

Guide 1: Participatory Market Chain Analysis

This special guidance tackles market chain analysis – but in relation to a specific approach to information gathering – a participatory workshop involving different links in the chain.

At what steps in the HEA framework is market chain analysis relevant?

Market chain analysis is useful for HEA studies because it helps us determine whether the market system – through which households sell their surplus products or services, and through which they access basic staples and production inputs – is efficient and reliable (i.e. competitive). It fits into the HEA framework at the point when we wish to understand marketing constraints and opportunities for households either for items sold or items they need to purchase (see Table 1).

Table 1: How market chain analysis fits with the HEA framework

What market chain analysis helps us understand	At which stage do we need to know this?
Understanding the extent to which marketing inefficiency is a key constraint on the household economy – either because it undermines the value of commodities sold, or because it contributes to high prices for commodities purchased.	Step 3: quantification of income and expenditure at baseline: marketing constraints; and Step 5: coping capacity/response strategies: often the price of what people sell reduces as demand declines just when supply increased. We need to get an understanding of market chains – and price elasticity of supply and demand – to determine the extent to which – considering these dynamics – coping strategies “fill the gap”
Determine the likely price scenarios for staple foods (without intervention)	Step 4: the price estimates which make up the problem specification can be based on price trends in similar bad years in the past; otherwise we may look at current prices in source markets and estimate the final price for consumers after marketing costs and profit have been added on (see table 2, page 7). We need to consider if there have been any major changes to the market or policy environment that will result in different price trajectories from the past.
Determining the most efficient and effective way of addressing acute food insecurity requires first mapping of supply and demand areas and commodity flows (see annexe zz) and market chain analysis to guide the likely price for consumers for different intervention options.	Step 7: response analysis. If the supply/demand analysis identifies a surplus which should in theory be sufficient to fill the deficit, a market chain analysis helps us estimate the likely price at which the staple food may be sold in the deficit area (<i>without</i> market support) and whether any market support could remove/reduce bottlenecks in the market chain. Increasing the competitiveness of markets should bring down prices of grain and potentially also facilitate an increase in supply. The challenge here lies in the fact that the intervention influences the price which – if different from the price estimated during step 4 –

	may make the intervention either excessive or inadequate ¹ .
Identifying opportunities which will support livelihoods recovery among disaster-affected households needs to consider the demand market for particular commodities.	Step 7 – response analysis – livelihoods recovery. While this kind of market chain analysis (single commodity market analysis) is usually delayed until the market context has stabilized an HEA assessment may be expected to indicate opportunities where – if demand were addressed through a cash transfer perhaps – a market may be found. Getting an idea of where in the marketing chain constraints exist that can be addressed (e.g. lack of information about the supply of products is an obvious one) helps us improve the feasibility of these kinds of recommendations.

What it involves

Market chain mapping involves identifying the players in the market chain from producer to consumer and describing the competition at each link in the chain, and the relationships between market players. It may also involve analysing the price differential at each link in the chain.

How can we use market chain analysis in HEA

While "proper" market chain analyses are done using a team of experts, a participatory approach (see section [...]) and perhaps information from a large number of market players, HEA studies can find out a lot about competition in the market chain through informal discussions with individual key informants. Selection of reliable key informants who are known to have a well-informed overview of the market system will help you get good information efficiently.

What is it?

A market chain analysis is similar to a market structure diagram – both show relationships and can help us understand constraints to marketing. However, a market chain analysis tends to analyse the transactions in the vertical chain from producer to consumer whereas a market structure diagram maps the vertical and horizontal relationships between all key market players.

How is it done?

The following sections contain an excerpt from a set of guidelines for analysis of market chains for programmes which aim to enhance small holder production. While this tool is considered useful in HEA it has not been a standard tool in the toolbox – so HEA assessments should test the process to see what kind of information it brings.

Here the authors present guidelines for mapping the market chain using a participatory process. While this is quicker than holding interviews with each separate stakeholder it is more complex as each stakeholder (producers, processors

¹ There is a negative feedback mechanism operating here which we need to be aware of, and analysing and addressing marketing constraints (without over-estimating the ability of the market to respond) is necessary to avoid under-estimating the assistance required.

and traders) is likely to differ in terms of perspective and interest in the outcome. If you are new to this activity, and you plan to test out the approach, then it is advisable to involve a market specialist in the planning and facilitation of the workshop; however, finding out from traders about the market chain should be relatively straightforward in one-to-one interviews. It might also be a good idea to use this approach with a group of government key informants; this would be potentially more straightforward than the process described here as government informants tend to have more of an overview and less interest in any particular link in the chain.

