

Training Documents for Stakeholder and Community Capacity Building to Integrate Value Chain and Marketing Options of the VTCS



Assignment 04: Conduct study on the analysis of multi-sector value chain and market illustrations

Submitted to

The UNEP-GEF project on Healthy Landscapes: Managing Agricultural Landscapes in Socio-Ecologically Sensitive Areas to Promote Food Security, Wellbeing and Ecosystem Health Project in Sri Lanka

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Executive Summary

A value chain is a business model that transforms a product or service from idea to reality, involving the production and distribution of value. It involves sequential processes from design to delivery, including physical, financial, and information flow. Key elements of value chains include market demand, target market specificity, organizational flexibility, dynamic nature, and external factors. Value chain analysis aids agricultural businesses in making informed decisions, pinpointing inefficiencies, understanding linkages, optimizing activities, and establishing competitive advantages. Agro-value chains play a crucial role in boosting economic growth for poor communities by leveraging efficient value chains to promote industrial growth, enhance product quality, stimulate specialization, and foster collaboration among stakeholders and policymakers for sustainable development. In developing countries, traditional social norms often affect the participation of the poor in agro-industrial value chains. Policies supporting pro-poor value chains focus on access to global markets, revenue increase, and poverty alleviation. Value chain analysis is crucial for increasing production quantity, enhancing product quality and safety, reducing time to reach customers, minimizing transactional costs, and enhancing the capacity of chain actors to adopt technology. Prioritizing value chains based on poverty reduction strategies, employment generation potential, market demand, and investment prospects is essential. Agro-value chains are pivotal in economic landscapes, requiring comprehensive strategies for enhancement.

In light of this, the aim of this manual is to equip field officers and other ground-level officers with the necessary knowledge and skills to conduct a comprehensive value chain analysis within the context of a village tank cascade system. By delving into the intricate dynamics of the value chain, this manual aims to empower officers to identify key actors, assess their roles and relationships, and pinpoint opportunities for value addition and efficiency improvements. Through a blend of theoretical frameworks, practical methodologies, and case studies tailored to the unique characteristics of village tank cascade systems, this training manual seeks to enable officers to make informed decisions and implement targeted interventions that enhance the overall resilience, sustainability, and socio-economic impact of these vital water management systems.

This activity was carried under as a part of Assignment 04 of the consultancy undertaken by the consultant which is attributed to the Activity 1.4.2 of HLP and to successfully achieve the outcome 01 of the project. With this report we present both deliverable 03 and deliverable 04 as stipulated in the TOR of the consultant. The consultant and his team provided resource contribution to the stakeholder training program which organized by HLP to build the capacity on integrating value chain and marketing in the environment of VTCSs leading to compete the deliverable 04. Deliverable 03 is the training manual which is presented in this report.

Chapter 01

Introduction

1.1 Value Chains: Concept & Issues

The global economy's integration has led to prosperity gains for many, particularly in developing countries. Globalization of manufacturing has opened up new opportunities for upgrading industrial and service sectors, offering higher incomes, differentiated products, and quality goods. Free trade agreements have created new export opportunities, particularly for food products. This has encouraged governments and investors to expand agro-industrial activities, leading to competition among producers. Companies have evolved to provide goods and services to meet export market demands. However, value chain promotion in developing countries faces challenges such as business environment flaws, competitive pressures, governance, international consumers, and risk of marginalization.

Concept of Valuing

Enhancing a product or service to make it more appealing to consumers is the process of valuing it. Valuing includes a wide range of tasks, from creativity and design to customer support and service. It entails not just fulfilling but also surpassing client expectations to produce a perceived value that much exceeds acquisition costs.

“To put it simply, valuing is the process of giving each good or service characteristics that speak to the target customer, encourage repeat business, and ultimately increase profitability.”



Total amount that buyers are willing to pay for a product

Concept of Value Chaining

Sequential arrangement of interrelated actions that collectively contribute to the production and distribution of value, complements the concept of valuing. Each action inside the value chain, like the links of a chain, fulfills a specific role while depending on others to function properly. From procurement and manufacturing to marketing and distribution, the chain includes a wide range of operations that must work together flawlessly to secure the flow of value from conception to consumption. The efficiency and efficacy of each activity determine the overall effectiveness of the value chain, just as a chain is only as strong as its weakest link.



What is a Value Chain?

A value chain is a set of sequential processes that start at the beginning of the design process and end up at the customer's door of a finished product. Every point of the production process where value is created is identified by the chain, which includes the purchasing, manufacturing, and marketing processes.

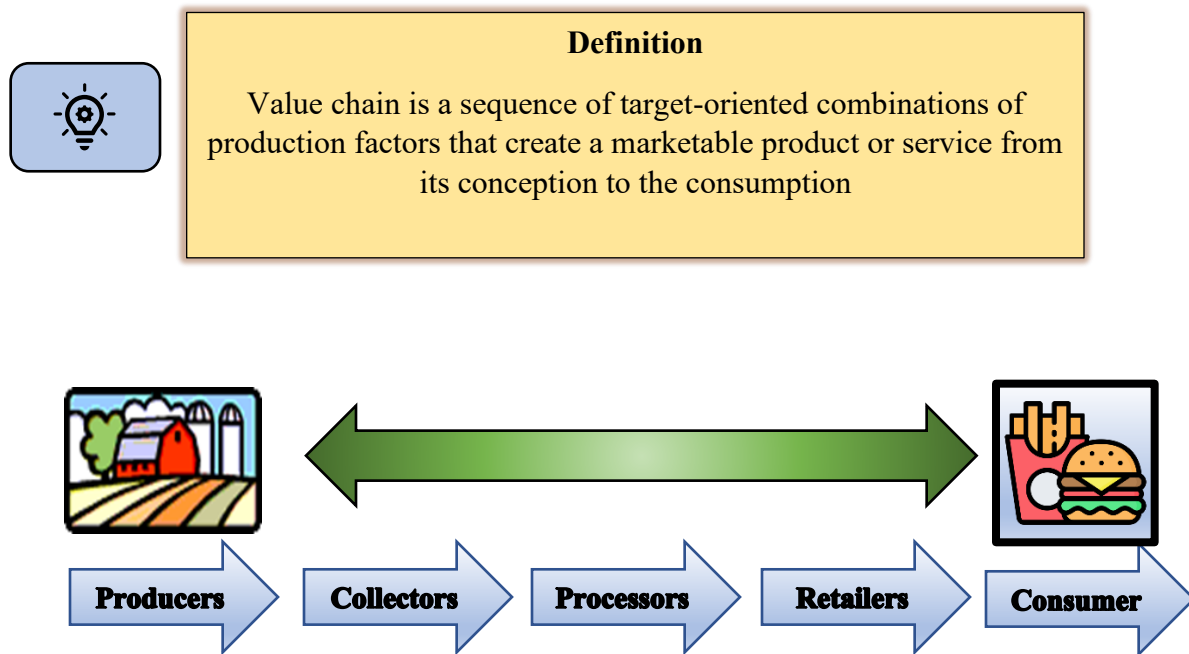


Figure 1.1: Simple value chain

Definitions for Value Chain:

“The idea of the value chain is based on the process view of organizations, the idea of seeing a manufacturing (or service) organization as a system, made up of subsystems each with inputs, transformation processes, and outputs.” - Michael Porter (1985)

“Value chains are defined as interactive systems in a fundamental” - Fearne and Hughes (1999)

“The term ‘value chain’ describes the full range of value-adding activities required to bring a product or service through the different phases of production, including procurement of raw materials and other inputs” - World Bank

“Actors connected along a chain producing, transforming and bringing goods and services to end-consumers through a sequenced set of activities” - United Nations Industrial Development Organization. (UNIDO)

1.2 Main Concepts of Value Chain System

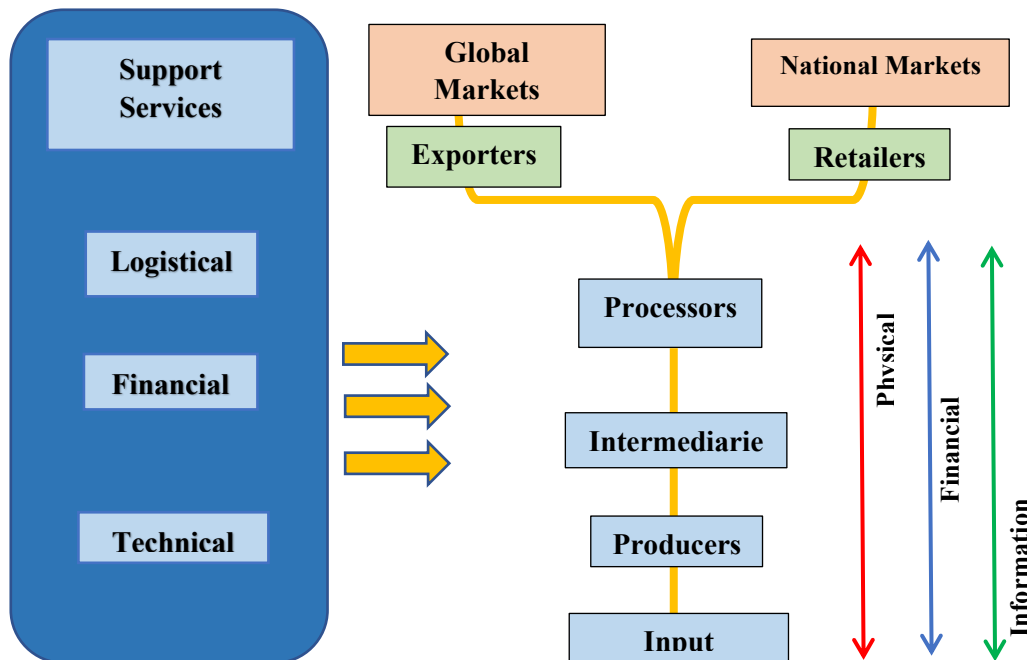


Figure 1.2: Value Chain System

Physical Flow:

Physical flow refers to the movement of goods and materials through the value chain, from production to consumption. It includes raw materials like seeds, fertilizers, and livestock and transportation, storage, processing, and distribution of agricultural products. Efficient physical flow management is crucial for minimizing waste, maintaining product quality, and ensuring timely delivery to meet market demand. Effective transportation logistics can reduce delays and spoilage.

Financial Flow:

The movement of money and transactions along the value chain, such as payments for inputs, funding for manufacturing, and exchanges between farmers, merchants, processors, and retailers, are referred to as financial flow. Fair pay for all participants is ensured, sufficient investment in agricultural output is ensured, and small-scale farmers' access to credit and finance is made possible by efficient cash management. Financial systems that are efficient and transparent promote teamwork and confidence.

Information Flow:

Information flow is the communication, knowledge, and exchange of data amongst the parties involved in the value chain. This includes information on the market, production methods, quality requirements, costs, and customer preferences. It is essential for decision-making across the board, from marketing and sales to production scheduling. Farmers are better able to make decisions when they have access to market data, and knowledge exchange fosters creativity and increases production. Enhanced efficiency and competitiveness are achieved in the agricultural value chain through efficient information exchange.

Key Elements of Value Chain

- ❖ **Market Demand:** The need for products and services from consumers. If people don't want to buy something, producers won't make it.
When people want to buy things, it encourages farmers and other producers to make them. Without people wanting to buy stuff, farmers wouldn't have anyone to sell their products to, which means they wouldn't make any money.
- ❖ **Target Market Specificity:** Value chains are made for specific groups of people who want particular things. Each group has its own needs and challenges, like how much it costs to join, what quality products they want, and how to get those products to them. It's important to know who wants to buy what you're selling. This helps decide if it's worth getting involved in making those products. For example, poor farmers might find it hard to join a group that sells products to other countries because it's expensive or they don't have the skills needed.
- ❖ **Organizational Flexibility:** There isn't one perfect way to set up a value chain. But we can find ways to help small-scale producers get more involved so they can make more money.
Different situations need different plans. Being flexible means, we can change how we do things to fit what works best for the people involved. For example, we can find ways to help small farmers make more profit from what they produce.
- ❖ **Dynamic Nature: Value chains are always changing because of things like what people want to buy, how much competition there is, how much it costs to make things and new technology.**
The world is always changing, so businesses need to change too. This means being ready to adapt when things like what people want or how much things cost change. For example, businesses need to be quick to change what they're making if people stop buying it.
- ❖ **Influence of External Factors:** Things like government rules and industry standards have a big effect on how value chains work.
Things outside of a business's control, like government laws or what other businesses are doing, can make a big difference in how well a business does. Understanding these things is important for businesses to be successful. For example, businesses need to follow rules set by the government, and they need to know what other businesses are doing so they can stay competitive.

