Agribusiness Master Class

Foundation Week | Cebu, Philippines

25-29 November 2019

Welcome remarks

Who's who in the zoo?

Lilly Lim-Camacho

About us

- Lilly Lim-Camacho
- Anton Simon Palo
- Tiago Wandschneider
- Oleg Nicetic
- Phil Currey
- Mai Alagcan
- Mara Faylon

About you

- Your name
- Your organisation
- Something about yourself that you'd like this group to remember

The road ahead:
About the AMC

The food system

Food systems encompass the *entire range of actors* and their *interlinked value-adding activities* involved in the production, aggregation, processing, distribution, consumption and disposal of food products that originate from agriculture, forestry or fisheries, and parts of the broader economic, societal and natural *environments in which they are embedded*.

FAO, 2016. Sustainable Food Systems: Concept and framework. Food and Agriculture Organization of the United Nations (FAO), Rome.
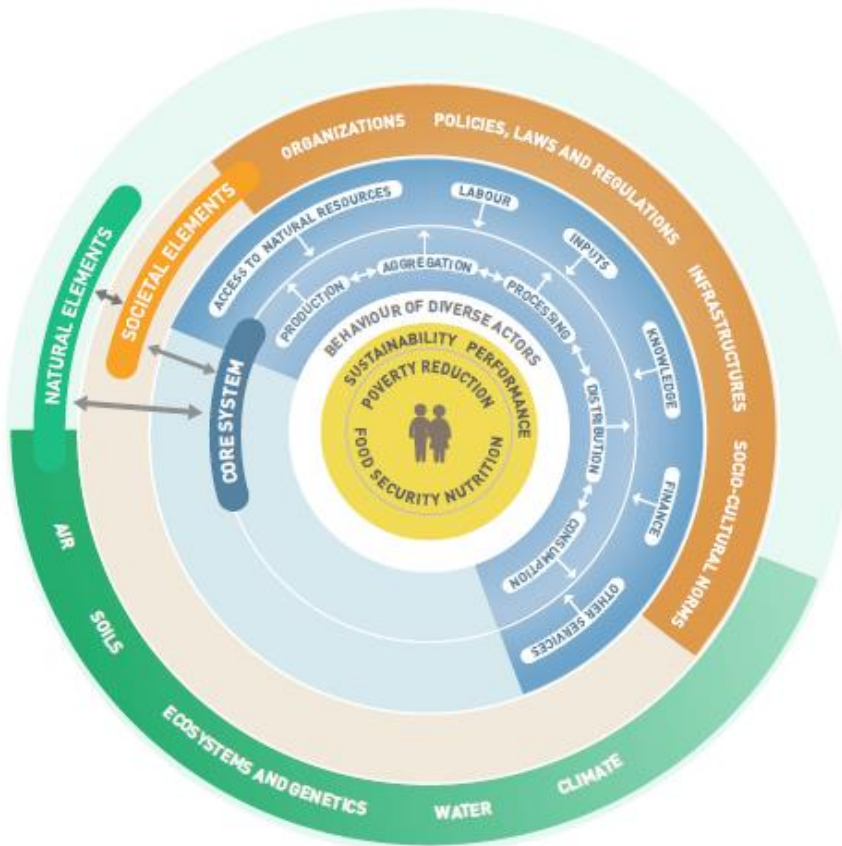
The Food System Wheel: where do you sit?

FAO, 2016. Sustainable Food Systems: Concept and framework. Food and Agriculture Organization of the United Nations (FAO), Rome.

The role of R&D in the food system

- Applied research typically is to underpin positive development – ie research that is designed to have an 'impact'

- Achieving impact requires social change

- To bring about social change, human actors interact through time within a social system

- To achieve impact, research projects need to align with an implicit 'theory' about how desirable social change might occur—a 'theory of change'

![CSIRO logo]

Your AMC Journey

November 2019 - Cebu
Foundation Week

Build on and apply value chain concepts, principles and research tools.

Mini-project

Independently conduct team-based project with support of mentors.

February 2020 - Bulacan
Chain functions and priorities

Delve deeper into how chains work against multiple objectives and drivers.

Mini-project

Progress project with support of mentors.

April 2020 - Davao
Chain interventions

Get equipped on how to develop and evaluate value chain strategies.

Graduation!

Some ground rules

1. Switch off to switch on
2. Peer-to-peer learning
3. Different strokes for different folks
4. Get your hands dirty
5. Move and breathe deeply

Our approach to the week

Day 1

Value chain frameworks & concepts

AM
Introductions

PM
Frameworks

Dinner event

Day 2

Value chain analysis & its tools

AM
Methods

PM
Rapid appraisals; case study

Day 3

Preparing for the field

AM
Markets and field briefing

PM
Preparation and practice

Day 4

Walking the chain

AM
Field visits

Working evening

Day 4

Consolidating insights

AM
Presentations

PM
Mini-projects

An introduction to value chains

Tiago Wandschneider

An Introduction to Value Chains

Learning Outcomes

By the end of this session, you should have
a good understanding of:

- The concept (and some key features) of value chains

- The concept (and some key features) of supply chains

- The concept of inclusive value chain

- Value chain research frameworks

- Purposes/uses of value chain research

Structure of the Presentation

I. Supply chains versus value chains

II. Inclusive chains

III. Value chain research frameworks

IV. Purposes and uses of value chain research

I. Supply Chains versus Value Chains

Introduction

Development practitioners often use the term <u>value chain</u> to refer to various types of production and marketing systems. In this Master Class the term value chain is also applied indiscriminately.

In the academic literature, however, <u>value chains</u> are a specific type of agrifood chain. They are fundamentally different from <u>supply chains</u>.

What is your understanding of a *value chain*?

How does it differ from a *supply chain*?

What is a supply chain?

Full range of activities required to bring a product (or service) from conception through the different production phases to delivery to final consumers and disposal after use

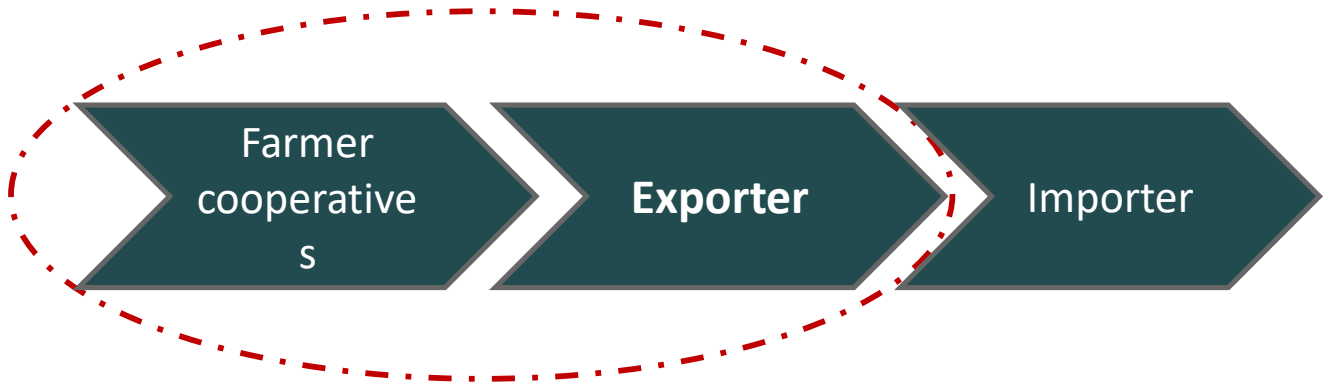| input supply | farm production | assembly | processing | wholesaling | retailing |

What is a Value Chain?

Vertical alliance or strategic vertical network involving a number of independent enterprises, focused on the development of competitive advantages and value creation

Farmer cooperatives → **Exporter** → Importer

	Supply chain	**Value chain**
Market structure	Atomistic Traditional markets	Presence of lead firms Modern markets
Coordination	Opportunistic, spot market transactions	Long-term, contract-based relationships
Primary focus	Cost/price	Value/quality
Orientation	Commodity	Differentiated product
Power relationship	Supply push	Demand pull
Organizational structure	Independent	Inter-dependent
Philosophy	Self-optimization	Chain optimization
Information sharing	Limited	Extensive

Please discuss the following statements:

"Supply chains are shaped by demand and the needs of buyers and consumers"

"In supply chains, value is created as the product moves from the farm to the end consumer"

"Trust is a key element in many supply chains"

II. Inclusive Value Chains

What is an inclusive agricultural value chain?

Some possible definitions...

