

STEP 3

Preliminary analysis



Stripping corn in the back yard, Peru. This area is prone to flooding and landslides, as the nearby river may change its course when it rains heavily.

Photo credit: Gilvan Barreto/Oxfam

3.
Preliminary
analysis

From this point onwards, each critical market system selected for EMMA investigation is mapped and analysed separately. Step 3 involves the first rough-and-ready attempt to describe and sketch the market system – as it was before the crisis, and as it is now. These early iterations will encourage you to define more clearly the key analytical questions that EMMA is aiming to answer, and begin thinking about which informants may provide the necessary information.

Before starting Step 3, the EMMA leader should have...

- o confirmed with the agency the ‘terms of reference’ of the EMMA investigation;
- o identified the target population (and groups within it), and their basic priority needs;
- o decided which market systems are to be the subject of EMMA investigation;
- o drafted initial versions of the key analytical questions.

3.1 Overview of Step 3

Objectives

- Sketch preliminary maps of the market system in baseline and emergency-affected situations.
- Revise and refine the key analytical questions drafted in Step 2.
- Identify the most promising key informants and market actors to start talking to.

Activities

Section 3.2 : Getting started with mapping

- Familiarize the EMMA field team with the toolkit, concepts, and expected outputs.

Sections 3.3–3.5: Preliminary mapping of the market systems

- Undertake initial mapping of baseline and emergency-affected situations.
- Develop a picture of the different market-system components.

Sections 3.6–3.8: Using the market map to understand the system

- Revise and update the market-system map with more information.
- Compare the baseline and emergency-affected situations.
- Sketch an initial seasonal calendar for the market system.
- Update the key analytical questions.

Key outputs

- Preliminary market maps – baseline and emergency-affected
- Preliminary seasonal calendar for market system
- Revised key analytical questions
- Contacts and leads for key informants.

3.2 Getting started with market mapping

The ‘market system’ concept

The ‘market system’ is a crucial idea for EMMA. It means more than simply a market place or a supply chain. It is a way of thinking about the complete web of different actors, structures, and rules which together determine how goods are produced, exchanged, and accessed by different people.

As section 2.2 explained, EMMA applies the concept of a market system independently to particular goods, crops, non-food items, or services. So, for example, EMMA may look separately at the market systems for sorghum, for clothing, and for transport services.

Crucially in EMMA, *target groups are part of market systems*. In almost all situations, ordinary households use markets for acquiring food, items, and services, and for selling their produce and labour. Non-monetary forms of exchange (e.g. reciprocal services) can also be included in the market-system approach. In order to analyse the capacity of market systems to play a role in humanitarian response, it is vital to understand how target groups access and use markets.

Consider, for example, the market system for a staple commodity like rice. This system includes the traders, retailers, and millers who trade in rice. It also includes farmers and agricultural labourers who produce rice; and of course the suppliers of seeds and inputs. It may include government officials who regulate the rice industry. Finally, the system includes rice consumers.

Market-system maps

Market-system mapping is the central tool in EMMA. It is derived from a participatory approach to market development, designed by the international NGO Practical Action (Albu and Griffith, 2005). It emphasizes simple and visually engaging methods of communicating and sharing knowledge about complex systems among non-specialists. Ultimately, its aim is to build up quickly a comprehensive sketch of a market system in its entirety. Market maps can then be used for the following purposes:

- to collate and represent information about market systems during the study;
- to assist comparisons of pre-emergency (baseline) and emergency-affected situations;
- to facilitate discussion, interpretation, and analysis of data within the EMMA team;
- to communicate findings about market systems to others.

In practice, the mapping process is an *iterative* process: it happens incrementally. You will start by doing a preliminary mapping (a rough outline) of each of the critical market systems selected in Step 2. This will initially be based simply on whatever knowledge, however sketchy, the team can immediately marshal. You should then expect to draw and re-draw your maps several times during the course of the EMMA process, so that your initially rough outline gets progressively more detailed as you learn more and more about the system.

Box 3.1 Induction for inexperienced EMMA teams

If you are leading an emergency assessment process with a field team lacking previous experience of EMMA, an early task will be to introduce EMMA concepts and tools. The preliminary mapping activities described in this chapter are a practical and engaging way to explain basic EMMA concepts and introduce the main market tools described in the introductory chapter.

An outline of a short in-country training or induction course for EMMA field teams is included in the EMMA reference manual on CD-ROM. This covers:

- EMMA outputs – what the process is aiming to achieve;
- EMMA concepts/rationale – what a market system is and why they matter;
- Overview of the ten steps of the EMMA process;
- Market mapping – a tool for visualizing and analysing market systems;
- Fieldwork preparation and practice – developing and testing the fieldwork agenda.

