce conforming to specifications given at clauses 6 and 4 above.

10. The sponsor has agreed to give a third party guarantee in the form of bank guarantee for the entire value of the contract agreement.

11. In case the Producer sells the produce to any other person in violation of the terms of the agreement, the sponsor may approach the Market Committee for redress. Market Committee shall proceed against the Producer including attachment of stocks and properties belonging to the Producer.

12. The sponsor can claim the loss suffered by him for breach of agreement by the Producer.

13. In case the Sponsor fails to take delivery of the produce, the Producer can ask market Committee to recover the loss sustained by him from the bank guarantee furnished by the sponsor.

14. Any dispute arising out of this agreement shall be resolved as per sub-sections (4) of Section 131-C of the Karnataka Agricultural Produce Marketing (Regulation and Development) Act, 1966.

15. The agreement ceases to be in force on..... (Date).

**Signature of the contract
Farming sponsor**

**Signature of the contract
Farming producer.**

Witness:

1. Name and Address
(Signature)

2. Name and Address
(Signature)



Self-assessment

PC (a)

1. State the types of market linkages existing in citrus value chain
2. Explain the types market linkages identified in PC (a 1) above

PC (b)

- 1.a Explain our (4) benefits of market linkages that exist in citrus value chain

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- 1b. Sketch the linkages that exist in citrus value chain

PC (c)

1. Develop a basic contract form and complete.

Demonstrate knowledge of Standards and Certifications

In this LO you will learn about the types of standards and certifications, importance of standards and certifications, procedures for meeting standards and certification requirements in citrus production.

PC (a) Explain the types of Standards and Certifications

STANDARDS: A basis for comparison, a reference point against which other things can be evaluated.

Citrus are inspected and tested continuously on the local and export markets to ensure the highest quality and consumer safety. Certifications for exporting citrus are done to comply with the following standards:

GLOBALGAP is a private sector body that sets voluntary standards, or Good Agricultural Practices (GAP), for the certification of agriculture, including some aquaculture, products around the globe. It assures farmers and consumers of their safety, health, and welfare, environmental and social impacts on fruits. There are provision for group and individual certification to meet requirement. There should be an officer at the farm and a yearly audit for renewal of certification.

FAIR TRADE: is an organized social movement that aims to help producers in developing countries to make better trading conditions and promote sustainability. It advocates the payment of a fair and premium price to farmers as well as higher social and environmental standards. It focuses in particular on exports from developing countries to developed countries.

There are several recognized Fair-trade certifiers, including Fair-trade International (formerly called FLO/Fair-trade and fair for life).

Hazard Analysis & Critical Control Points (HACCP): Is a management system in which food safety is addressed through the analysis and control of biological, chemical, and physical hazards from raw material production, procurement and handling, to manufacturing, distribution and consumption of the finished products.

ORGANIC STANDARDS: It is a legal certification for agricultural produce without the use of chemicals and pesticides.

CODEX STANDARDS: Is a collection of internationally recognised standards, codes of practice, guidelines and other recommendations relating to foods, food production and food safety.

Note: once standards are met, certificates are issued and renewed regularly.

PC (b) Importance of standards and certifications

Some of the importance's are as follows:

- Food quality and safety improvement
- Facilitation of market access
- Reduction in non- compliance risks regarding permitted pesticides, and other contaminated hazards

PC (c) Describe the procedures for Standards and Certification requirements

There are several schemes of Standardization and Certification in citrus, for example organic certification in citrus production. Based on the choice of the type chosen the farmer then goes through the procedures for that particular scheme. But generally basic requirements include:

- Register your company with the registrar-general's department
- Register your company with the Ghana export promotion council and obtain a number

On the farm, the following basic requirements among others are to be met:

- Records keeping
- Infrastructure such as pesticides store, changing rooms, pack house
- Good hygiene



Self-assessment

Pc (a)

1. A) Explain the following in relation to International Trade

I. GLOBALGAP

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ii. CODEX STANDARDS

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iii. FAIR TRADE

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Pc (b)

1. Explain the main reason why standards and certifications are importance in citrus production

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Pc (c)

1. Explain what a citrus farmer must do to meet standards and certification requirements

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