What is the Difference between a VC and a Supply Chain?

People often use the terms "supply chain" and "VC" to mean the same thing, but they're a bit different. In a VC, value is added at each step of making and selling a product. A supply chain is more about all the steps from where the product comes from to when it's bought by consumers in a certain area or industry.

1.3 Importance of Value Chain



Why are Value Chains Important?

The macroeconomic landscape, encompassing factors like GDP growth, inflation, unemployment rates, and fiscal policies, sets the stage for economic activities within a country or region. Complementing this landscape are policies, laws, regulations, and standards, which dictate the rules governing economic operations, spanning taxation, trade policies, labor laws, environmental regulations, and product standards. Institutional elements further support economic endeavors, including research and innovation institutions, educational systems for human resource development, and various support services such as finance, marketing, and logistics. Within this framework operates the value chain, a sequential process spanning from sourcing raw materials to delivering goods or services to consumers. The interplay of the macroeconomic landscape, policies, regulations, and institutional elements shapes the operating environment for businesses across the value chain. Favorable economic conditions and supportive regulations can spur investment in innovation and improve productivity. At the same time, robust human resource development enhances workforce capabilities, ultimately leading to the delivery of higher-quality products and services. Figure 2 illustrates these relationships within the generic value chain.

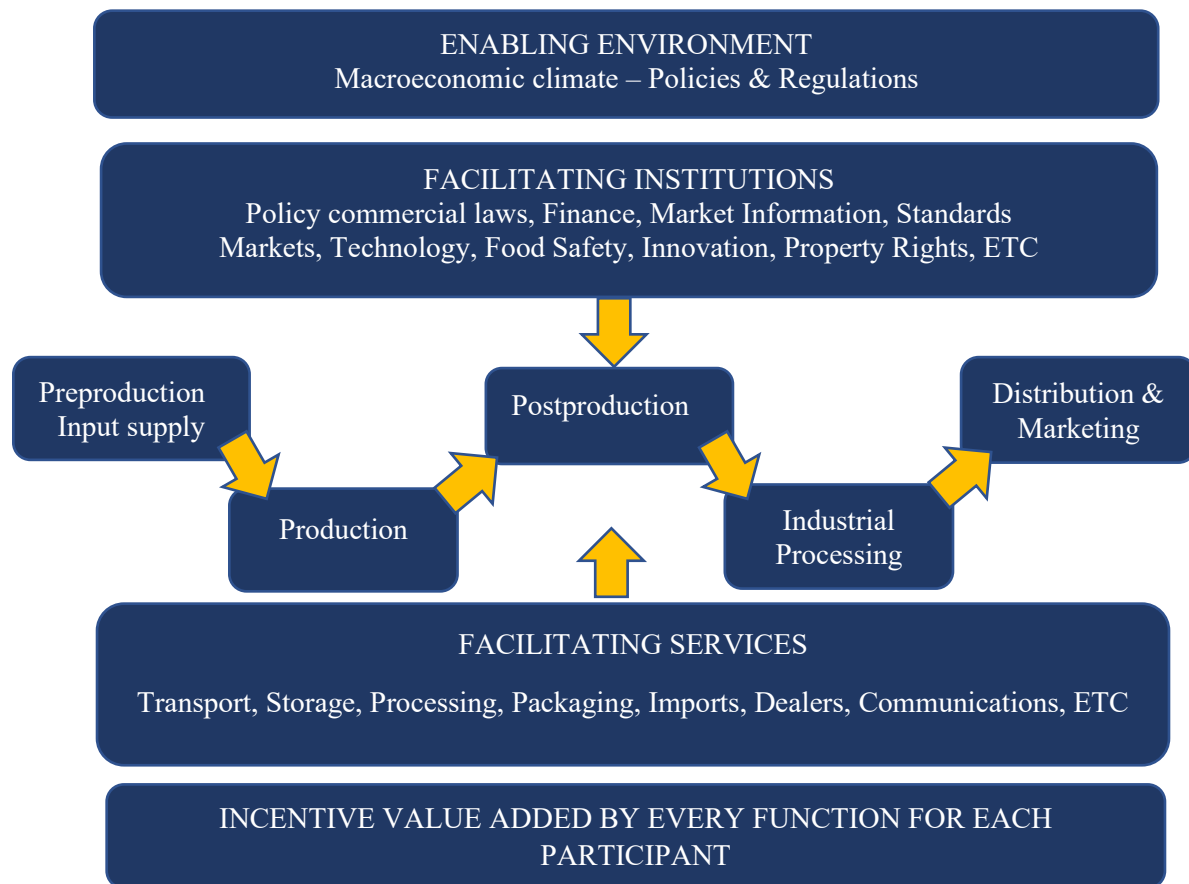


Figure 1.3: Generic Value Chain

Related to Business Concept

Value chains play a crucial role in business enhancement by prompting a thorough examination of each component and its interrelation within the broader framework of business operations. They facilitate the identification of weaknesses and the formulation of solutions to optimize various facets of business functioning. While this serves as a general overview of the impact value chains can have on a business, conducting a value chain assessment or analysis allows for a detailed examination of every aspect of the company. This enables the identification of factors that contribute positively or negatively to profitability.

Primarily, it helps in identifying ineffective areas of the business, enabling the formulation of corrective measures. It also prompts decision-making on aspects that may have been overlooked previously. In addition to addressing business shortcomings, it provides insights into its strengths. These strengths can potentially be leveraged to improve other areas of the business.

Ultimately, through the analysis of value chains, businesses gain an understanding of how different activities are interconnected, even if they appear unrelated. For instance, issues in human resources management can impact various other aspects of the company. In terms of agriculture, it helps them identify the sources of positive or negative cost efficiency throughout their operations.

Practical Importance of the Value Chain in the Agricultural Framework

- ❖ **Support decisions for various business activities:** Value chain analysis aids agricultural businesses in making informed decisions across various activities such as production, processing, distribution, and marketing. For instance, a farm may use value chain analysis to decide whether to invest in new machinery for harvesting or to allocate resources towards diversifying their crop portfolio based on market demand and profitability.
- ❖ **Diagnose points of ineffectiveness for corrective action:** By examining each stage of the agricultural value chain, businesses can pinpoint inefficiencies and areas where resources are not optimally utilized. For example, a dairy farm might identify that a significant portion of milk production is lost during transportation due to inadequate cooling facilities, prompting them to invest in better transportation infrastructure to reduce losses.
- ❖ **Understand linkages and dependencies between different activities and areas:** Agricultural businesses can recognize the interconnectedness between different activities such as human resource management (HRM) and technology adoption. For instance, integrating technology into farm operations might require training for farmworkers, highlighting the link between HRM practices and technology adoption. Understanding these linkages enables businesses to implement comprehensive strategies effectively.
- ❖ **Optimize activities to maximize output and lower costs:** Value chain analysis helps agricultural businesses identify opportunities to streamline processes and eliminate unnecessary expenses. For example, a poultry farm may find that adopting automated

feeding systems reduces labor costs while increasing efficiency in feed utilization, ultimately maximizing output and lowering production costs.

- ❖ **Establish a cost advantage over competitors:** By identifying cost-effective practices and optimizing processes, agricultural businesses can gain a competitive edge in the market. For instance, a vineyard may implement sustainable farming practices that reduce input costs while also appealing to environmentally conscious consumers, thereby establishing a cost advantage over competitors who rely on conventional methods.
- ❖ **Understand core areas of strength and areas of potential improvement:** Value chain analysis enables agricultural businesses to identify their core competencies and areas where improvements are needed. For example, a vertically integrated agribusiness may realize that its strength lies in controlling the entire production process from farm to shelf while recognizing the need to improve marketing strategies to reach a broader consumer base.

The practical importance of the value chain framework in agriculture lies in its ability to support decision-making, diagnose inefficiencies, understand linkages between different activities, optimize processes, gain a competitive advantage, and identify areas for improvement. By applying value chain analysis, agricultural businesses can enhance their overall performance and profitability in a dynamic and competitive market environment.

Agro-value Chains: Boosting Economic Growth for the Poor

Agro-value chains are really important for helping poor communities grow economically. While agriculture has always been a big part of helping reduce poverty, it's not enough on its own to solve all the problems. That's why it's so crucial for policymakers to pay attention to agro-industries. These industries, which are set up in a smart way along efficient value chains, can help industrial growth happen faster and on a bigger scale. Unlike just producing basic crops, agro-industrial products offer a much better chance for growth. Plus, the way production processes are getting split into different tasks, gives developing countries a chance to specialize and make more money. Therefore, focusing on agro-value chains can make a big difference in helping poor communities thrive economically.

Agro-value chains cover a range of activities happening at different levels, like on farms, in rural areas, and cities. It all starts with getting the necessary materials and goes on to handling, processing, distributing, and even recycling products. At each step, there are exchanges between different people involved, money changes hands, and information is shared, all while adding more value to the products. When we look closely at these value chains, we see the importance of helping businesses grow, making sure products are high quality and safe, measuring how much value is being added along the way, connecting producers, processors, and sellers, and making sure businesses can compete well in the market.

This approach isn't just about looking at one part of the process; it's about understanding how everything fits together and how it interacts with the business and policy environment. By figuring out what's working well and what needs improvement, we can come up with ways to make things better. This involves everyone affected, like stakeholders and policymakers, working together to create a plan for how the value chain should evolve and building relationships to make sure things run smoothly in the future. It's a way to bring together different parts of the chain and find ways to make them better.

Key Takeaways

- ❖ A value chain is a step-by-step business model for transforming a product or service from idea to reality.
- ❖ Value chains involve enhancing products or services to make them more appealing to consumers, exceeding their expectations to create perceived value that surpasses acquisition costs.
- ❖ Value chaining is the sequential arrangement of interrelated actions contributing to the production and distribution of value, where each activity plays a specific role dependent on others to function properly.
- ❖ A value chain encompasses sequential processes from the design stage to delivering finished products to customers, identifying points where value is created, such as purchasing, manufacturing, and marketing.
- ❖ Physical flow involves the movement of goods and materials through the value chain, requiring efficient management to minimize waste and meet market demand.
- ❖ Financial flow refers to the movement of money and transactions along the value chain, ensuring fair pay, sufficient investment, and access to credit for participants.
- ❖ Information flow entails communication, knowledge exchange, and data sharing among value chain stakeholders, essential for decision-making and fostering efficiency and competitiveness.
- ❖ Key elements of value chains include market demand, target market specificity, organizational flexibility, dynamic nature, and influence of external factors, shaping the operating environment and success of businesses.
- ❖ Value chain analysis aids agricultural businesses in making informed decisions, pinpointing inefficiencies, understanding linkages, optimizing activities, and establishing competitive advantages.
- ❖ Agro-value chains play a crucial role in boosting economic growth for poor communities by leveraging efficient value chains to promote industrial growth, enhance product quality, stimulate specialization, and foster collaboration among stakeholders and policymakers for sustainable development.

Chapter 02

Value Chain Analysis

2.1. Identifying Value Chains of Interest



What is Agro-value Chain Analysis?

Value chain analysis in the Agro-industry, particularly in developing countries, where traditional social norms often impact the participation of the poor, emphasizes the need for policies that support pro-poor value chains and outlines three main areas of focus for promoting such chains: ensuring access to global markets, increasing revenues, and enhancing poverty alleviation.

The structure of Agro-value chain analysis and the significance of developing businesses, improving product quality, measuring added value, and establishing coordinated connections among different participants is essential. Emphasizing the importance of analyzing value chains to recognize strengths, weaknesses, and necessary actions, as well as to foster collaborative partnerships between stakeholders and policymakers, is crucial. This approach aids in improving overall efficiency and effectiveness within Agro-value chains, promoting sustainable growth and benefiting all involved parties.

Village Tank Cascade Systems (VTCs)

Many projects in Sri Lanka prioritize the restoration of Village Tank Cascade Systems (VTCS) for rural development and the welfare of local communities. Despite their historical significance, these systems have deteriorated over time. The restoration efforts aim to mitigate the impacts of climate change in the region by revitalizing these systems. By providing facilities and opportunities for economic development, these projects seek to alleviate poverty and enhance the overall well-being of the people residing in these areas. The revitalization of VTCS not only serves as a means of adaptation to climate change but also as a catalyst for socioeconomic advancement within these communities.



