

Guide 6 - Mapping Markets and Commodity Flow

What mapping helps us to understand in HEA

Market maps help us determine which markets people have access to (physical proximity). If we add information about commodity flow (from producer to consumer) they help us understand the extent to which these markets are able to serve the population (in terms of enabling them to sell home-produced goods and services which they specialise in and to buy goods and services which they rely on others for).

Market maps help us understand how commodities and services flow from supplier to consumer. Market chain analysis (see [Guide 1](#) in [Annex C](#)) is a related activity that takes us one step further in understanding efficiency and reliability and, therefore, market-related constraints along the market chain, which is a critical factor influencing livelihoods security. Market chain analysis helps us understand whether markets are able to serve the population by helping them get a *good price* for what they sell and buy. You can, however, find out about efficiency when mapping markets. You don't always need to do a separate "market chain analysis".

Maps are useful in making clear the changes in market access and commodity flow after a disaster. If a market is cut off after an earthquake, or if a road becomes impassable seasonally, the maps should show this.

At what stage is mapping relevant?

Mapping *as an activity* can be done at any stage in an HEA study. Indeed, it is useful at any time when *visualising* the information would help the interviewer or interviewee explain or understand the discussion (market access, supply and demand and commodity flows). Maps may be useful in recording information on access and marketing given by informants during interviews with district level government officers which relates to the district in general or to a particular zone or when recording information given by villagers about their preferred markets at different seasons or different times of the year.

Information from market maps is of particular importance in the HEA framework at the following stages.

What mapping helps us understand	At which stage do we need to know this?
Understanding market access at baseline – and change after a shock	Step 1: livelihoods zoning Step 4: problem specification
Use of different markets by different groups within a population	Step 2: wealth breakdown
Mapping supply and demand and market flows and seasonal or year to year changes in this are key factors that influence the price at which households buy and sell	Step 3: analysis of livelihood strategies Step 5: analysis of household coping strategies
Mapping surplus and deficit areas and mapping scenarios for commodity supply to affected population	Step 7: response analysis

Why map? The power of visualisation

Mapping is a helpful tool which can transform an interview from a dry question-and-answer session where information is collected, but is not immediately understood, into a process whereby the interviewees find it easier to get across their information, the interviewer is better able to understand the implications of what he is being told, and both parties are energised. Another important advantage is that at the end of the interview there will be a product which will be useful for future discussions in the district office about marketing constraints, and can be added to a report to illustrate the marketing constraints experienced by a particular population.

Visualisation is an important element of participatory approaches. With maps the interviewees can point to the places they are talking about, draw on the map the position of barriers that are important to the story (e.g. a river but no bridge clearly separates two markets that might otherwise appear linked), and they can draw on arrows which point to markets off the map on which many people depend.

Market maps are particularly useful for people who are not familiar with the area because it helps them know what questions to ask; moreover, it is not the names of places that will mean something to the interviewer, but the location, and the physical location and proximity of one market in relation to another. As the picture develops the full story about how markets function emerges clearly.

The information that you get out of the map depends to a large degree on *how engaged you and the participants are in the mapping process*. Strong facilitation skills are important, as is a good environment where you won't be disturbed and a truly participatory approach where you invite people to tell you what's critical to them rather than follow your checklist.

Mapping markets and flow of commodities – practical hints

Focus on one commodity at a time. In HEA we are interested in understanding the supply chain from two perspectives: the producer and the consumer; and in considering two issues: demand and supply. For each commodity we want the producer to get the best price and the consumer to be able to purchase it at a low price. The key for both is market efficiency¹. So, our focus is on the market-related factors which help or constrain the producer to get a *good price* for his or her produce or service, and which help or constrain this and other producers to access key products and services *at prices they can afford*. The following points may help clarify the relationship between producers and consumers for mapping:

- A producer may produce and sell sorghum, but this same producer may also buy sorghum (later in the year perhaps).
- A producer needs inputs for production. The market chain that supplies these inputs may be different, and less or more efficient, than the chain through which the produce is sold.
- The producer and consumer can be in the same location and they may be far from each other in different locations (one in the deficit area, the other in the surplus area). We are interested in looking at the flow which is most relevant – e.g. if local supply is important then this will be included in our map; however, when we are looking at supply of cereal after a disaster we are interested in mapping the supply of grain from the external surplus area to the affected population (deficit area).

¹ There are additional options to improve producer prices – such as quality improvements, processing, packaging; this sector is tackled by a whole range of multi-disciplinary specialists, and lies outside the scope of HEA assessments.