Value chains are inclusive when they offer opportunities for social and economic empowerment of disadvantaged groups (e.g. landless, marginal farmers, smallholder farmers, women, ethnic minorities, low castes) participating as producers, sellers, labourers and consumers.

Some possible definitions…

Inclusive value chains engage the poor as employees, suppliers, distributors or consumers, and expand their economic opportunities in a variety of ways.

What factors should be considered when assessing the level of inclusiveness of a value chain?

Please discuss the following statement:

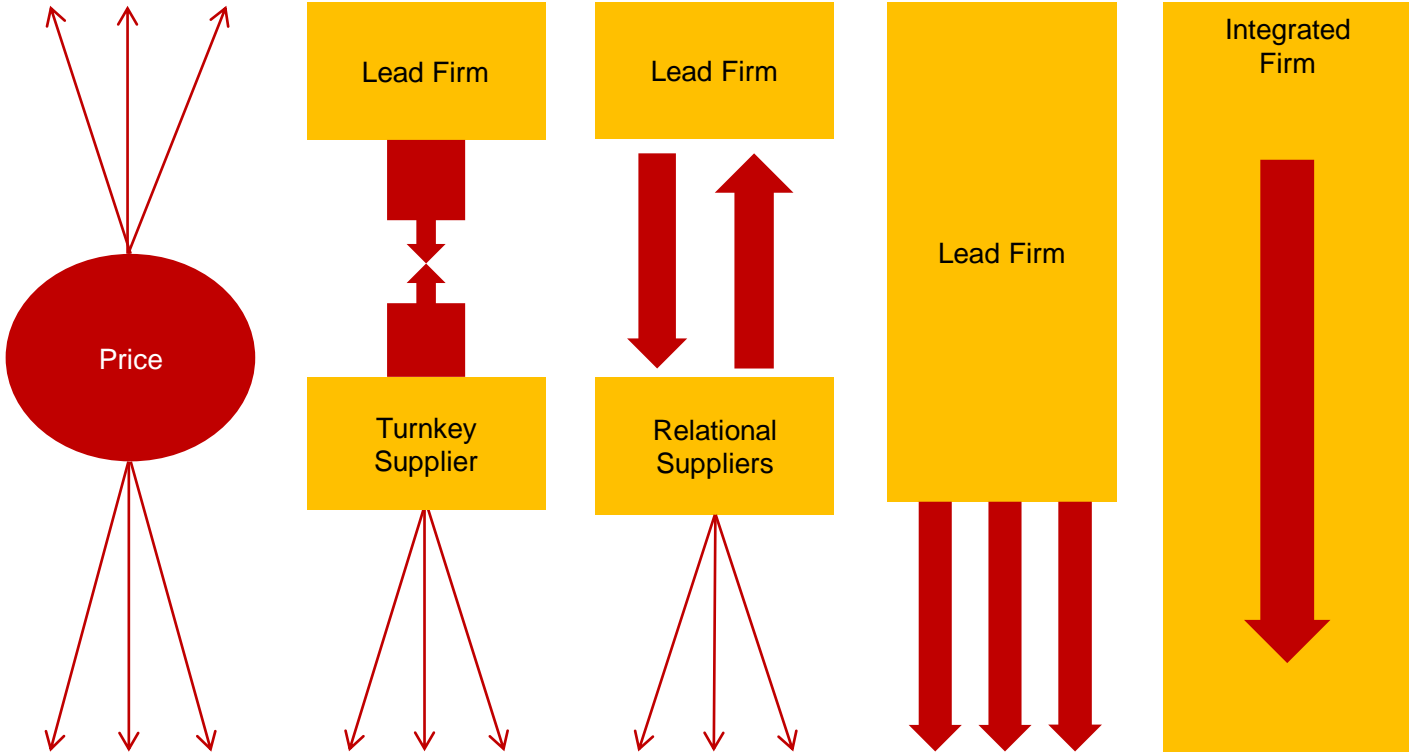"Employment and consumption are often neglected as important dimensions of inclusive value chains"

Rank the following four agricultural value chains
in the Philippines in terms of inclusiveness
and justify your assessment:

- Mango

- Banana

- Coconuts

- Vegetables

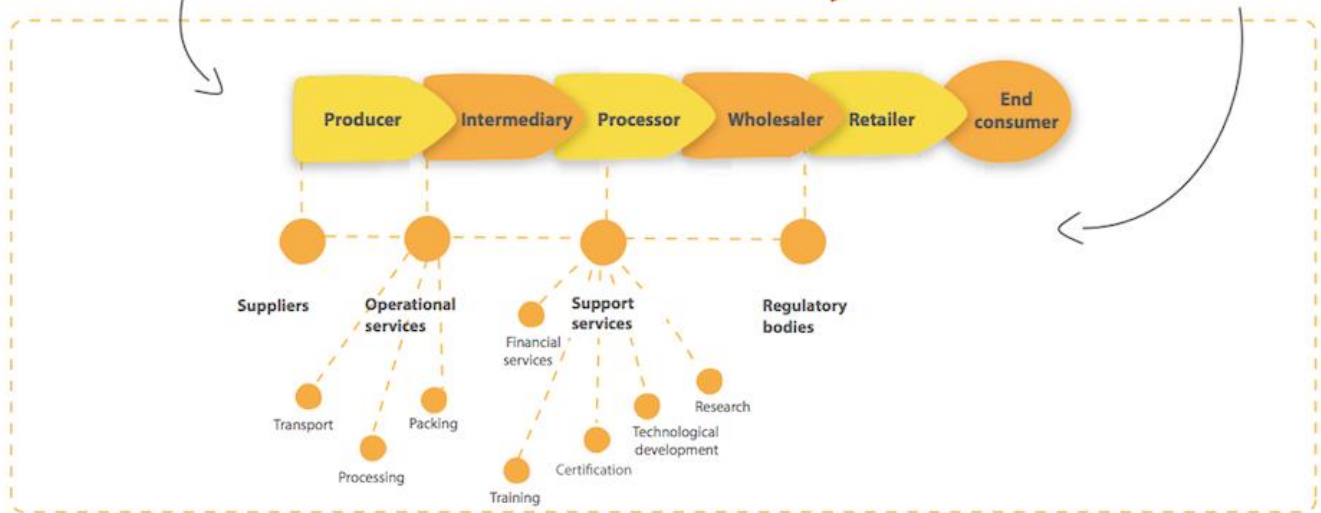# III. Value Chain Research Frameworks

Some value chain research frameworks...

DIRECT ACTORS
Who are they?
What roles do they play?

Economic forces

Legal/political forces

INDIRECT ACTORS
Who are they?
How do they support (or not support) direct actors?

Producer — Intermediary — Processor — Wholesaler — Retailer — End consumer

Suppliers — Operational services — Support services — Regulatory bodies

Financial services

Transport — Packing — Processing — Training — Certification — Technological development — Research

Environmental forces

Technological forces

Socio-cultural forces
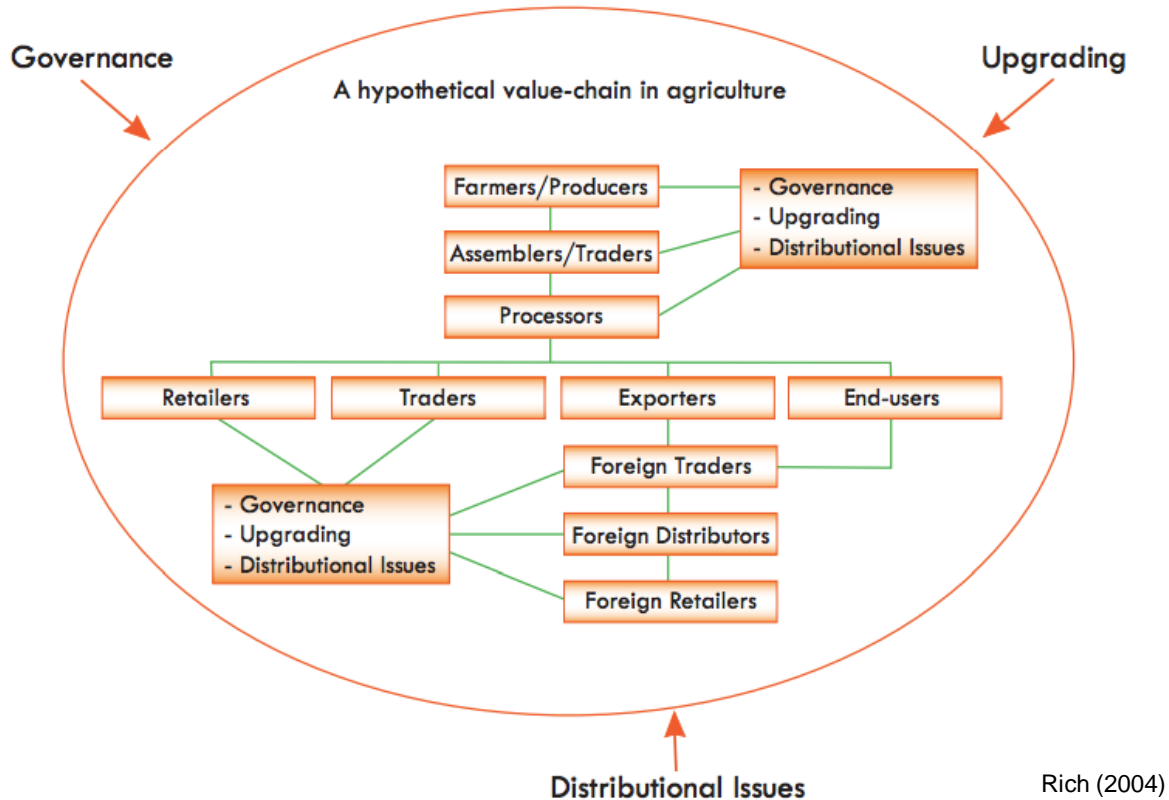
EXTERNAL INFLUENCES
Within what context does the value chain operate?