The process of conducting a value chain analysis can vary depending on the specific objectives. The absence of a definitive method for carrying out such analyses attributes this to the intricate nature of value chains, particularly in intermediate tiers. Additionally, individual enterprises may contribute to multiple chains, necessitating a careful selection of the target chain(s) based on the research objectives. Nonetheless, there are fundamental steps that are essential when applying value chain analysis to the agricultural sector:



What are the Fundamental Steps for Value Chain Analysis?

- ❖ **Mapping the value chain:** This involves understanding the characteristics of chain actors and their relationships, as well as studying the flow of goods, employment patterns, and sales volumes. Various methods such as surveys, interviews, workshops, and data collection are employed to gather this information.
- ❖ **Identifying actors' benefits:** Analysis of margins and profits within the chain determines who benefits from participation and who requires support for performance improvement, especially crucial for vulnerable groups in the context of market liberalization.
- ❖ **Defining upgrading needs:** By assessing profitability and identifying constraints, solutions for upgrading can be outlined. These may include improving product quality, adopting new technologies, or introducing new functions in the chain.
- ❖ **Emphasizing governance:** Governance structures within the value chain determine coordination mechanisms among actors. Focusing on governance identifies institutional actors needing support to enhance capabilities, increase value addition, and rectify distributional disparities.



Why Value Chain Analysis is Important?

- ❖ Increasing production quantity and enhancing regularity and continuity.
- ❖ Improving product quality and safety.
- ❖ Reducing the time required to reach customers.
- ❖ Minimizing transactional costs.
- ❖ Enhancing the capacity of chain actors to adopt technology and adapt to market developments.

Three Main Goals

By promoting Agro-value chains, can be achieve three main development goals:

1. Increased productivity and value added
2. Improved employment opportunities
3. Expanded market access and exports

Basic Steps of Value Chain Analysis

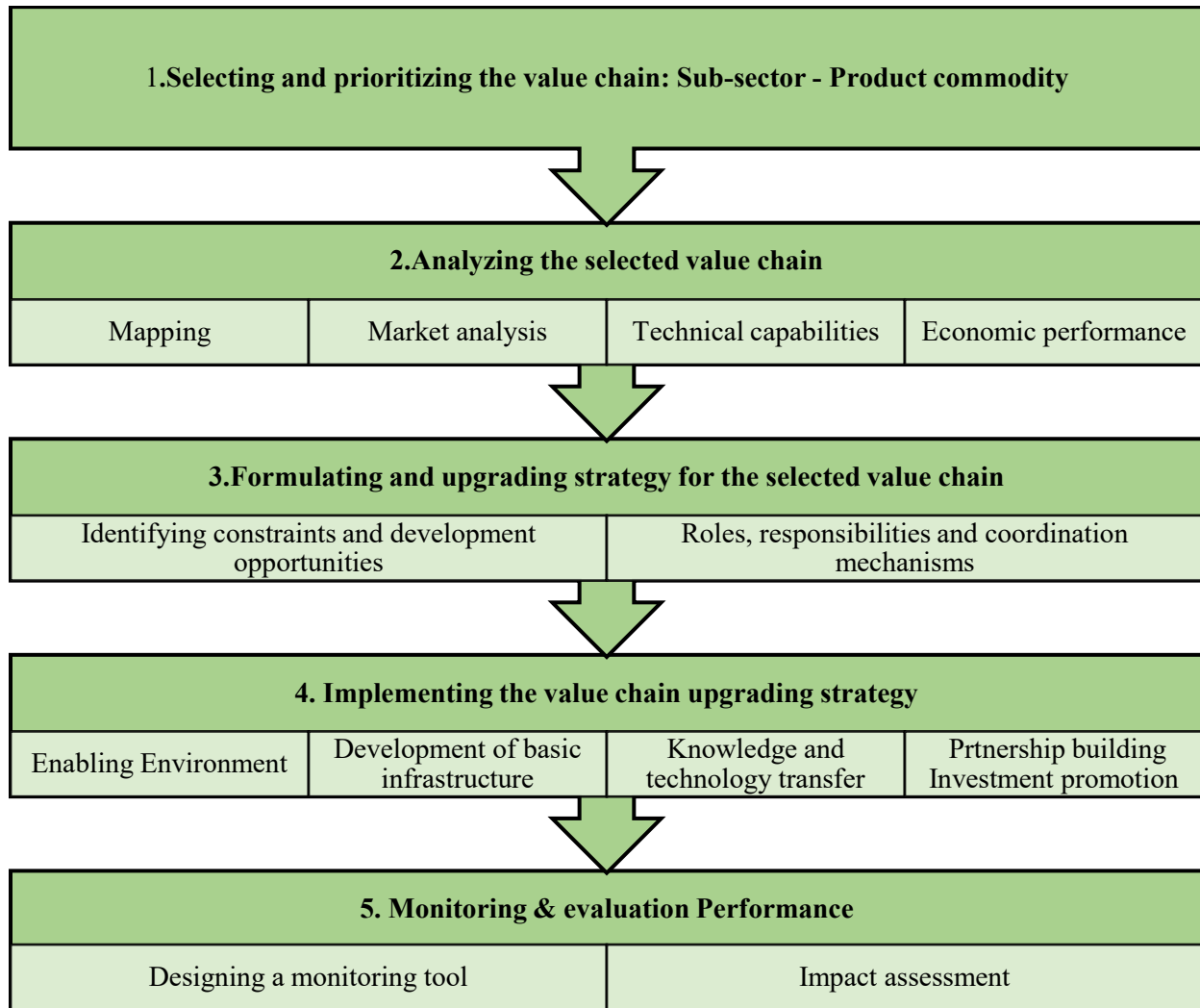


Figure 2.1: Main Steps of Value Chain Analysis and Development

The fundamental phases of value chain analysis are described in Figure 2.1. It is essential to first verify and confirm the original list of sectors, subsectors, and commodities. Next, using certain criteria listed later in the process, rank and choose the most promising value chains for additional investigation.

Subsequently, carry out an exhaustive examination of the selected value chains, including every step of the process from obtaining raw materials to shipping the finished product to clients. First, maps with the values of particular commodities on them must be made. determining and evaluating the relationships, present state, profit margins, and market efficiency of each link in the value chain. This will assist in assessing the value chain, identifying market and operational obstacles, and investigating possible enhancements.

2.2 Identifying Value Chains of Interest

Step 01

Selection and Prioritization of Value Chains

Major Considerations

The process of selecting and prioritizing value chains for analysis is a crucial initial step in any value chain development project. This decision-making process significantly influences the potential socioeconomic impact of the value chain.

One key consideration in this process is ensuring the inclusion of measures that enable the participation of impoverished individuals in business-related markets. If these measures are lacking, additional components may be required to facilitate and support the development of the value chain.

Requests for value chain analysis typically come from member states, partner institutions, or donor agencies, specifying the sectors or products to be examined. Therefore, have to undertake a rapid appraisal of suggested Agro-value chains to identify those with promising prospects for economic growth. This appraisal involves a desk review of factors impacting rural industrial development and a country's capacity to competitively produce and export manufactured goods. Key factors considered include contributions to GDP, manufacturing value-added, labor costs, input costs, market potential, investment, and policy framework.

After the rapid appraisal, the selection of target value chains is refined using priority criteria, considering factors such as poverty reduction strategies, employment generation potential, start-up costs, environmental and social standards, rural economic impact, risks and threats, demand, production costs, investment prospects, resource availability, infrastructure, skills, policy changes, and scalability. These criteria are flexible and can be adjusted based on regional or sector-specific conditions. A weighted score sheet is often utilized to prioritize value chains effectively.

While the primary goal of this process is to prioritize specific subsectors, products, or commodities for analysis, it is essential to maintain focus on the overall development of the entire value chain.

To ensure support for pro-poor Agro value chains, priority criteria are established. These criteria consider various factors:

- ❖ How does the sector contribute to the country's strategy for poverty reduction?
- ❖ Is poverty prevalent in the project area, and is it marginalized?
- ❖ What is the potential for the value chain to create jobs, particularly through labor-intensive industries?
- ❖ Are there low-cost entry points that utilize low-tech skills?
- ❖ How might environmental and social standards affect costs and competitiveness for poor Agro-processors?

- ❖ What impact will the value chain have on the rural economy, including income diversification and job opportunities for women?
- ❖ What risks are associated with promoting the selected chain, such as displacement of unskilled workers and environmental sustainability? Other criteria for economic growth and sustainable development include:
 - ❖ Market demand for the product, both domestically and internationally.
 - ❖ Production costs compared to competitors, including benchmarking and competitiveness.
 - ❖ Prospects for public and private investments.
 - ❖ Resource availability about the number of operators in the value chain.
 - ❖ Infrastructure, financial services, and raw material availability.
 - ❖ Skill levels of the workforce and management.
 - ❖ Potential policy changes to support private sector development.
 - ❖ Alignment and scalability with other projects in the region/country.

This list of criteria can be expanded or modified depending on the situation and environment of the targeted region/sector. Also, the weight to be assigned to any criterion will depend on its relative importance

Criteria	Sub criteria	Leading question
Economic/ market Criteria	Demand from the existing end markets	Is there a high demand within existing end markets?
	The gap in the supply to address	Are there gaps in supply to be addressed? / Are there more opportunities to increase supply?
	Potential for Domestic & International demand	Are there any export opportunities?
	Potential for improvement and value addition	Are there more opportunities/ potential for value addition and venture creation?
	Realistic opportunities to reach new end markets	Are there realistic opportunities to find new/ niche markets?
Impact on the poverty alleviation	Involvement of the poor	Are there more opportunities to get the poor into the system?
	As a sustainable livelihood opportunity	How about its sustainability as a livelihood for the poor?
	Potential for high profit margins and short-term	Does it provide high margins and quick returns etc.?

Environmental resilience	Environment-Friendly (Pollution Free)	Is this environmentally/ Ecologically friendly? Any potential environmental pollution?
	Adaptations/Mitigation to Climate Change	How much does it adapt to climate change and support mitigating climate change?
	Support ecological restoration	Are there any measures/ implications/ practices that can support restoration?
Feasibility	Enabling Environment and availability of supportive mechanisms	Are there any actions/ programs/ parties/ mechanisms that promote/support engagements of private/ public sectors and/or civil societies? / Does the enabling environment support its development?
	Environmental support	Are environmental conditions favorable for this sector/ subsector?
	Economic/ Market risk	How about the economic/ market risk?
Inclusion of Gender/ Youth/ marginalized persons	Inclusion of gender	Are there more opportunities for inclusion of gender?
	Inclusion of marginalized persons/ groups	Are there more opportunities for inclusion of marginalized persons (differently able persons/ families, widows, underprivileged persons, etc.)?

Table 2.1: Assessment Criteria used in Prioritizing and Selecting of Sectors/Subsectors/Commodities

2.2.1 Example Case profile: Commodity Value Chain Prioritization in Sri Lanka

Initial Market Analysis:

Before diving into detailed market analysis, it's crucial to recognize the demand for a product or commodity. This demand determines the priority of selecting a value chain. Though detailed analysis isn't necessary at this stage, understanding key factors such as market specifics, competitor performance, and conditions for market access is important. Evaluating strategic positioning and commercial strategies further aids in identifying challenges and opportunities in both local and international markets.

There are resources like training manuals and specialty publications to assist with market analysis and demand forecasting. These resources provide valuable insights into economic and market trends, helping businesses make informed decisions about their products.

This case study outlines the initial findings of the value chain study, specifically focusing on the baseline status of sectors and subsectors/commodities within VTCSs (Value-Chain Trade and Competitiveness Schemes). Table 2.2 presents some of these baseline findings to track progress in this study. That identified key commodities from six main sectors within VTCSs and highlighted their significance in the current landscape. Additionally, we have included information on the current status of gender, youth, and other marginalized groups in these areas.

