

Agro-food value chain: Analysis, coordination and development

4th Year: Crop Production

Horticulture

Unit Tutor

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Academic Year 2025

Course profile



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Course profile

- General Course objective

This course is intended to 4th year students. The course aims at providing student with deep knowledge and skills related to the development, management, Research, Extension for agricultural commodity chains and agribusiness clusters.

Course profile

- **Specific Objectives**: The course provides students with, knowledge and skills related to:
 - ✓ Value chain analysis
 - ✓ Chain upgrading strategies
 - ✓ Chain governance and coordination
 - ✓ Stakeholders analysis
 - ✓ Chain development with focus empowerment (Ways to improve the farmers position within the chain)

Course structure, Pre-requisites and organization

Pre-requisites

Students must have advanced knowledge in :

- Agri-economics (Principles; economic analysis; environment)
- Advanced knowledge in Marketing (principles)
- Basic knowledge of quality systems and quality management

Course organization

- ❑ Theory (12 hours) and exchanges
- ❑ Practices (12 hours)
- ✓ Practical case studies for food crop commodities (Crop. Students)
- ✓ Practical case studies for horticultural commodities (Hort. Students)

Introduction



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1. Global Market Trend for Food and Agri-products

- High degree of turbulence in macro environment for food & agricultural.
- Some of the current characteristics are:
 - ✓ Abolition of national marketing borders because of “globalization”
 - ✓ Increasing market competition in food sectors.
 - ✓ The consolidation of organisations (at farm input, farms, processor and supermarket levels),
 - ✓ Government deregulation of agribusiness markets.

Global Market Trend for Food and Agri products, Ctd...

- ✓ Increased interest in quality-management systems and food safety, and
- ✓ Traceability being a critical element in global agri food business.
- ✓ Demand for “Organic” products and less cholesterol products
- ✓ Increased competitive trend among supply chains rather than individual firms.
- ✓ Shifting patterns in consumer demand for sustainable agricultural practices (including environmental and animal welfare concerns);

Global Market Trend for Food and Agri products, Ctd...

- Now think over the implications of the above trends in the developing countries agriculture!!

Discussion questions

- (1) Are these things opportunities or threats (challenges) for poor third world countries' farmers?
- (2) Then how can we make the poor farmers in developing countries to coup up with the above changes??

2. Mechanisms for coping to these changes

- To coup up with the above elements it requires:
 - ✓ Market orientation (pull) rather than push agriculture (production orientation)
 - ✓ Branded and labelled agricultural products rather than generic commodities
 - ✓ More value added activities for premium price
 - ✓ Cooperative and collaborative marketing rather than spot transaction
 - ✓ Product differentiation (But how?)
 - ✓ Designing process-verified and source-verified integrated systems.

Mechanisms for coping to these changes, Ctd...

- Local private agribusinesses have to adapt rapidly to these new conditions.
But how
 - ✓ They need to be equipped and trained. They need strategy and cooperation.
 - ✓ Focus in cooperative strategies & inter organizational relationship as the key elements of competitiveness.
 - ✓ In an increasingly complex and turbulent environment, firms can enhance their performances through strategic collaboration.

Mechanisms for coping to these changes, Ctd...

- Of all more coordination and collaboration may lead to improved efficiency in:
 - ✓ Production
 - ✓ Distribution channels
 - ✓ To more product and market innovations

3. Agri-marketing in Developing Countries

In most developing countries, the agricultural marketing system is characterised by:

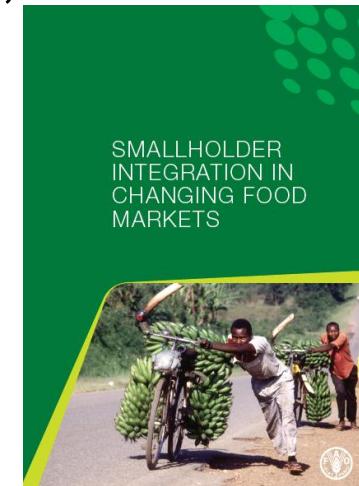
- (1) A highly fragmented production side (many small widely dispersed farmers growing perishable crops)
- (2) Usually few traders in the marketing system
- (3) High marketing costs because of:
 - ✓ an inefficient transport system,
 - ✓ inadequate storage capacity,
 - ✓ absence of standardization (or significant variations in product form, variety and quality),

Agri-marketing in Developing Countries, Ctd...

- (4) Involving a large number of market intermediaries.
- (5) Various credit arrangements locking farmers to be dependent upon the market intermediary.
- (6) Economic exchange is embedded within various social institutions.
- (7) Trust and social capital as a means of reducing risk.

Why value chains? Vision of FAO

- Smallholders' participation in **markets** is crucially important for improved food security and poverty reduction.
- Attempts to improve smallholder **productivity** will have limited success if smallholder **linkages to markets** are not strengthened simultaneously.
- Limited smallholder participation in markets is not necessarily a result of a lack of commercial orientation *per se*, but **the result of constrained choice in a risky environment**.
- Smallholders are very **heterogeneous**, facing different types of constraints and opportunities, and will react differently to new market opportunities.



Source: Smallholder integration in changing food markets FAO 2013

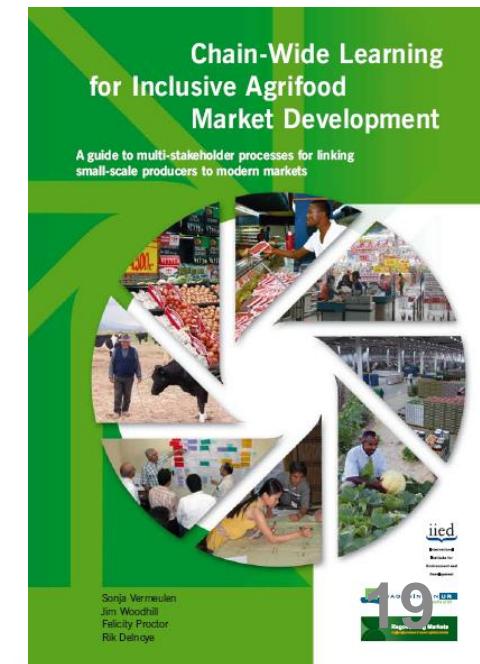
Why value chains?

- **Public policy interventions** are generally needed to foster smallholder market integration.
- Policy interventions need to be prioritized and **sequenced according** to evidence-based diagnosis of the constraints faced by different categories of smallholders.
- **Evidence-based** policy-making minimizes the risks of policy failure.

What is the future for small-scale farmers in the modern agrifood system? Vision of Wageningen UR

In all parts of the world the modern retail revolution is reshaping the way food is produced, procured and retailed. Rapid changes in dynamic modern markets affect the entire value chain—consumers, retailers, wholesalers, processors and producers—with enormous implications for the competitiveness and future viability of small-scale producers.

Strong growing retail power in the world: chain reversal from supply orientation towards value for the consumer.



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Common features for agro-food supply chains of tropical food products

- Large irregularities in supply (production subject to weather and climate);
- High variability in quality attributes;
- Scattered production by a large number of smallholder producers;
- Thin local markets (limited number of traders; local oligopoly);
- High transaction costs (long distance between producers and consumers);
- Deficient public regulation and limited collective action.

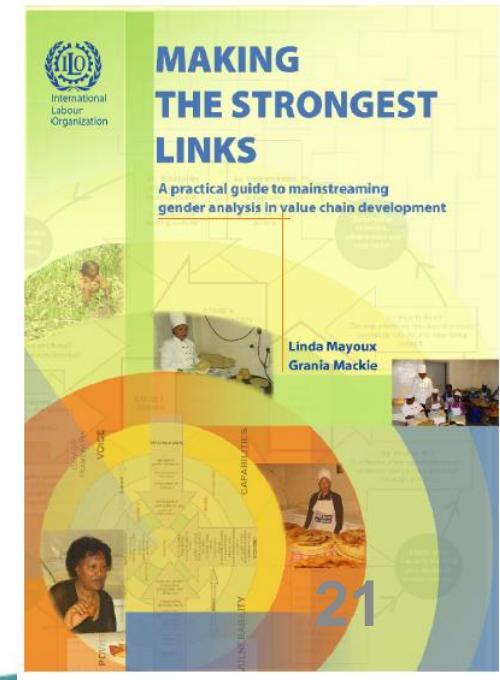
Making the strongest links

Pro-poor development definition

Pro-poor growth that takes place to increase incomes and the participation of the poor translates into improved wellbeing. This involves not only Decent Work for employees and entrepreneurs within value chains, but ensuring that value chain development **contributes to wider processes of social development and environmental sustainability** benefiting poor people.

Underlying principles and values:

- ✓ inclusion
- ✓ equity
- ✓ participation
- ✓ transparency
- ✓ accountability



Chain Organisation

- Chain organisation formal as well as informal structures and procedures advancing the efficient and effective differentiation and co-ordination between entities on all levels within a chain.
- Discussion on some production chain in Rwanda: what is working
- most effective in Rwanda?
- formal or informal?

4. Factors driving the Value chain formation

The factors driving value chain formation (mostly in developed world) include:

- ✓ Concerns with food safety
- ✓ Product quality and consistency requirements
- ✓ New product innovation and differentiation
- ✓ Lowering costs or chain optimization
- ✓ Market Differentiation
- ✓ Quality Assurance (Traceability)

Factors driving the Value chain formation, Ctd...

Since markets are now globalized the value chain concept has to be adopted in LDCs as well!

*“Coming together is a beginning
Keeping together is progress
Working together is success.”*

Henry Ford

Introduction to Value Chain Approach : Value Chain structure

Basic concepts of Value Chain

- A **supply chain** is a set of linkages between actors where there are no binding or sought-after formal or informal relationships, except when the goods, services and financial agreements are actually transacted.
- Supply chain management is customer oriented, i.e. customer demand is leading in this approach, and aims towards the integration of business planning and balancing supply and demand across the entire supply chain from initial producer to the ultimate customer/consumer

Actors, supply chains and value chains

- A **value chain** is a specific type of supply chain – one where the actors actively seek to support each other so they can increase their efficiency and competitiveness.
- They invest time, effort and money, and build relationships with other actors to reach a common goal of satisfying consumer needs – so they can increase their profits.

Value Chain

- ❑ An economic system that describes:
 - ✓ A sequence of related business activities(functions) from the provision of specific input for a particular to primary production, transformation and marketing up to the final sale of a particular product to a consumer

Value chain definition

By definition: a value/supply chain comprises of **interlinked value-adding activities** that convert inputs into outputs which, in turn, add to the bottom line and help create competitive advantage as a whole chain + individual

- This means that businesses within the value chain are involved in handling and adding direct value or consuming the product and also the service network indirectly involved in the production (for eg., quality control, ICT, financial partners (banks, insurance, and training and research)).

Actors, supply chains and value chains

- **Actors** are those involved in producing, processing, trading or consuming a particular agricultural product
- They include direct actors which are commercially involved in the chain (producers, traders, retailers, consumers)
- Indirect actors which provide financial or non-financial support services, such as bankers and credit agencies, business service providers, government, researchers and extensionists.
- However, to avoid ambiguity, value chain actors are those who perform value chain activities.
- Actors and others are chain stakeholders

VALUE CHAINS key dimensions

The value chain approach using three key dimensions of a value chains:

1. Consumer and demand driven;
2. Based on collaboration between links;
3. All partners create added value and share value;
4. It is a complex network of actors.

1.1. Value Chain, Ctd...

✓ A set of enterprises (operators) that performs these functions: producers, processors, traders, and distributors of a particular product. Enterprises are linked by a series of business transactions in which the product is passed from a primary producers to end consumers

1.1. Value Chain, Ctd...

✓ A business model for a particular commercial product. This business model allows defined customers to be reached using a particular technology or a particular way of coordinating production and marketing between several enterprises

1.2. Value Chain Actors

Individuals, enterprises and public agencies related to a value chain in particular: Value Chain operators, providers of operational services, providers of support services, enablers

1.2.1. Value Chain Operators

Enterprises performing the basic function of value chain: farmers, small and medium enterprises, industrial companies, exporters, wholesalers and retailers.

✓ **Common aspect: they own the a product at one stage of VC**

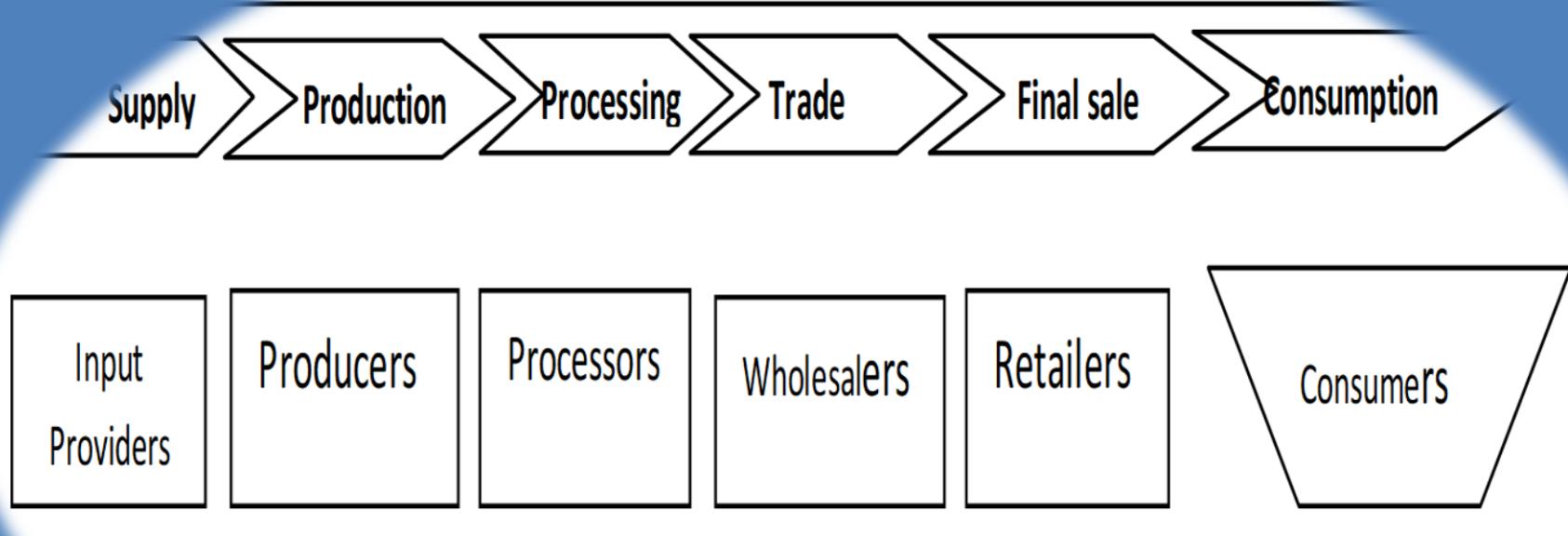
1.2.2. Value C Supporters

Provide Value Chain with support services and/or represent the common interest of the value chain actors (Banks, IMF, Training Institutions, Research Institutions, Umbrella organizations, facilitators etc.)

They belong to the meso level

1.2.3. Value Chain Levels

- ❑ Macro level: Public agencies and institutions constituting the business enabling environment : Influencers
 - ✓ Is made up of regional, national and local institutions, the judiciary system and major providers of public utilities
- ❑ Meso level: Chain supporters. Functions at meso level include research, advocacy, technology development, etc.
- ❑ Micro-level: Chain operators



MICRO LEVEL: Chain Operators

MESO LEVEL: Chain Supporters

MACRO LEVEL: Chain Influencers

**Chain
stakeholders**

Chapter 2. Analyzing the Value Chain

- ❑ A value chain constitutes an economic system that is around a particular commercial product
- ❑ The coordination of business activities in value chain is necessary to provide customers with the right quality and quantity of the product
- ❑ Therefore, enterprises have to collaborate to be successful.

Analyzing the Value Chain, Ctd...

- The value chain therefore:
 - ✓ Connect the different yet related business activities(production, transformation, marketing, etc.) necessary for serving customers and
 - ✓ Joins and coordinates the enterprises (primary producers, processing industry, traders, etc.) performing these activities

Analysing the Value Chain, Ctd...

- ❑ In the course of economic development, the integration between different business activities and types of enterprises becomes increasingly important.
- ❑ On one hand, globalization entails intense competition and pricing pressure; on the other hand, urban customers increasingly demand high-quality, fresh and fashionable product.

➤ Both trends call for an increasing level of integration

Analysing the Value Chain, Ctd....

❑ Examples

- ✓ Organic food product can only be brought to the market if farms are certified and product kept apart in the marketing chain.
- ✓ Garment manufacturers work on well-defined orders and often subcontracts others to deliver on time.
- ✓ A particular tourist attraction can only be marketed if all related services (from transport to accommodation) conform to tourist expectations.

Analysing the Value Chain, Ctd.....

- ❖ The competitiveness of national economy is not only a matter of the performance of individual enterprises but also of the degree to which the different companies both large and small cooperate efficiently
- ❖ Every enterprise working towards making value chain more competitive has to understand how it functions and learns from its failures.

Analysing the Value Chain, Ctd.....