Lundy, M. et al (2014)

Some value chain research frameworks…

A hypothetical value-chain in agriculture

Rich (2004)

Some value chain research frameworks...

The Springfield Centre (2015)

Conceptualising value chains
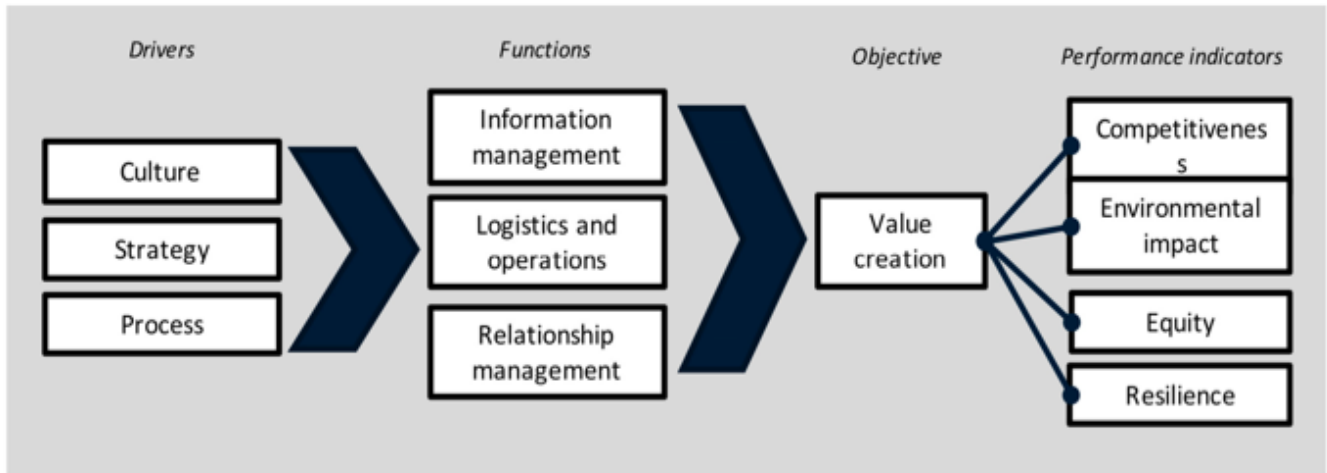
Value chain studies can have different purposes and uses.

What has been your experience?

Please explain the purpose of previous value chain studies you have been involved in…

Purposes of value chain research

Research for development perspective (R4D)	▪ Identify chain development and upgrading interventions ▪ Assess the *feasibility*, *sustainability*, *replicability* and *outreach* of different chain innovations and models
Development perspective	▪ Identify chain innovations with development impact potential ▪ Design appropriate chain development strategies and interventions ▪ Develop a baseline; assess intervention outcomes and impacts
Private sector perspective	• Understand competition, market segmentation, and consumer preferences • Develop procurement models and marketing strategies (4 Ps)

Some Reading material

Devaux, A., Torero, M., Donovan, J. and D. Horton (2016) *Innovation for inclusive value-chain development: Successes and challenges*, Synopsis, April 2016, International Food Policy Research Institute.

http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/130282/filename/130493.pdf

Hobbs, J. E., Cooney, A. and (2000) *Value chains in the agri-food sector: What are they? How do they work? Are they for me?*, Department of Agricultural Economics, University of Saskatchewan, September 2000.

Lundy, M., Amrein, A., Hurtado, J.J., Becx, J.,Zamierowski, N., Rodriguez, F. and E.E. Mosquera (2014) *Link methodology: a participatory guide to business models that link smallholder farmers to markets, Version 2.0*. Cali, Colombia: International Center for Tropical Agriculture.

https://www.cgspace.cgiar.org/handle/10568/49606

Frameworks for selecting value chains for analysis

Tiago Wandschneider

Selection of Value Chains for In-depth Analysis and Intervention

Learning objectives

By the end of this session, you should have a good understanding of the <u>rationale</u> and <u>methodology</u> for prioritising value chains for further analysis and possible intervention.

Discussion

1. Have you ever participated in a value chain study or value chain intervention?

2. What were the value chains?

3. How and why were these chains selected?

Purpose of value chain selection processes

To target value chains with greatest potential to meet the objectives of the organisations or projects involved

Four-step process

Step 1: Identify a list of potential products / value chains

Step 2: Choose relevant value chain selection criteria

Step 3: Assign weights to each criterion

Step 4: Score value chains against selection criteria

Step 1

Step 1: Identify a list of potential products / value chains

Step 2: Choose relevant value chain selection criteria

Step 3: Assign weights to each criterion

Step 4: Score value chains against selection criteria

- Commodities that are already produced in the country or region

- Commodities that are not yet produced but have potential in terms of local agro-climatic conditions, market opportunities and benefit to target groups

Participation

- Key <u>stakeholders and informants</u> can be involved in the development of the list of potential products or value chains (e.g. in a chain selection workshop).

- Participants may come from the farming and agribusiness sectors, academia, research centers, national and local government agencies, donor agencies, NGOS, or projects.

Step 2

Step 1: Identify a list of potential products / value chains

Step 2: Choose relevant value chain selection criteria

Step 3: Assign weights to each criterion

Step 4: Score value chains against selection criteria

- <u>Quantitative and/or qualitative criteria</u> against which different options can be evaluated and scored must be identified.

- The chosen criteria should provide a suitable framework for selecting the <u>most promising chains</u> for achieving organisational or project goals and priorities.

Common value chain evaluation dimensions

1. Chain relevance to target groups

2. Market size and growth

3. Competitiveness of target groups

4. Chain upgrading opportunities

5. <u>Presence of lead firms</u>

6. Environmental sustainability

7. <u>Research interests</u>

8. (…)

Number of criteria

Working with a relatively small number of criteria will reduce data requirements and ensure that key criteria have sufficient weight in the final choice of value chains.

Quantitative criteria

The indicators for different criteria should ideally be measurable or objectively assessable
(e.g. number of people, contribution to household income, market size, five-year growth, etc).

This will strengthen the rigor of scoring and analysis, reduce subjective assessments, and enable better comparison between value chains.

A framework for selection of inclusive value chains with some quantitative criteria

Dimension	Criteria
1. Relevance to target groups	1.1 Number of women and men from target groups involved in the chain (self- and wage employment)
	1.2 Chain contribution to the incomes and livelihoods of target groups
2. Market size and growth	2.1. Market size
	2.2. Market growth (last 5 years)
3. Competitiveness of target groups	3.1. Agro-climatic suitability and feasibility
	3.2 Share of domestic and export market supplied by domestic producers and by target groups (last 5 years)
	3.3 Enterprise-level ability to compete on unit costs, price, quality, integrity, provenance or other product attributes
4 Chain upgrading	4.1. Opportunities to increase profitability and net income through technical, process, linkage or product innovations
	4.2. Opportunities for inclusive agribusiness-led development and scaling
	4.3. Likelihood of innovation, adoption and practice change by target group or sub-group
5 Other possible criteria (depending on context and purpose)	5.1. Environmental sustainability (risks and opportunities)
	5.2. Alignment with government strategies and priorities
	5.3. Policy risks and opportunities
	(…)

Discussion

1. Please identify in the previous example the criteria that can be more easily quantified?

2. For each of these criteria, do you anticipate any challenges accessing the data?

Qualitative criteria

Where qualitative indicators are used, scoring guidelines should be developed to ensure a level of consistency in the assessment of different value chains.