Sector	Subsector/ Commodity	Baseline Status			
		Prominence	Inc.Gen	Inc.Youth	Inc.MPs
Agriculture – Food crop production	Rice production	*****	***	**	***
	Traditional rice production	**	***	***	**
	Seed paddy production	**	***	***	**
	Maize production	***	***	***	***
	Other cereals and grains production	***	***	***	**
	Groundnut production	***	***	**	**
	OFC (green/ black grams/cowpea etc.)	*****	***	***	**
	Vegetable crop production	*****	***	*****	**
	Mushroom production	**	***	**	**
	Root and tuber crop production	**	**	**	**
	Sesame production	***	**	***	**
	Condiment’s production (Big onion)	***	***	**	*
Agriculture - Fruit crop prod.	Wood apple	**	***	*****	*****
	Papaya cultivation	***	***	***	**
	Banana cultivation	*****	***	**	**
	Guava cultivation	*****	***	***	*
	Pineapple cultivation	***	***	**	*
Plantation/ other crop production	Coconut cultivation	**	**	*	*
	Rubber cultivation	*	**	*	*
	Cinnamon cultivation	*	**	*	*
	Pepper cultivation	*	**	**	*
	Vanilla cultivation	*	**	**	*
	Aloe vera cultivation	**	***	***	*
	Beetle cultivation	***	*	*	*
	Beekeeping	*	***	*	**
Livestock and Naviance production	Dairy farming	*****	***	***	***
	Mutton/ goat husbandry	*	*	**	**
	Swine husbandry	*	*	**	***
	Backyard poultry	***	*****	**	*****
Inland fisheries	Food fish production	*****	*	***	*

	Smoked and dried fish production	***	***	***	***
	Ornamental fish cultivation	*	***	***	**
Industries (small and medium) and other	Ayurvedic/ herbal/ medicinal products	***	***	***	***
	Reeds based products	**	*****	*	***
	Domestic garments	**	*****	***	**
	Toye making	*	****	***	*
	Bee honey collection	***	*	**	**
	Handloom industry	**	*****	*****	*
	Fiber-based products	**	***	***	***
	Rexene/ leather-based products	**	***	***	***
	Aroma stick making	**	***	****	*****
	Palmira leaf-based products	*	****	****	****
	Beauty culture	***	*****	*****	**
	Handicraft industry	***	***	***	***
	Pottery industry	***	***	**	***
	Bakery production	***	***	***	***
	Sweet/ Candy production	**	****	****	***
Traditional/ village food production	***	*****	*****	***	
Tourism	Ecotourism	**	****	****	***
	Homestay	***	***	***	***

Table 2.2: Baseline Status of the Sectors and Subsectors/Commodities prominent in VTCSs that were identified during the First Step of the Value Chain Study

In this study process of preparing an agro-industrial master plan for Sri Lanka, a prioritization process was conducted for several commodities to identify those offering the highest demand. The study assessed fifty (50) Sub-sectors of commodities based on their importance to the economy, relevance to national food security, and contribution as a source of foreign exchange. Factors considered included productivity, cost of production, existing infrastructure, and business environment. The industry's attractiveness to investors was assessed through policy environment, incentives, and access to necessary technology, infrastructure, services, and facilities. The potential for short-term impact was also considered, with sectors and commodities that can achieve significant improvements along the value chain without major infrastructure investments. The study involved reviews of secondary data and interviews with key sources, including government departments and the private sector. In the value chain study, all identified subsectors and commodities have to be rigorously evaluated during the initial stage, as shown in Table 2.2, by considering both community and expert perspectives based on the assessment criteria outlined in

Table 2.1, and results are reported in Table 2.3. The study focused on these value chains further in the next steps in the analysis of the value chain study.

Commodity	Mean score					Grand mean score
	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Criteria 5	
1. Regular paddy production	2.75	3.33	2.50	3.25	2.67	2.90
2. Traditional rice production	4.00	3.33	3.00	2.75	3.00	3.22
3. Seed paddy production	3.50	3.00	2.25	3.25	3.00	3.00
4. Dairy production	3.25	3.33	3.00	3.00	3.00	3.12
5. Ecotourism	4.25	4.67	4.25	3.75	4.00	4.18
6. Food fish production	4.25	3.33	3.25	3.50	2.00	3.27
7. Traditional/ village food production and catering	3.75	3.67	3.50	2.75	4.00	3.53
8. Reed based products	3.00	3.00	3.75	2.50	3.67	3.18
9. Bee honey collection	3.75	3.67	3.75	3.00	2.00	3.23
10. Ayurvedic/ herbal products and other forest products	3.25	2.67	4.00	3.25	3.00	3.23

Table 2.3: Selected Prioritized Value Chains for Analysis

Several validation and planning workshops were also held. Based on the criteria mentioned above, ten commodities were initially selected and classified into three groups. A prioritization exercise involving all stakeholders was conducted and yielded the priority commodities illustrated in Table 2.3. These were regular paddy production, traditional rice production, seed paddy production, dairy production, ecotourism, food fish production, traditional/village food production and catering, reed-based products, bee honey collection, ayurvedic/herbal products, and other forest products. The value chains for these commodities were analyzed, and strategies to support commercialization and agro-industrial development were proposed.

2.3. Analyzing the Selected Value Chain

Step 2

Mapping the Value Chains

After the initial selection of the value chain is completed, the next step is mapping the value chain. Creating a value chain map is a way of making what is seen and encountered more easily understand



What is Mapping of Value Chain?



Definition

Mapping the Value chain is a creating a visual representation that outlines the series of activities, as well as identifying the primary stakeholders and their relationships within the value chain.

Mapping the value chain process aids in comprehensively understanding how value is created and distributed throughout the chain. Both qualitative and quantitative methods are employed in this exercise, often utilizing graphs to illustrate the different actors within the chain, their interconnections, and the entirety of operations spanning from pre-production phases, such as the supply of inputs, to subsequent stages like industrial processing and marketing.



How to Map the Value Chains?

In consultation with stakeholders, the team will carry out the value chain mapping exercise, which includes:

- ❖ Describing the structure and flow of the chain in logical clusters – the various actors of the chain, the links among them, and the whole range of chain operations from pre-production (supply of inputs) to industrial processing and marketing.
- ❖ Quantifying the value chain. This involves adding detail to the basic maps drawn initially (structure and flow). Depending on the level of detail needed for the research entry point, this exercise may focus on elements such as size and scale of main actors; production volume; number of jobs; sales and export destinations and concentration; policy and regulatory framework, etc.
- ❖ Holding workshops with stakeholders, including various actors from the entire chain, and presenting findings of the mapping exercise for discussion and agreement before moving on to analyze the value chain performance.

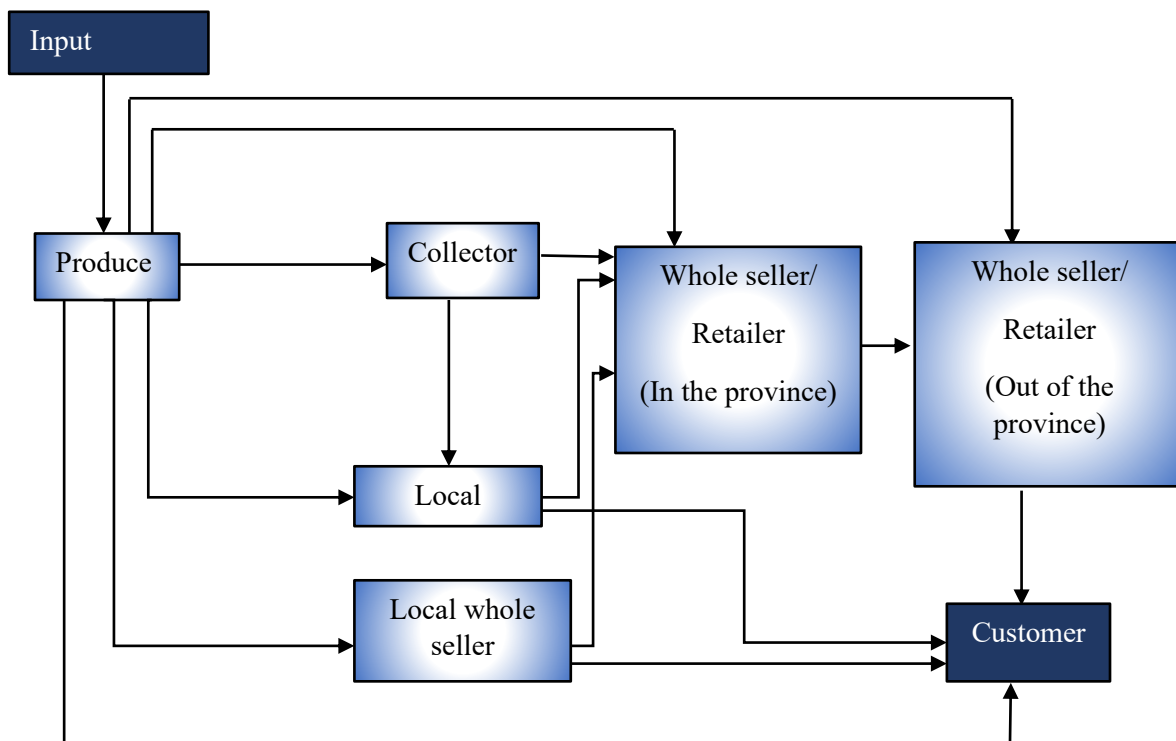


Figure 2.2: Example of Mapping Core Processes in the Bee Honey Value Chain under VTCs

2.3.1 Identifying the Key Processes

The value chain for manufacturing a final product should consist of six to seven key steps from production to sale to the customer. It is crucial to identify operators and their roles, distinguishing between product owners and those who carry out processes on their behalf. Understanding the flows of products, information, and knowledge within the value chain is essential, including tangible and intangible aspects. Gathering data on production volumes, actors involved, and job opportunities helps understand the scale of the value chain and its potential impact on employment, particularly for vulnerable populations. Tracking the origin and destination of the product or service helps map out the physical flow, highlighting regional differences and transaction costs. Assessing competitiveness involves subtracting the value of intermediate inputs from the market price of the final output. Examining the types of relationships and linkages between actors in the chain provides a comprehensive understanding of the dynamics within the value chain and can inform strategies for improving efficiency.



What Do We Have to Consider?



What are the primary tasks undertaken within the value chain to produce the ultimate product (or group of products)? These tasks will differ based on the specific type of chain under examination (such as agricultural commodities, industrial goods, or services).

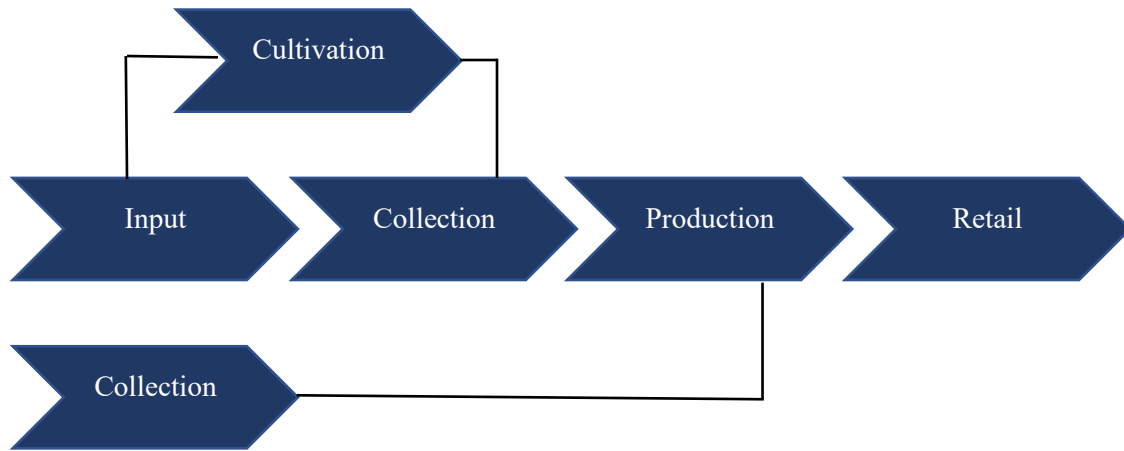


Figure 2.3: Core Processes of Bee Honey Value Chain

The example depicted in Figure 2.3 illustrates a relatively simple value chain, primarily focused on the production of bee honey in rural areas or gathered from forests for local consumption. However, in many value chains, multiple products stem from the initial raw material, each undergoing its distinct processes until reaching final consumption. A pertinent example of such a value chain is the production of bee honey. Key processes in this chain include the identification of specific inputs, and individual beekeepers, as well as the production, collection, intermediation, wholesaling, retailing, and final consumption stages. During the production process, raw materials such as boxes, collection tools, knives, and specialized equipment for safety measures are utilized. Bee honey can be collected directly from forests or cultivated through small-scale honey farms. The final product may undergo value-added processes such as labeling, packaging, and bottling. Subsequently, collected bee honey can be sold directly to retailers or wholesalers.