Tasks in value Chain analysis

- ✓ Value chain mapping
- ✓ Quantifying and describing the value chain in details
- ✓ Economic analysis of value chain and benchmarking

2.1. Mapping a Value Chain

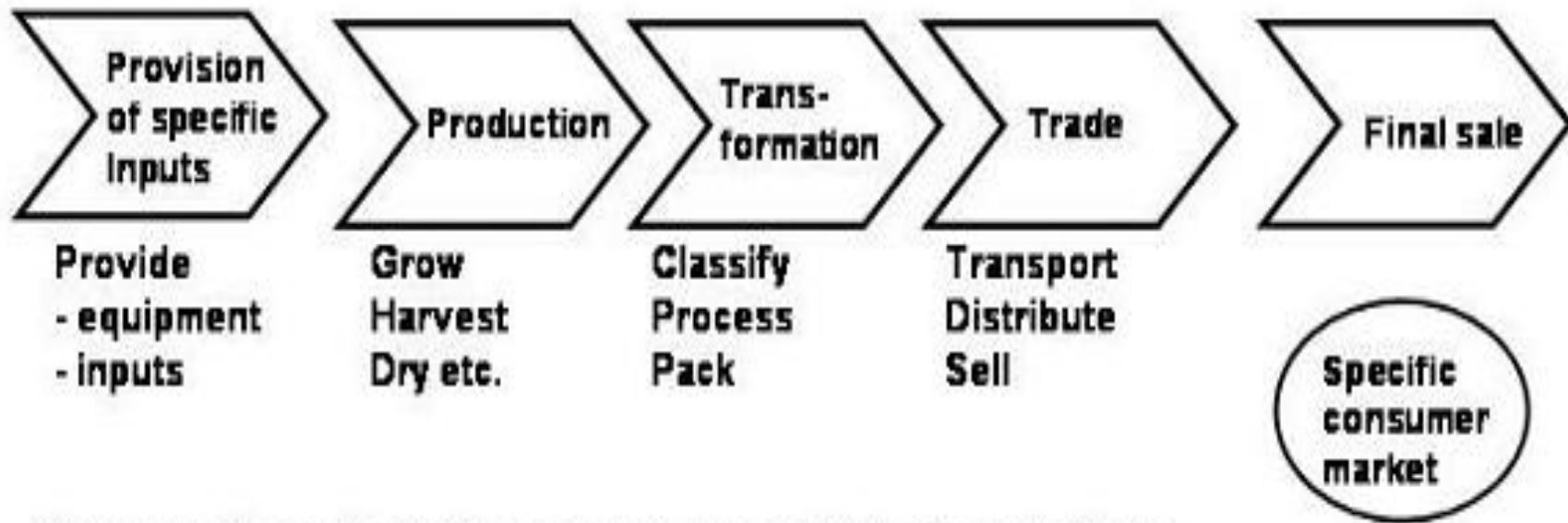
- ❑ Value chain mapping means drawing a visual representation of value chain system.
- ✓ Maps identify business operations(functions), chain operators and their linkages as well as chain supporters within the value chain
- ✓ Chain maps are the core of any value chain analysis and therefore indispensable.
- ✓ Chain mapping serves both an analytical purpose and a communication purpose as they reduce the complexity of economic reality with its diverse functions, multiples stakeholders interdependencies and relationships to a comprehensible visual model

Mapping a Value Chain, Ctd...

- ❑ The first step is the determination of the product market served: product destination
- ❑ Overview map presents major links (stages) of the value chain. It should visualize:
 - ✓ The sequence of production and marketing functions performed
 - ✓ Value chain operators taking these functions
 - ✓ The vertical links between the operators
- The three elements belong to the micro level at which value added is actually generated

Mapping a Value Chain, Ctd....

Basic functions (chain links)



Categories of chain operators and their relations



Mapping a Value Chain, Ctd....

Practical hints

- (a) Definition of the final product: what product or category of product does the value chain produce?
- (b) Market / group of customers (indicated by the oval box)
- (c) Activities(functions) performed to generate the final product: start by the final sale and continue backward listing the production and marketing activities.
- (d) Establishing function list

Mapping a Value Chain, Ctd....

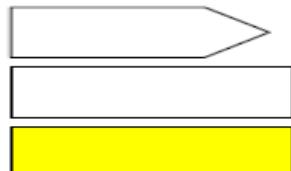
Practical Hints

- (e) Establishing functional sequences: main channel and sub channel
- (f) The value chain map includes only those operators who become owners of the product. If they source out or subcontract functions from other firms, they are regarded as operational services providers. They may or may not be mapped
- (g) If operators take more than one function, the box representing them enlarged to cover the two or more function stages.

VALUE CHAIN ANALYSIS

Chain Mapping Symbols in Workshops and Documents

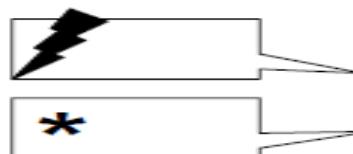
Card shapes & colour code used in workshops and training seminars



Shapes for word documents in black&white



Text



Text

Levels of the value chain (VC) at which the symbol is used

Micro level of the VC

VC stage

Specific business activity

Value chain operator

Links between operators

End market of value chain

Meso & Macro level

Value chain supporter

Value chain enabler

All levels of the VC

Constraint

Potential

Action

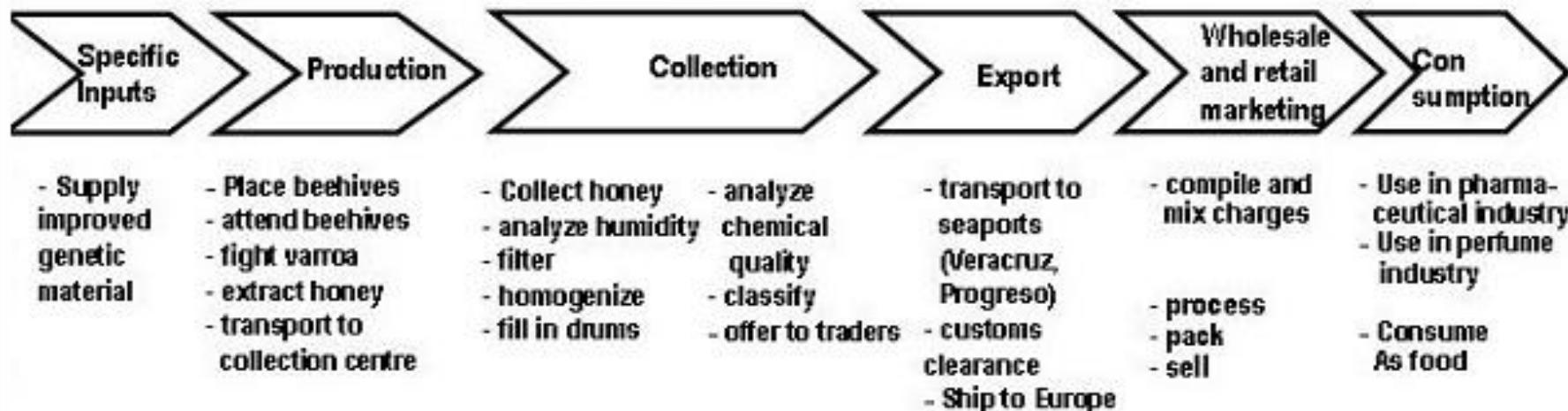


Mapping a Value Chain, Ctd....

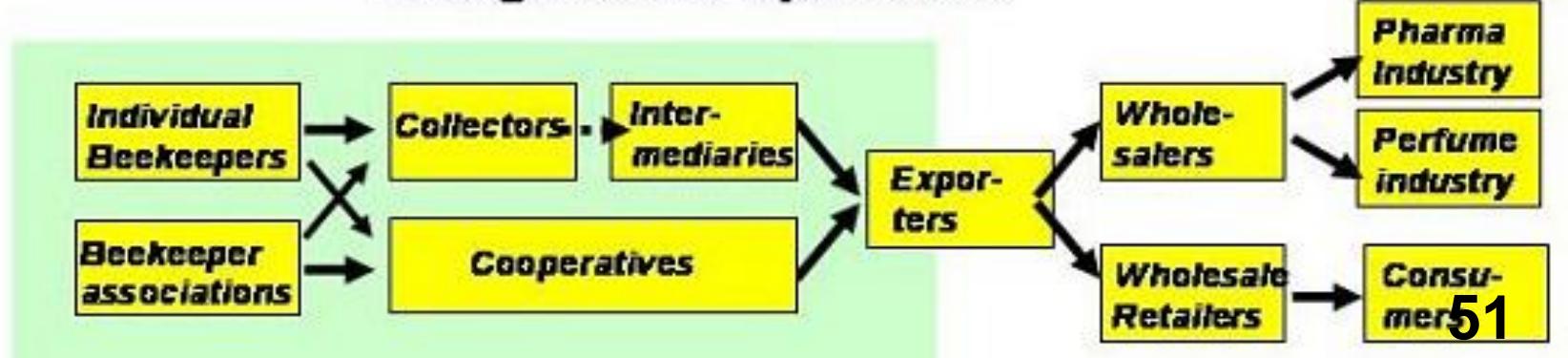
Cases

Box 2.4 - Case: Conventional honey for export in the Yucatán region, Mexico

Functions



Categories of operators



Mapping a Value Chain, Ctd....

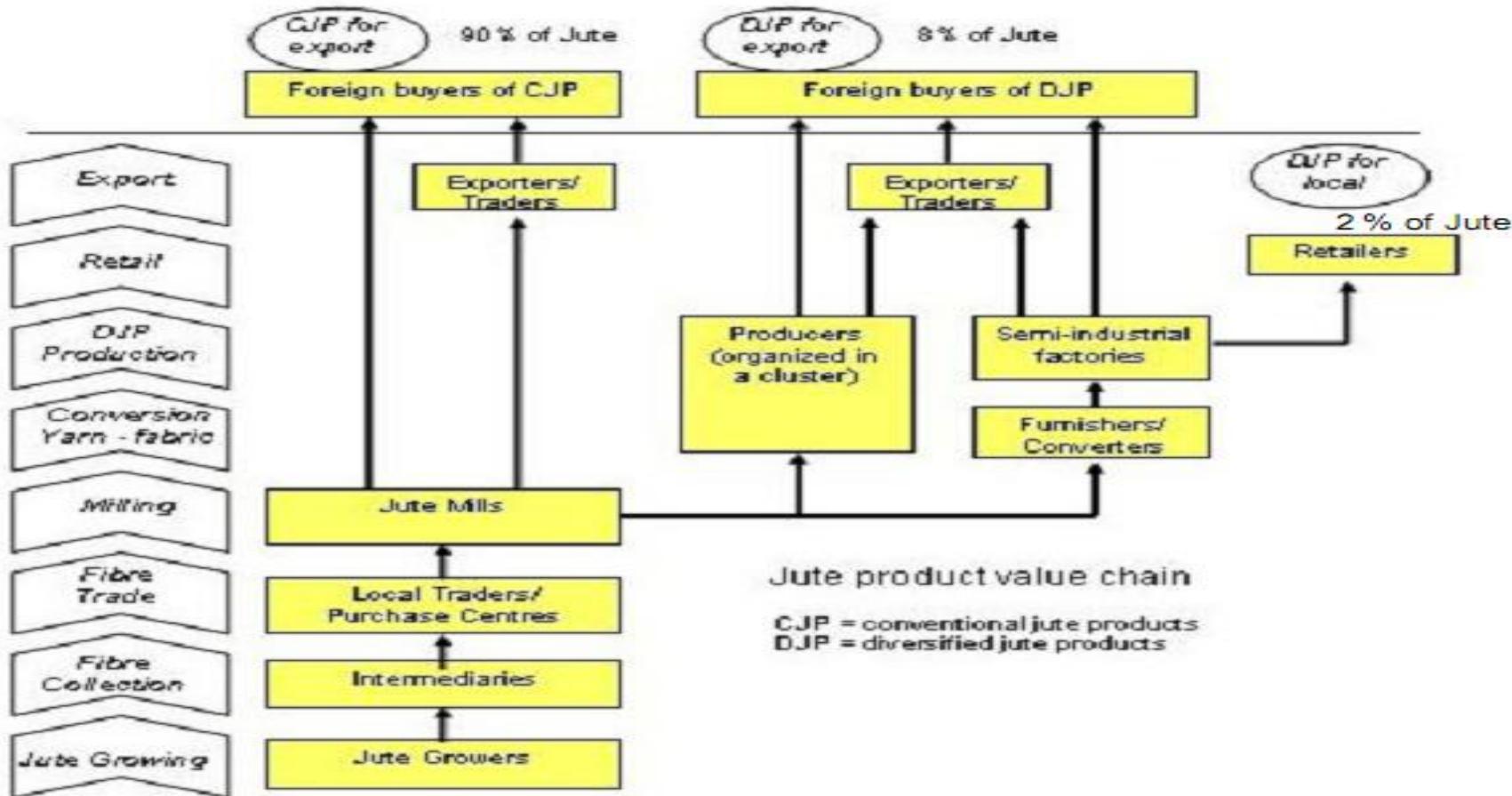
Mapping sub value chains (channels)

- Showing parallel channels in the same is only useful if some part of the value chain map is identical across all variants of the channels. This apply to the primary production stage remaining the same while different types of processing follow.
- Depending on market outlets, the sub value chain can branch into an even greater variety of marketing channels

Mapping a Value Chain, Ctd....

Mapping sub value chains (channels)

Box 2.5 - Case: Jute products value chains in Bangladesh



2.2.Mapping the Value Chain supporters

- The basic functions and chain operators constitute the micro level of the value chain: the business active in the respect with market including the operational service providers.
- Value chain is also described at meso level that includes agencies and business organisations representing the collective interest of the business community and providing support services.

Mapping the Value Chain supporters, Ctd.

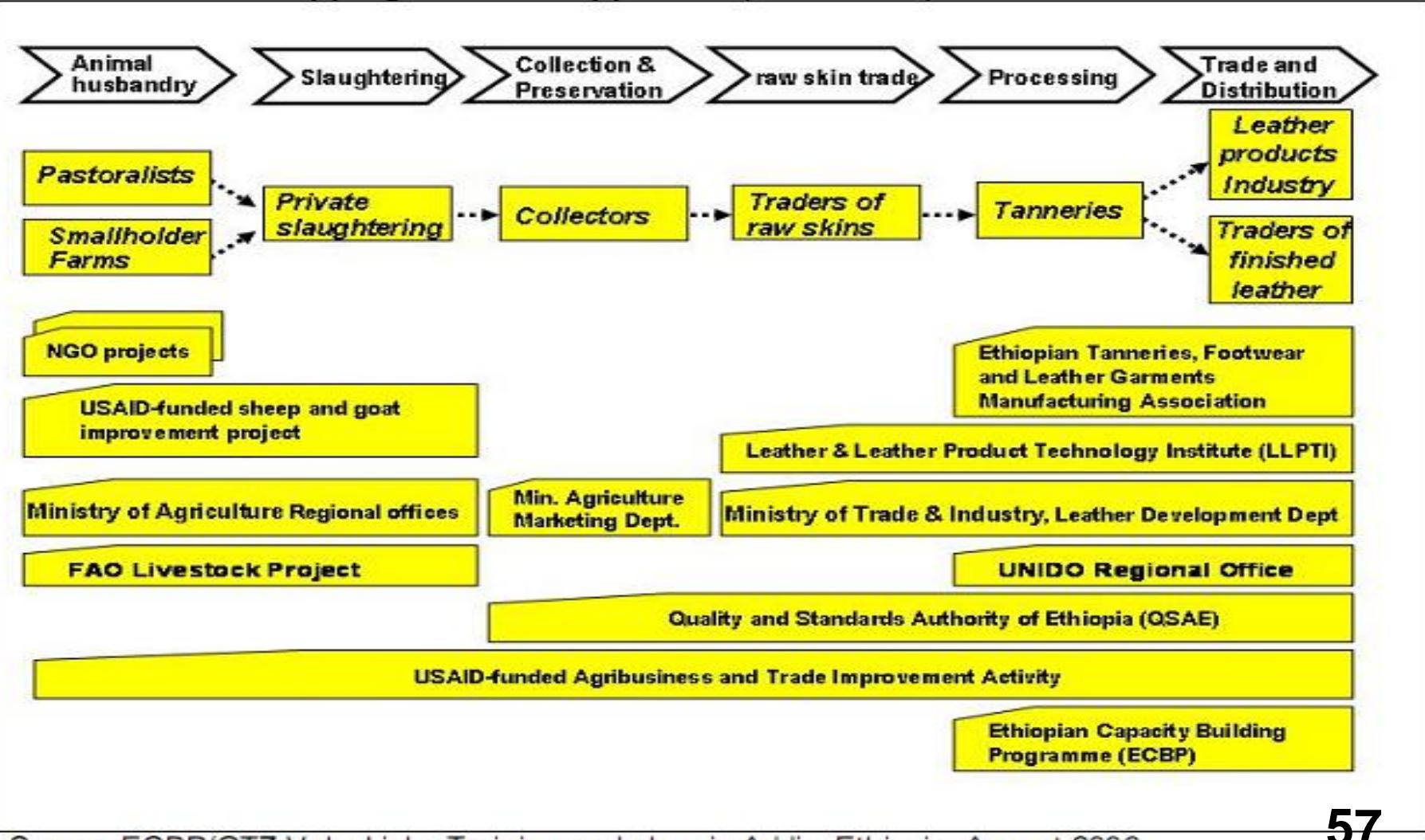
- ❑ Chain supporters have direct relationship with chain operators; they should also belong to a value chain map
- ❑ Chain supporters are: business and industry associations, cooperatives, federations, etc.; sector-specific agencies such as technology or training institutes, specialised department or units in the public administration, foundations or development programmes, etc.

Mapping the Value Chain supporters, Ctd.

- They have in common that they provide support services to the whole value chain and or represent the common interests of the chain actors
- The map also shows which segment of the chain the different support organizations cover.

Mapping the Value Chain supporters, Ctd.

Box 2.7 - Case: Traditional finished sheep and goat leather value chain in Ethiopia
Mapping of chain supporters (meso level)



Mapping the Value Chain supporters, Ctd.

- Analysis of chain supporters is of great importance to analyze the efficiency of support institutions and for coordinating and planning new interventions.
- Government and other public organisations responsible for shaping in the business environment, constitute the macro level of the value chain.
- Macro level is analyzed separately. It may be visualized in another thematic map but **does not necessarily** belong in an overview map.

2.4. Quantifying and analyzing value chain in detail

- The basic chain map is a descriptive conceptual model of value chain
- To become useful for decision making and planning, the value chain map has to be complemented by information that allows comparing the current state of the chain with potential alternative states.
- Elements of the chain map are treated as variables which are changing over time

Quantifying and analysing value chain in detail (ctd...)

- Quantifying the basic chain map is quite straightforward.
- Quantification means attaching numbers to the elements of the chain map:
 - ✓ **Number of operators (possibly differentiating size of farms or enterprises)**
 - ✓ **Number of jobs and employees for each category of operators(also according to the gender)**
 - ✓ **Number of poor operators in each category of operators**

Quantifying and analysing value chain in detail (ctd...)