Guiding questions can be used, either as selection criteria or under different criteria.

A qualitative framework for prioritisation of value chains for women's empowerment

Relevance
    a. Do (or could) target women exist in significant numbers in the proposed sub-sectors?
    b. What are the trends around women's engagement in or benefit from the selected sub-sectors?

Opportunity
    a. Do the proposed sub-sectors have potential to grow, become more efficient or reach higher value markets and therefore offer economic opportunity?
    b. Will the targeted women be able to take advantage of the identified economic opportunities through upgrading their current roles or taking on new roles (as suppliers, employees or service providers)?
    c. Are there other benefits to women such as access to a new product or service?

Feasibility
    a. Can the project effect sustainable change in the market system that will continue to benefit women or ethnic minority groups?
    b. Are enabling environment factors such that they will either support, or at the very least not inhibit, the project from moving forward?
    c. Are there any social norms that will make the targeting or integration of women too difficult to justify the project investment at this point in time (low return on resources)?

Source: Jones, L. (2016) Women's Empowerment and Market Systems: Concepts, practical guidance and tools (WEAMS Framework). https://www.beamexchange.org.

A qualitative framework for selection of pro-poor value chains in Indonesia

1. *Poverty alleviation and sustainability of the economic activity*
   - Is there potential to reach large numbers of poor households in production and post-production?
   - What is the potential to sustainably increase producer incomes?
   - Does the chain/commodity fit with the focus of Government programs and priorities?
   - How project-crowded is the sector? To what extent are sector needs addressed by current donors?
   - What is the agro-ecological feasibility of the commodity?
   - Is the commodity environmentally sustainable?
   - External risks

2. *Chain structure*
   - Is there potential for production/post-harvest value addition?
   - What is the potential for improving market access?
   - What is the scalability and transferability potential?
   - Is there sufficient infrastructure available?

Source: Australian Centre for International Agricultural Research (ACIAR) - Eastern Indonesia Agribusiness Development Opportunities (EI-ADO).
https://eiado.aciar.gov.au/commodity-selection/commodity-prioritisation.

Discussion

In the two previous examples, do you see any scope for using quantitative data?

Participation

Involvement of key <u>stakeholders</u> in the choice of criteria (e.g. in a chain selection workshop) will help build a common understanding and consensus around chain selection results.

The influence of contextual factors

Ultimately, the choice of criteria will be determined by political and institutional factors, the specific purpose and focus of value chain assessments, and the thinking and views of those involved.

These factors explain why value chain selection criteria may differ considerably across organizations and projects.

Step 3

Step 1: Identify a list of potential products / value chains

Step 2: Choose relevant value chain selection criteria

Step 3: Assign weights to each criterion

Step 4: Score value chains against selection criteria

More important criteria should have greater influence in the ranking and selection of value chains

Assign weights to the different criteria to reflect their relative importance

Types of weighting

Simple numeric
(e.g. 1, 2, 3 or 4)

The relative importance of criteria is in direct proportion to the numeric weighting

Proportional
(sum of weights = 100)

The relative importance of criteria is reflected in the proportion assigned to it

Proportional weighting for gender-sensitive selection of value chains in Albania (FAO)

Criteria	Weight
Market demand and potential • Importance of the sub-sector to regional development • Evidence of high market potential or strong effective demand • Positive growth prospects and opportunities for income and employment • Assumed (potential) competitive advantage of a sub-sector in relation to the regional, national and international market	20%
Outreach • Number or significance of SMEs in the sub-sector and their distribution along the value chain • Estimated employment in the sub-sector (disaggregated by sex) • Location of major clusters in the area	20%
National priority ranking • Government priority sector • Potential demonstration effects, assumed spill-over effects, repeatability in other sub-sectors	10%
Opportunities for intervention • Existence of constraints/bottlenecks that could potentially be tackled in an efficient way • Ease of entry and openness of key actors (private and public sectors) to cooperation • Likelihood of stakeholder buy-in and active support to interventions	25%
Relevance for women's empowerment and cross-cutting issues • Location of women's cluster in the area • Likely high impact on poverty or socially excluded groups • Likelihood of opportunities for women's economic empowerment • Potential do add value to agricultural or other product • Opportunities for networking • Opportunities for diversification	25%

http://www.fao.org/3/I8909EN/i8909en.pdf

Proportional weighting for selection of pro-poor value chains in eastern Indonesia

Criteria	Weight
Poverty reduction and sustainability of the economic activity	*60%*
Is there potential to reach large numbers of poor households in production and post-production?	30%
What is the potential to sustainably increase producer incomes?	30%
Does the chain/commodity fit with the focus of Government programs and priorities?	10%
How project-crowded is the sector? To what extent are sector needs addressed by current donors?	5%
What is the agro-ecological feasibility of the commodity?	10%
Is the commodity environmentally sustainable?	10%
External risks	5%
Chain structure	*40%*
Is there potential for production/post-harvest value addition?	30%
What is the potential for improving market access?	30%
What is the scalability and transferability potential?	25%
Is there sufficient infrastructure available?	15%

https://eiado.aciar.gov.au/commodity-selection/commodity-prioritisation.

Step 4

Step 1: Identify a list of potential products / value chains

Step 2: Choose relevant value chain selection criteria

Step 3: Assign weights to each criterion

Step 4: Score value chains against selection criteria

1. Evaluate how well value chains match selection criteria

(1-5 is a common scoring scale)

2. Multiply scores by weights

3. Rank value chains according to total scores (sum or average of individual scores)

Value chain scoring matrix

Criteria	Weights	Value Chain 1	Value Chain 2	Value Chain 3	(…)
Criteria 1					
Criteria 2					
Criteria 3					
Criteria 4					
(…)					
Total score (Sum or average)					

Scoring of value chains in Albania (FAO)

	Weight (%)	Medicinal and aromatic plants	Beekeeping	Traditional and gourmet food	Rural and agro tourism	Trout and aquaculture	Olive oil and soap	Handicrafts (organic wool)	Dairy
Market demand and potential	20	5	5	4	4	4	3	2	3
Outreach	20	5	4	3	3	3	4	2	4
National priority ranking	10	5	3	3	4	4	4	2	3
Opportunities for intervention	25	5	5	4	2	2	2	3	2
Relevance for women's empowerment	25	4	3	5	3	2	2	4	2
Total	100	**4.8**	**4.1**	**4**	3.1	2.8	2.8	2.8	2.7

http://www.fao.org/3/I8909EN/i8909en.pdf

Scoring of pro-poor value chains in eastern Indonesia (ACIAR)

Scoring of pro-poor value chains in eastern Indonesia (ACIAR)

Initial identification of 32 commodities

Reference Group selected 16 commodities

Consultation of Provincial and Reference Group for commodity prioritization criteria

Selection of 5 priority commodities for detailed chain studies

Criteria	Weighting	Rationale
Poverty alleviation and sustainability of the economic activity	60%	
1. Is there potential to reach large numbers of poor households in production and post-production?	30%	AIPD Rural goal to reach one million poor male and female producers in EJ, NTT and NTB over 10 years
2. What is the potential to sustainably increase income for producers?	30%	AIPD Rural goal is to increase incomes of poor male and female producers by 30% over 10 years
3. Does the chain/commodity fit with the focus of Government programs and priorities?	10%	AIPD Rural goal is to collaborate closely with Government of Indonesia's priorities and programs
4. How project-crowded is the sector? To what extent are sector needs addressed by current donors?	5%	Aims not to compete or duplicate, but to complement existing initiatives
5. What is the agro-ecological feasibility?	10%	The commodity should be well suited to the biophysical constraints of East Java, NTT and NTB
6. Is it environmentally sustainable?	10%	To assure project sustainability
7. External risks	5%	To assure project sustainability
Structure of the value chain	40%	
1. Is there potential for post-harvest productivity/ value-added?	30%	AIPD Rural supports better access to input and output markets
2. What is the potential for improving market access?	30%	AIPD Rural supports better access to input and output markets
3. What is the scalability and transferability potential?	25%	To ensure lessons learned from the study be up-scaled to the national level and the lessons learned transferable to other sectors
4. Is there sufficient infrastructure availability?	15%	To assure project feasibility