Figure 2.4: Beekeepers



Figure 2.5: Bee Boxes



Figure 2.6: Bee Honey Cultivation

2.3.2 Identifying the Key Actors

It's important to consider who and what is involved in the value chain's operations. It is necessary to ascertain the actual owner of the items. If they contract with or assign work to outside businesses, those businesses have to be identified as operational service providers. At this point, it's also critical to take into account the participants' legal status, geographic location (communities, districts, provinces, or nations), and level of poverty.

Finding the participants and their responsibilities in the key operations of a value chain entails mapping them out. The actors are categorized based on the degree of complexity that the mapping exercise is trying to accomplish. Sorting actors into groups according to their primary occupation such as producers or collections is the easiest way to make distinctions.

That being said, this is insufficient information. Legal status, scale, poverty level, and location are among the other classifications. It is critical to determine the role of the poor as actors at different stages in the agro-value chain. Although it's commonly believed that the impoverished are the main producers, they could also work as laborers or small-scale business owners.

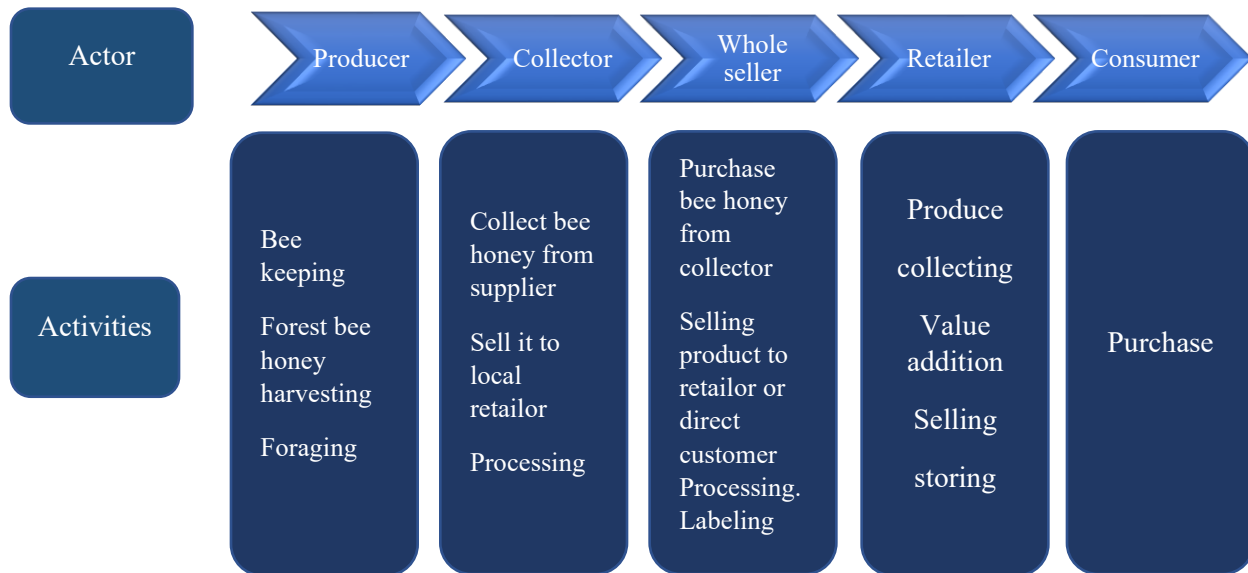


Figure 2.7: Example of Bee Honey Value Chain Mapping Actors



Figure 2.8: Actors of Bee Honey Value Chain VTCs

2.3.3 Mapping the Resource Flow

Mapping the product flows along the value chain is the next stage. As inputs are changed into raw materials, intermediate materials, and final products, it is necessary to identify the products at each stage of the process.

A clear picture of the types of goods that are packaged, changed, and delivered at each point in the value chain is produced by mapping the flows. With items, this may be very easy; just track the steps that the real product goes through, from raw materials to finished goods. This is especially beneficial for researchers who wish to know the steps used to arrive at the finished product.

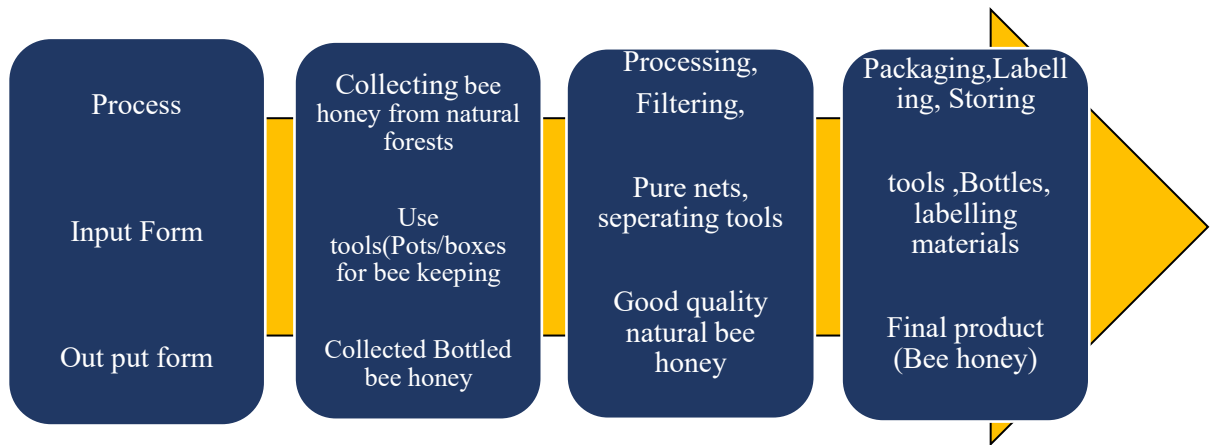


Figure 2.9: Example of Product Flow in the Bee Honey Value Chain of VTCs

In this instance, the value chain for bee honey production can be illustrated according to Figure 2.7. The process commences with natural forests serving as the primary source of nectar for bees. Within these environments, bees gather nectar from flowers, which serves as the foundational material for honey. Individual beekeepers contribute to the process by providing essential infrastructure and utilizing pots or boxes as hives to facilitate honey production.



Figure 2.10: Example Bee Honey Product Flow in VTCs

The collected honeycombs are handled with care during the collection phase to prevent excessive disturbance to the bees. Following collection, honeycombs undergo processing to extract the honey, employing techniques such as uncapping and centrifugal force extraction. Subsequently,

the extracted honey undergoes filtration to eliminate impurities like beeswax and debris, ensuring that only pure honey passes through using specialized nets and separating tools. Quality control measures are enacted to preserve the purity and integrity of the honey, conforming to regulatory standards and meeting consumer expectations. The outcome is high-quality natural bee honey, gathered and bottled for distribution and sale to consumers. Throughout this value chain, meticulous attention to each stage enables beekeepers to optimize efficiency, decrease expenses, and enhance quality, ultimately satisfying market demands while maximizing profitability

2.3.4 Mapping the Information Flow

Intangible qualities of value chains, such as information and knowledge, are generally more difficult to capture in a visual map. Be aware that these flows are often going in both directions. For example, a trader tells a farmer about product requirements: and a farmer gives the trader information about product availability. Analyzing options for demand-driven, upgrading knowledge skills, technology, and support services, tools are provided that help to track down what kind of knowledge or information flows through the value chain.

The role and position of the poor are important in this part of the mapping it considers do the poor participate in the exchange of knowledge The example in Figure 2.7 shows a map of the knowledge held by each actor through the bee honey value chain.

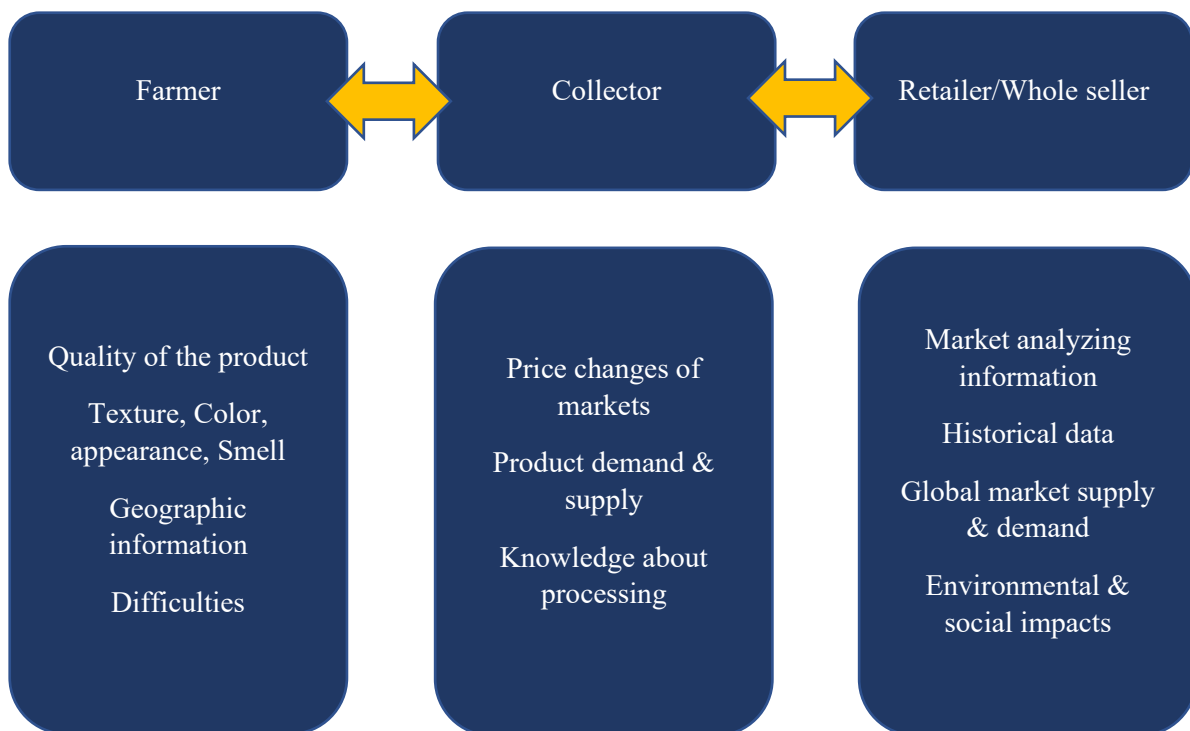


Figure 2.11: Example Information Mapping for Bee Honey Value Chain

2.4 Identifying the Supporting Services in the Value Chain (Relationships & Linkages)

In the context of commodity value chain development projects, understanding the supportive services within the value chain is essential for effective design and implementation. Identifying key value chain partners plays a crucial role in this process, focusing on entities that can address the needs of the target population. These partners encompass a variety of stakeholders, including buyers of products, suppliers of goods and services, farmers' organizations, national associations, and financial service providers. Agricultural commodity buyers, such as processors, wholesalers, traders, exporters, or importers, are fundamental partners in almost all value chain projects. They set criteria for buying, including price, quantity, quality, and timing, and their motivation to work with small-scale farmers often relates to factors like access to alternative supplies, attractive prices, superior quality, or certification advantages like fair trade production.

Similarly, suppliers of inputs, services, and equipment are crucial for upgrading production to meet buyer demand. These suppliers offer a range of inputs like seeds, chemicals, fertilizers, livestock, and services such as transport, storage, certification, and marketing. Equipment suppliers provide tools like greenhouses, irrigation systems, and post-harvest infrastructure. It's important to assess whether these suppliers currently serve small-scale farmers or if their business models can be adapted to do so effectively.

Farmers' organizations and national associations also play vital roles in facilitating value chain development. Farmers' organizations enable small-scale producers to participate effectively in value chains by reducing production costs, enhancing value-added activities, and representing farmers' interests. National associations, including farmers' unions and sector associations, provide platforms for dialogue between farmers, government entities, and other stakeholders, contributing to policy development and sector-wide collaboration.

In addition to these partners, the value chain context encompasses regulatory and policy frameworks, environmental factors, and institutional support services such as communication, research, innovation, and finance. Understanding these elements is crucial for navigating the complexities of value chain development, ensuring successful collaboration among stakeholders, and ultimately maximizing the benefits for all involved parties. Through strategic partnerships and a comprehensive understanding of value chain dynamics, projects can achieve sustainable growth, enhance productivity, and promote inclusive economic development.



What are the main supportive services for Bee honey value chain in VTCA?