Establishing a baseline

A characteristic feature of the EMMA process is comparison between baseline and emergency-affected situations. In a sudden-onset emergency, the baseline refers to the state of affairs before the crisis struck. It is both a description of the normal ‘situation before’ and a best guess at the conditions that agencies can realistically expect to prevail when the market system recovers in due course.

As you will see in Step 8, baseline data will be used as a guide to the inherent capabilities and limitations of market-system actors: it can tell us what can be realistically expected from the system. This is crucial if agencies are going to rely on market actors to play their role in humanitarian response.

It is therefore important that any baseline provides a relevant comparison in terms of time (season) and place (geography), to enable the emergency situation to be assessed effectively.

- *Seasonally*: the baseline should describe the market system as it was during the same time of year (or the same seasonal conditions) as the emergency for which a response is being planned.
If responses will be implemented during the dry season, the baseline should describe a ‘normal’ dry-season situation, rather than the market system as it was during the hurricane season that immediately preceded and precipitated the emergency.
- *Geographically*: the baseline should describe the market system in the location where the emergency response is planned.
If the target population has moved (i.e. as refugees and displaced people), the most relevant baseline situation will usually be the market system that existed before the emergency, *in their new location*.

Occasionally it is difficult to define an appropriate baseline, because the critical items or goods were not previously traded much in the local economy (e.g. specialist shelter materials). Even when prior market activity was negligible, it is

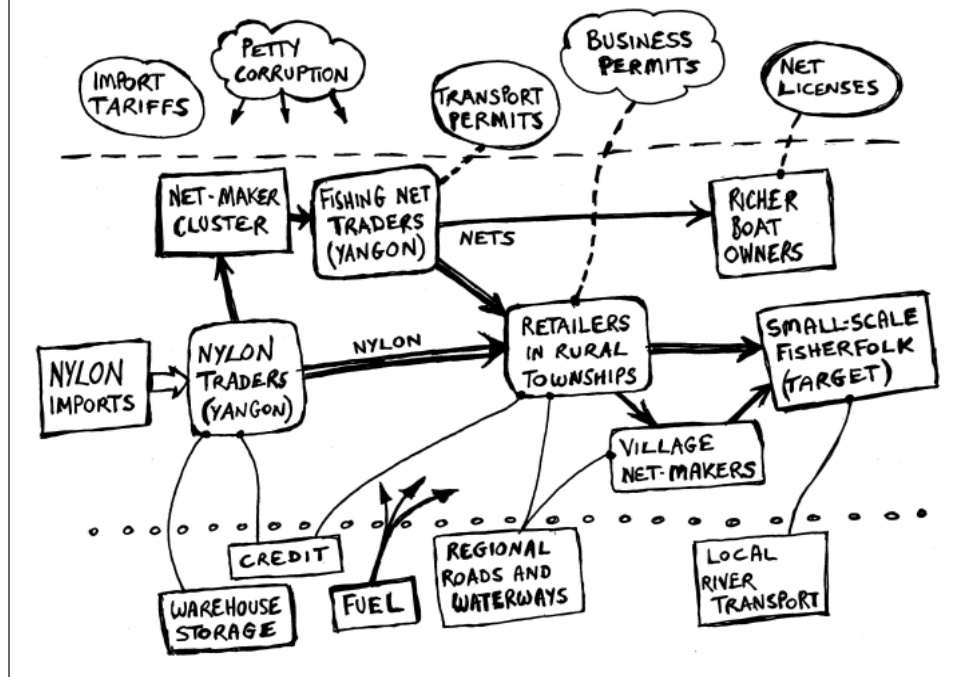
usually possible to trace market links back to some national-level producer or buyer, and describe any relevant infrastructure and services.

Preliminary mapping

The first step in mapping a market system is simply to start drawing. Do not wait until you think you know everything that you want to know. If you are very lucky, background research (Step 1) may have revealed the existence of localized market studies (i.e. describing the emergency zone) available from district government offices or local NGOs. Sometimes government agencies, the World Bank, or NGOs may have completed sub-sector analyses for specific markets that will give you an excellent picture of the baseline situation. However, the general knowledge of EMMA team members and colleagues consulted during the market-selection process (Step 2) is always enough to get started.

For example, Box 3.2 shows an early attempt to describe the baseline market system for fishing nets in Myanmar's Ayeyarwady delta area. This was drawn before fieldwork began. There were many errors, but drawing the map helped the EMMA field team to work out what issues and questions they needed to focus on (their knowledge gaps) when they began interviews.