- ✓ Prices paid at each level chain link between stages
- ✓ Volume and turnover in each chain stage
- ✓ Shares of product flow of different sub-chains stage
- ✓ Market share of the value chain or sub value chain defined as percentage of the sales value in overall market

Quantifying and analysing value chain in detail(ctd...)

Box 2.12 Case: Quantifying growth rates in Kenyan fresh milk value chain

Estimated annual growth rates of turnover in different segments of the milk value chain in Kenya and expected growth in production value:

	Milk Production	Bulking and cooling	Processing & packaging	Transport & Distribution	Transport & Distribution
Growth rates	1,9 – 3,9 %	3,0 – 6,0 %	3,0 – 6,0 %	1,9 – 3,9 %	2,0 – 4,2 %
Additional Turnover	36-106 Mio \$	13 Mio \$	20-60 Mio \$	11-33 Mio \$	7-21 Mio \$

Source: Technoserve: "Dairy in Kenya – can it drive economic growth?", presentation 2004

Quantifying and analysing value chain in detail (Ctd....)

- ❑ Quantification depends to the availability and reliability of secondary data, especially statistics.
- ❑ Data need therefore to be cross-checked from different sources

2.5. Economic analysis of the value chain

- ❑ Economic analysis of the value chain is an important input into the decision on development of objectives and upgrading strategies.
- ❑ Production costs are the single most important factor determining the competitiveness
- ❑ Assessing the cost structure allows identifying critical points that need to be addressed
- ❑ Economic data also provide the foundation for monitoring of the progress made in upgrading, both for operators and facilitators
- ❑ Cost analysis delivers data that help to create awareness among operators about potential for value addition, cost drivers and leeway for price negotiations

Economic analysis of the value chain Ctd

❑ VC economic analysis include assessing:

✓ Overall value added generated by chain and shares of different stages

✓ The production and marketing costs by each stage of the chain and the cost structure along the chain stages

✓ The performance of chain operators(utilization of productive capacity, productivity, profitability)

2.5.1.Calculating value added

- ❑ Value added is a measure of the wealth created in the economy
- ❑ Value added is equivalent to the total value of all services and product produced in the economy for consumption and investment(the GDP)
- ❑ To arrive at the value-added generated by a particular value chain, the cost of bought-in materials, component and services has to be deducted from the sales value

Calculating value added

Box 2.14 Concept: Calculation of value-added

Components of total value generated by a value chain:

$$(\text{Value-added}) = (\text{Total sales value}) - (\text{Value of intermediate goods})$$



Calculating value added, Ctd...

- ❑ The sales value or revenue (price*volume) achieved by the value chain is divided between the value-added created by the operators constituting the value chain and the intermediate goods, inputs and operational services provided by suppliers who are not part of the core sequence of the value chain
- ❑ The calculation principle can be applied to each stage of the value chain as shown in the next box.

Calculating value added, Ctd...

- ❑ The total value paid for and consumed by the final customers is split between value-added and intermediate goods. The latter are further divided between the semi-finished or finished (intermediate) products provided by the operators in the previous segment of the same value chain, and the (other) inputs supplied by external providers.
- ❑ Hence, the graph shows how the value-added is distributed
 - between the stages of the chain, and
 - between the chain operators on one side and the external providers on the other

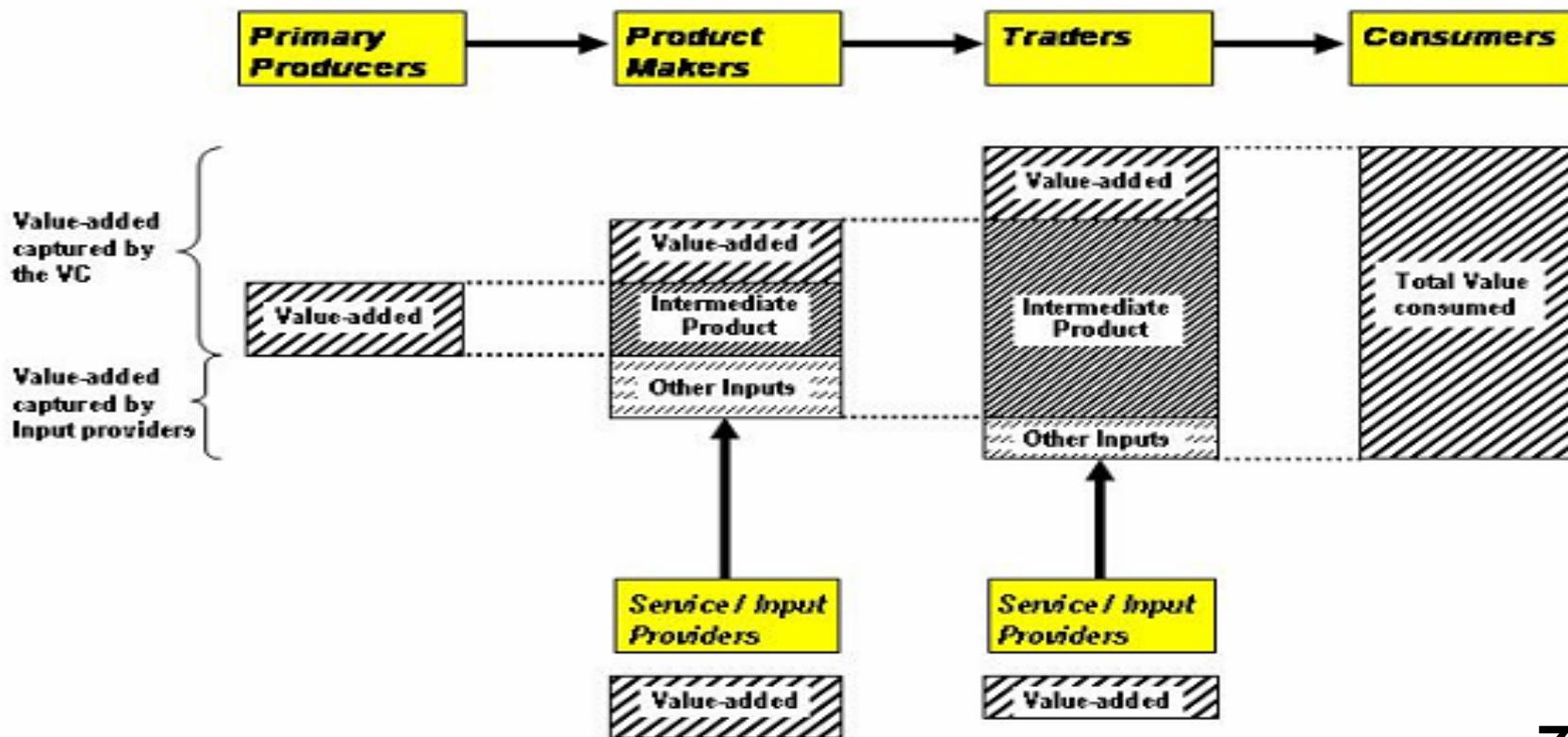
Calculating value added/ Distribution of Added value

Hence, the graph shows how the value-added is distributed

- between the stages of the chain, and
- between the chain operators on one side and the external providers on the other.

Box 2.15 Concept: Distribution of value-added along the chain

Distribution of value-added between different types of chain operators and input providers:



Calculating value added/ Distribution of Added value

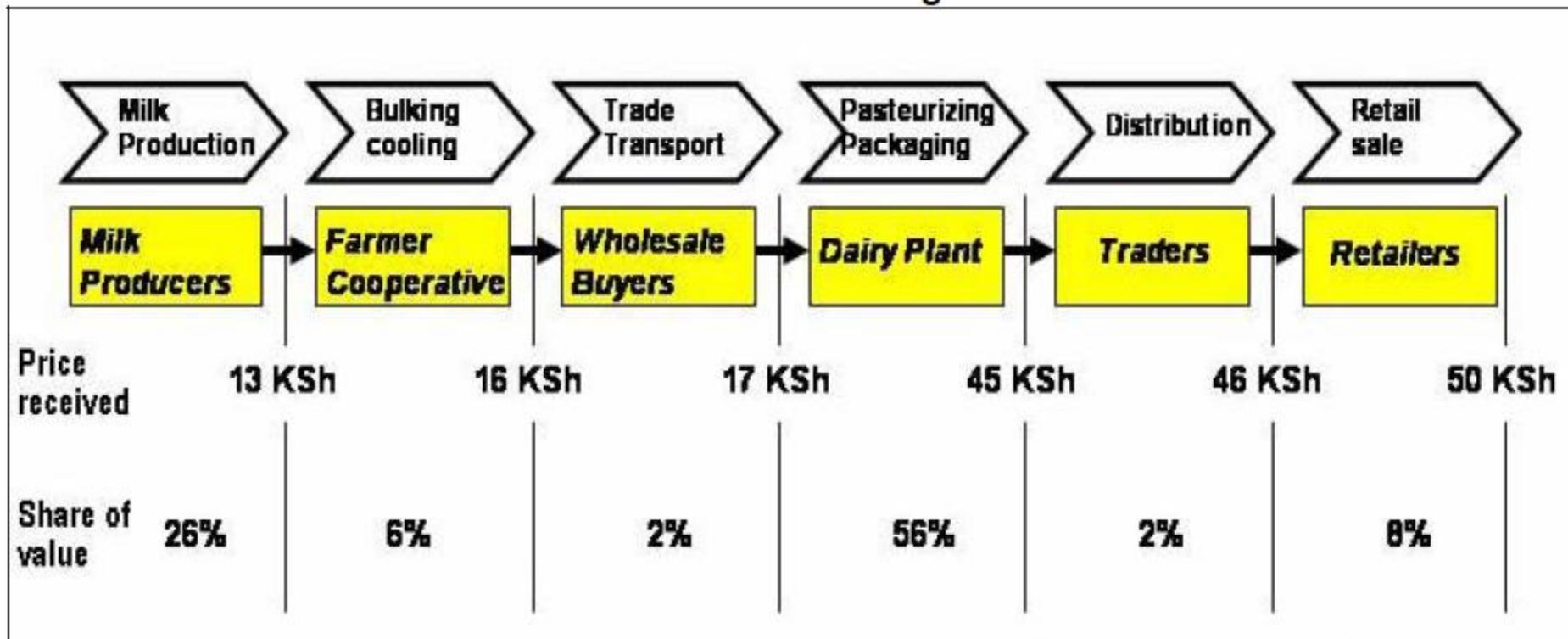
The question is who receives (“captures”) the value-added.

- ✓ As traders have to pay more to the product makers part of the value-added will go to the previous chain segment.
- ✓ Product makers may have to purchase more or more expensive inputs which, in turn, shifts some value-added to input providers.

Calculating value added/ Distribution of Added value

The absolute size of the value blocks in each stage of the chain can be determined by collecting data on the prices paid and the volumes traded.

Box 2.16 Case: Distribution of value / revenue along the chain



Source: Hoeffler / Ogana: "Experiences with Kenya's Dairy Value Chain Analysis", 2006

Calculating value added/ Distribution of Added value

- ❑ “Value creation” Vs “value capturing” : They are interlinked
- ✓ Capturing value by improving the efficiency of input use increases value-added of the chain stage concerned, but reduces purchase of inputs and thus the value-added of input providers.
- ✓ At the same time, the efficiency gain is likely to translate into improved competitiveness ensuing a greater market share and thus value creation: i.e. higher sales volumes and/or prices – as a consequence of product improvement or cost reduction

2.5.2.Calculating cost in Value Chain

Calculating production costs in Value Chains implies:

- ✓ **Aggregating costs of enterprise in a particular segment to arrive to average figures of the chain**
- ✓ **Relating the data to the functions in the value chain**

Note:

- ✓ The procedure comes close to “Activity Based Costing” (ABC) analysis in which costs are assigned to business activities.
- ✓ ABC analyses incorporate causal relationships between production activities and costs or output.

Calculating cost in Value Chain, ctd...

Box 2.17 Case: Cost calculation related to the rice value chain in Cambodia

Cost of performing functions in production of Neang Mali Rice for export, Cambodia
(in US Dollar / ton)

	Rice Production	Post-harvest Operations	Transport & Shipping	Costs fob 129,13	
- Land preparation	14,19	- Drying	3,35	- Transport to harbour	6,51
- Seeding	4,15	- Milling	12,23	- Port handling	10,23
- Transplanting	20,09	- Packaging	2,16	- Customs clearance	15,30
- Fertilizing	26,00	- Fees & Levies	3,43	- Vessel loading	1,40
- Harvesting	8,03	- Interest	2,06	- (Shipping)	(14,88)

Source: World Bank / GDS: "Towards a private sector-led growth strategy for Cambodia", vol. 1, p.19

Calculating cost in Value Chain, ctd...

Cost analysis can be used to

- ✓ Identify cost driver across different stages of the chain and hence the potential for cost reduction potential of typical firms operating in the same stage
 - ❖ The example shows that the cost of fertilizers and the cost of transplanting constitute the two major cost items and therefore might offer a substantial cost reduction potential.
- ✓ Assess the position of the value chain vis-à-vis the competitors, comparing unit cost with those of competitors (benchmarking)

2.5.3. Transaction costs

A type of cost that is particularly relevant in value chain analysis is the “transaction costs”.

Transaction costs result from activities for:

- ✓ searching market information and screening market opportunities
- ✓ negotiating contracts,
- ✓ handling the produce (e.g. storage, transport, administrative costs and claims) and
- ✓ monitoring and enforcing contracts (e.g. costs of quality control, insurance premiums).



Transaction costs, Ctd...

- ❑ Transaction costs cannot be avoided but their amount depends to a large extent on a lack of information, market transparency, appropriate legal regulations and trust.
- ❑ Typical examples of important and tangible transaction costs are the costs of handling produce in a seaport, local taxes and administrative burden on road transport or the average rate of supplies that have to be rejected.

Competitive benchmarking

- ❑ Competitive benchmarking compares the value of key indicators of economic performance of the value chain in question with the value of the indicators in other comparable value chains in other countries.
- ❑ Benchmarking can refer to the unit cost of production, labour productivity or indicators of technical efficiency.

E.G The international benchmark for labour productivity in producing basic shirts is 18-25 pieces per day, while the respective figure in Ethiopia is 8-10 pieces per day.

Competitive benchmarking

- ❑ Besides these economic parameters, benchmarks can be established for any other **quantitative** or even **qualitative** aspect of the value chain, including, for example, growth rates, investment in technology, research or staff training, existence of market regulations and standards etc.
- ❑ Benchmarking allows comparing the value chain at stake with an industry average or best practices of competitors.
- ❑ The comparison helps to identify upgrading needs and potential and identify new market opportunities.

Value chain coordination

- We define coordination as “effort or measures designed to make players within a market system act in a common or complementary way or toward a common goal.
- This may also require effort designed to prevent players from pursuing contrary paths or goals”

Value chain coordination

- Co-ordination may be among actors in the same or in different positions in the chain (e.g. among producers or between producers and buyers).
- The need to protect investments in specific assets, such as coffee trees or processing equipment, creates a need for stronger and more complex forms of market coordination than the neoclassical ideal of spot market transactions in perfectly competitive markets

Roles of Value Chain Coordination

- Value chain coordination ***as a set of roles that foster soft infrastructure development to build regional economies and communities.***
- Strong soft infrastructure, in the form of skills, competencies and relationships, provides the ability for individuals and organizations to acquire and utilize hard infrastructure in their communities.

Who performs value chain coordination

- An individual who performs value chain coordination roles may be considered a Value Chain Coordination Professional (VCCP)
- Entities in which the work of value chain coordination takes place
- Food hubs,
- Local governments
- Organizations
- May be considered Value Chain Coordination Entities (VCCE).

Roles of Value Chain Coordination

- Some roles of value chain coordination are *primary* roles
- Support actors in the value chain such as producers, processors, distributors, buyers and consumers
- The other type are enabling roles, which are roles that value chain coordinators perform to provide support and enable the VCCEs ability to provide the services and activities the primary roles

Roles of Value Chain Coordination

- Primary roles include market matchmaking, providing technical assistance, organizing convening events and stakeholder meetings and innovating/catalyzing new ideas or projects.
- These roles are often the main foci of how value chain coordinator professionals orient and prioritize their work.

Roles of Value Chain Coordination

- The other type are enabling roles, which are roles that value chain coordinators perform to provide support and enable the VCCEs ability to provide the services and activities the primary roles
- ***Enabling*** roles are just as essential to value chain coordination work.
- Enabling roles involve resource prospecting, advocating for policy, fostering relationships, research and assessment, and accountability keeper.



Role of Value Chain Coordinators

Market Matchmaker

Identify and connect key stakeholders through referral services and other forms of short-term or one-off engagement. This “public interest broker” role is key to development of food value chains because many businesses are stepping outside their normal channels to find new collaborators.

Convener/Relationship Builder

Build the necessary relationships across the food value chain by engaging key stakeholders, maintaining communication channels, and fostering a trusting environment. Examples include convening stakeholder meetings, forming working groups, and implementing other forms of longer-term engagement.

Technical Assistance

Work with food value chain members to build capacity through education and training programs in such areas as sustainable production practices, food safety, marketing/branding, etc.

Policy Thought Leader

Raise policy issues and partner with others to address policies and procurement requirements, such as bidding procedures and preferred-vendor practices that may interfere with the ability of food value chains to access certain marketing channels.

Resource Prospector

Identify and pursue resources, such as grants, loans, and services to support value-chain collaborators as they develop their enterprise.

Catalyst / Innovator

As a resource prospector, value chain coordinators can also utilize grants and other external resources to test new business models and thus lower the financial risk of the businesses engaged in the value chain.

Value Chain Coordination and governance/ Vertical & Horizontal linkages

- ❑ Coordination between different chain operators is at the core of value chain concept
- ❑ Linkages exist both between operators at various stages of a value chain (vertical linkage) and between operators working at the same stage (horizontal collaboration)
- ❑ Evolution of value chain leads to the intensive supplier-buyer relationships ever more as requirements in terms of quality, reliability, volumes increase.

Value Chain Coordination and governance/ Vertical & Horizontal linkages, Ctd...

- ❑ Linkages exist both between operators at the various stages of the value chain (vertical business linkages) and between operators working at the same stage (horizontal collaboration).
- ✓ Vertical organization of a chain as such is factor of competition
- ✓ The low degree of organization among producers limits effective vertical linkage

Value Chain Coordination and governance/ Vertical & Horizontal linkages, Ctd...