A practical tip for making maps is that it is easiest if people are free to draw freehand without fear of making a mistake. Draw on the bare earth with a stick, using stones and other markers and use cards for labelling – e.g. names of markets; or draw on a flipchart or on a plastic cover to an existing map using white board pens.

Participants

This guide is intended for a discussion with district-level or regional level government key informants – those concerned with production and marketing of local commodities or of supply of cereals into the area. These may include officers from the following departments: agriculture, food security, livestock, trade and industry/cooperatives, economics/policy and planning; rural development; natural resources.

Equipment

- Map of the area of interest, preferably covered in clear plastic
- A place to make a new map – the ground, a blank flip chart etc
- Drawing tools (white board pens if you will draw on the plastic covered map; pencils and marker pens if you are drawing on a blank flipchart; a stick and stones etc. for a map drawn on the ground).

Process

Option (i): mapping markets, adding marketing routes onto the map and asking about marketing constraints and opportunities related to specific market supply routes

- (1) Identify the main markets in the area
- (2) Mark on the location of the populations which you are interested in
- (3) Add infrastructure which links markets and populations (clarify seasonal differences).
- (4) Mark on physical and other barriers to market access (rivers, mountains, borders (political, conflict-related) etc.
- (5) Determine which commodity supply route to map first (you should limit each map to 1 commodity): this will depend on whether the area is a surplus area or a demand area, and whether you are interested in mapping constraints to marketing commodities produced in the area or in accessing commodities not produced in the area which are needed all the time or at particular times (e.g. during periods of crop failure).
- (6) Variations:
 - a. dry season and wet season marketing routes (e.g. for livestock)
 - b. good year / bad year supply routes for cereals; and/or
 - c. primary / secondary supply routes for cereals;
 - d. marketing routes for important local produce before the disaster compared to after the disaster (and supply routes for cereals)
- (7) Now try to get an idea of the *relative importance* of different supply routes and how it changes over time and across seasons. For instance, if there are three possible routes which supply cereal to one market, rank these routes according to reliability, or try to get them to estimate the proportion of the total cereal supplied which comes from each route.
- (8) Competition: try to get an idea of the degree of competition that exists in the main markets – and in which market is lack of competition a problem. We are most concerned with markets where there are few buyers for a large number of suppliers, and/or where one or two traders dominate the market.

Option (ii): following the supply chain from source to destination: use this option when you don't have a large map to start with.

- (1) Ask the interviewees to write on cards (A6 size) the name of the market you are in. Ask them which markets buy (or supply) the commodity from (or to) this market, and write these markets on new cards. Follow the market chain(s) all the way up to the ultimate destination markets for produce from this area (the source markets for commodities supplied to this area). Place the cards on the ground or stick them on a large area of wall space.
- (2) At each link in the chain you can ask about
 - a. marketing margins – e.g. at what price do these traders buy and sell? What costs are included in the mark-up and how much profit is achieved?
 - b. competition – how many traders (retailers/wholesalers) operate in this market? (We are interested comparing the number of traders who supply with the number of traders who buy the commodity in question². Try to get the interviewees to estimate numbers if possible, and percentage of market share where useful.
- (3) When the market chain is in place ask about barriers to marketing for each link in the chain. Add any physical barriers that may be relevant (e.g. bridges, impassable roads, lines of conflict) and make notes about the non-physical barriers (e.g. market regulation, lack of credit opportunities for small traders etc.).