Box 3.2 Preliminary baseline market-map – 'fishing nets' example from Myanmar



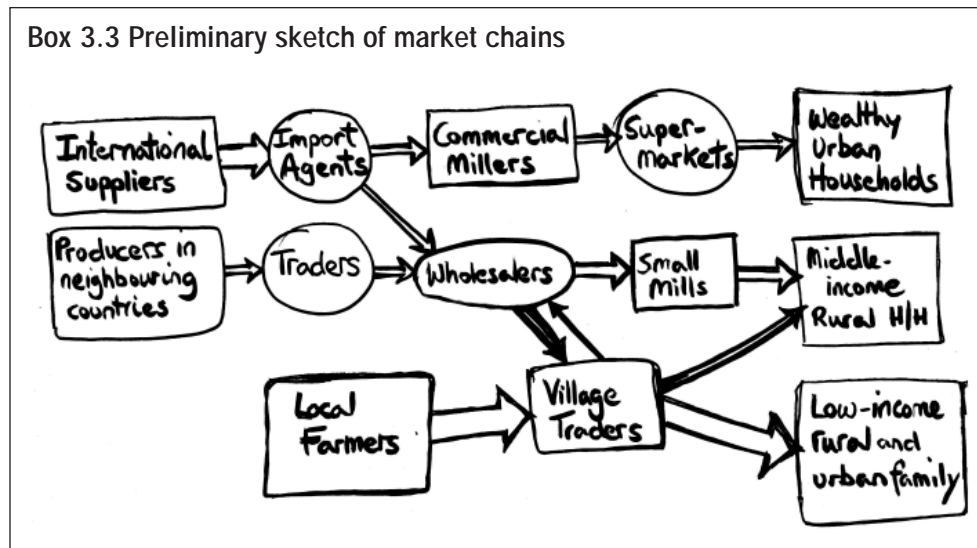
Logically it is best to begin mapping the baseline situation first. However, this is not a strict rule: you can also begin with the emergency-affected situation, if this feels more 'natural' to the team.

3.3 Mapping the market chain

The central feature of any market-system map is a ‘chain’ of different market actors who exchange, buy, and sell goods as the latter move from primary producer to final consumer. These market actors include, for example, small-holder farmers, larger-scale producers, traders, processors, transporters, wholesalers, retailers, and of course consumers.

- In ‘supply’ market systems, this sequence is sometimes called a *supply chain*.
- In ‘income’ market systems, the series of actors is often called a *value chain*.

The first task in mapping is to identify the businesses involved in the main chain in the critical market system. Then work out the linkages between them: who sells to whom, and how. See Box 3.3 for an example. Remember to include the target groups in the map – whether they are primary producers, labourers, or consumers.



Different market chains within one system

In some market systems, you may identify several interacting and *competing* market chains. There may also be more than one identifiable group of final consumers. This level of detail matters if, for example, different target groups obtain their supplies, or market their produce, in ways that are significantly different from each other.

At this early stage, even without detailed information, it may be possible to estimate the relative scale, size, or importance to target groups of different sources of supply, different linkages, or end markets. These can be indicated, for example, by using different *thickness of arrows* and *differently sized boxes*. Think about why some chains are more important than others. Remember, what matters for EMMA is the role (past, existing, or potential) that the market system plays in humanitarian response for the target population.

Identifying target groups on the market map

It is important to include and identify your target groups (section 1.6), in the market map. From a target group's perspective, market chains work in different directions.

- In 'supply' systems, the chains bring in food, items, and services to affected households.
- In 'income' systems, they enable households to earn income through the sale of produce or labour.

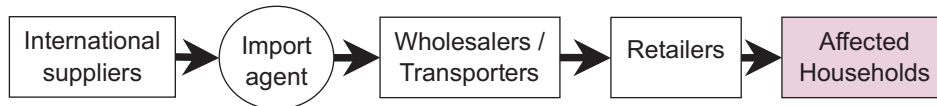
In the first case, the target group are actual or potential buyers or consumers of food, items, and services, which the market system supplies through the supply chain (also called a 'pipeline' by logisticians). This applies to food and essential household items (EHI), and also to livelihood inputs and urgently needed livelihood assets.

In the second case, the target groups are producers, workers, or labourers who rely (actually or potentially) on the market system providing income through the value chain. We usually find them towards the beginning of the value chain – but they may also be in the middle (e.g. as factory workers in urban settings).