Scoring of pro-poor value chains in eastern Indonesia (ACIAR)
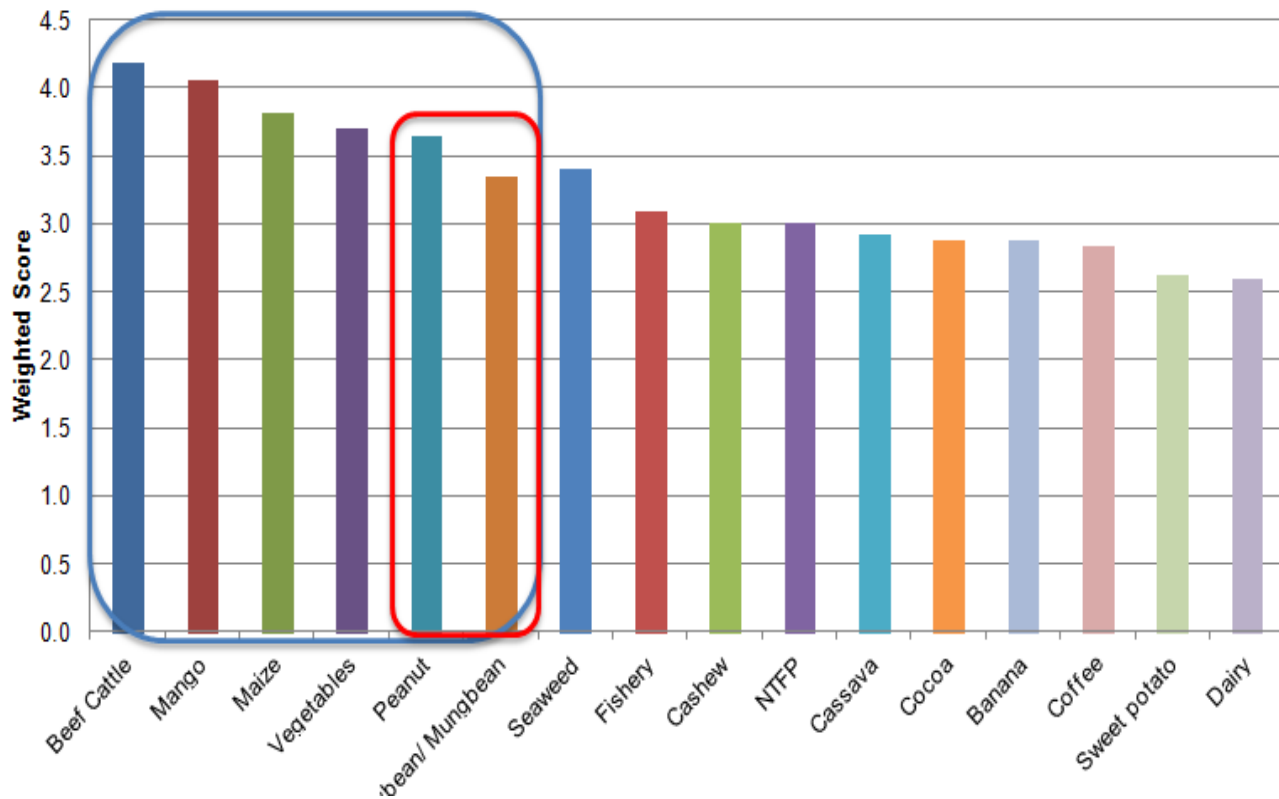
Data collection options for evidence-based selection of value chains

- Review of secondary data and information

- Key informant interviews for additional (primary) information and insights (depending on resources and time)

Approaches to stakeholder involvement during scoring

Option 1: Involve stakeholders after the data has been collected and analyzed, for validation of chain scores and ranking.

Option 2: Base the whole exercise on the knowledge and views of a group of key informants and stakeholders, who come together to score and rank the value chains.

Option 2 is less rigorous but quicker, cheaper and more conducive to stakeholder involvement than a more data-driven approach.

Group exercise

Score the mango and banana chains in the Philippines (1 to 5) in terms of:

i) market size and growth

ii) chain development nd upgrading opportunities and

iii) environmental sustainability.

Some Reading material

M4P Toolbook

Agri-ProFocus (2014) Gender in Value Chains – Practical toolkit to integrate a gender perspective in agricultural value chain development. https://agriprofocus.com/upload/ToolkitENGender_in_Value_ChainsJan2014compressed1415203230.pdf

Jones, L. (2016) Women's Empowerment and Market Systems: Concepts, practical guidance and tools (WEAMS Framework). https://www.beamexchange.org.

Schneemann, J. and T. Vredeveld (2015) Guidelines for value chain selection: Integrating economic, environmental, social and institutional criteria. Study commissioned by GIZ. https://www.giz.de/fachexpertise/downloads/giz2015-en-guidelines-value-chain-selection.pdf

USAID MARKETLINKS, Value Chain Selection. https://www.marketlinks.org/good-practice-center/value-chain-wiki/value-chain-selection

Value chain mapping

Lilly Lim-Camacho

Why is chain visualisation important?

- Value chain maps provide a schematic snapshot of the key value chain actors and the existing structure of raw material, product and information flows at a given point in time. (Haggblade et al., 2012)

- A common objective of VCA is to describe how a chain works – mainly because it is something that is not well understood

- Mapping can assist in defining the scope of VCA

- Mapping a chain, often diagrammatically, is an accessible way to communicate the structure of a chain.

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Disadvantages of mapping

- They can be too complex
- They can be too simple
- They can be considered as The Truth
- They can't really convey how the chain works in reality
- It is often merely snapshot of a certain point in time

But, mapping a chain is a great way to start the conversation about chains.
A map is a powerful boundary object.