Tasks in strengthening private business linkages:

- Brokering vertical business linkages at the micro level – that is facilitating supplier-buyer contracting;
- Fostering the horizontal collaboration of small value chain operators in response to market requirements , and
- Business matchmaking at the meso-level improving the business contacts and sales opportunities of business groups or of the entire value chain community

Value Chain Coordination and governance/ Vertical & Horizontal linkages, Ctd...

While the first two tasks focus on the micro level, business matchmaking is a task at the meso level, not directed towards individual enterprises.

Main purposes, tasks, challenges and benefits related to these approaches of support are presented in the following

Vertical linkages

- ❑ Vertical business linkages are sales contracts relating the operators at different stages of the value chain.
- ❑ In the context of value chain upgrading strategies the linkages between primary producers (farmers, handicraft producers or small enterprises) and important buyers (retail companies, exporters or industrial processors) are of particular interest
- Upgrading towards higher quality and market penetration often involves moving from spot markets to production by orders placed by much bigger buying companies

Vertical linkages, Ctd...

The following graph shows different forms of organizing vertical linkages: The chain map on the left shows a typical traditional agricultural market. The chain maps in the centre is partially and the one on the right fully integrated by contracts

Concept: Important vertical business linkages of primary producers



Vertical linkages, ctd...

- Strengthening vertical linkages serves several purposes:
 - ✓ To link small enterprises to high value-markets brokering contract with domestic or international buyers. This includes strengthening the contractual position of small producers so as to improve the distribution of benefits in favour of enterprises providing income to poor people
 - ✓ Improvement of efficiency, reducing the cost of contract supervision and the information costs and building trust among partners

Vertical linkages, Ctd....

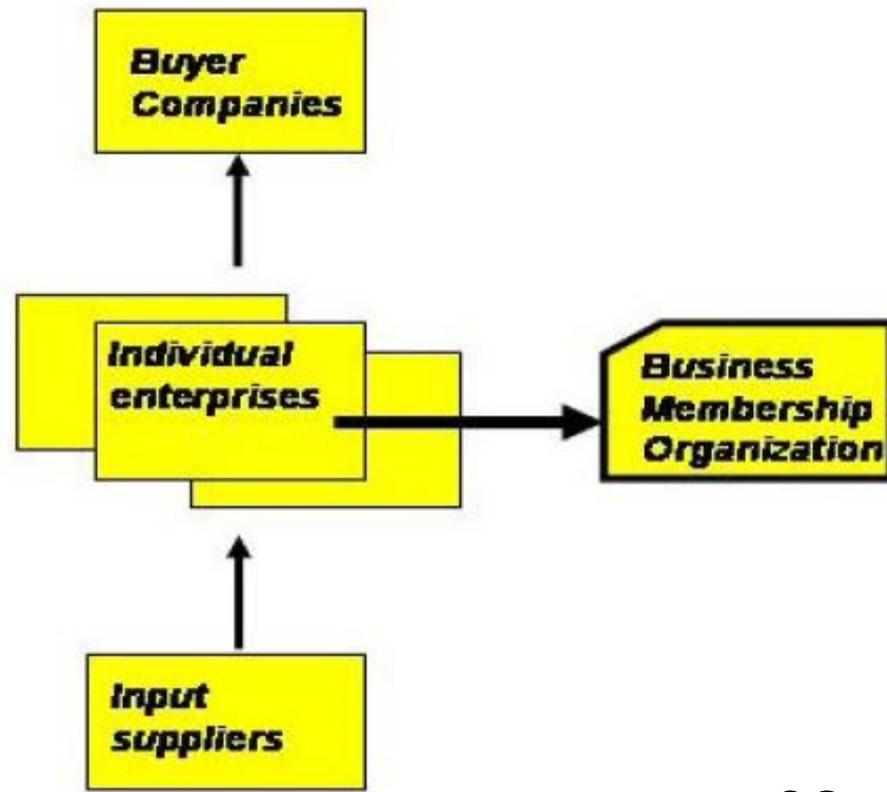
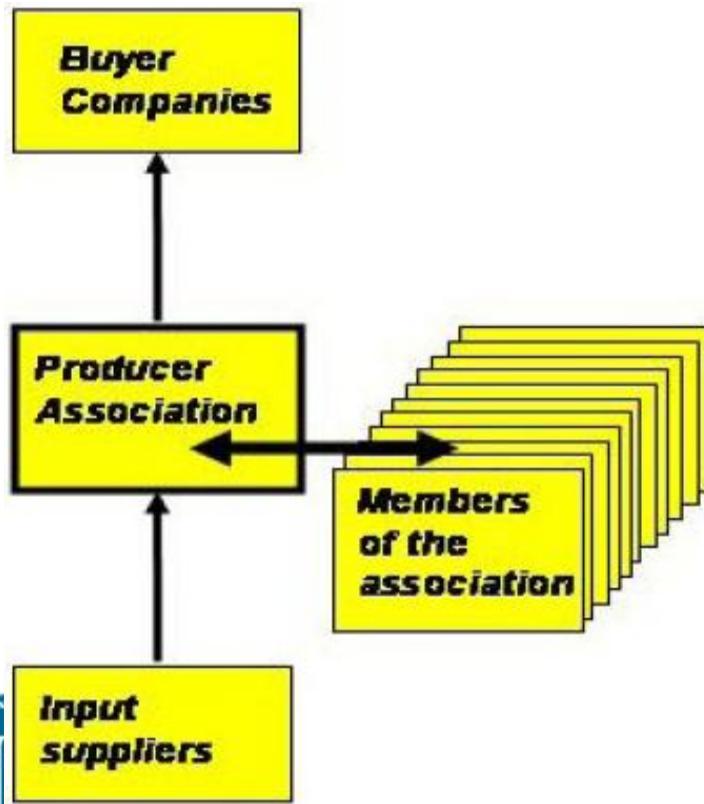
Intensity of relationship	<i>Spot market (arms-length transaction or “wet market”)</i>	Transactions are completely market-based. Contracts are verbal and often anonymous.
	<i>Forward contracting</i>	A cash transaction in which a commercial buyer and seller agree upon delivery of a specified quality and quantity of goods at a specified future date. The price is agreed upon in advance.
	<i>Regular subcontracting of suppliers / preferred supplier arrangements</i>	Buyer has a list of preferred suppliers with whom forward contracts are made regularly. This provides security and reduces search costs on both sides.
	<i>Outgrower Schemes</i>	A big farm contracts with neighbouring farmers to complement the own production volume. Outgrowers receive technological services but may sell to other buyers as well.
	<i>Contract Production / contract farming</i>	The supplier works for one buyer exclusively. Product and technology are clearly specified and suppliers receive the necessary inputs (see case in box 5.6)

3.2 Horizontal linkages

- “Horizontal” business linkages refer to the transactions between enterprises operating in the same functional segment of the value chain. These are, for example, joint purchase and sales activities and joint use of equipment and facilities
- To the extent that horizontal collaboration is organized in producer groups or business associations, the internal relations between the members are business transactions as well.

Horizontal linkages, Ctd...

The following graph presents two types of horizontal relations in visual form. On the left side, small enterprises form an association which operates on their behalf. The horizontal linkage is the relationship between association and members and among the members. Right, a business membership organization or enterprise network organizes and serves common interests of members.



Horizontal linkages, Ctd...

- ❑ Enterprises collaborate for two main reasons:
 - ✓ Business advantages
 - ✓ Interests

Hence

- ✓ Promotion of commercial producer group and association at micro level
- ✓ Promotion of enterprises networks and association at meso level

Accordingly, the types of horizontal collaboration differ between associations acting as businesses (chain operators) and associations that perform a supportive role.

Horizontal linkages, Ctd...

	<i>Micro level Chain operators</i>	<i>Meso level Chain supporters</i>
<i>Informal association</i>	<ul style="list-style-type: none">- Agricultural or handi-craft producer group	<ul style="list-style-type: none">- Enterprise network or working group
<i>Formal association</i>	<ul style="list-style-type: none">- Formal producer association (cooperative)	<ul style="list-style-type: none">- Second tier (umbrella) association- Business membership organization- Association of professionals



Analyzing a value chain Environment

Tools of analysis

- ✓ SWOT analysis
- ✓ PESTEC analysis
- ✓ Problem tree analysis

4.1. SWOT analysis

- ❑ Apart from being owned by stakeholders, upgrading vision and strategy have to be made concrete
- ❑ The anticipated change at the micro level (in technology, linkages and business services) often presupposes change in the regulatory environment and the overall institutional capacity as well.
- ❑ The data generated in the chain analysis provide a baseline against which the anticipated change can be made clear

SWOT analysis, Ctd...

- ❑ Operational upgrading objectives can be derived by looking at the prerequisites and implications of the vision
- ❑ The question to start visioning: (“**How should the value chain look five years from now?**” IS applied to the different functions, actors and relationships within the value chain
- In order to come up with solutions, planners identify **critical points of the system**, either referring to the **current structure of the value chain** or in light of the vision for its future dvpt

SWOT analysis, Ctd...

- ❑ It is important to note, that the objectives should not just be inferred from *current chain problems but from the opportunities and the necessary change implied in the vision.*
- ❑ Based on the results of the value chain analyses, symptoms and underlying reasons of constraints should be discussed.
- ❑ The following lead questions intend to provide a strategic focus for the discussion.

SWOT analysis, Ctd...

Three lead questions to guide chain analysis

- ✓ What are the reasons for the chain to stagnate?
- ✓ Which gaps exist between the requirements on a value chain derived from the vision and its current structure and performance?
- ✓ Which constraints reduce the competitiveness of poverty groups (target groups) and prevent their integration into the value chain?

SWOT analysis, Ctd...

- The SWOT analysis tool is great for developing an understanding of an organization or situation and decision-making for all sorts of situations in business, organizations and for individuals
- The SWOT analysis headings provide a good framework for reviewing strategy, position and direction of a company, product, project or person (career)

SWOT analysis, Ctd...

**POSITIVE/ HELPFUL
to achieving the goal**

**NEGATIVE/
HARMFUL
to achieving the goal**

INTERNAL Origin

facts/ factors of the organization

Strengths

Things that are good now, maintain them, build on them and use as leverage

Weaknesses

Things that are bad now, remedy, change or stop them.

EXTERNAL Origin

facts/ factors of the environment in which the organization operates

Opportunities

Things that are good for the future, prioritize them, capture them, build on them and optimize

Threats

Things that are bad for the future, put in plans to manage them or counter them

SWOT analysis, Ctd...

A SWOT Analysis

✓ Reveals your competitive advantages
✓ Analyzes your prospects for sales, profitability and product development

✓ Prepares your company for problems

✓ Allow for the development of contingency plans

A SWOT analysis is a process to identify where you are strong and vulnerable; where you should defend and attack.

Done properly, SWOT will give you the **Big picture** of the **Most important factors** that influence **Survival and Prosperity**

SWOT analysis, Ctd...

❑ Strengths

- ✓ Positive tangible and intangible attributes, internal to an organization. They are within the organization's control. .

❑ Weakness

- ✓ Factors that are within an organization's control that detracts from its ability to attain the desired goal.
- ✓ Which areas might the organization improve?

❑ Opportunities

- ✓ External attractive factors that represent the reason for an organization to exist and develop.
- ✓ What opportunities exist in the environment, which will propel the organization? Identify them by their “time frames”

❑ Threats

- ✓ External factors, beyond an organization's control, which could place the organization mission or operation at risk.
- ✓ The organization may benefit by having contingency plans to address them if they should occur.

SWOT analysis, Ctd...

❑ In summary:

- ✓ Strengths need to be maintained, built upon or leveraged.
- ✓ Weaknesses need to be remedied, changed or stopped.
- ✓ Opportunities need to be prioritized, captured, built on and optimized.
- ✓ Threats need to be countered or minimized and managed

SWOT analysis, Ctd...

How can we **Use** each **Strength**?

How can we **Stop** each **Weakness**?

How can we **Exploit** each
Opportunity?

How can we **Defend** against each
Threat?

SWOT analysis, Ctd...

Enhanced SWOT Analysis

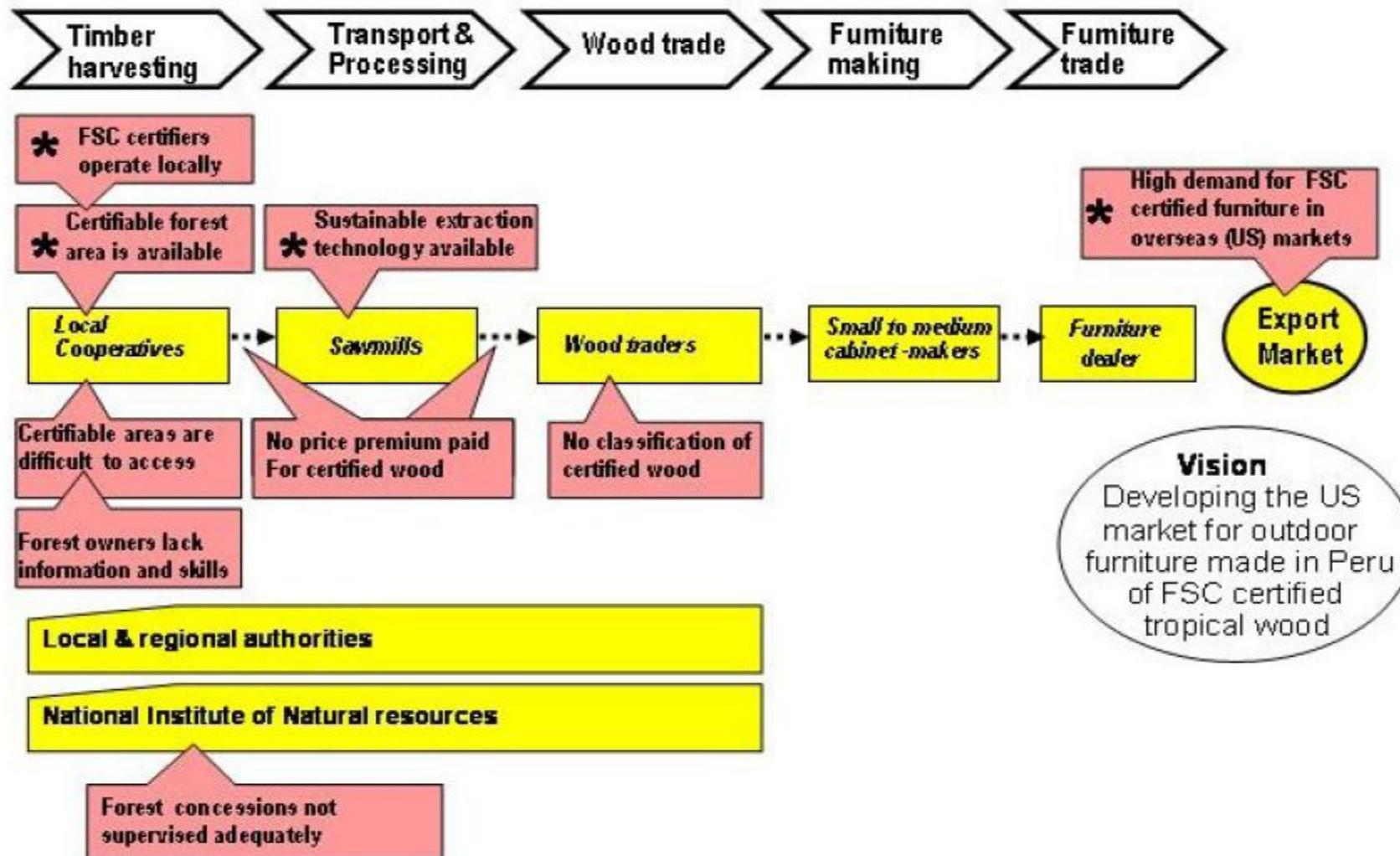
		Strengths	Weaknesses
Translate into tasks for the Project Plan		How do I use these strengths to take advantage of these opportunities?	How do I overcome the weaknesses that prevent me taking advantage of these opportunities?
Opportunities		How do I use my strengths to reduce the likelihood and impact of these threats?	How do I overcome the weaknesses that will make these threats a reality?
Threats			

SWOT analysis, Ctd...

		Positive	Negative
Internal factors	Strengths	Weaknesses	
	<ul style="list-style-type: none">➢ Technological skills➢ Leading Brands➢ Distribution channels➢ Customer Loyalty / Relationship➢ Production quality➢ Scale➢ Management	<ul style="list-style-type: none">➢ Absence of important skills➢ Weak brands➢ Poor access to distribution➢ Low customer retention➢ Unreliable product / service➢ Sub-scale➢ Management	
External factors	Opportunities	Threats	
	<ul style="list-style-type: none">➢ Changing customer tastes➢ Liberalization of geographic markets➢ Technological advances➢ Changes in government policies➢ Lower personal taxes➢ Change in population age-structure➢ New distribution channels	<ul style="list-style-type: none">➢ Changing customer tastes➢ Closing of geographic markets➢ Technological advances➢ Changes in government policies➢ Tax increases➢ Change in population age-structure➢ New distribution channels	

Visualizing Constraints and opportunity (E.g)

Box 3.8 - Case: Furniture chain map indicating constraints and opportunities, Peru



Visualizing Constraints and opportunity (E.g)

- 1) Both the chain map as well as the analysis of opportunities and constraints is simplified
 - ✓ This is a diversification strategy to creating value and capturing a good share of the value in Peru
 - ✓ The red cards stand for constraints or opportunities (if marked with a star and placed above the sequence of operators).
 - ✓ The constraint analysis shows that the major bottleneck is the supply of certified wood.