Box 3.4 Locating target groups in the market map

Supply chain (pipeline)

e.g. food, clothing, shelter materials, essential household items, livelihood inputs, fuel, tools, and other productive assets:



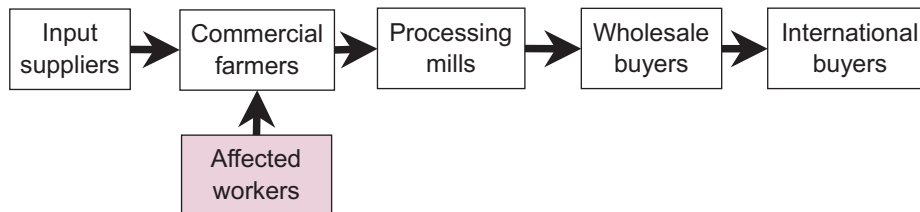
Value chain (income system for producers)

e.g. goods or services produced by affected population:



Value chain (income system for workers)

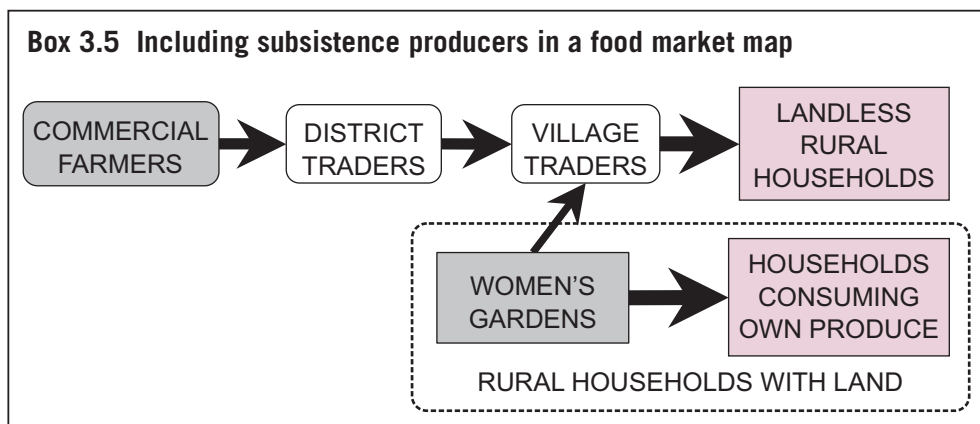
e.g. goods that involve labour provided by affected population:



Be alert to the possibility that different target groups play *different roles in the same critical market system*, and therefore will have experienced different kinds of impact from the emergency situation.

Gender roles in market systems

Women and men often have very different roles and responsibilities within any given market system. For example, in staple-food systems, women may be ‘producers’ in the sense of doing the physical agricultural work, but men may take responsibility for selling any surpluses to traders. Where such gender divisions are strongly present, EMMA users should be cautious about mapping the household as a single market actor. It may be necessary to differentiate between male and female actors, since the impact of the emergency, and their needs and preferences for assistance, cannot be assumed to be the same. Box 3.5 illustrates one way to represent intra-household differences for subsistence producers on a market map.



Subsistence producers

The distinction between supply and income systems can seem irrelevant when looking at subsistence agriculture – where households consume most or all of their own food produce – and there may be little ‘market’ transaction. However, this does not mean that EMMA can ignore the subsistence economy. When subsistence-food production is emergency-affected, EMMA needs to understand the size of the gap that this will create in the overall market system. So, even though there is no market transaction between a subsistence farmer and the household who depend on her produce, it is still vital to include subsistence production and consumption in a food market map.

One way to include subsistence-food producers in a market map is illustrated in Box 3.5. The rural household with land (indicated by dashed-line box) is shown to include both producer and consumer, with a small proportion of its produce sold to village traders.

Seasonal awareness

Seasonal factors may be highly significant in locating some target groups. Where livelihood strategies are seasonally varied, target groups may take the role of producers or labourers at one time of year and the role of consumers during a different season. For example, in market systems for staple food crops, it is common to find households who earn income from agricultural work, or from the sale of surplus production around harvest time, but who are net food consumers and purchasers during the off-peak season.

This means that EMMA practitioners need to refer to the *seasonal calendar*: thinking about when in the seasonal cycle the crisis has happened, and when the response will be implemented. Even in the same market system, very different responses may be appropriate at different times of year. See section 3.8 below.

Market segmentation

EMMA works by analysing each critical market system in an emergency situation separately. However, it is not always easy to clearly define the boundaries of a particular market system. During the fieldwork, you may find that the market system is actually divided into two or more segments due to differences in the quality or brand of the goods being traded. These segments may serve different end-markets.

For example: the market system for a staple crop (e.g. beans) may contain a large segment that is trading in average-quality items, and a separate smaller segment trading in a high-quality variety consumed only by wealthier households.