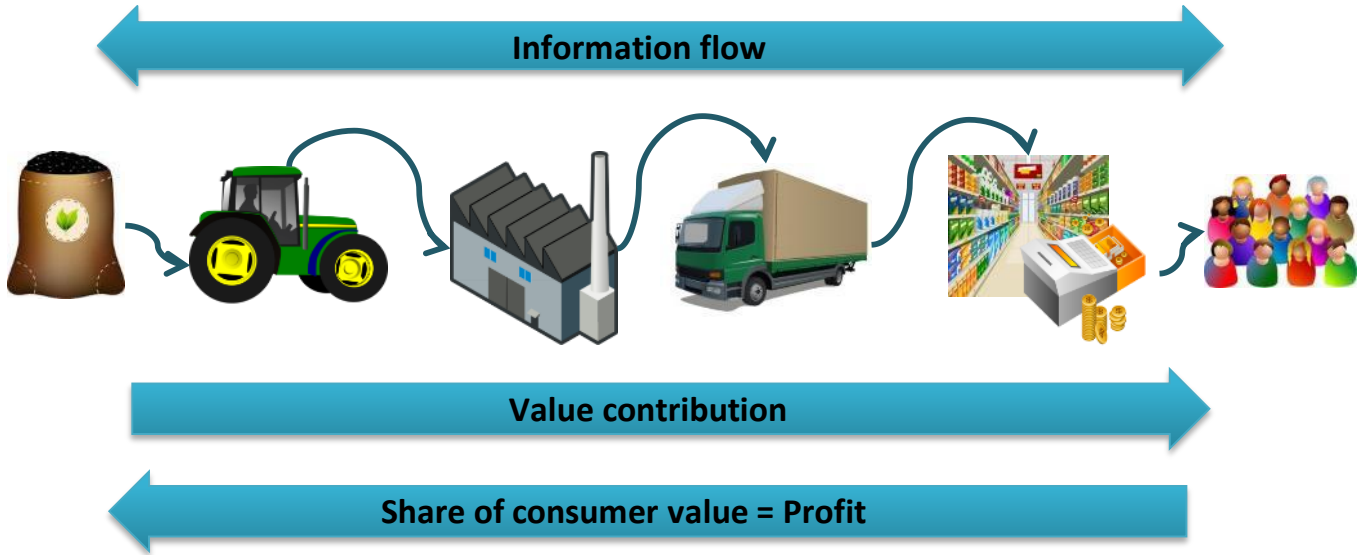# The concept of chains
Structure

Other input suppliers
Finance
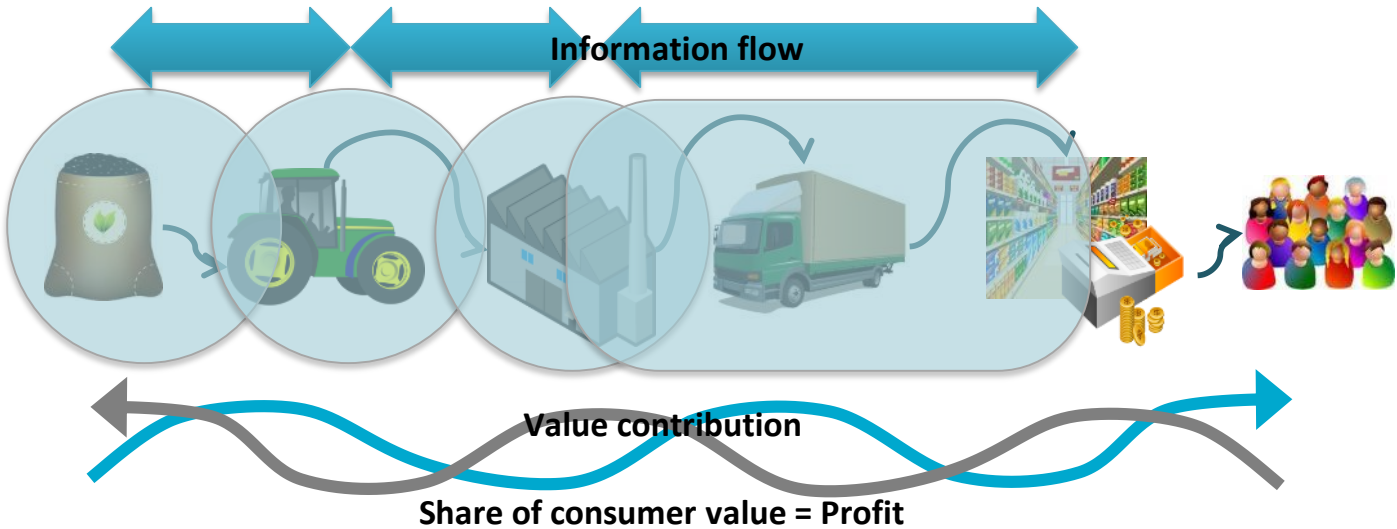Governance and regulatory structures
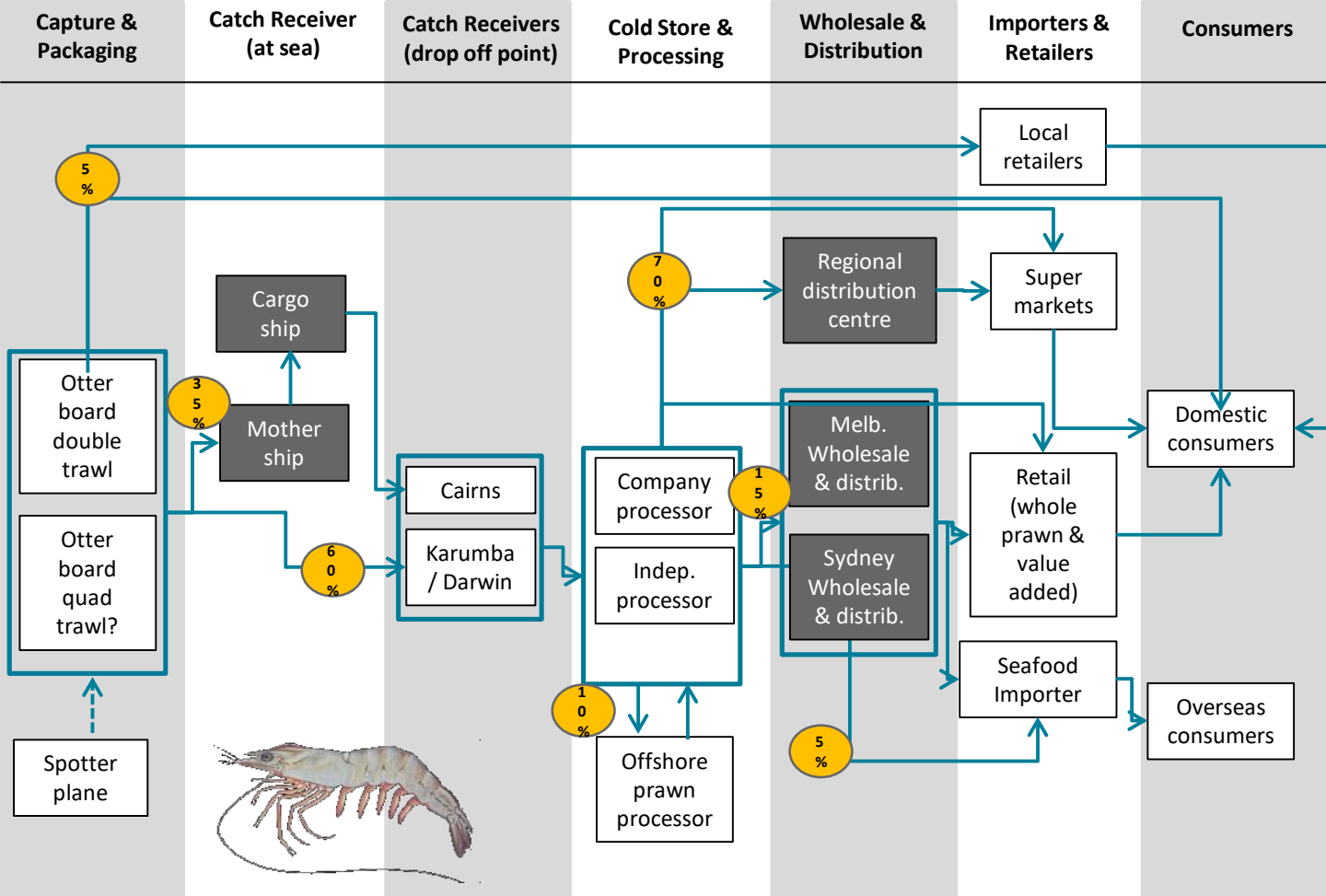Industry associations and services

The concept of chains
Flows

Information flow

Value contribution
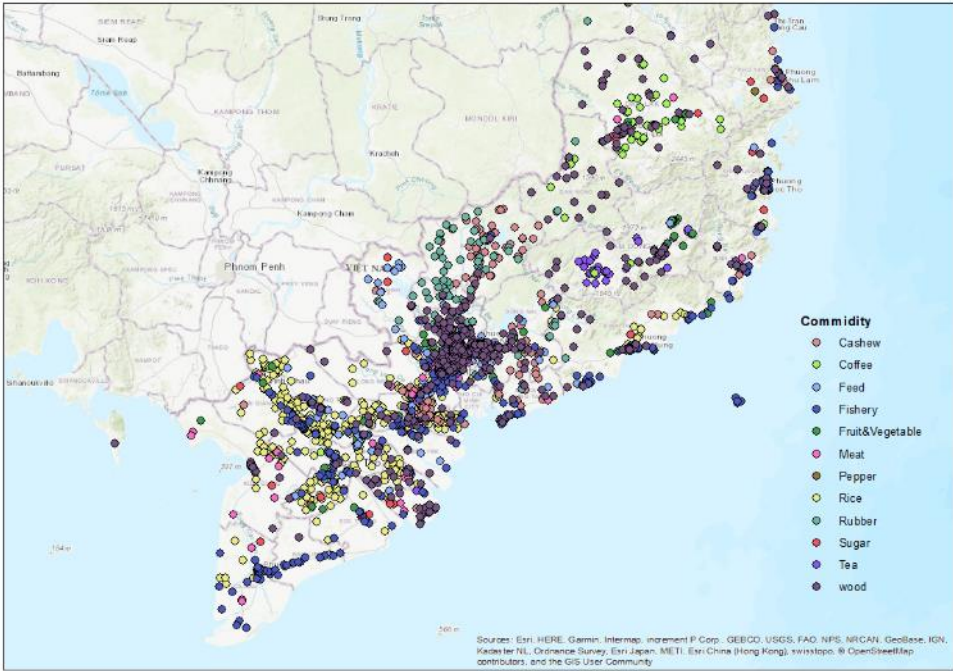
Share of consumer value = Profit