Department of Agriculture

Department of Export Agriculture

Department of Agrarian Development

Other related associations and institutions related to agricultural development in the country

Assessing the performance and competitiveness of a value chain is important within the broader context of both national and global trends in the target industry. To achieve this, experts engage in several key tasks. Initially, they identify a range of quantitative and qualitative indicators, including time, cost, value-added, and productivity at each stage of the selected value chain. Subsequently, an analysis is conducted to understand the external sources of competitiveness for the value chain, encompassing its economic and social environment, as well as its industrial and technological landscape. Additionally, experts delve into an assessment of the value chain's technological capacities, examining factors such as the utilization of inputs, the efficiency of the production system, and the quality of the products manufactured. Further, an economic performance analysis is carried out, allowing for benchmarking against potential competitors to identify areas of strength and areas needing improvement.

2.4.1 Analyzing Economic Performance and Competitiveness:

Identify key economic measures such as production costs, margins, price markups, productive capacity, and productivity.

- ❖ Calculate these variables.
- ❖ Benchmark the value chain against competitors.
- ❖ Identify strategic and non-strategic activities.
- ❖ Inform stakeholders about cost drivers, negotiation margins, and opportunities for value addition.
- ❖ Recommend actions at policy, institutional, and enterprise levels.

These measures can be used as a baseline for monitoring the impact of upgrading interventions in the value chain, such as poverty reduction, productivity gains, increased exports, and improvements in product quality and design.

Analysis of External Sources of Competitiveness:

- ❖ Assess the economic, industrial, and technological environments affecting the value chain.
- ❖ Investigate economic trends, policies, and measures influencing the industry's performance.
- ❖ Analyze the industrial landscape, including institutional support agencies and market competitiveness.
- ❖ Examine the technological support systems facilitating technology transfer and adoption within the value chain.

Analysis of Economic Parameters:

- ❖ Focus on indicators like production costs, value-added, and productivity.
- ❖ Use tools like the Analytic Analysis by Product Table (AAPT) to compute production costs.
- ❖ Calculate value added by subtracting the value of purchased inputs from total revenue from production.
- ❖ Analyze the distribution of value addition along the stages of the value chain.

In the bee honey value chain, the concept of value addition is crucial for understanding the economic dynamics at each stage of production and distribution. Beginning with the beekeepers, who collect raw honey, the value chain progresses through various intermediaries including collectors, retailers, wholesalers, and ultimately reaches the consumer as the final product. Each step in this chain incurs specific costs, such as production, processing, packaging, and transportation, all of which contribute to the overall value of the honey.

By employing methods like the Value adding Analysis with these costs can be meticulously calculated and analyzed. For instance, costs associated with raw materials, consumable materials, processing, external work, and personnel are all factored in to determine the production cost per unit of output, in this case, per liter of bee honey. By breaking down these costs and evaluating productivity, opportunities for cost reduction or process optimization can be identified, ensuring that each stage of the value chain adds maximum value to the final product. The figure 2.12 example bee honey values added chains.

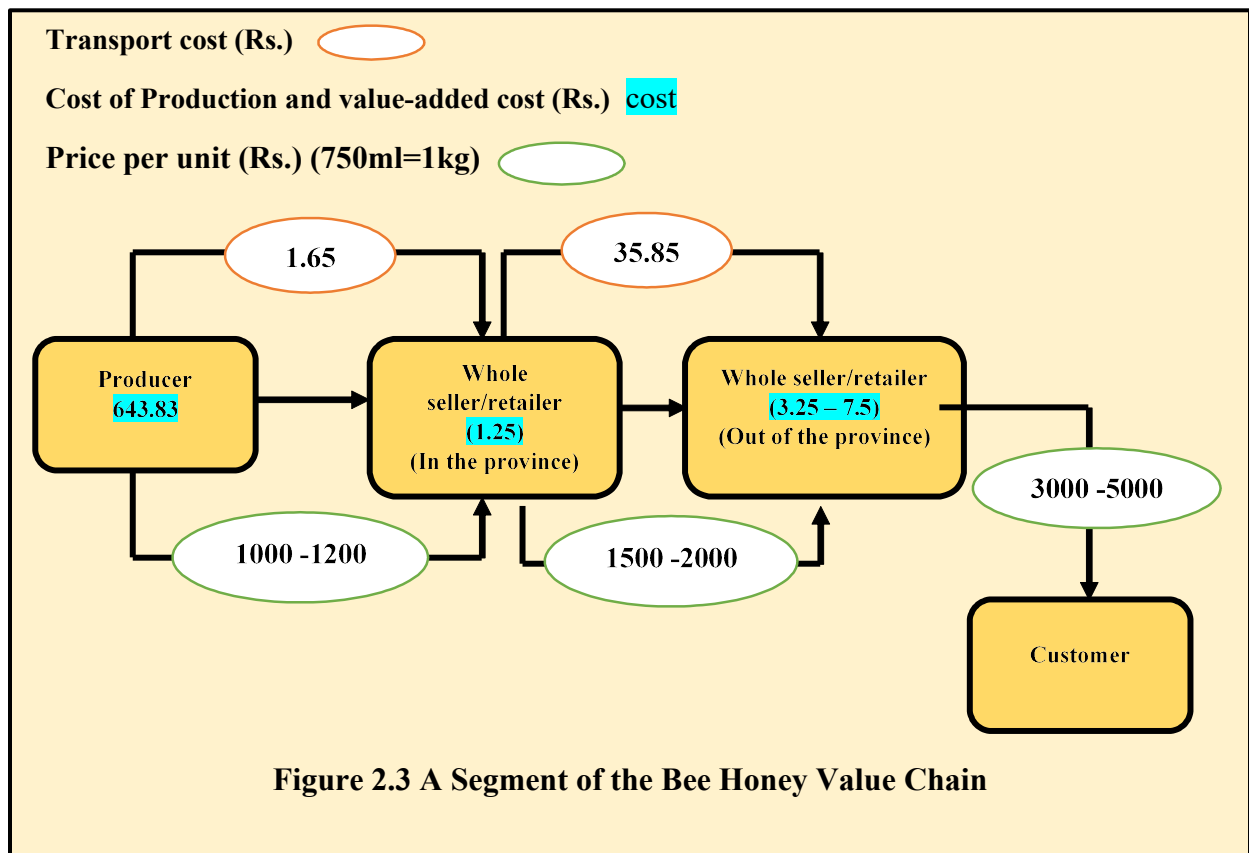


Figure 2.12 Key Takeaways

- ❖ **Agro-value chain analysis in developing countries:** In developing countries, traditional social norms often impact the participation of the poor in agro-industrial value chains. Policies supporting pro-poor value chains focus on access to global markets, revenue increase, and poverty alleviation.
- ❖ **Structure of Agro-value chain analysis:** Understanding the structure involves developing businesses, improving product quality, measuring added value, and establishing coordinated connections among participants. Analyzing value chains helps recognize strengths, weaknesses, and necessary actions.
- ❖ **Fundamental steps for value chain analysis:** The steps include mapping the value chain, identifying actors' benefits, defining upgrading needs, and emphasizing governance structures within the value chain.
- ❖ **Importance of value chain analysis:** Value chain analysis is crucial for increasing production quantity, enhancing product quality and safety, reducing time to reach customers, minimizing transactional costs, and enhancing the capacity of chain actors to adopt technology.
- ❖ **Selection and prioritization of value chains:** Criteria such as poverty reduction strategies, employment generation potential, market demand, and investment prospects are used to prioritize value chains for analysis.
- ❖ **Example case profile: Commodity value chain prioritization in Sri Lanka:** A prioritization process is conducted based on economic importance, contribution to national food security, and potential for foreign exchange. Ten prioritized value chains are selected for further analysis.
- ❖ **Mapping the value chains:** This involves describing the structure and flow of the chain, quantifying the value chain, and holding workshops with stakeholders to discuss and agree on findings.
- ❖ **Identifying key processes:** Key processes in a value chain involve six to seven steps from production to sale, understanding flows of products, information, and knowledge, and assessing competitiveness.
- ❖ **Identifying key actors:** Actors are identified based on their roles in the value chain, including producers, collectors, and operational service providers. Legal status, scale, poverty level, and location are considered.
- ❖ **Understanding the performance of value chains:** Performance assessment includes identifying quantitative and qualitative indicators, understanding external sources of competitiveness, assessing technological capacities, identifying constraints, and development opportunities, and prioritizing actions for improvement.

Chapter 03

Value Chain Development Strategy

3.1 Overall Development Strategies to Upgrade Agro-Value Chains

Agro-value chains play a pivotal role in the economic landscape of many regions, serving as crucial conduits for agricultural products from farm to market. However, the effectiveness and efficiency of these chains can often be enhanced through strategic interventions aimed at upgrading various facets of their operations. This essay delves into the comprehensive approach required to elevate agro-value chains, encompassing formulation, implementation, and assessment strategies, as well as delineating the roles of stakeholders and anticipating the impacts of interventions.

Formulation of an Upgrading Strategy

The initial step in the journey toward upgrading agro-value chains involves the meticulous formulation of a comprehensive strategy. This encompasses identifying the requisite interventions and investments necessary to enhance the efficiency and competitiveness of the value chain. Furthermore, strategic planning of actions is imperative, delineating the roadmap for implementation. Policy measures and support programs play a pivotal role in this phase, providing the necessary scaffolding for the execution of the strategy.

Clarification of Roles and Responsibilities

Clarity regarding the roles and responsibilities of various stakeholders is indispensable for the seamless execution of the upgrading strategy. Government entities, support institutions, and chain operators each possess distinct responsibilities in this ecosystem. UNIDO and other development agencies assume the crucial role of facilitating the value chain upgrading process, leveraging their expertise and resources to catalyze progress.

Implementation of Upgrading Strategies

The translation of strategy into action marks the implementation phase of the upgrading process. Tailoring strategies to the specific nuances of individual value chains is imperative, recognizing the heterogeneity inherent in agricultural ecosystems. Long-term commitment and coordination among all parties are paramount, fostering synergy and concerted efforts toward shared objectives. QuickStart activities serve as catalysts for engendering full commitment, while medium-term initiatives consolidate gains and fortify competitiveness.

Monitoring and Impact Assessment

A robust monitoring and impact assessment framework underpins the efficacy of the upgrading endeavor. Establishing a rigorous monitoring system enables real-time tracking of progress and the identification of potential bottlenecks. Leveraging a results-based management (RBM) tool facilitates systematic evaluation, aligning actions with desired outcomes. Objective indicators and targets provide benchmarks for assessing progress, while attribution of changes and impacts offers insights into the effectiveness of interventions.



How are UNIDO Value chain development strategies connected with VTCS?

UNIDO's Approach to Value Chain Development

UNIDO adopts a multifaceted approach to value chain development, with a pronounced emphasis on private sector development (PSD). This entails providing assistance in optimizing the business environment and formulating conducive policies. Additionally, UNIDO supports institutions instrumental in fostering value chain growth, while also directly intervening along the value chain to effect transformative change.



The Village Tank Cascade System (VTCS) restoration project, part of the Healthy Landscapes Project (HLP) executed by UN Environment, aims to mainstream biodiversity using integrated sustainable land management approaches in Sri Lanka. Through various components and activities, the project seeks to achieve sustainable landscape management, improve ecosystem services, and enhance eco-health outcomes in socio-ecologically sensitive areas.

Mainstreaming Biodiversity: Supporting for agro-value chains aligns with the objectives of the HLP by promoting sustainable land management practices, including biodiversity-based agro-ecological approaches. By integrating sustainable practices into agro-value chains and this contributes to enhance ecosystem services and eco-health outcomes in VTCs areas.

Cluster and Network Development: Cluster and network development program fosters collaboration among enterprises and local support institutions, promoting collective efforts for sustainable development. This approach enhances cooperation among producers in VTCs areas, improving logistics and information exchange, thus contributing to the sustainable management of these landscapes.

Support to Small and Medium Agro-Enterprises: Assistance to small and medium agro-enterprises aims to enhance productivity, market access, and sustainability. By strengthening agro-industrial linkages, this helps improve opportunities for value addition and sustainable livelihoods, particularly benefiting rural populations in VTCS areas.

Supplier Development: Support to subcontracting firms through the Subcontracting Exchange Programme contributes to enhancing their competitiveness and efficiency. By improving the performance of suppliers and subcontractors in agro-value chains, this helps create sustainable partnerships and fosters economic growth in VTCs areas.



What is a SWOT Analysis?

SWOT analysis is a strategic planning tool used to identify and understand Strengths, Weaknesses, Opportunities, and Threats related to a business or project. It involves assessing both internal factors (strengths and weaknesses) and external factors (opportunities and threats) that can impact the success or failure of a venture.