Visualizing Constraints and opportunity (E.g)

Box 3.9 - Case: SWOT analysis integrated into cinnamon value chain map, Sri Lanka

Strengths and Opportunities

Long tradition in the country, good soil & climatic conditions

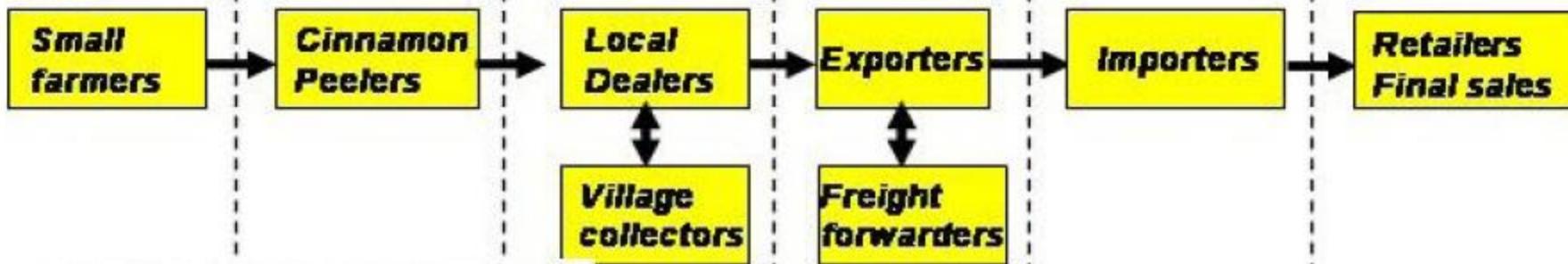
Unused capacity

Procedures to assure quality in use

Exporters offer good quality, established agencies to handle export

Long-standing relations, established market

Growing market demand for Sri Lanka cinnamon



Weaknesses and Threats

traditional systems, farmers lack awareness & interest in innovating

Market links not organized, shortage of qualified people

High working capital needs, lack of market transparency, inconsistency in supply

High cost of airfreight charges

Difficulties obtaining information on supply

Visualizing Constraints and opportunity (E.g)

2)Linking the chain map with SWOT analysis the: principal stages of the value chain in the middle row, complemented with results of a SWOT analysis above and below, thus linking operators at different value chain stages to weaknesses/ bottlenecks and strengths/ opportunities identified in a SWOT analysis.

3)The results of the SWOT analysis can in turn be combined with the identification of potential strategies

Visualizing Constraints and opportunity (E.g)

Box 3.10 Case: SWOT analysis and strategies to upgrade fish sub sector, Kenya

<p>Associations representing the Value Chain</p> <ul style="list-style-type: none"> - National Fisheries Federation (NFF) & member associations: - Inshore Fisheries Association, - National Inland Canoe Fishermen Council, - Cooperative Fishermen Association 	<p>Strengths</p> <p>Associations exist, representing the fishermen clear objectives & commitment of NFF Executive Council potentially high lobbying power due to 5% share in GDP service offers available for entire value chain increasing investment in processing and marketing</p>	<p>Weaknesses</p> <p>limited human/ financial capacities weak buyer-seller linkages knowledge on quality is limited, despite training out-dated technology of artisan and industrial vessels lobbying power not fully exploited insufficient access to finance</p>
<p>Opportunities</p> <p>Access to EU market new products (e.g. deep sea fresh fish, value addition, aquaculture) new technologies for improved fishing (fibreglass vessels) new technologies for improved processing and waste reduction</p>	<p>Short term strategy</p> <p>Raising awareness on opportunities improving post-harvest handling simple system to facilitate information flow between the chain links joint procurement and marketing ventures</p>	<p>Medium term strategy</p> <p>strategy to better exploit lobbying power improving information and training on quality, hygiene, waste reduction etc. Communicating success stories to promote membership in associations measures to build trust between chain actors</p>
<p>Threats</p> <p>rising fuel prices artisan fishermen poverty stricken insufficient storage and port infrastructure overfishing increasingly ambitious standards of buyer markets deficiencies of the vocational and higher education system inadequate legal provisions (e.g. restrictions on excluding non-members from service offer of cooperatives)</p>	<p>Medium term strategy</p> <p>System with templates for grant applications by fishermen associations joint processing / marketing ventures (priority: ice storage) design of industry self-control system for quality, environmental and social standards (code of practice, internal control, certification)</p>	<p>Long term strategy</p> <p>strengthening organizational structures of associations development/ improvement of service offer of associations internal conflict management/ arbitration procedures to manage conflicts of interests along the value chain implementation of industry quality-control system along the value chain enforcement of standards capacity-building for training of artisan and industrial fishermen</p>

Source: GTZ-MOAP, Kenya, adapted by M. Will

4.2.PESTEC Model

- ❑ Aim: group existing knowledge to make analysis easier
- ❑ Through: Logical thinking
- ❑ Concerns aspects and/or perspectives:
 - ✓ Political
 - ✓ Economical
 - ✓ Social
 - ✓ Environmental
 - ✓ Technological
 - ✓ Cultural

PESTEC Model, Ctd...

- ❑ **Political aspects:** Legislation, government interference(at local, national and international level)
- ❑ **Economic aspects:** financial/economic resources, product, market, logistics, competition (product chain)
- ❑ **Technological aspects:** machines, tools, instrument, hardware elts
- ❑ **Environmental aspects:** climate, weather, natural resources, etc.
- ❑ **Cultural aspects:** religion, gender, values, norms, etc.

PESTEC Model, Ctd...

❑ How?

- ✓ Write information: problem and opportunities
- ✓ Group them according to P E S T E C

Design of a VC development

- **VC development (upgrading) strategies**
- Building on the VC mapping, the design team should develop a strategy – often called a “VC upgrading strategy”
- There are many ways of formulating a VC upgrading strategy
- The underlying principle is that the strategy should reflect a vision of the VC in the future that is shared by all key VC players rather than the point of view of only one actor or group (e.g. small-scale farmers).

Design of a VC development

- Essential elements of the strategy are:
- i) identification of opportunities for and constraints to VC upgrading, based on the mapping exercise and analysis of target groups;
- ii) establishment of objectives and actions that respond to the opportunities, constraints and risks.

Design of a VC development

- A general framework can facilitate the formulation of specific VC upgrading strategies for each case
- Such a framework includes three dimensions:
 - i) process/product upgrading;
 - ii) functional upgrading;
 - iii) upgrading of coordination and business models

Design of a VC development

- **Process/product upgrading** aims at “doing things better and/or bigger”.
- This may include enhancing the efficiency of production processes such as by using better inputs or reducing costs
- This can lead to greater margins or more productivity (e.g. higher yields) and, hence, larger volumes of produce sold.
- Upgrading can also encompass product quality development to comply with buyer requirements for quality(certification, food safety, traceability, packaging, etc.

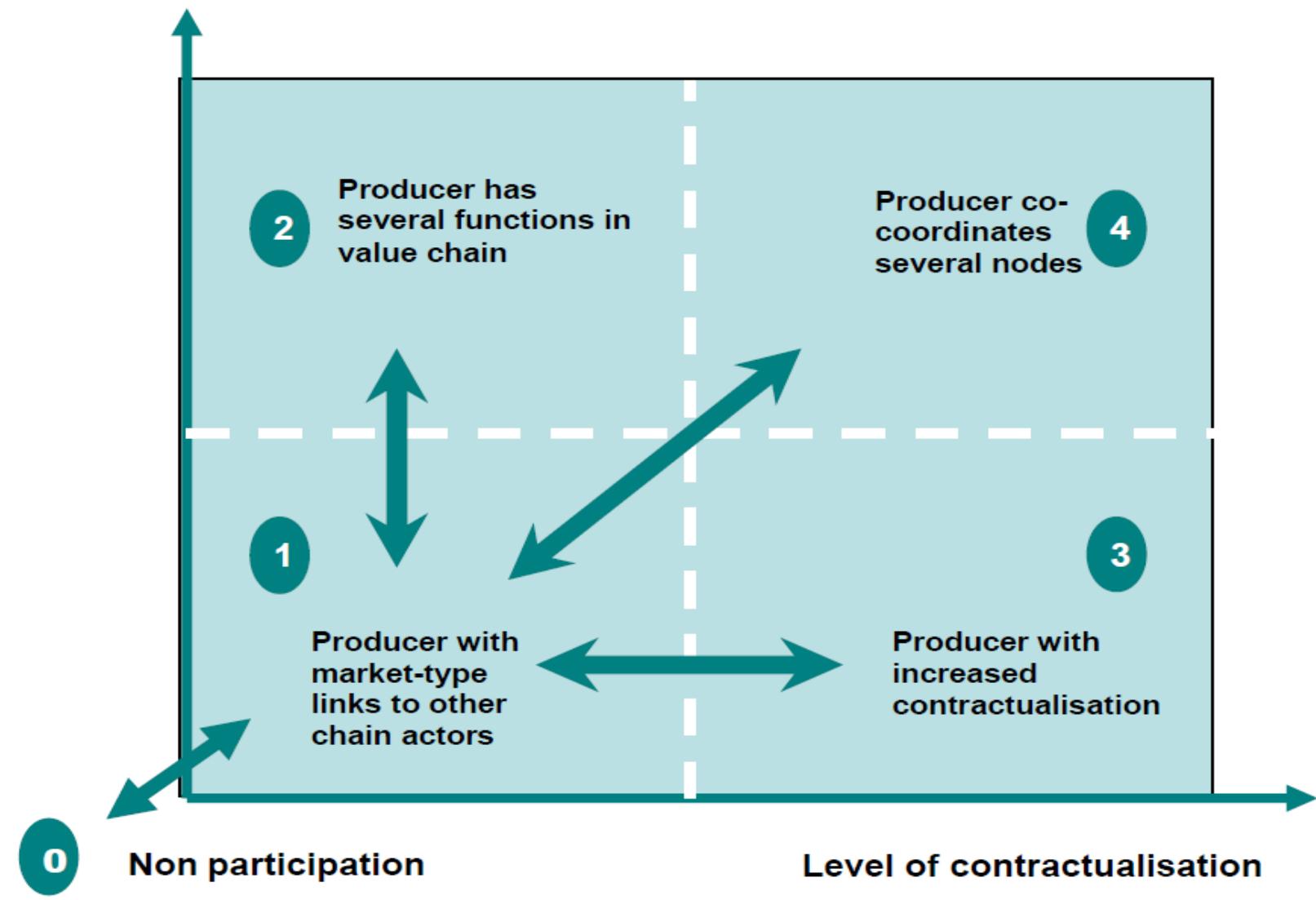
Design of a VC development

- **Functional upgrading**
- A particular actor (e.g. a producers' organization) decides to move up the VC by taking on new value-adding functions such as bulking, transporting, grading, processing and marketing
- It implies a careful assessment of additional costs and risks, as well as potential rewards.
- Partnerships with other VC actors already performing these functions could be explored as part of the upgrading strategy

Design of a VC development

- **Upgrading of coordination and business models**
- Starts with a good understanding of existing business relationships throughout the VC and looks for ways of making these as mutually beneficial as possible for VC partners
- **It often implies helping to formalize and make more transparent (through contracts)**
- For horizontal relationships among actors in the same VC segment (e.g. different groups of farmers selling to the same cooperative) and vertical relationships between actors in different VC segments

Level of vertical integration



Value chain Upgrading strategies

- ❑ Formulating strategy to develop a value chain has always two dimensions:
 - ✓ The first dimension concerns what the actors in a value chain must do to become more competitive and to generate more added value in the future (**Value Chain upgrading**)
 - ✓ The second concerns the role of external facilitators (government or donors agencies). No direct participation in chain upgrading but rather facilitate upgrading and provide assistance without becoming chain actors themselves (**chain promotion**)

5.1. Formulating Value chain Upgrading strategies, Ctd

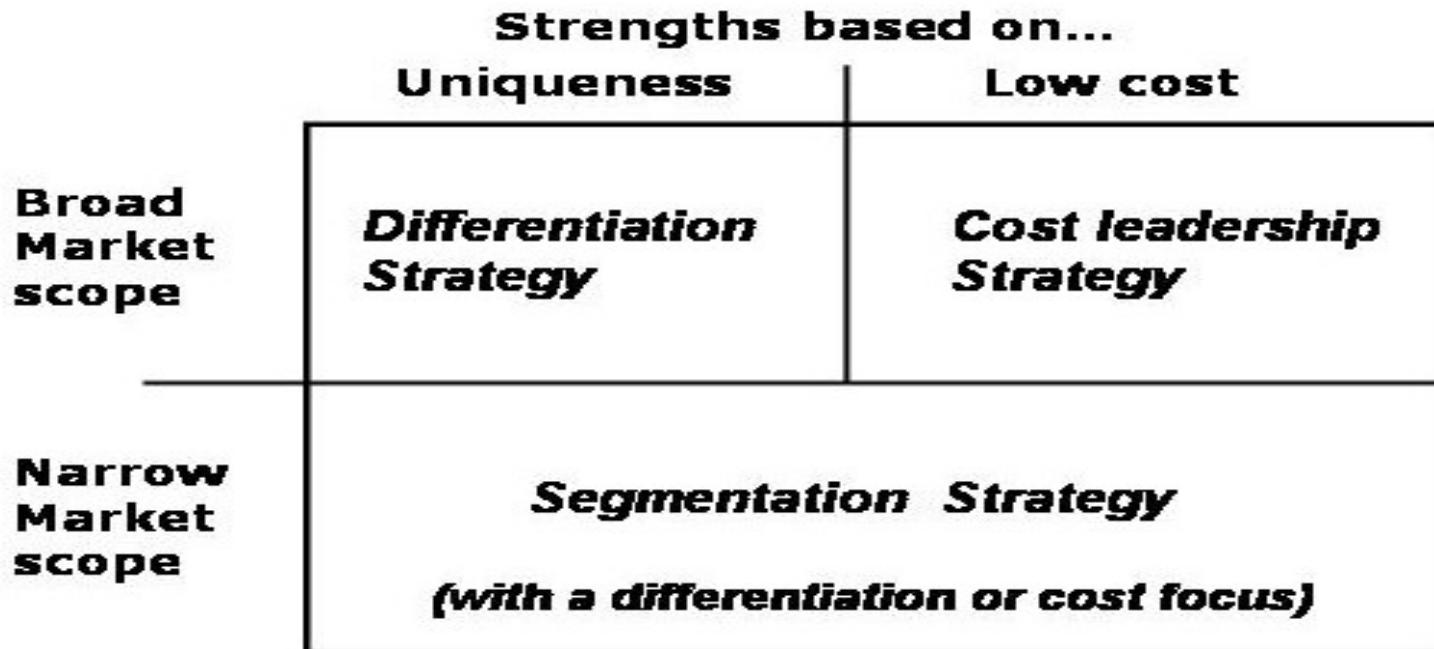
- The upgrading vision describes the aspired change of the value chain answering the question: **How should the value chain at stake look five years from now?**
- The upgrading vision refers to the overall goal of chain development in the interest of operators. Thus, the vision always refers to:
 - ✓ Improving chain revenue (value creation), i.e. generating a higher sales volume and/or achieving better prices, and
 - ✓ The income of chain operators (value capturing)

Formulating Value chain Upgrading strategies, Ctd

- ❑ The potential for value creation is determined by the conditions of the target market on one side, and on the competitive position of the value chain vis-à-vis that market on the other.
- ❑ Tools to determine strategies to identify and address the potential combining both aspects:
 - ✓ Michael Porter's "generic strategies matrix"
 - ✓ Ansoff's "product/market matrix"
 - ✓ Porter's "diamond" (see course of marketing)

Formulating Value chain Upgrading strategies, Ctd

Michael Porter: "generic strategies matrix



- Porter's matrix distinguishes two broad strategic orientations according to the relative competitive strengths of a firm or sub sector, either the *uniqueness of the product or a cost advantage*

Formulating Value chain Upgrading strategies, Ctd

- ✓ The strategic vision refers to product differentiation (quality improvement and/or product innovation) or to cost reduction (better operational efficiency).
- ✓ A third type of strategy/ vision turns around the specialization on market segments focusing on the needs of particular market niches.
- In this case, **increasing competitiveness requires product innovation as well as an adequate operational efficiency**

Formulating Value chain Upgrading strategies, Ctd

Igor Ansoff: “product / market matrix”

		Current Products	New Products
		Market Penetration Strategy	Product Development Strategy
Current Markets	Current Products	Market Penetration Strategy	Product Development Strategy
	New Markets	Market development Strategy	Diversification Strategy

Ansoff's matrix combines the market dimension with the business opportunities that are within reach

Formulating Value chain Upgrading strategies, Ctd

The issue is to **assess** which combination of current or new products and markets stands the best chance of succeeding

In order to select a strategy, analysts have to assess the **competitiveness of the value chain in relation to the opportunity**: What is the production cost compared to those of competitors? What are the risks involved in moving into a new market or product?