The concept of chains
Relationships

Information flow

Value contribution

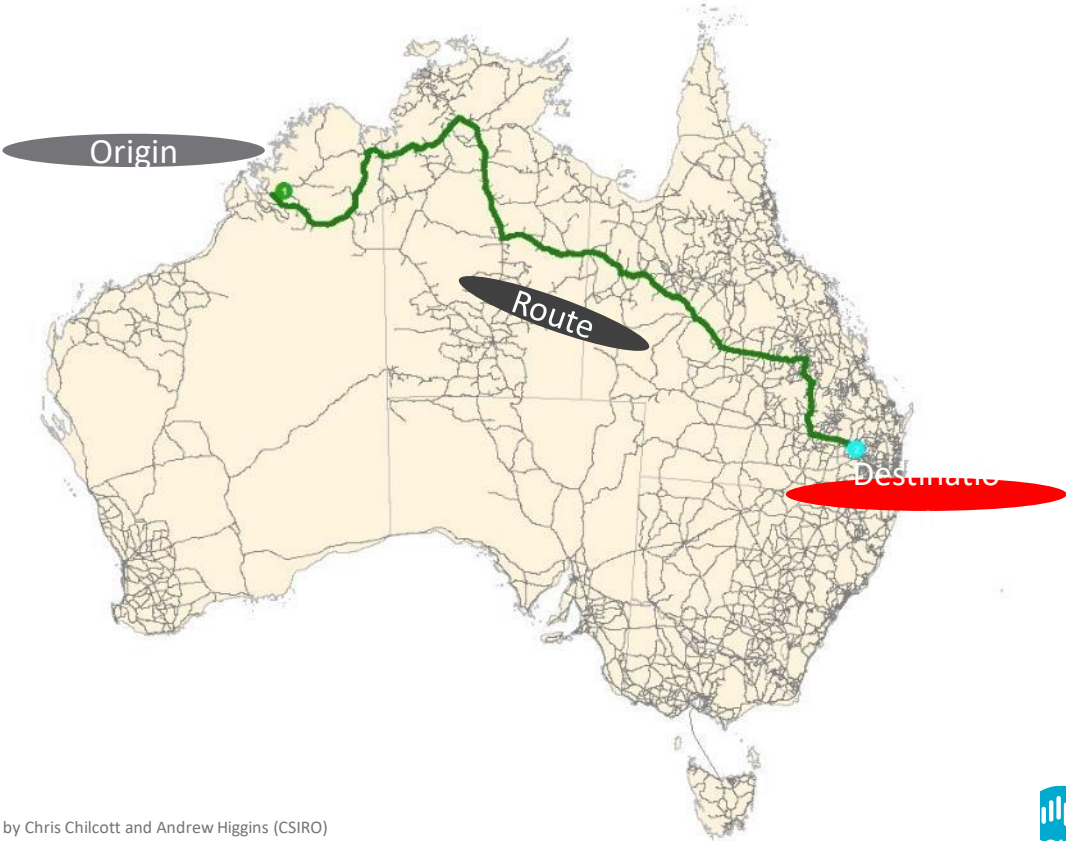Share of consumer value = Profit

What can mapping output look like?

Example 1: Mapping actors in a chain

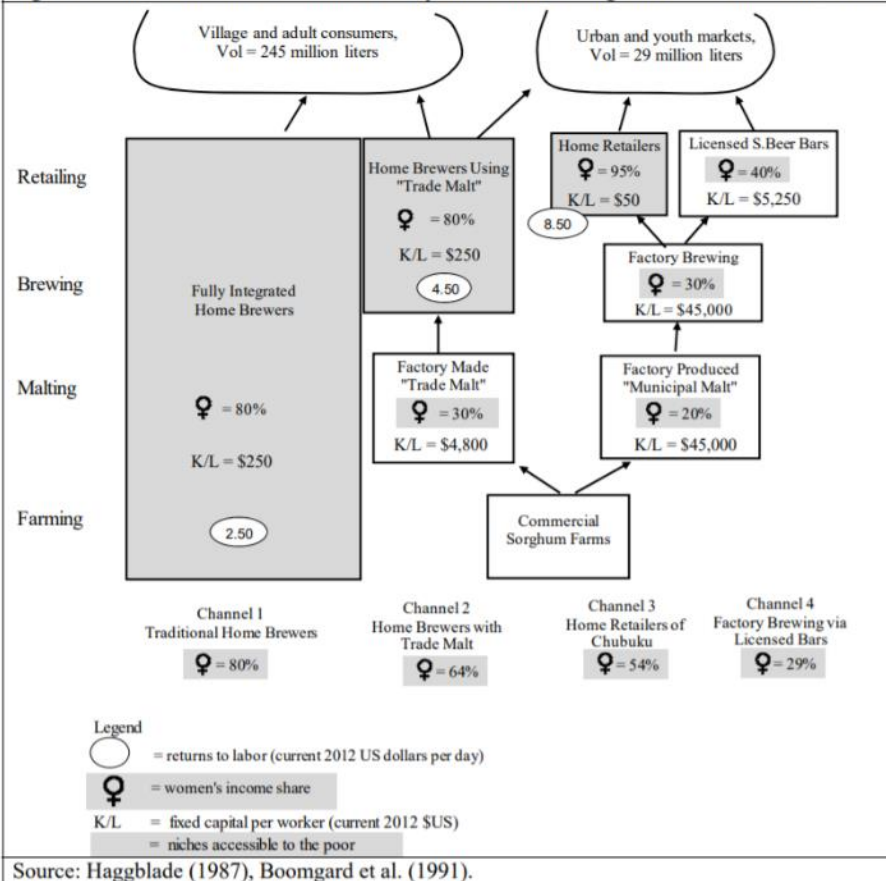# Example 2: Mapping enterprise locations for different commodities

Example 3. Mapping transit routes

Origin

Route

Destination

TraNSIT

CSIRO

Figure 2. Gender and Returns to Labor Overlays in Botwana's Sorghum Beer Value Chain, 1982

Example 4. Mapping channels and gender roles
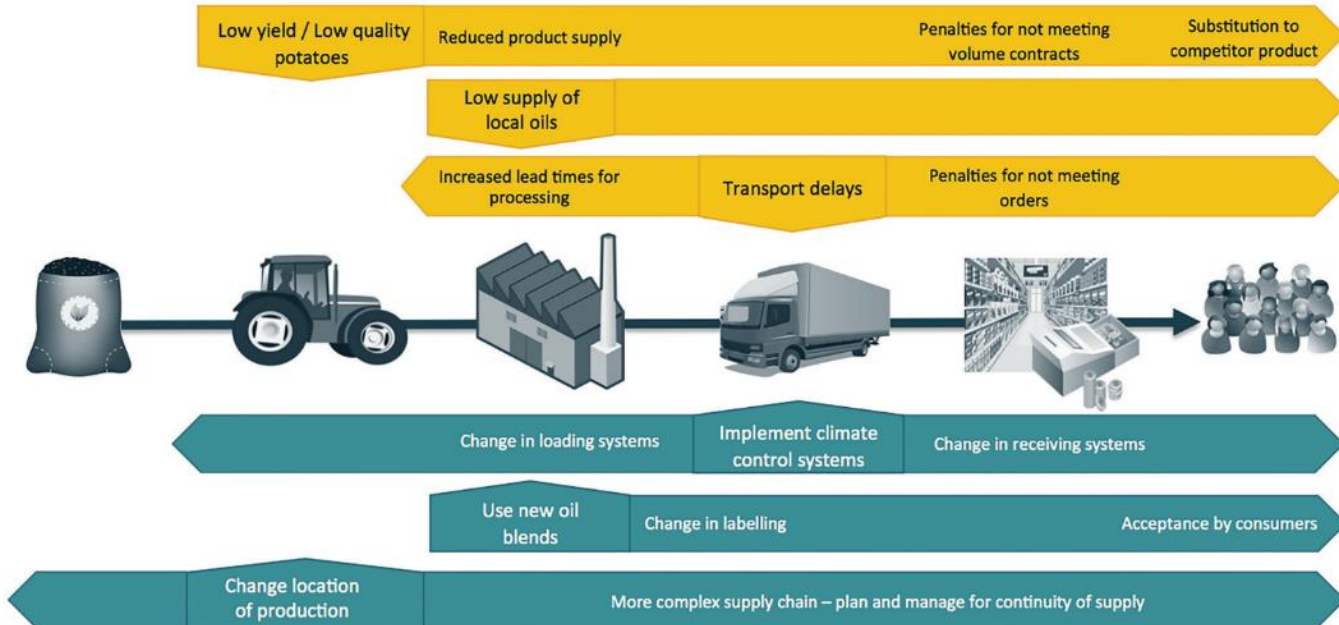
Image from Haggblade et al., 2012