Box 3.6 Optimal ignorance

‘Optimal ignorance’ refers to the importance of disregarding non-essential or unnecessary detail. Focus attention only on the most relevant elements of the system. If you find that parts of a market system do not influence access and availability for the target population – i.e. parallel or independent market segments – it may be possible to ignore them.

This requires judgement. It is easy to be diverted down interesting but irrelevant avenues of enquiry, especially if your key informants are enthusiastic about their own areas of knowledge. You must constantly assess the relevance of information that you are hearing and try to ignore the distractions.

In these cases, do not waste time investigating the market segment that is not relevant (Box 3.6) to the target population’s needs. Also, avoid mixing up data (prices, volumes) about the ‘irrelevant’ market segment with the segment that is critical for EMMA, as your results may be distorted as a result.

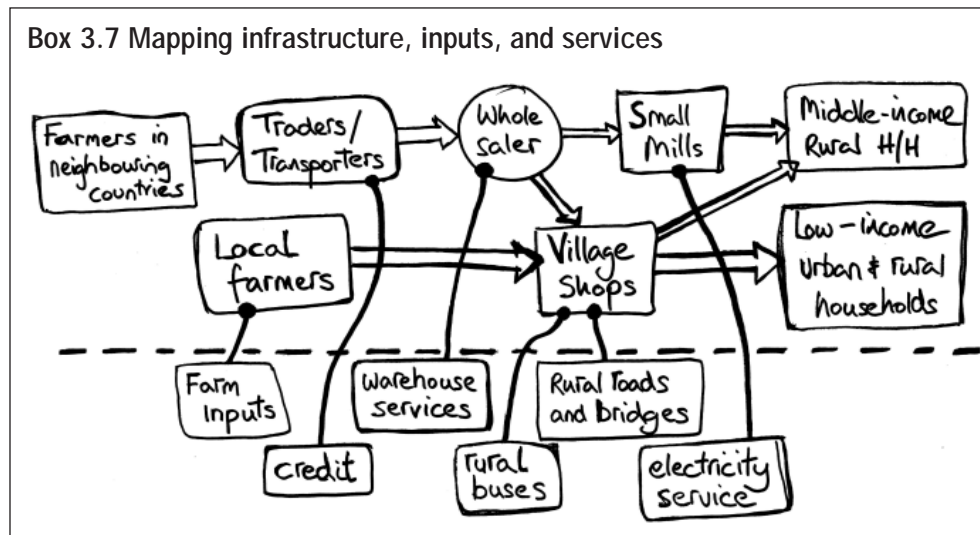
3.4 Mapping the infrastructure, inputs, and services

The second step of market-system mapping is concerned with the various forms of infrastructure, inputs, and services that support the system's overall functioning. Different actors always depend upon various forms of supporting infrastructure, inputs, and services from other enterprises, organizations, and governments.

Examples of infrastructure and business services include:

- water and electricity utilities;
- input supplies (seeds, livestock, fertilizers, etc.);
- market information services (about prices, trends, buyers, suppliers);
- financial services (such as credit, savings, or insurance);
- transport services and infrastructure;
- technical expertise and business advice.

Identify the most crucial elements of infrastructure and services, and link these to their users within the market system. The aim is to get an overall picture of the role that these services play in maintaining the market system's efficiency and accessibility.



There is often a vast range of these infrastructural and business services, so the mapping task is to identify and focus (i.e. in interviews with traders) on the ones that seem likely to play a really essential role, and / or have been strongly affected by the emergency situation. Try not to overload the map with linkages, but focus on the most salient examples.

3.5 Mapping institutions, rules, norms, and trends

The third step of market-system mapping is concerned with issues and trends that are significant influences on the *market environment* in which producers, traders, and other market actors operate. This environment is shaped by various policies, regulations, social and business practices, and trends.

EMMA is interested in the most important issues which were or are influencing market-system capabilities, efficiency, and equity, before and since the emergency began. Many different types of issue may be worth recording in the market-system map. Even if there is little that humanitarian agencies can do to alter them, an understanding of the constraints that they create should be included in the selection and design of responses. For example:

- weakness in the basic rules and institutions needed to help the market system to work effectively (e.g. contract-enforcement systems, land registries, producer organizations, trading standards);
- official rules and policies – by-laws, licensing regulations, taxes – which hinder and block rather than assist market-system functioning;
- arbitrary small-scale abuses of power by people in roles of authority (corruption and bribery);
- socially enforced roles and rules that obstruct some people from participating in certain kinds of activity, or block their access to markets, on the basis of gender, ethnicity, etc.