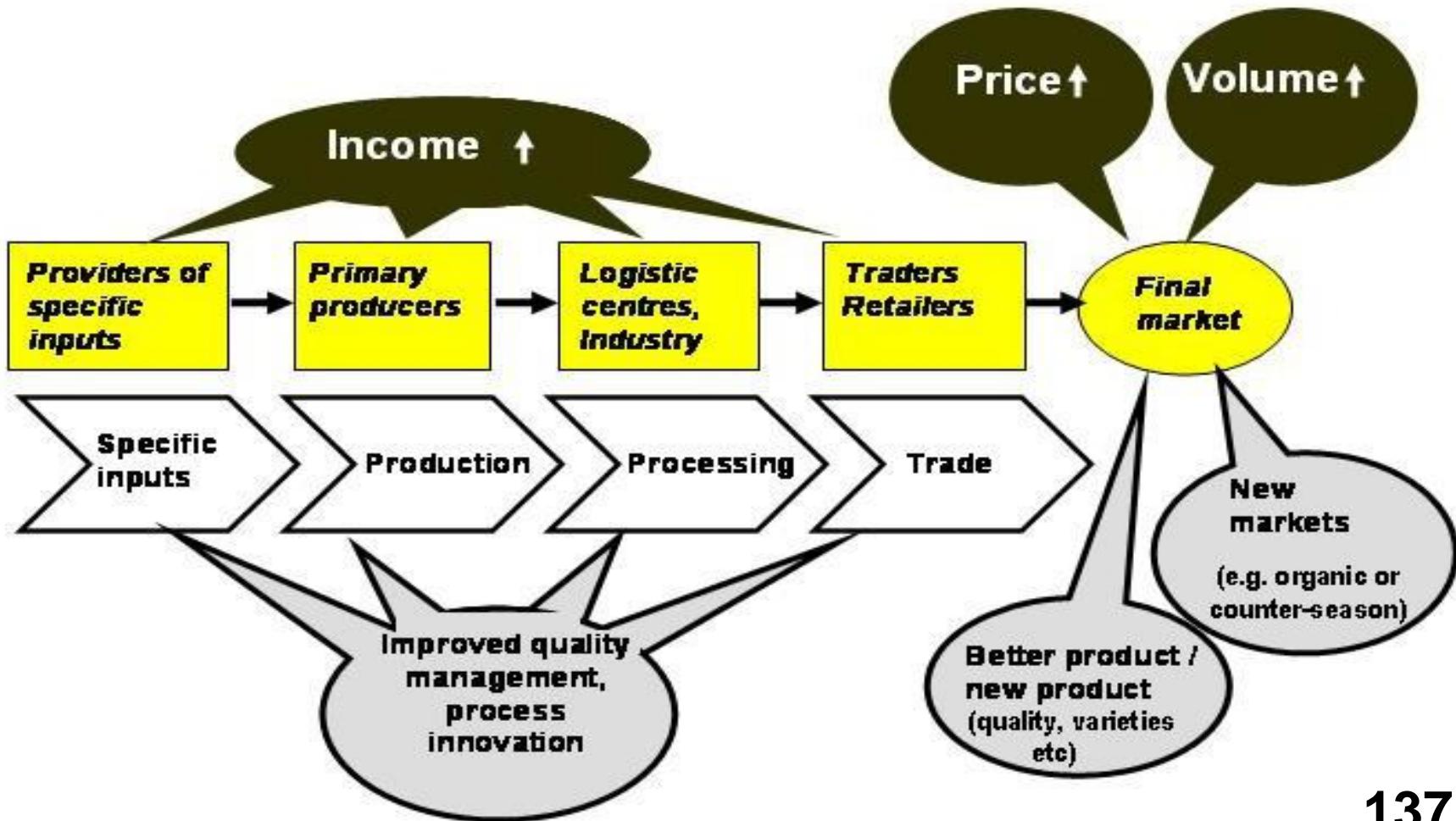
Formulating Value chain Upgrading strategies, Ctd

These visions and strategies roughly correspond to the generic options introduced above:

- ✓ A product development or quality strategy
- ✓ A cost reduction / market penetration or market development strategy
- ✓ A (foreign) investment strategy (mainly for market penetration)
- ✓ A value redistribution strategy

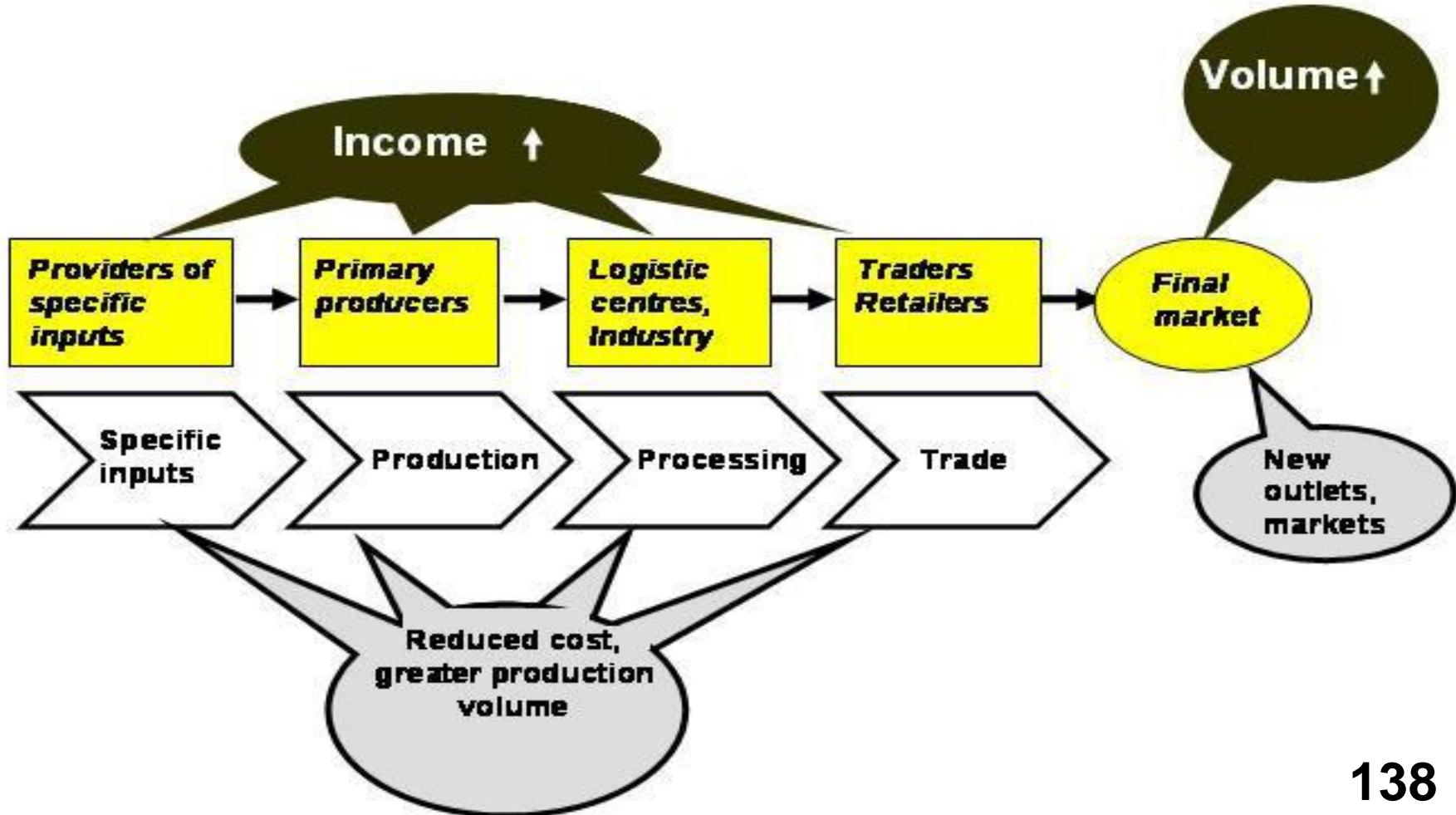
Formulating Value chain Upgrading strategies, Ctd

Template: Product development / Quality upgrading strategy



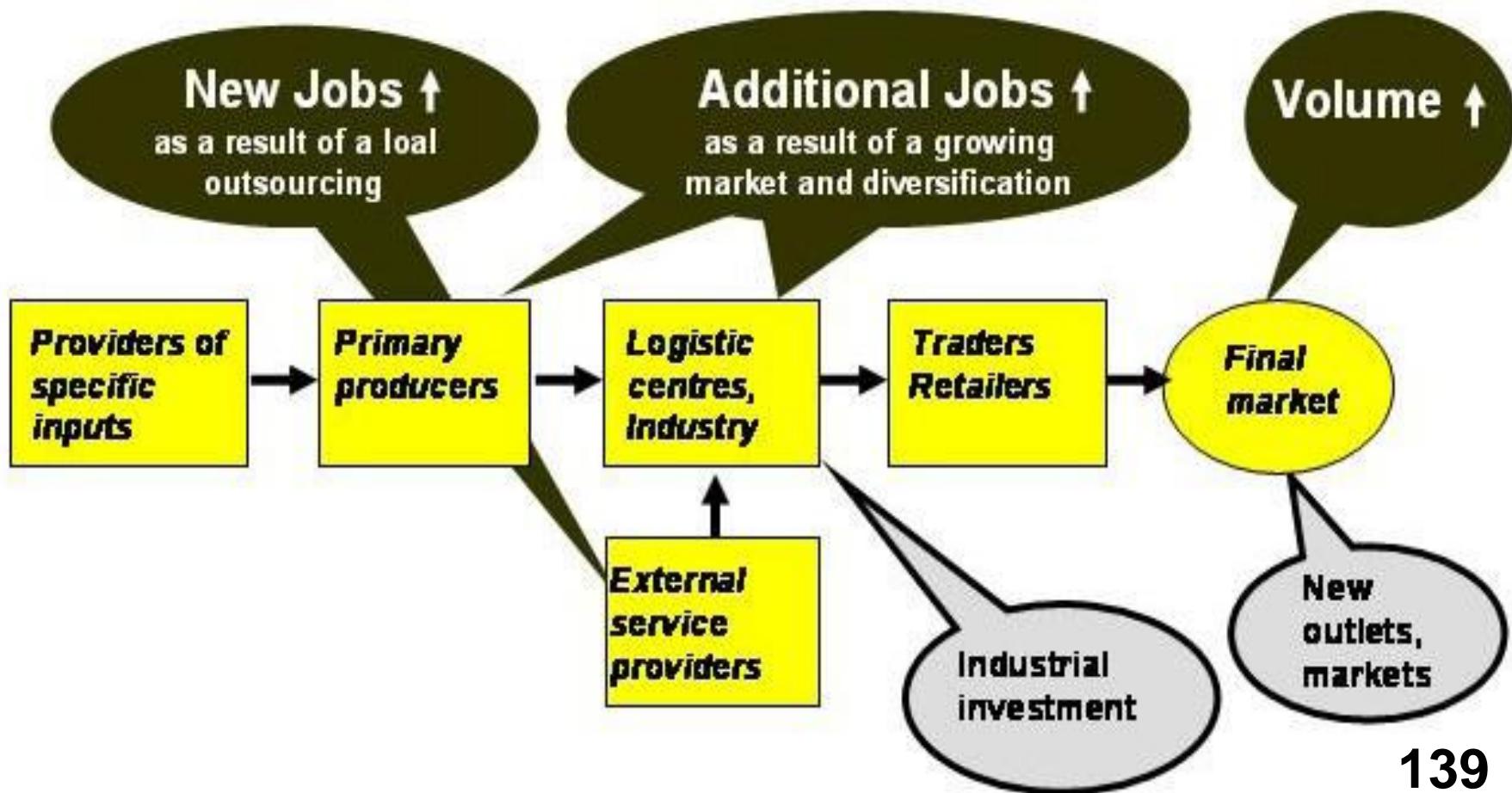
Formulating Value chain Upgrading strategies, Ctd

Cost reduction / Market penetration strategy



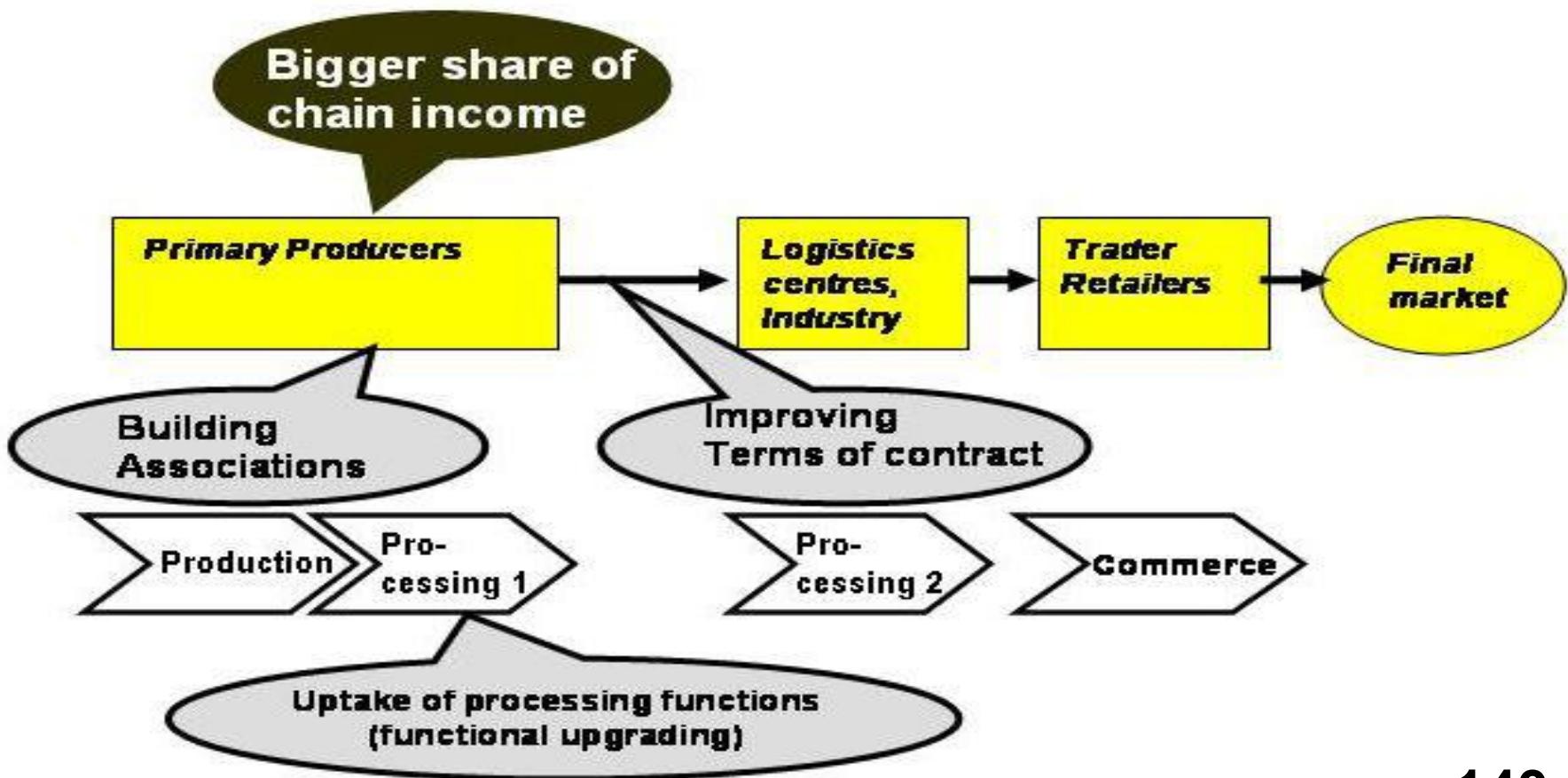
Formulating Value chain Upgrading strategies, Ctd

Investment / Market penetration strategy



Formulating Value chain Upgrading strategies, Ctd

Redistribution strategy



Formulating Value chain Upgrading strategies, Ctd

- The last template operationalizes an explicit poverty reduction vision, in this case a “bigger share of the chain income” for primary producers, e.g. in agriculture.
- Three potential objectives are derived, e.g. building associations; improved terms of contract and the uptake of (part of) the processing functions. Here, the strategy concentrates exclusively on value capturing by primary producers.
- The other templates focus on value creation

5.2. Upgrading a Value Chain

5.2.1. The conditions of success facilitating chain upgrading

The point of departure is the comprehension of a value chain as a social system, placing the human being - the attitudes and behavior of chain actors

Conditions of success

<i>Clear roles</i>	All chain actors understand and assume their roles effectively
<i>Leadership</i>	Certain actors (change agents) take the lead - others follow
<i>Ownership</i>	Operators act upon their own interest, individually and collectively. Chain actors assume responsibility from the start.
<i>Win-win situation</i>	All actors benefit from upgrading, leaving others part of the gains
<i>Will to advance</i>	Positive and negative experience is taken as a basis for progress

Upgrading a Value Chain, Ctd....

5.2.2. Roles of actors in value chain upgrading

- ❑ **Value chain operators** are the private enterprises performing the productive, processing, logistic and commercial activities. They occupy the key role in the value chain assuming the risks and generating the economic value. The viability of their business in the long term is the basic condition for the success of chain promotion. The efficiency of the commercial activities is the sole responsibility of the operators.
- ❑ Among the chain operators, **lead firms** take it on to organize the coordination along the value chain – in their own interest, and in the interest of the collective (“systemic”) competitiveness of all operators being coordinated. This is a private function as well.

Upgrading a Value Chain, Ctd....

5.2.2. Roles of actors in value chain upgrading

Chain supporters perform services of common interest and provide collective goods for groups of chain operators or for the entire chain or sub sector, such as joint marketing or joint research for technical solutions.

These may be private business membership organizations or semi-public organizations such as chambers and technology institutes.

Similarly, professional organizations of economic operators assume service functions for their members.

Upgrading a Value Chain, Ctd....

Roles of actors in value chain upgrading, Ctd...

Chain enablers comprise governmental institutions, such as line ministries and departments and regional governments active in economic development.

Their role is to create favorable conditions for economic development in the interest of job creation and a larger tax base, e.g. facilitating the organization of a particular sub sector, regulating the legal framework of the chain and providing infrastructure (roads, market places etc.).

Upgrading a Value Chain, Ctd...

Roles of actors in value chain upgrading, Ctd...

- ❑ **Professional organizations** of economic operators (producers, trade, transport) and inter-professional organizations constitute a specific case. According to their scope, they can assume economic(Processing, Packing), supporting (market information) or enabling functions(participating in policy dialogue).
- ❑ Where significant general public interests are at stake, such as consumer safety, environmental protection, or economic stability, **national government has the role to** orient or regulate production, offering additional public services and taking over the role of a facilitator of value chain upgrading.

Upgrading a Value Chain, Ctd...

Roles of actors in value chain upgrading, Ctd...

Donors and development agencies or external to the value chain system. Their main role is to facilitate upgrading and provide support to the upgrading action undertaken by the Value Chain actors - in the international public interest (poverty alleviation, protection of resources of international interest).

At times, they also provide financial support to investments.

Chain upgrading objectives/actions(E.g)

Case 1: Palm oil in Southern Thailand

Vision: Greater competitiveness by reducing costs at the primary production stage

Objectives: (a) to increase average oil yields by improving the fresh fruit bunch (FFB) yield and the oil extraction rate (OER) in oil mills - to match benchmarks of Malaysian plantations;

(b) to enhance oil extraction profitability by generating electric power (as well as biofuel) using biomass residues.

Main actions: (a) introduce energy policy providing attractive feed-in tariffs for local sources of electric power;

(b) create business links between oil mill owners and providers of power generation technology; (c) improve plantation management practices; (d) enhance and

Chain upgrading objectives/actions(E.g)

Maize in Xayabouri Province, Laos

Vision: Expansion of maize production and sales

Objectives: (a) to introduce more contract farming arrangements with buying companies; (b) to qualify maize farmers associations to become contract partners

Main actions (a) regulate current contract problems with the publicly owned RD Ltd. Company (b) grant market access for private companies interested in contract farming; (c) found association of maize growers in 2 districts



Chapter 6. Value Chain development

- ❑ The first and very fundamental point for planners intending to engage in value chain promotion is to verify the basic premise of pro-poor growth: **To what extent will it be possible to achieve the double objectives of economic growth *and poverty alleviation in the given development situation?***
- ❑ Value chain promotion fosters economic growth – as a necessary precondition for incomes to rise – by making sure that the additional income generated actually benefits poverty groups.