Example 5: Mapping events as they take place across the chain
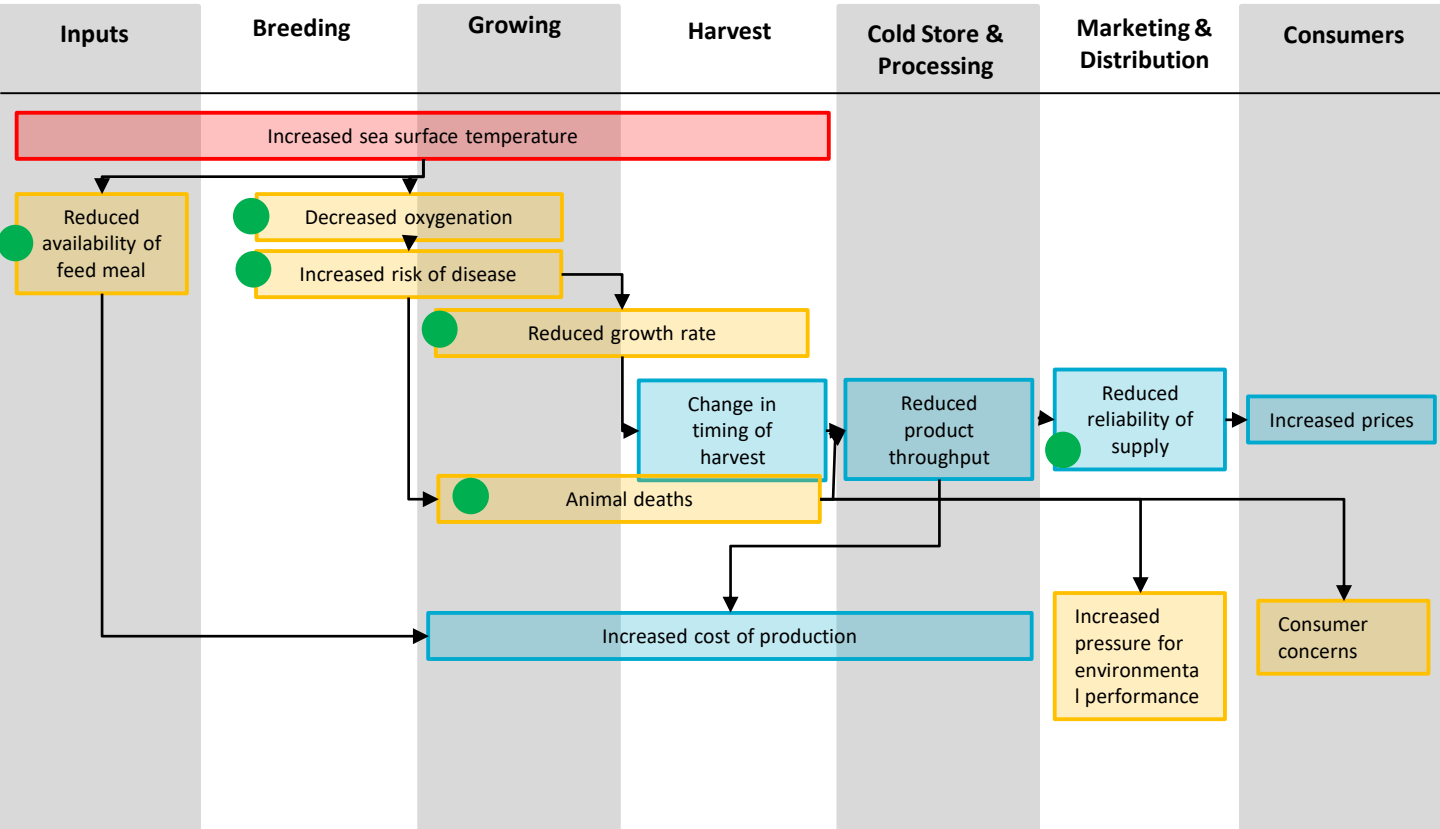
# Example 5: Mapping risks and strategies against actors

CLIMATE CHANGE IMPACTS and flow-on effects

Low yield / Low quality potatoes

Reduced product supply

Penalties for not meeting volume contracts

Substitution to competitor product

Low supply of local oils

Increased lead times for processing

Transport delays

Penalties for not meeting orders

Change in loading systems

Implement climate control systems

Change in receiving systems

Use new oil blends

Change in labelling

Acceptance by consumers

Change location of production

More complex supply chain – plan and manage for continuity of supply

ADAPTATION STRATEGIES and flow-on effects

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Example 6. Process mapping

The Calypso® Mango Value Chain Process Map
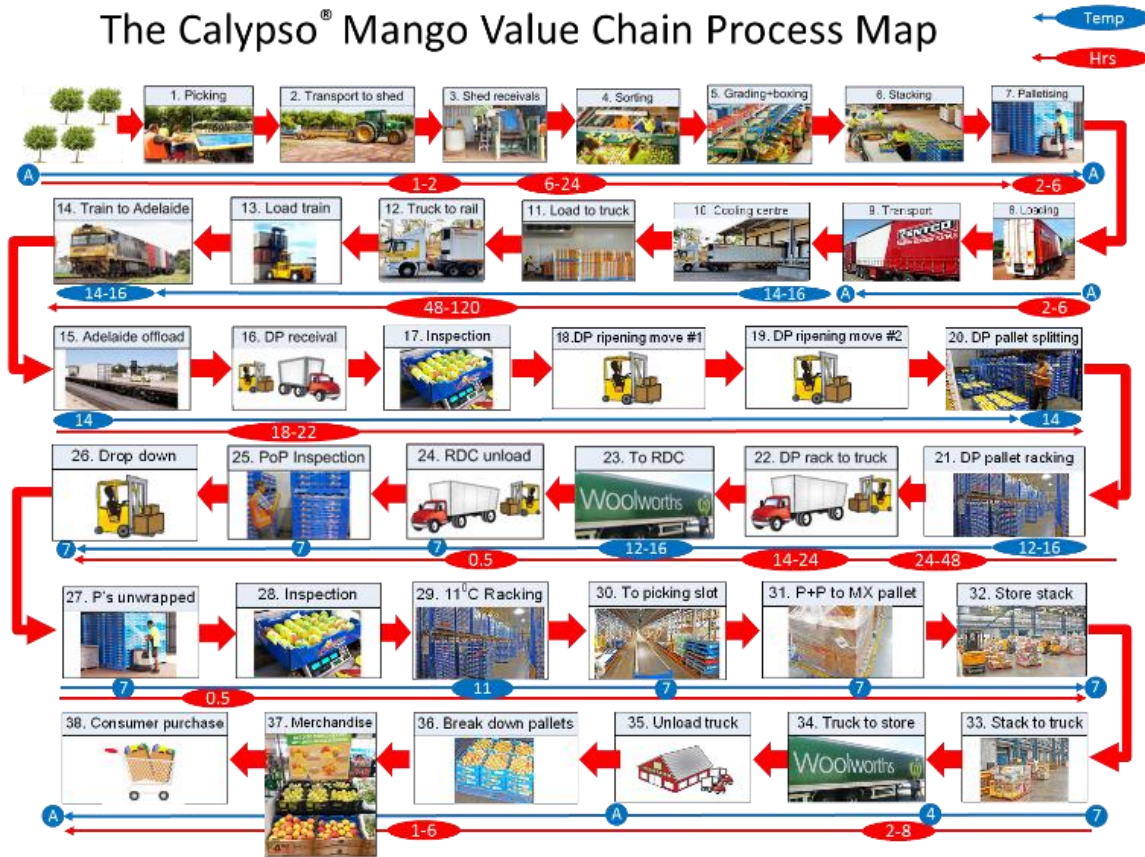
Activity: Chain mapping

1. In a group, select a commodity that you would like to focus on

2. Map its chain, including:

    a. The activities along the chain

    b. The actors (businesses and other organisations) that you know of who conduct those activities

3. Output: A map, drawn on butchers paper, put up on the wall

20 mins

References and reading material

- Haggblade, S., Theriault, V., Staatz, J., Dembele, N. and Diallo, B., 2012. A conceptual framework for promoting inclusive agricultural value chains. *International Fund for Agricultural Development (IFAD), mimeo (online document).* https://pdfs.semanticscholar.org/89c8/10551b608805e843dc27b6cfdc4cb9d4dad2.pdf
- Lim-Camacho et al., 2019. Towards resilient mining
- Lim-Camacho et al., 2017. Complex resource

End of Day 1