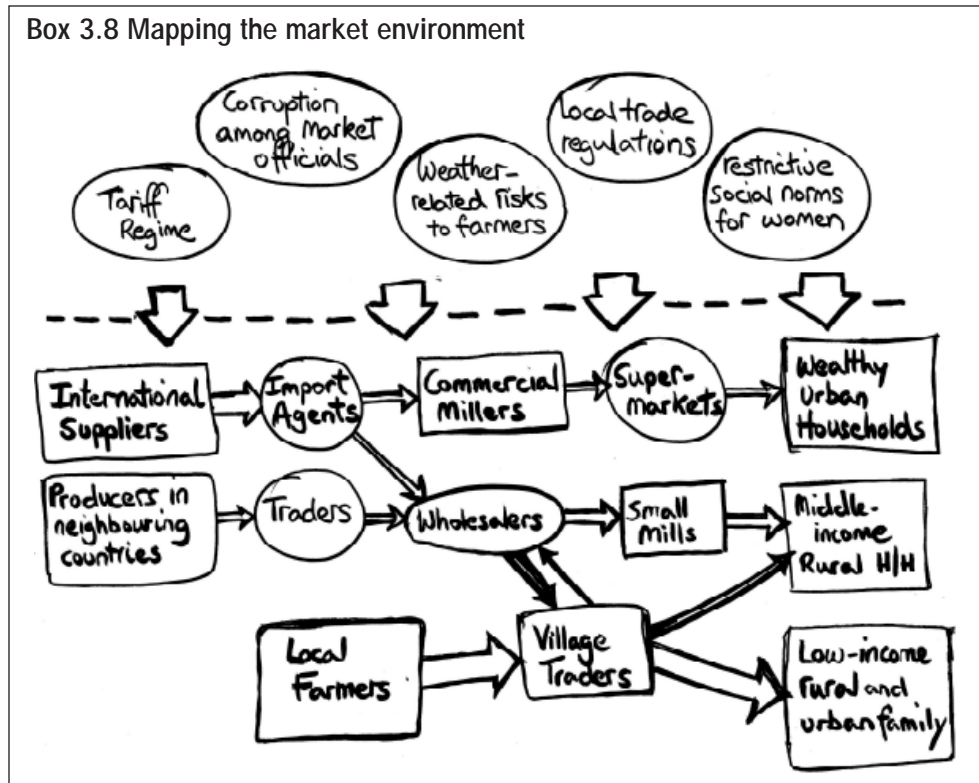
Differences in gender roles and responsibilities between women and men are an especially pervasive factor which shapes how market systems operate. These social rules may limit the options for market access or income generation that are open to women, for example.

This component of the market map is also a good place to highlight any major long-term trends that were affecting the market system and target population even before the emergency: for example, economic trends, climate changes, population movements, and natural-resource constraints.

- Environmental trends, such as natural-resource depletion or climate change, that are affecting actors in the market system.
- Economic trends, for example in the international price of the critical food or item, or the value of the local currency.

Add these over-arching ‘market-environment’ issues to the market map in the same way as the infrastructure and services were added before. If relevant, it may be useful to link the issue identified to specific market actors or chains.

Box 3.8 Mapping the market environment



3.6 Developing the market map through further iterations

Within a few hours, EMMA teams should be able to sketch out complete preliminary maps for both the baseline and emergency-affected situations. These preliminary market maps will inevitably change in structure and content throughout the subsequent EMMA steps. For example, see how the preliminary map illustrated in Box 3.2 evolved into the final map shown in Box 3.9.

During the early phases of fieldwork design, the maps will guide you in deciding which market actors or key informants you should meet. The maps will help to reveal gaps in your knowledge of the market system, and thus help you to develop your interview agenda and questionnaires (Step 4).

In key-informant and field interviews (Step 5), you will learn and include more information about volumes, prices of commodities, and numbers of market actors. You will probably be updating your market maps on a daily basis during the fieldwork, as new information is obtained (Step 6).