In the context of value chain development, SWOT analysis helps in understanding the current state of the value chain and identifying areas for improvement. By analyzing these four aspects, stakeholders can develop strategies to leverage strengths, address weaknesses, capitalize on opportunities, and mitigate threats, thereby enhancing the overall efficiency and effectiveness of the value chain.

Here is an example of a SWOT analysis of the bee honey value chain in the village tank cascade system:

Strengths:

- ❖ Suitable climate and land: Sri Lanka's climate and geographical conditions are favorable for beekeeping, facilitating honey production.
- ❖ Availability of forests: An abundance of natural habitats supports bee colonies and promotes honey production.
- ❖ Low-cost labor: The availability of inexpensive labor helps keep production costs relatively low.
- ❖ Increasing demand for organic products and healthy food: Growing consumer interest in organic and healthy food products presents an opportunity for bee honey producers to tap into this market segment.

Weaknesses:

- ❖ Unreliable supply: Inconsistent availability of honey due to factors such as climate fluctuations and seasonal variations.
- ❖ Technology with low extraction efficiency: Outdated or inefficient extraction methods hinder productivity and increase production costs.
- ❖ Unorganized small operators: Lack of coordination and organization among small-scale beekeepers leads to inefficiencies in the value chain.
- ❖ Lack of skilled manpower: A shortage of trained personnel limits the adoption of modern beekeeping practices and quality standards.

Opportunities:

- ❖ Market organization: Implementing better market structures and quality standards can improve efficiency and competitiveness.
- ❖ Potential to increase bee honey production and improve quality: Adoption of modern beekeeping techniques and quality control measures can enhance productivity and product quality.
- ❖ Large market; organic certification: Expanding into larger markets and obtaining organic certification can open up new avenues for growth and premium pricing.

- ❖ Availability of technology: Access to technology can improve efficiency in production, processing, and distribution within the value chain.

Threats:

- ❖ Climate change and continuing deforestation: Environmental factors such as climate change and deforestation pose risks to bee habitats and honey production.
- ❖ Increasing transaction costs: Rising operational and transaction costs can erode profit margins and competitiveness.
- ❖ Inconsistent government policies: Changes in government regulations and policies can create uncertainty and disrupt business operations.
- ❖ Lack of supporting farmer organizations: The absence of strong farmer organizations limits collective bargaining power and resource mobilization.

By integrating these factors into the mapping exercise, stakeholders can develop targeted interventions and strategies to address the identified weaknesses, capitalize on opportunities, and mitigate threats, thereby enhancing the overall development of the bee honey value chain within the Sri Lankan agro-value chain system.

3.2 Major Steps for Value Chain Development Process

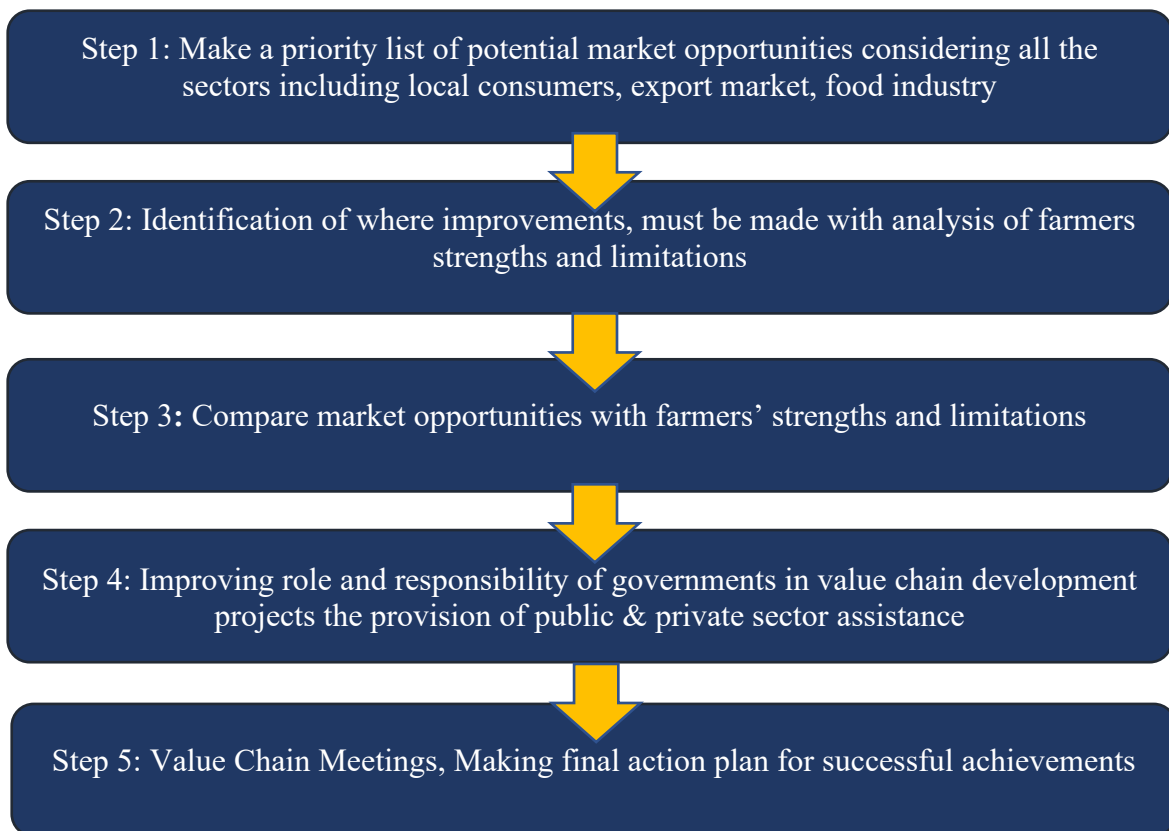


Figure 3.1: Steps for Value Chain Development Process

Step 1: Make a priority list of potential market opportunities considering all the sectors including local consumers, export market, food industry.

Developing the agro-value chain based on the Village Tank Cascade System (VTCS) strategy involves creating a list of potential market opportunities. This step is crucial for small-scale farmers to identify lucrative market chains and adopt a mindset focused on producing what they can sell for the best price. Here's how to approach Step 1 and incorporate the sampling notes provided:

- ❖ **Review Secondary Sources:** Start by reviewing reports on consumer trends and opportunities for import substitution. This helps in understanding the demand for various products in the market.
- ❖ **Consult Industry Experts:** Speak to industry experts, related institutes & Organizations who have insights into market demands and trends. They can provide valuable information on what products are in demand, when, and in what quantity and quality.
- ❖ **Narrow Down Opportunities:** Filter potential market opportunities by directly engaging with people who have experience in supplying and selling the products being investigated. This may include supermarkets, hotel operators, processing companies, pharmaceutical industries, ayurvedic medicinal sectors, and other relevant stakeholders such as whole sellers
- ❖ **Ask Targeted Questions:** When discussing potential opportunities, ensure to ask targeted questions to gather comprehensive market information. Use the provided examples of questions and adapt them as necessary to the specific context of the VTCS strategy:
 - **Products:** Inquire about the quality requirements, quantity demands, and postharvest activities needed.
 - **Consumers/Shoppers:** Explore trends in shopping, changes in shopping preferences, emerging market opportunities, and demand for value-added products instead of providing primary products.
 - **Supplies:** Identify products with high or growing demand, shortages in supply, specific periods such as festival seasons, religious events, tourism programs opportunities for local substitution, branding possibilities, and price variations across seasons.
 - **Suppliers:** Understand the supply chain dynamics, reasons for supplier changes, reliability issues, and cultural barriers affecting market opportunities. Considering environmental rules and regulations
- ❖ **Focus on Value Chain Thinking:** Emphasize that the goal is to identify opportunities where farmers can compete for higher prices based on their skills for collecting, processing, farming, and value chain thinking, rather than by offering lower prices.
- ❖ **Collaborative Approach:** Encourage farmers to work together to increase production, yields, and cooperation if they aim to supply larger market opportunities. Such as focusing on export market opportunities.

Step 2: Identification of where improvements, must be made with an analysis of farmers' strengths and limitations

The village tank cascade system (VTCA) involves identifying the strengths and limitations of the farmers within the community. This step is crucial for determining where improvements are needed and for aligning them with potential market opportunities identified in Step 1. By analyzing the specific strengths and limitations of farmers, it becomes possible to prioritize suitable opportunities for further investigation.

To begin, it's important to assess what farmers can offer that would make them more appealing to customers compared to other farmers. Equally important is understanding what factors might hinder farmers' ability to meet customers' requirements. This assessment should take into account various aspects such as resources, attitudes towards change, and cooperation.

For instance, farmers and other stakeholders in a value chain skills and attitudes play a significant role in determining their suitability for certain market opportunities. This includes assessing their proficiency in market interventions, their willingness to take risks for potential higher incomes, and their openness to collaborating with other farmers to meet customer demands. Additionally, factors like ethnic and gender issues, knowledge of value-adding, processing techniques, and access to inputs such as land, money, equipment, water, infrastructure facilities, and training must also be considered. By compiling a comprehensive list of farmers' strengths and limitations, the village tank cascade system can effectively identify which market opportunities warrant further investigation. This ensures that efforts are focused on initiatives that align with the community's capabilities and resources, thus increasing the likelihood of successful outcomes.

Example questions can be asked from the stakeholders to identify their strengths and skills through the value chain process:

❖ Farmers:

- What products are you currently producing?
- What techniques or practices have you found most successful in your farming endeavors?
- Do you have any specialized knowledge or skills in crop cultivation, irrigation, pest management, or other areas relevant to agro-value chains?
- Are there any particular challenges you face in accessing markets or obtaining fair prices for your products?

❖ Local Buyers or Traders:

- What types of agricultural products are you typically interested in purchasing from small-scale farmers?
- Are there any specific quality standards or certifications you look for when purchasing agricultural products?
- What logistical or supply chain challenges do you encounter in your current procurement process?

Step 3: Compare market opportunities with farmers' strengths and limitations

In Step 3 the objective is to compare the identified market opportunities, generated in Step 1, with the strengths and limitations of the farmers, as identified in Step 2. This comparison allows us to discern which opportunities align best with the capabilities and potential of the farmers, thereby indicating those that warrant further investigation.

The methodology involves creating a comparative analysis matrix, exemplified by Table 3.1

	Do farmers have what is required?			
	Skills	Land	Inputs	Finance
Opportunity 1				
Opportunity 2				
Opportunity 3				
Opportunity 4				

Table 3.1: Opportunity Matrix

In this table, the market opportunities are listed vertically along the left-hand side, while the farmers' strengths are listed horizontally across the top. Each intersection within the matrix is then marked with ticks or crosses based on whether the farmers possess or could swiftly develop the requisite strengths for each opportunity. It is essential to note that the strengths listed across the top should correspond to those specifically identified in Step 2.

By completing this matrix, we aim to identify the 2-3 market opportunities for which the farmers are most suited. These selected opportunities will undergo further scrutiny in subsequent steps of the process.

Additionally, in the process of producing the shortlist, several other pertinent factors should be considered:

The requisite volume of the crop for each opportunity: Is it feasible for an individual farmer to supply this volume independently? If not, are there sufficient farmers willing to collaborate?

Existence of formal or informal barriers: Are there any obstacles such as market cartels that may impede farmers' access to the market?

Consideration of farmers' cautiousness: Could farmers commence operations on a smaller scale, gradually expanding production as their confidence grows? Would potential customers be receptive to initially trialing the farmers as new suppliers, subsequently increasing orders upon proven reliability and quality?

By addressing these additional considerations, we ensure a comprehensive evaluation process that not only aligns market opportunities with farmers' strengths but also factors in practical constraints and potential strategies for overcoming them.

Step 4: Improving the role and responsibility of governments in value chain development projects and the provision of public & private sector assistance

In Step 4 of enhancing the role and responsibilities of governments in the facilitation and advancement of value chain development projects. This involves both public and private sector assistance, aimed at fostering an enabling environment for sustainable agricultural growth and market integration. Governments play a pivotal role in supporting value chain development initiatives by providing essential infrastructure, regulatory frameworks, and institutional support. They act as catalysts for progress by creating conducive policies, allocating resources, and coordinating efforts among various stakeholders. Public sector assistance encompasses a range of interventions, including the development of irrigation infrastructure, provision of extension services, and implementation of supportive policies such as subsidies and market regulations. Governments also play a crucial role in ensuring equitable access to resources and opportunities, particularly for marginalized communities and small-scale farmers. Collaboration between the public and private sectors is essential for leveraging respective strengths and resources towards achieving shared goals. Public-private partnerships (PPPs) can facilitate knowledge exchange, risk-sharing, and resource mobilization, leading to more effective and sustainable value chain development outcomes.