Value Chain development, ctd...

- ❑ Hence there is strong necessity for to strengthening the way that commercial product markets relevant for the poor function, by improving their access to these markets, and/or by influencing the distributive outcome of market processes.
- ❑ The PPG concept builds on the basic premise that only economic growth and the market success of poor people are capable of providing a sustainable solution to the problem of poverty.

6.1. Pro-poor growth

The relative concept of pro-poor growth

Economic growth is considered to be pro-poor if the incomes of the poor grow faster than those of the non-poor (so that the inequality between the poor and non-poor narrows).

The absolute concept of pro-poor growth

Economic growth is considered to be pro-poor if poor people increase their incomes above the poverty line, even if their share in the national income does not improve (i.e. a positive growth rate for the poor)

6.2. Value chain promotion for Development

- ❑ Making sure that value chain promotion actually contributes to poverty alleviation, we distinguish two tasks:
 - ✓ Assessing the potential and limits of VC promotion in the given development situation.
 - ✓ Combining value chain promotion with other development approaches.

6.2.1. Assessing the potential and limits of VC promotion

This Includes verifying whether minimum conditions for the participation of the poor in commercial markets are fulfilled.

Generic factors limiting the market participation of poor

Business environment and policy

- The business environment implies higher risks and relatively higher costs of doing business for small enterprises as compared to large ones.

Access to cross-cutting service markets

- Small farmers and micro enterprises are negatively affected by the conditions of access to formal financial markets requiring securities and guarantees.
- Because of the size of their operations, small producers regularly face problems of access to input and business service markets.

Assessing the potential and limits of VC promotion, Ctd....

Productive assets and property rights

- Low education and health problems put the poor at a disadvantage in labour markets.
- Lack of assets and missing property rights on land and water critically limit investment of farmers.

Conditions of the location

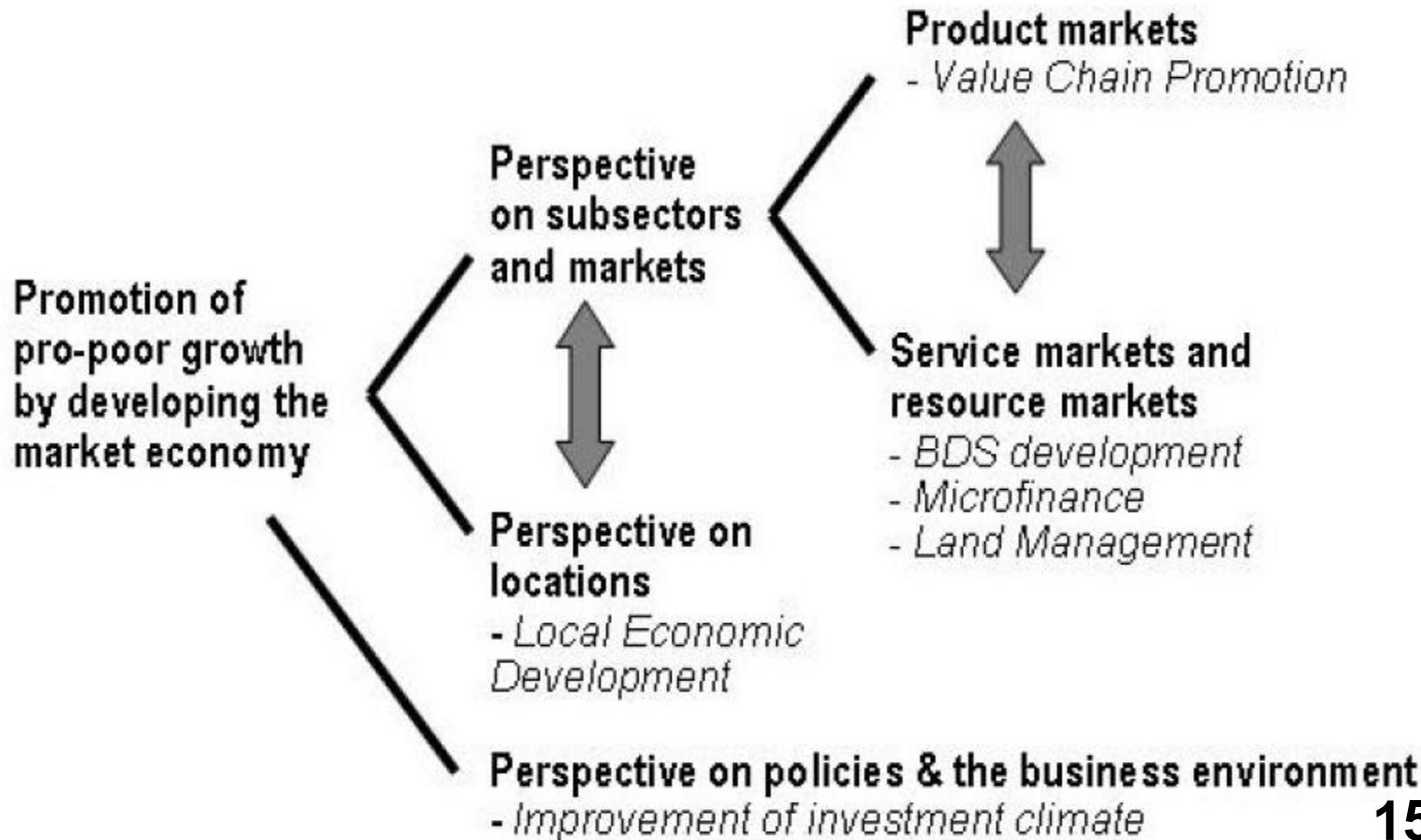
- Poverty is often concentrated at marginal locations, where market access is critically limited – raising marketing costs and preventing investment

- Designing a value chain promotion approach has to take these factors into account

6.2.2. Combining value Chain promotion with other development approaches

Promoting pro-poor growth can take different perspectives depending on the subsystem of the economy that is to be promoted

Perspectives of economic development (bold) and development approaches (italics)



a) Combining value chain promotion with regional economic development

Local and regional economic development

LRED is a strategy to promote local and regional economies.

The main objectives of the LRED approach are to create conducive framework conditions for business at a particular location, removing administrative obstacles, enhancing the competitiveness of the location to attract new investors, and strengthening the local enterprises and business environment.

a) Combining value chain promotion with regional economic development, Ctd...

- ❑ LRED enables the stakeholders of a region to undertake initiatives to jointly promote economic development of their region by establishing linkages between the private and public sectors and the interest groups of the civil society.
- ❑ Local development strategies are based on the region's economic potential, resources and institutional conditions. A related and even more localized concept is "communal

a) Combining value chain promotion with regional economic development, Ctd...

Synergies between spatial and sectoral approaches

A combination of both perspectives may engender important synergies. This synergy can work both ways

Contributions of a spatial development perspective to value chain promotion:

- ✓ Adjustment of location factors to comply with the requirements of value chain development, especially local infrastructure, local administration and public service provision
- ✓ Management of conflicts between competing demands of different chains on local resources (natural resources and scarce factors of production)
- ✓ Working on interrelations and complementarities

a) Combining value chain promotion with regional economic development, Ctd....

Synergies between spatial and sectoral approaches, Ctd...

Contributions of a value chain perspective to local economic development:

- ✓ Strengthening the local economy identifying those sectors of a region that offer the greatest market and development potential
- ✓ Promoting exports from the location working on the competitiveness of producers integrated into national and global value chains
- ✓ Analyzing the value added generated in the region and devising strategies to enhance the share of the region



a) Combining value chain promotion with regional economic development, Ctd....

❑ To fully exploit the potential synergies, development programmes have to coordinate the selection of the regions and of the value chains to be supported. In fact promoting a regional economy without using a value chain perspective to address the local economic potential may not be very effective.

❑ Obviously, the synergy is greatest wherever the final market of a value chain is in the region itself.

In this case, VC promotion refers to local value chains or “local economic clusters” combining

b) Combining value chain promotion with service market development

The development of demand and supply of services to enterprises are key elements of value chain promotion. Although there are many specialized services for particular value chains, the majority of business services support generic production and marketing tasks that cut across subsectors. This is particularly true for financial services.

The development of business services (the “BDS” approach) and the promotion of microfinance systems constitute independent approaches to pro-poor economic Development

Combining value chain promotion with service market development, Ctd...

Development of service markets for the poor

1) Development of business (BDS) service markets

❑ The objective of interventions in Business Development Services (BDS) is to create a functioning market with a diverse array of high-quality services that meet the needs and are affordable to small and medium enterprises (SME). Business Development Services are nonfinancial services critical to the market entry, survival, productivity and growth of SME.

❑ Typical generic BDS include business training and advice, marketing assistance and information

Combining value chain promotion with service market development, Ctd...

2) Development of microfinance systems

- ❑ The microfinance approach aims at setting up and developing financial systems for micro and small enterprises as well as improving the access of the poor to financial services.
- ❑ This includes support of microfinance institutions, of institutions that provide business services for the microfinance sector as well as support to the public sector in developing and implementing policies in the area of microfinance.

Combining value chain promotion with service market development, Ctd...

❑ As for synergies between service development and value chain promotion, the value chain perspective should take precedence, so that service promotion builds on the real demand derived from business opportunities

Contributions of BDS and microfinance approaches to value chain promotion:

- ✓ Developing microfinance institutions serving different value chains at the same time
- ✓ Supporting microfinance services in a systems perspective including policy
- ✓ Developing generic business services needed by and accessible to SME, such as specialized business training and advice

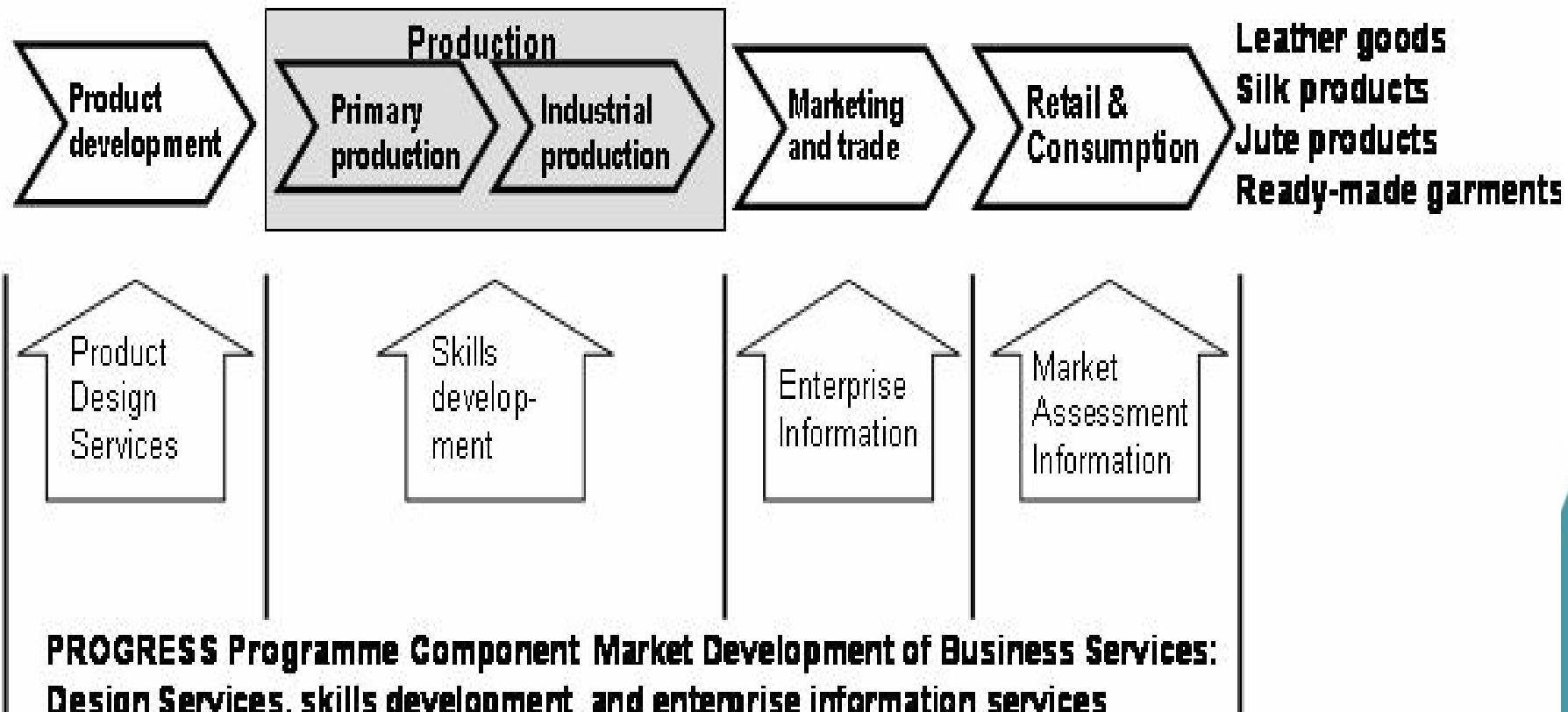
Combining value chain promotion with service market development, Ctd...

Contributions of a value chain perspective to BDS and microfinance approaches:

- ✓ Referring service demand to the potential of end markets for SME and the respective requirements of value chain development
- ✓ Providing the analytical framework for designing embedded service arrangements

Combining value chain promotion with service market development, Ctd...

Example: Combining BDS and the value chain approach in Bangladesh



Chapter 7. Chain empowerment

7.1. Value Chain and Millenium Development Goals

Donors support the value chain approach because they recognize that to reduce poverty and to achieve the Millennium Development Goals, the livelihood issues of the world's rural poor must be addressed. Many donors have shifted their attention towards private-sector implementation of programmes, market-based allocation of resources, and public-private partnerships.

A value chain approach supports several of the Millennium Development Goals:

MDG 1: *Eradicate extreme poverty and hunger*

Strengthening the capacity of smallholder farmers to develop markets increases their share of the value chain and thus improves their livelihoods. Also, it helps them indirectly, by generating employment and creating wealth in rural communities and in the larger economy that can trickle down to the very poor.

Value Chain approach and Millennium Development Goals, Ctd...

MDG 3: *Promote gender equality and empower women*

The majority of farmers are women, though they are typically under-represented in farmer organizations and are poorly served by extension and other services. Value chain interventions typically mainstream gender issues, or include a strong gender component.

MDG 4: *Reduce child mortality*

Reducing child mortality depends on access to nutritious food, which a value chain strategy can increase.

MDG 7: *Ensure environmental sustainability*

Rural people are custodians of much of the world's land and water resources and biodiversity. They are central to achieving this goal.

Value Chain approach and Millennium Development Goals, Ctd...

MDG 8: *Develop a global partnership for development*

Improved market access (especially international trade in agriculture, which remains highly protected) depends directly or indirectly on pro-poor agricultural growth.

7.2. Supply Chain Vs Value Chain

- ❑ A **supply chain** is a set of linkages between actors where there are no binding or sought-after formal or informal relationships, except when the goods, services and financial agreements are actually transacted.
- ❑ A **value chain** is a specific type of supply chain – one where the actors actively seek to support each other so they can increase their efficiency and competitiveness. They invest time, effort and money, and build relationships with other actors to reach a common goal of

7.2. Challenge for smallholder producers

- ❑ The smallholder producers situation is “Cochran’s treadmill” (Cochran 1979): more farmers supply more products into a market where prices are steadily falling, natural resources are being degraded and poorly managed farming systems are spreading into increasingly marginal
- ❑ To address this situation, there is a need to placing more emphasis on enabling farmers to increase their level of competitiveness, to produce for an identified market, rather than trying to sell what they have already produced and also seeking new market opportunities that offer higher levels of

Challenge for smallholder producers, Ctd...

It is a challenge for smallholder farmers, through their organizations, to understand market demand and develop their skills and capital requirements to supply the required volumes of quality product at ~~the right time of the season~~. A group finds it easier than individual farmers to obtain the information that members need to grow for a particular market. At the same time, other chain actors find it more attractive to deal with a group than with numerous small-scale producers.

2) Capital and skills The group can pool their resources, access credit and services to develop the technology and skills needed to produce more sophisticated products. A group is more able than an individual to take risks

Challenge for smallholder producers, Ctd...

3)Volume The group can grow enough produce to meet a buyer's volume requirements. The buyer can deal with the group as a whole rather than with individual farmers.

4)Quality A group can set rules specifying quality standards, and can appoint members to enforce them. The group can access extension and marketing advice that would be impractical to provide to individual farmers. And it is worthwhile paying for certification and inspection procedures so the group can sell produce to high-value export markets.

Challenge for smallholder producers, Ctd...

5) Consistency of supply: A group finds it easier than an individual to ensure a consistent supply of produce in terms of volume and quality.

Group members can organize among themselves to grow crops that mature at staggered times, so ensuring a continuous supply for the buyer. They can pool their resources (or get credit) to acquire the technology they need to force flowering or fruiting, invest in irrigation so they can grow off-season crops, or to store

produce. They can also buy produce from other farmers to cover shortfalls in their own

7.3. Principles of empowering smallholders

Empowerment is vital for sustainability.

✓ **Sustainability:** Successful intervention in a chain involves promoting sustainable business models. This means that the various actors in the chain must all be able to make a sufficient profit.

Equity: Equity means ensuring that the economic gains in value chains are fairly distributed among the various actors. It is necessary to take into consideration aspects such as return on investments and the bargaining power of the various actors. Returns should be proportionate to the level of effort and risk that the actors assume. Smallholder farmers should be treated as rational business people who require empowerment to be able to negotiate a higher economic return.

Principles of empowering smallholders, ctd...

Inclusion and exclusion: Value chain development should not be seen as a social policy to include everyone. It is targeted at particular players – those who have the potential to generate wealth by producing and processing specific products that the market demands.

Gender responsiveness: There is a danger that women and other vulnerable groups are excluded by default from new, potentially profitable opportunities.