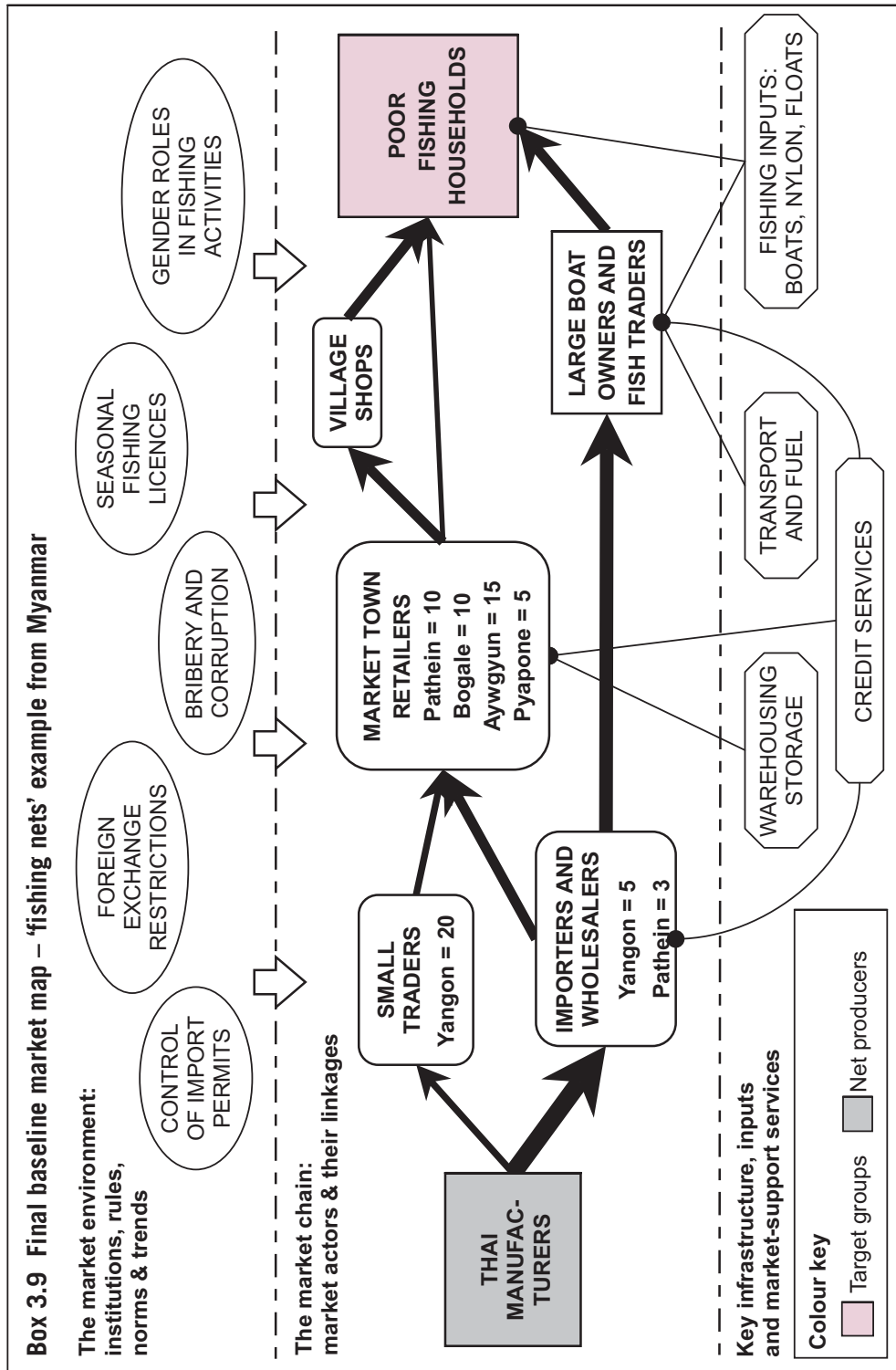
Detailed analysis of these maps will be done in Step 8, where we look at possible response options.