❖ Agro-Processing Units or Cooperatives:

- What processing capabilities or facilities do you currently have available for agricultural products?
- Are there any specific value-added processes or products you specialize in?
- How do you currently source raw materials for your processing operations?

❖ Government Representatives or Agricultural Extension Officers:

- What government support or resources are currently available to support small-scale farmers in the village tank cascade system?
- How does the government currently facilitate or promote agro-value chains in the region?
- What regulatory or policy barriers exist that may impact the development of agro-value chains for small-scale farmers?
- Are there any specific training or capacity-building programs available to enhance the skills of local farmers in value chain development?

❖ Community Leaders or Development Organizations:

- What community assets or resources are available to support the development of agro-value chains in the village?
- How do you currently engage with local farmers to promote economic development in the area?
- Are there any existing community networks or organizations that could facilitate collaboration among stakeholders in the value chain?
- What are the main priorities or goals for community development in the context of agriculture and agribusiness?

Step 5: Value chain meetings, making final action plan for achievements

Step 5 involves convening value chain meetings to craft a final action plan for achieving successful outcomes. These meetings are pivotal in bringing together stakeholders to deliberate on key issues, identify actionable strategies, and establish clear pathways toward realizing the objectives of the value chain initiative.

During these meetings, stakeholders collaborate to develop an action plan that addresses various aspects of the value chain process. Table 7 provides a sample of issues that may be included in farmers' action plans, focusing on inputs, production, postharvest activities, working together, and information management.

❖ Inputs:

- Ensuring availability of critical inputs.
- Securing necessary funds for cash flow.
- Identifying external support and mechanisms for obtaining it.

❖ Production:

- Determining what to grow, how much, and when.
- Monitoring critical activities to ensure adherence to plans.
- Ensuring the readiness of resources and managing variability in production.

❖ Working Together:

- Establishing formal agreements among farmers.
- Designating roles for negotiation, coordination, and monitoring.
- Coordinating efforts to ensure timely delivery and quality standards.

❖ Information:

- Identifying information needs throughout the value chain process.
- Establishing channels for collecting and disseminating relevant information.
- Organizing regular reviews to gather feedback and identify areas for improvement.

These issues serve as focal points for discussions during value chain meetings, guiding stakeholders in developing a comprehensive action plan tailored to the specific needs and circumstances of the village tank cascade system. By addressing these considerations, stakeholders can enhance collaboration, optimize resource utilization, and improve overall performance along the agro-value chain. Ultimately, the final action plan serves as a roadmap for guiding implementation efforts, monitoring progress, and achieving tangible outcomes that contribute to the economic development and sustainability of the community. Through effective coordination and collective action, stakeholders can unlock the full potential of the agro-value chain, leading to enhanced livelihoods and resilience for small-scale farmers in the village tank cascade system.

Key Takeaways

- ❖ Agro-value chains are pivotal in economic landscapes, requiring comprehensive strategies for enhancement.
- ❖ Formulation of upgrading strategies entails meticulous planning and policy support for effective execution.
- ❖ Stakeholder roles must be clarified for seamless execution, with UNIDO and others facilitating the process.
- ❖ Implementation demands tailoring strategies to specific contexts and fostering long-term commitment and coordination.
- ❖ All supports align with VT objectives, promoting sustainable practices and cluster development.
- ❖ Support to small and medium agro-enterprises enhances productivity and market access, benefiting rural areas.
- ❖ SWOT analysis identifies internal and external factors impacting value chains, and guiding improvement strategies.
- ❖ Steps for agro-value chain development involve market opportunity assessment, farmer capability analysis, and action planning.
- ❖ Improving government roles includes infrastructure development, policy support, and public-private partnerships for sustainable growth.

Some Important References


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Annexure – Value Chain Presentation



Value

- Why a customer should purchase a product or service from that specific business?
- Promise by a company to a customer



Value

- The difference between a prospective customer's evaluation of the benefits and costs of one product when compared with others
- Relationship between perceived benefits and perceived costs
- Total amount that buyers are willing to pay for a firm's product

Value = Benefits – Costs

Types of Value

- Functional Value
 - It's the solution an offer provides to the customer
- Monetary Value
 - Where the function of the price paid is relative to an offerings perceived worth
- Social Value
 - Extent to which owning a product or engaging in a service allows the consumer to connect with others
- Psychological Value
 - Extent to which a product allows consumers to express themselves or feel better

Competitive Advantage

- Competitive advantages are conditions that allow a company to produce a good or service at a lower price or in a more desirable fashion
- Leverage that a business has over its competitors



Competitive Advantage



Identifying Value

- Conduct Value Chain analysis (VC)
- Introduced by Michael E. Porter
- In every stage of the product add value

Value Chain Model

- A value chain is a series of consecutive steps that go into the creation of a finished product, from its initial design to its arrival at a customer's door
- The chain identifies each step in the process at which value is added, including the sourcing, manufacturing, and marketing stages of its production
- The purpose of a value-chain analysis is to increase production efficiency so that a company can deliver maximum value for the least possible cost

Value Chain Model



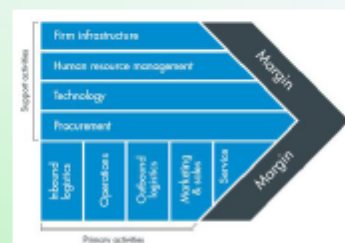
A business model that describes the full range of activities needed to create a product or service.

Visual Aid – Defective Value Chain

Why Value Chain?

	INDUSTRIALIZED COUNTRIES	DEVELOPING COUNTRIES
AGRICULTURAL PRODUCTS PROCESSED (%)	58	38
VALUE ADDED OF AGRICULTURAL PRODUCTS PROCESSED (USD/TONNE)	185	48
POST-HARVEST LOSSES (%)	MIN.	48

Value Chain Model



Primary Activities

- Primary Activities**
Primary activities relate directly to the physical creation, sale, maintenance and support of a product or service. They consist of the following:
- Inbound logistics** – These are all the processes related to receiving, storing, and distributing inputs internally. Your supplier relationships are a key factor in creating value here.
 - Operations** – These are the transformation activities that change inputs into outputs that are sold to customers. Here, your operational systems create value.
 - Outbound logistics** – These activities deliver your product or service to your customer. These are things like collection, storage, and distribution systems, and they may be internal or external to your organization.
 - Marketing and sales** – These are the processes you use to persuade clients to purchase from you instead of your competitors. The benefits you offer, and how well you communicate them, are sources of value here.
 - Service** – These are the activities related to maintaining the value of your product or service to your customers, once it's been purchased.

Secondary Activities

- Support Activities**
These activities support the primary functions above. In our diagram, the dotted lines show that each support, or secondary, activity can play a role in each primary activity. For example, procurement supports operations with certain activities, but it also supports marketing and sales with other activities.
- Procurement (purchasing)** – This is what the organization does to get the resources it needs to operate. This includes finding vendors and negotiating best prices.
 - Human resource management** – This is how well a company recruits, hires, trains, motivates, rewards, and retains its workers. People are a significant source of value, so businesses can create a clear advantage with good HR practices.
 - Technological development** – These activities relate to managing and processing information, as well as protecting a company's knowledge base. Minimizing information technology costs, staying current with technological advances, and maintaining technical excellence are sources of value creation.
 - Infrastructure** – These are a company's support systems, and the functions that allow it to maintain daily operations. Accounting, legal, administrative, and general management are examples of necessary infrastructures that businesses can use to their advantage.

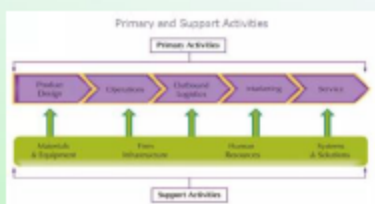
Value Chain Example



Activity

- Think about your agribusiness venture
 - What is the core business activity/s in your venture?
 - Explain the primary activities in the business
 - Inbound
 - Operations
 - Outbound
 - Marketing & sales
 - Services
 - Explain the secondary activities in your business

The Firm as a VC



Importance of VCA

- Identify the firm's primary and support activities
- Identify relative importance of each activity
- Identify cost drivers
- Identify links between activities
- Identify opportunities

Value Addition

The additional features or economic value that a company adds to its products and services before offering them to customers



Analyzing the Value Chain



Weight %	Criteria	Score for each value chain (1 to 5)		
		Value chain 1	Value chain 2	Value chain 3
Policy coherence (X)	Fit the country's strategy for poverty reduction			
	Potential for employment generation			
	Number of small producers in the value-chain			
	Required investments			
	Export basket level for poor agri producers			
Economic growth potential (Y)	Geographical location of producers			
	Priority impact $y = (X \times A) / 100$			
	Contribution to GDP – export earnings			
	Potential for domestic institutional demand			
	Public and private investment prospects			
Diagnostic aspects of (Z)	Potential for market integration of local SMEs			
	Prevalence of policy changes			
	Scaling-up potential			
	Economic growth impact $z = (Y \times B) / 100$			
	Market demand			
Sources of value-adding potential				
Production costs in comparison to competitors				
Available resources and number of operators				
Availability of raw materials and other inputs				
Agonomic aspect $z = (Z \times C) / 100$				
Final score $(z + y + x) \times C$				
Final score divided by weight $(z + y + x) \times p$				

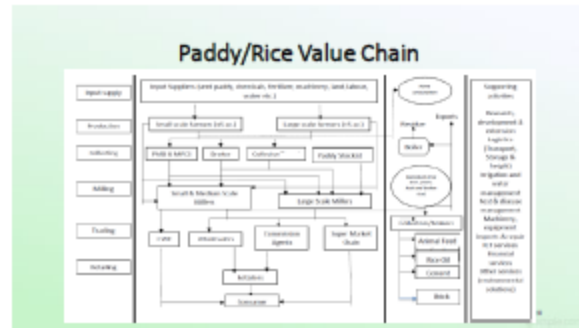
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Notes

A series of 25 horizontal dotted lines for writing notes.

Training Agenda

Topic: Training Workshop on Value Chain Analysis and Development in Village Tank Cascade System

Venue: Hiriwadunna Agro-eco Tourism Site, Palugaswewa Divisional Secretariat, North Central Province

Date: 16th January 2024

Target Group: Final Year Students of the Department of Agribusiness Management, Faculty of Agriculture & Plantation Management, Wayamba University of Sri Lanka, invited graduates work in cascade environment and Project staff of the HLP

Objective: To encompass the dual focus of improving livelihoods for rural communities while ensuring the long-term sustainability of the village tank cascade system. Participants in the workshop will explore ways to optimize value chains within this unique ecosystem, benefiting both local residents and the environment.

Agenda of the Workshop

No.	Agenda Item	Activity List	Time Duration
1	Introduction to Value Chains and Their Importance	<ul style="list-style-type: none">• Welcome participants• Set the context for the workshop	30 mints
2	Introducing the Value Chain Analysis Frameworks for the Rural Development	<ul style="list-style-type: none">• Explore the key activities within a value chain	30 mints
3	Starting of Value Chain Mapping Exercise	<ul style="list-style-type: none">• Divide participants into groups• Visit sites• Identify stakeholders, processes, and linkages	120 mints
Lunch Break			
4	Analyzing Value Chain Components	<ul style="list-style-type: none">• Map out the value chain for the chosen context• Review the value chain maps created by each group• Discuss strengths, weaknesses, and opportunities	90 mints
5	Identification of Case Studies and Best Practices	<ul style="list-style-type: none">• Exploring the success stories and practices	60 mints

6	Practical Strategies for Optimization	<ul style="list-style-type: none">• Brainstorm practical strategies to enhance value chain components• Discuss sustainable practices and ethical considerations	30 mints
7	Closing Remarks and Feedback	<ul style="list-style-type: none">• Summarize key takeaways	30 mints

Workshop Photos, which were taken during the Activities





**Stakeholder Interview –
Gemi Gedara**



**Stakeholder Interview –
Gemi Gedara**



Travelling to meet stakeholders



Gemi Gedara Operations



**Stakeholder
engagement – Bullock
Cart Ride**



**Stakeholder
engagement – Boat
Ride**