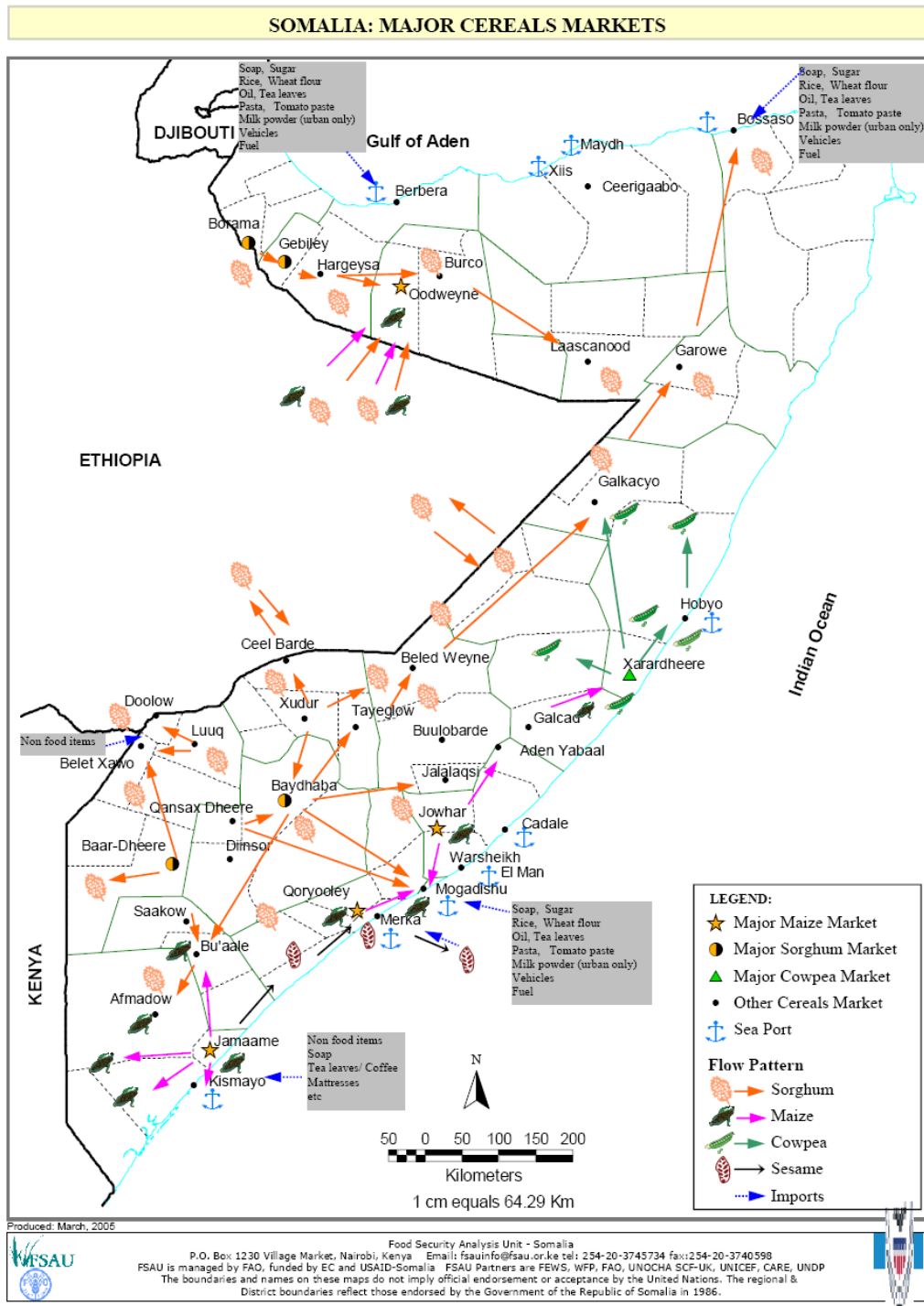
Points to remember:

- For both approaches make sure you ask a mix of general questions (e.g. what influences the flow of commodities between markets) and probing questions: (e.g. when has this problem been particularly severe? What happened to the traders who were trading at the time?)
- Make sure that someone takes responsibility for recording everything that people say, and that a copy map is drawn as soon as possible. Make sure that where words are useful you ask the interviewees to add these – either directly onto the map, or onto cards which are placed on the map – so that you don't lose important detail.
- The most useful maps are those which include several “layers” of information:
 - ✓ Location of markets, relative market size, flow of commodities
 - ✓ Physical infrastructure linking markets and seasonal barriers
 - ✓ Population density served by each market
 - ✓ Livelihood zones
 - ✓ Areas of surplus production, areas of demand

The map below shows markets and the flow of grain between markets. A useful addition would be some kind of quantification of the relative importance of each flow (e.g. major or minor; or: of the quantity that leaves this market, 20% goes to market A and 80% to market B).

² For instance, if 30 traders supply a market dominated by 2 large traders (who have a 80% market share) and 3 very small traders (who together have a 20% market share) then the market is unlikely to be competitive.

Example of a national market flow map for cereals:



Source: FSAU Somalia. FSAU Somalia makes good use of maps to help interpret early warning information coming from different locations. An important element of FSAU's analysis is linking all information to GIS information and food economy maps. Other important layers of FSAU's maps include: livelihood zone boundaries, and the infrastructure linking markets. For other maps (livestock, monitored markets, food economy zones) see http://www.fsasomali.org/200510112442_maps.php.