Participatory Market Chain Analysis

This excerpt is drawn from Lundy et al (2004²) (mainly Module 8: Participatory Market Chain Analysis) with minimal adaptation.

What is Participatory market chain analysis?

The photograph below is of a map drawn up during CIAT³ project work in Latin America. The map presents the market chain map generated by a group of coffee growers in the Municipality of Sulaco, Honduras. The map shows that the producers have a fairly complete vision of their market chain, covering functions from production to export, and that they have managed to identify most of the actors. When examined in greater detail, however, it was clear that most of the information on the map related to the relationship between the producers and one large regional trader. Details about what happens in the market chain between Yoro and product export are less clear⁴.

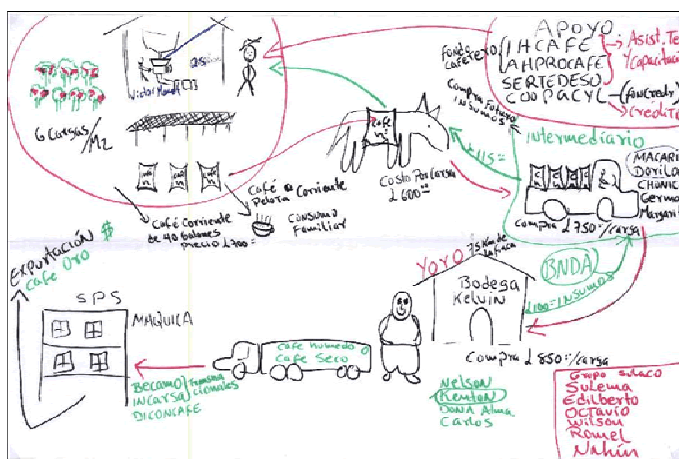


Figure 1: Market chain drawing - field research

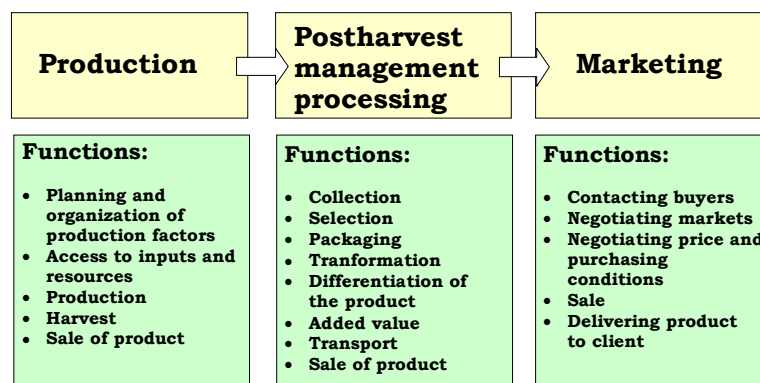
Components of a market chain

The three main components of a marketing chain with their links and their functions is shown in the figure below:

² *Increasing the Competitiveness of Market chains for Smallholder producers: A Field Guide* (Mark Lundy, María Verónica Gottret, William Cifuentes, Carlos Felipe Ostertag, Rupert Best, Dai Peters and Shaun Ferris). Rural Agro-enterprise Development Project, CIAT. http://www.ciat.cgiar.org/agroempresas/pdf/manual3_marketchain.pdf

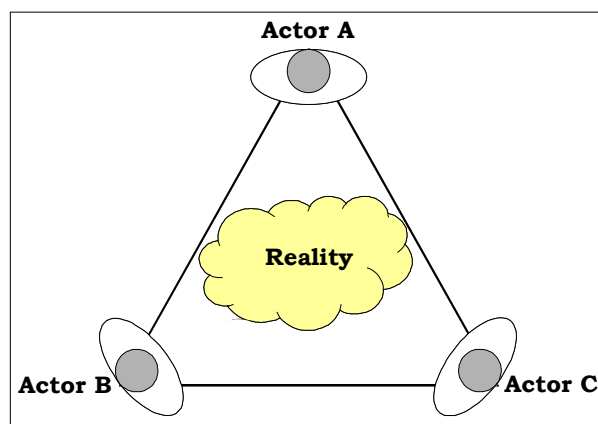
³ International Centre for Tropical Agriculture

⁴ The project, realizing that mapping is a useful tool – but involving only one marketing stakeholder may give an incomplete picture – developed these guidelines to guide participatory processes involving all players in the market chain.

Figure 2: Components of a market chain**Steps in the process of undertaking a participatory market chain analysis**

- The first step is to identify the commodity for which the market chain analysis is needed.
- Then identify players in the chain in order to bring them into the discussion.
- The third step is to organize a participatory workshop where they can all contribute.
- The fourth step is in facilitating the workshop such that the diverse (and often conflicting) opinions and positions are brought out constructively, clearly, and to everyone's satisfaction.