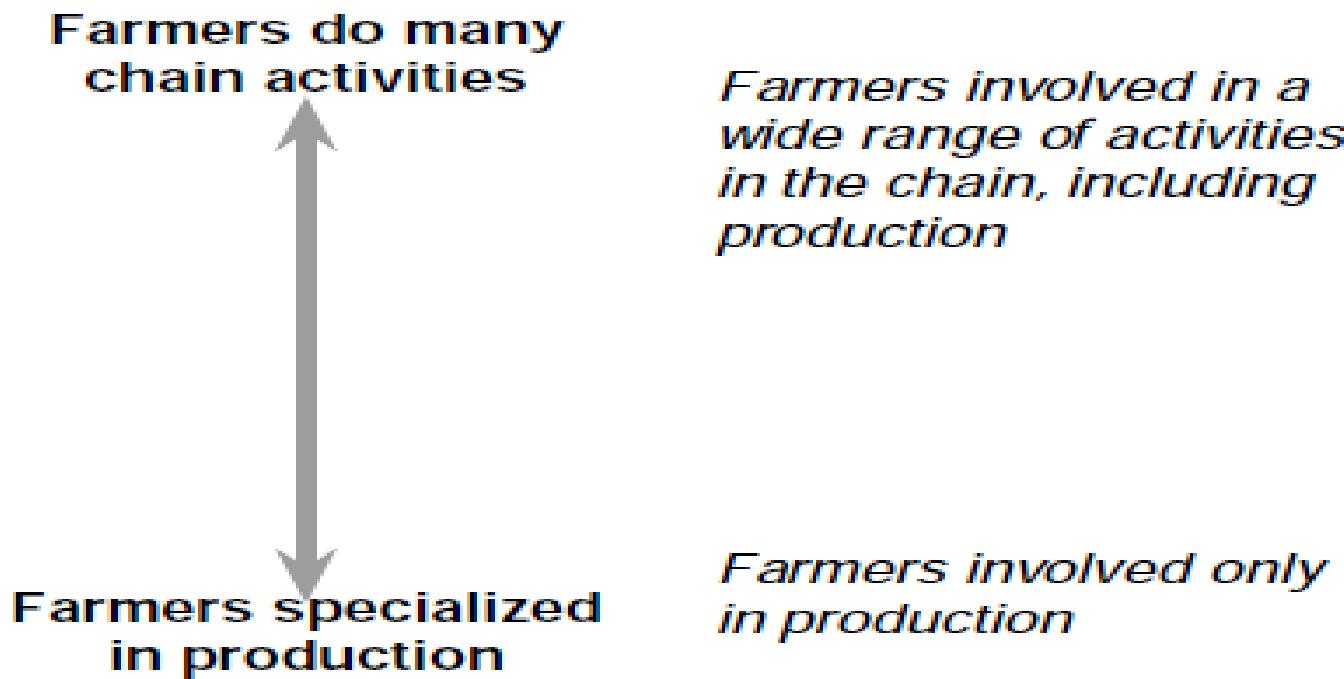
Social responsibility: fairtrade

7.4. Strategies for chain development with small-scale farmers

- ❑ The day-to-day work of supporting the integration of small-scale farmers into supply chains is very practical: it may involve identifying a buyer, solving a quality problem, or improving packaging. But behind these practicalities are more strategic issues. How should the supply chain be designed? Who should do what task? Who should have what skills and capacities? Where should the power lie? What should organizational and institutional arrangements look like?
- ❑ Small-scale farmers can participate in value chains in many different ways. These types of participation can be summarized into two broad dimensions:
 - The types of activities that farmers undertake in the chain
 - The involvement of the farmer in the management of the chain

7.4.1. Activities farmers undertake in the chain

Farmers may concern themselves only with production: they prepare the land, plant the seeds, apply fertilizer, control pests and weeds, and harvest the crop when it is mature. But they may also be involved in other activities – for example, procuring inputs, drying their crop, sorting and grading, processing, transporting and trading. These are the **chain activities**. **Being involved in various activities** in the chain is known as **vertical integration**.



What activities in the chain do the farmers do?

7.4.2. Farmers' involvement in chain management

Farmers may be excluded from any decision making about issues that affect them – even over what crops they grow or what animals they raise. Someone else may make these decisions – then inform the farmers.

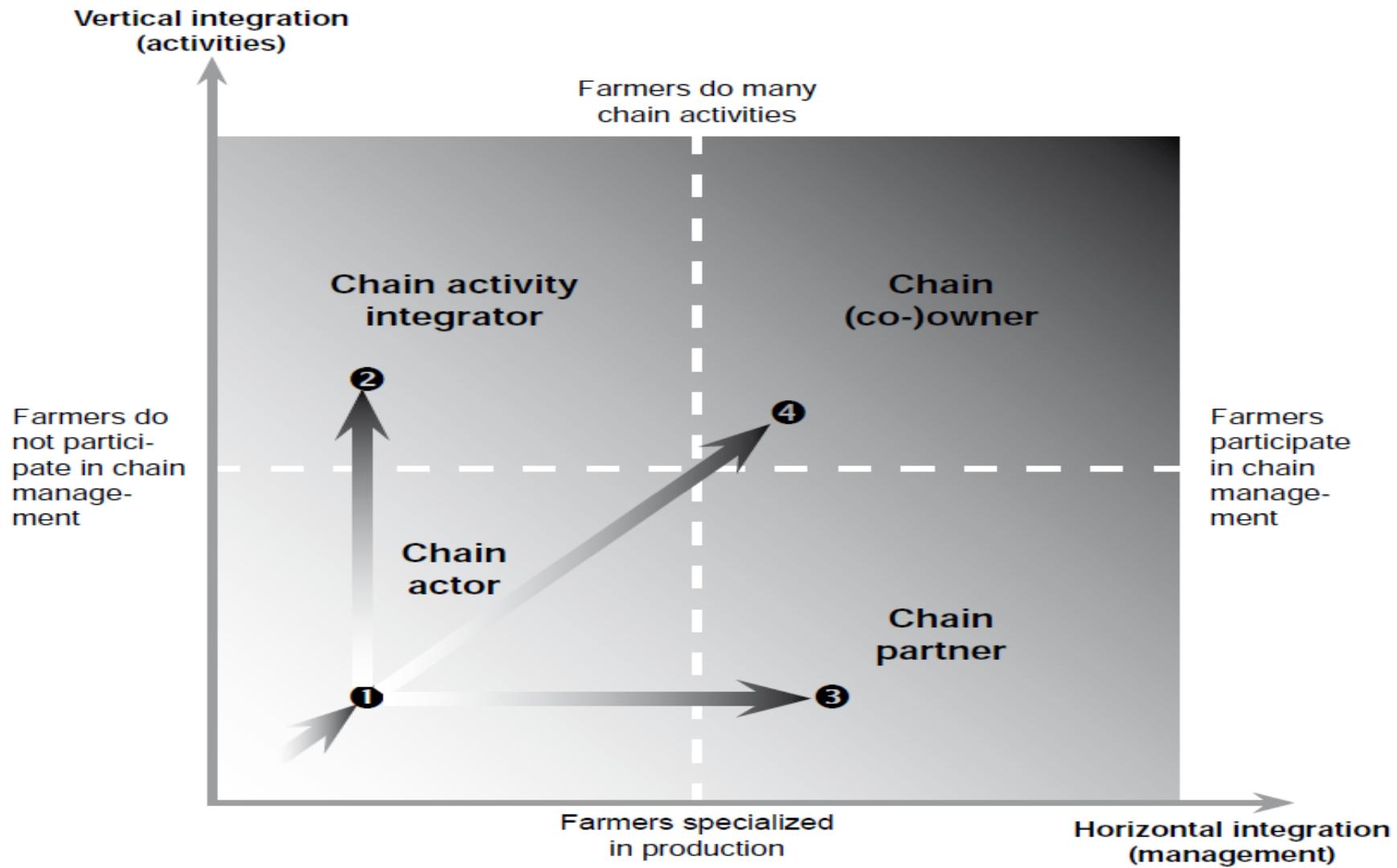
Or the farmers may have a high degree of control over management: they may be able to decide how much they sell, to whom and at what price. They may control the terms of payment, the definition of grades and standards, the targeting of consumers, the management



7.4.3. Chain development matrix

- ❑ The two dimensions refer to the chain: who does what in the chain, and who determines how things are done in the chain?
- ❑ The matrix is a tool for strategic thinking about chain development. It is useful for making sense of reality quickly and sharply.
- ❑ The four quadrants of the matrix are vague, blurred areas, and a farmer can be located anywhere within the large grey rectangle

Chain development matrix, Ctd...



How farmers can improve their position in the chain

Chain development matrix, Ctd...

- ❑ A farmer may start off at the bottom left corner of the rectangle. He begins grading his product. Doing so moves him a little upwards in the rectangle, so increasing his vertical integration (because he adds an activity). He also moves a little to the right, reflecting greater chain management (because he improves quality management). But he remains within the area of the **chain actor (1)**.
- ❑ If the same farmer later starts processing and packaging his product, he may move into the **activity integrator** segment(2).
- ❑ Or he and his neighbors may organize as a group and negotiate deals with traders, input suppliers and credit agencies, and may start working with the local research institute to test new technologies. This would move them into the **chain partner** quadrant (3).
- ❑ A combination of vertical (more activities) and horizontal (more management) movements would push the farmers into the **chain co-ownership** quadrant (4)

Chain development matrix, Ctd...

❑ One danger with a matrix like this is that readers may think that the ideal position for farmers is as a chain co-owner. This is not always true.

The best chain position for the farmer depends on the specific situation, and may change over time. As farmers evolve from chain actors into chain owners, they add “economic rent” to their business (they increase their share of benefits), increase their control over the chain, and protect themselves better from competition.

But this brings with it greater risks and responsibilities, which the farmers should be able and willing to bear. The costs may outweigh the benefits.

7.4. Intervention strategies

- ❑ The matrix shows that pro-farmer chain development is a two-dimensional process. To improve the position of the farmer in the chain, we can either work on chain activities or on chain management, or on both at the same time.
- ❑ Farmers need support to get integrated into the chain, to improve as chain actors, or to move onto another form of chain development – partner, activity integrator, or co-owner.
- ❑ Therefore intervention strategies includes among others:

7.4.1. Vertical Integration

- This tries to increase the number of chain activities the farmer undertakes— from farming into processing, transport, and trading.
- Vertical integration seems the preferred strategy of farmers. They like to “shorten the chain” by cutting out traders or other intermediary agents.
- Adding activities also means adding costs and risks. More importantly, it requires a new set of assets and skills. Some of these are:

Technology, Finance, Human resources, organization.

Vertical Integration, Ctd...

Technology : Identifying and using appropriate technologies for the value adding activities (grading, processing, transport, etc.). These technologies must be well maintained and be kept updated. Technological innovation is a permanent concern

Finance: Securing access to (a) credit or investment in facilities for processing, marketing and distribution, and (b) working capital to run the operations. Reserves must be built up for future investments. Profits must be divided in a rational way between the farmers and the cooperative they are members of. Profits should be paid in accordance with the performance or contribution of each member.

Vertical Integration, Ctd...

Human resources: Building up managerial competence and appropriate human resources to operate these facilities – for example, a specialized marketing manager or quality control staff.

Organization: Making sure that the farmer organization has the organizational discipline to get involved in joint value-adding activities. Farmer-members should adhere to quality standards, delivery procedures, obligations to sell their produce, etc.

7.4.2. Chain management

The return to investments in vertical integration may be disappointing unless due attention is also given to the second dimension of chain development: involving the farmer in chain management.

Some aspects are:

1) Information management:

- ✓ Record keeping of the use of land and farm input
- ✓ Traceability: keeping records to guarantee the buyer on the source of products and farm inputs used
- ✓ Market information: about market prices and trends in the market so that farmers do bargain with buyers

Chain management, Ctd...

2) Quality management : assures that both the product and the production processes satisfy the consumer. Quality increases the attractiveness of farmers as business partners, hence, their bargaining power.

- ✓ Grading : homogeneous quality grades, each with a different price, each for a different market segment
- ✓ Implementation of quality control systems
- ✓ Implementation of quality certification scheme demanded on the market: GAP, HACCP, EUREPGAP

3) Innovation management: formal scientific knowledge will be combined with practical knowledge from the ground. This will not only boost innovation in the chain, but also make the farmers more attractive business partners

Chain management, ctd...

4. Chain cooperation: Cooperation with other chain actors is a skill in itself. It is important to seek cooperation along the chain.

✓ **Chain vision:** Chain cooperation starts with the recognition that the chain actors depend on one another for their business performance. A good chain has synergetic, complementary relations between specialized chain segments.

✓ **Trust building:** Once there is recognition of mutual dependency between two chain segments, then there is a scope for a dialogue around shared interests: trust building, exchanging information and creating shared

visions and later on the dialogue may result in joint action plans to improve the chain to the benefit of all.

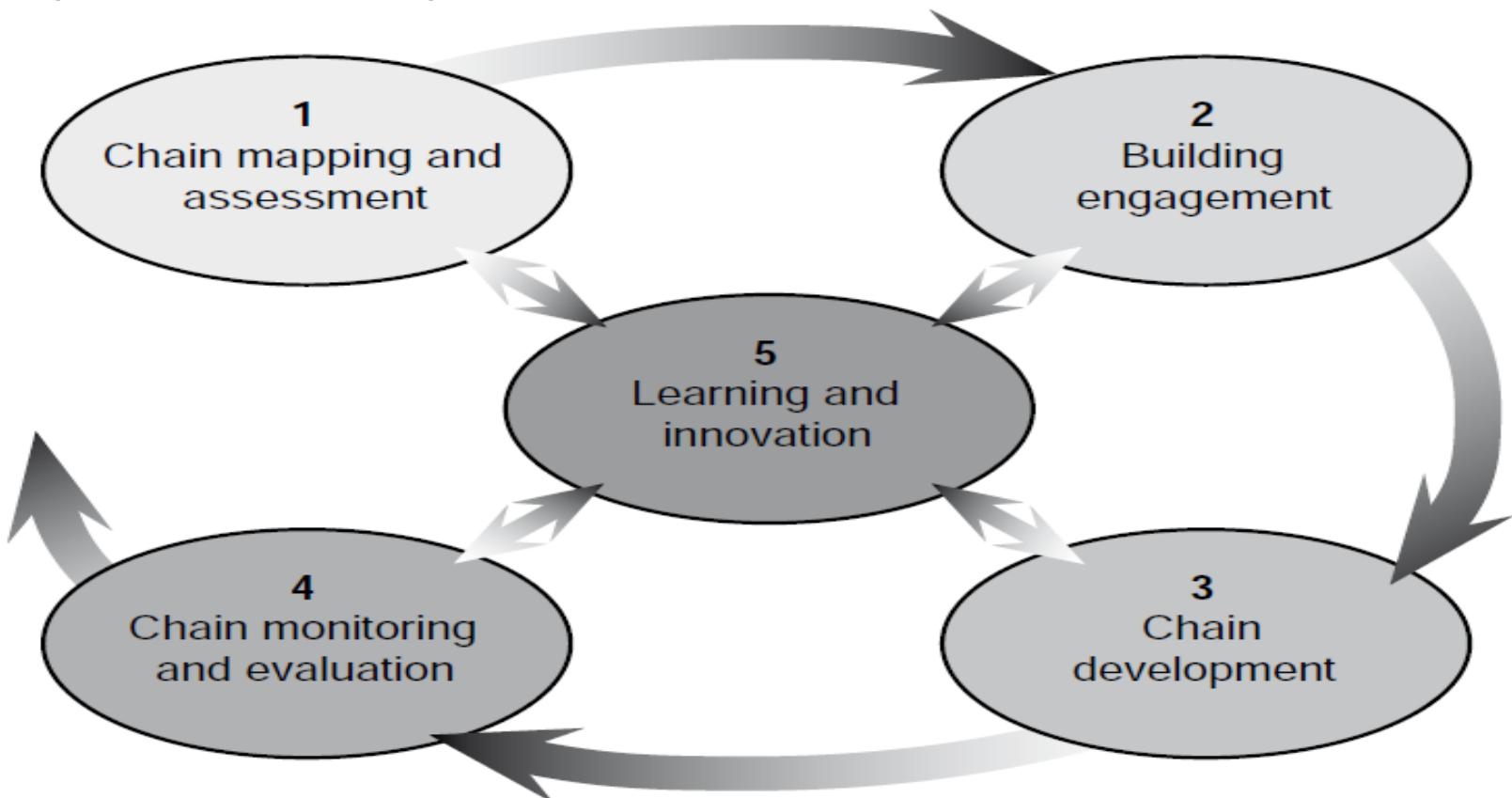
Chain management, ctd...

- ✓ **Joint action plans:** in dialogue with others, the chain actor can identify ambitions(e.g new product development, quality improvement) or identify problems(e.g loss of produce during transportation) that they may tackle together.
- **For such problems or ambitions they can draft a joint action plan, in which each of the parties undertakes certain actions.**
- ✓ **Negotiation** In such dialogue the parties can also structure their negotiations about the transaction conditions (price, quality standards, payment procedures, etc.).

5)Marketing intelligence This involves making sure that the product finds its way into the market. Production processes must be tailored to market demands. There must be knowledge of what the consumer wants. Products should be produced, designed and packaged to attract the preference of

7.4.3. Components of chain interventions

The chain interventions strategies fall into five components or phases:



Components of chain interventions

Components of chain interventions, ctd...

(1) Chain assessment

The first thing to do is to analyze the situation and the goals. This includes:

- Assessing the farmers, their organization, livelihoods, skills, assets and ambitions.
- Mapping the different actors in the chain, and profiling each of them.
- Analyzing the market, trends, prices, comparative advantages, competitors, etc.
- Reviewing the business environment, analyzing stakeholders and the policy environment

Components of chain interventions, ctd...

(2) Building engagement

Any intervention requires engagement from and between farmers, other actors in the chain and the wider (policy) environment. Some elements are:

- ✓ Identifying common and conflicting issues.
- ✓ Identifying chain leaders and facilitators.
- ✓ Strengthening linkages and building trust among chain actors.
- ✓ Developing a joint chain strategy.
- ✓ Learning by doing joint projects and through platform meetings.