The Importance of triangulation: If it is accepted that all the actors are partly correct, then a process of triangulation is useful to understand the larger picture of the market chain. What is triangulation? It can be understood as a relation between three or more persons who are examining something in particular. Each one can see a part of the object, but not the whole. If we ask them to draw the object, we get three points of view that need to be combined into a full picture of the object. Each one sees the system from their perspective, and therefore can describe what they see or experience, but is partially blind to the realities of the other actors. To have a more complete picture, all the points of view must be combined—or triangulated—as shown in Figure 3: Triangulation.

Figure 3: Triangulation

In practice, triangulation implies combining and contrasting data from various viewpoints. It is common to find that actors describe issues that, under revision, turn out to refer to aspects of the same problem. For example, producers tend to talk of low prices for their products, while processors and traders talk of the problems of

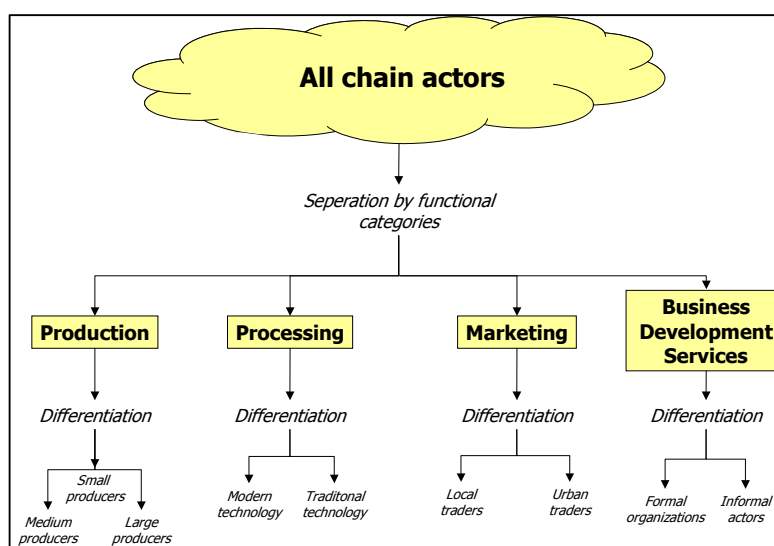
quality and continuous supply. All are describing the same problem (lack of information on what to produce, when and how) from their own points of view. When data from diverse actors is compared and contrasted relationships become clear and solutions that benefit the market chain as a system, and not a specific group of actors are more evident.

Formation of Working Groups

Initial working groups are formed based on the functional categories in the market chain. Those who are involved in production are grouped, the same as those involved in post harvest management or processing, marketing, and business development services. Once grouped, a decision is made whether the organization of subgroups to capture diverse geographic, social, technological, class, ethnic, age or gender viewpoints is needed. These decisions can be discussed with participants so that all are clear about the different groups and their objectives. Figure 4 shows this process.

Once the working groups are formed, the exercises are explained. When everyone is clear about what to do, each group should work separately on the exercises without the intervention of the other actors. This process is much easier if all the work locations are in the same zone.

Figure 4: Process of forming working groups



Mapping the market chain

Objective

Visualize product flows [...] along the market chain, from primary production to sale to wholesalers, from diverse points of view.

Time

About three hours in total. One hour for the elaboration of the maps by each group, one hour for the socialization and construction of a consolidated map, and one hour for identifying and filling gaps in the information.

Materials

This exercise can be carried out using flipcharts and markers, blackboards and chalk, or even on the floor with local materials. What is important is to describe the flow of the product in such a way that all the actors can see and discuss it.

Process

Divide the groups by the functional categories of the market chain and ask them to draw the market chain, as they know it. To begin the visualization, it is a good idea to identify the actors and place them spatially (in their community or city) by functional category. As the process advances, other questions are asked that provide additional details. These details are then added to the basic market chain drawn at the start (see below). This exercise could take between 45 and 60 minutes. At the end, each group explains its vision of the market chain in plenary, and a more complete vision is completed drawing on all viewpoints. The facilitator of the exercise is responsible for eliciting additional information on key topics (see list below).

Facilitating questions

Some basic facilitating questions for this exercise appear below. However, the facilitating organization is at liberty to change the list according to their needs. We recommend organizing key questions in a checklist for those facilitating the group work. Some of these questions can be formulated to start or support the process of visualization, while others are more suited for later stages or for reviewing the final maps, identifying gaps, and complementing the data already generated by the group. The results of the questions should be noted on the map itself or by one of the facilitators of the process in his/her notes. These replies greatly enrich the original map and show participants how much they already know about the market chain.

Actors:

- ✓ Who are they?
- ✓ Where are they located?
- ✓ What are their functions in the market chain?
- ✓ How do they relate to one another? Are relations good, average, or poor? Why?
- ✓ What are their characteristics (gender, class, age, education, abilities, know-how, etc.)?

Markets (in each link of the market chain):

- ✓ From where does the supply come?
- ✓ Who do we sell to?
- ✓ For production: Where do we sell on what we produce?

Product characteristics:

- ✓ What are the characteristics of the product?
- ✓ What are the volumes of production monthly or annually?
- ✓ How much of the product is sold in the markets monthly or annually?

Costs, yields, and distribution of the market chain's value

- ✓ How much does it cost us to produce (in each link of the market chain)?⁵
- ✓ What are the buying and selling prices in each stage of the market chain? Are they stable during the year, or do they fluctuate?
- ✓ How efficient (yields by area planted, conversion factors, etc.) are the diverse activities in the market chain?

⁵ Commonly no one has any idea about this, but sometimes one or more producers can provide an approximate idea.

- ✓ What is the distribution of the total income from the market chain between the actors like? Which groups gain more and which less, and why?⁶

Business development services

- ✓ Who (in each link of the market chain) supports us?
- ✓ How do they support us? What services do they offer (in each link of the market chain)?
- ✓ What is the quality of the services offered?

Here, care must be taken to visualize the support received by informal actors (intermediaries, moneylenders, etc.) that at times are more effective than that of the other support groups.

Rules of the game

- ✓ What is the form of payment in each stage of the market chain?
- ✓ What are the quality requirements?
- ✓ What is the buying frequency?
- ✓ How are relations between market chain actors? Are they happy with the existing relationships? Why or why not?

The following checklist is provided for outputs of the market chain analysis:

Essential results from the supply side of the market chain analysis

- A map of the zone being analyzed with major production zones, of the selected commodity.
- For a commodity, the study should provide information on seasonality of production
- Trend information on prices of the target raw commodity and if possible for processed products derived from the raw material, i.e., cassava roots, cassava chips, cassava flour, cassava starch, etc....
- Marketing costs along the market chain, showing costs paid by and to the intermediaries from the farmer to the consumer. This information should include margins along the chain (see Table 2).
- Flows of the commodity through the main supply chains, coming from the major areas of production

The next steps are: Analysis of critical points in the market chain; Problem tree analysis; Solutions. These are covered in Module 9 of the field guide from which this excerpt is drawn. Again, the examples come from market chain analysis for improving profit for producers, but the process can be adapted for use for analysing constraints and solutions in the supply chain for grain. For details about these steps, see: Module 9.

⁶ In this part, it is a good to review the role of each group in the market chain bearing in mind the risks assumed, value added, and access to information or key contacts.

Analysing marketing margins at each link in the market chain.

The following example is taken from a report on rice marketing from Uganda. Source: Spilsbury et al (2004)⁷

Table 2: Table showing analysis of marketing margins along the market chain

Estimates of Costs and Margins for main actors in the Domestic Supply Chain for RICE

	Super Ush / Kg	%	Kaiso Ush / Kg	%
LOCAL TRADER				
Purchase Price	600		500	
Selling Price	620		520	
Variable costs	20	3%	20	4%
Storage and Misc	2		2	
Gross Margin	18	3%	18	4%
BROKER/LARGE-SCALE TRADER				
Purchase Price	620		520	
Selling Price	750		620	
Variable costs	130	21%	100	19%
Transport	30		30	
Labour	2		2	
Post harvest loss (2%)	12		10	
	44	7%	42	8%
Gross Margin	86	14%	58	11%
WHOLESALER				
Purchase price	750		620	
Selling Price	850		670	
Variable costs	100	13%	50	8%
Labour	2		2	
Storage	2		2	
Post harvest loss (2%)	15		12	
	19	3%	16	3%
Gross Margin	81	11%	34	5%
RETAILER				
Purchase price (per unit i.e. bag or kg)	850		670	
Selling Price (per unit i.e. bag or kg)	1,000		750	
Variable costs	150	18%	80	12%
Labour	2		2	
Storage	2		2	
Post harvest loss (2%)	17		13	
	21	2%	17	3%
Gross Margin	129	15%	63	9%

Source: Survey Data, Prices are estimates for costs and margins at the time of the study (Feb 2004)

The data shows that no single player in the supply chain makes excessive gross margins **suggesting a competitive environment with low barriers to entry**. Slightly higher margins are made from 'super' due to its higher cost and therefore higher financing requirement.

⁷ Spilsbury J, Ferris S, Walker S, Nyapendi R (2004): Evaluating the Marketing Opportunities for Rice and its Products in the Principle Rice Growing Countries of ASARECA