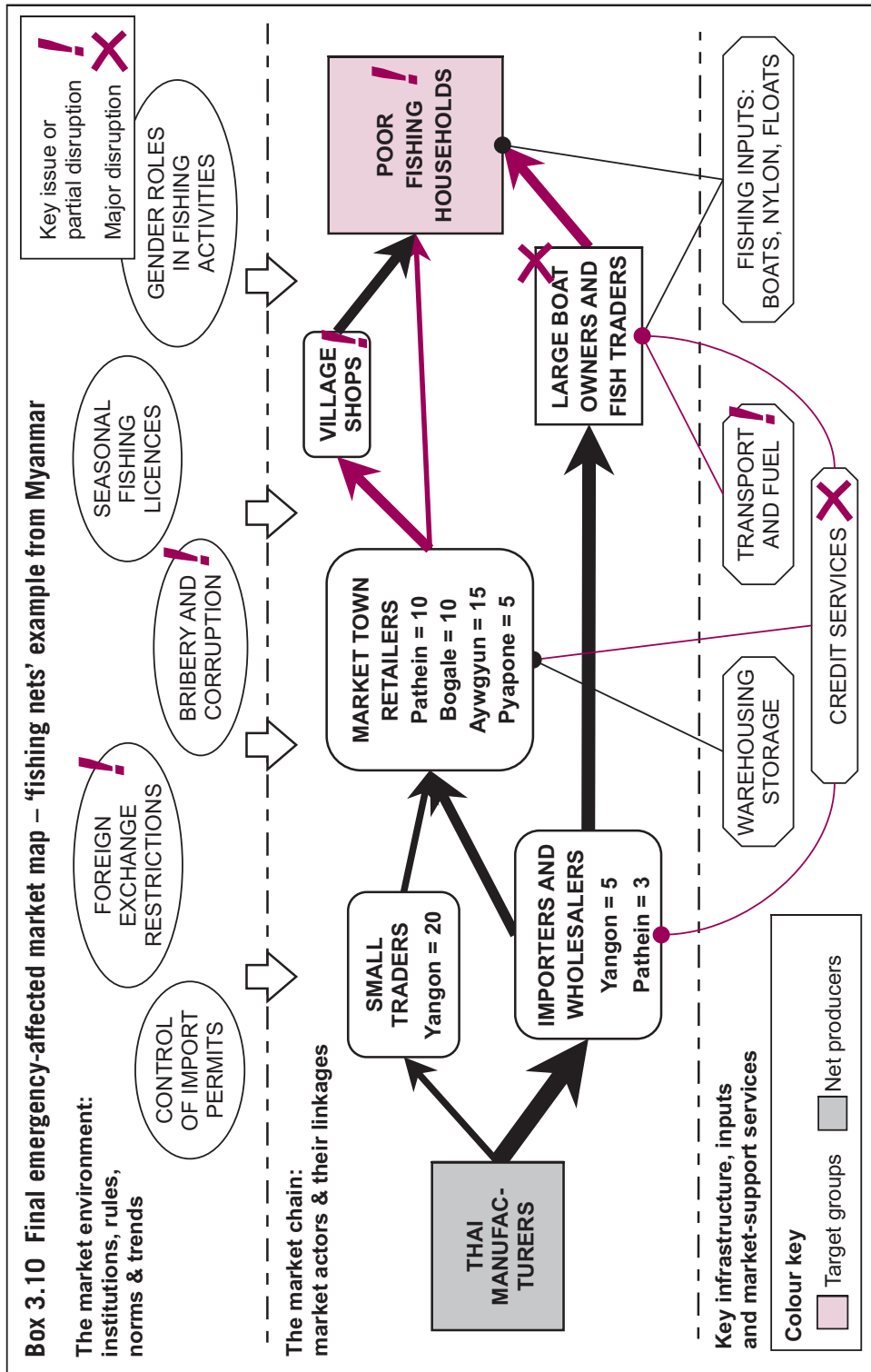
Comparing baseline and emergency-affected maps

As soon as you have a preliminary draft map, it is possible to begin recording the impact of the crisis. Examples of impacts may include the following:

- the disappearance of some market actors;
- partial or complete disruption to some linkages or relationships in the chain;
- damage to infrastructure, and blockage of services;
- new relationships or linkages formed as coping strategies by market actors;
- changes in the relative importance of different linkages (i.e. volume of trade);
- introduction of new supply channels (e.g. aid distributions).

These impacts – which are still very possibly speculative at this early stage – can be indicated on a market map, using simple visual ‘flags’ to highlight various kinds of disruption to market actors, functions, and linkages in the system (see Box 3.10).





3.7 Preliminary seasonal calendar for market system

As noted above, many market systems have strong seasonal variations in the patterns of production, trade, and prices. These patterns may reveal themselves through seasonal price fluctuations for inputs and outputs. Or they may involve major seasonal shifts of activity as people move, for example, between farming and wage employment.

This is most obvious in agricultural market systems, with shifts in demand for labour for ploughing, weeding, and harvesting, and a surge in the supply of produce after harvesting. However, seasonal patterns may also feature in shelter-related markets, and in off-farm activities that are affected by weather or road access, for example.

It is essential that EMMA users are able to distinguish between ‘normal’ seasonal fluctuations in prices and trade volumes and the disruptions created by an emergency situation. Otherwise, your diagnosis of market-system problems and proposed solutions will be flawed. The baseline market map should represent a ‘seasonally relevant’ picture.

It is a good idea, therefore, to begin constructing a preliminary version of a seasonal calendar (Box 3.11) for each market system analysed, to capture the ‘normal’ seasonal patterns of price and trade. As more information becomes available, this can also be used to describe other important features of the system which may be relevant to the humanitarian response.

Box 3.11 Seasonal calendar for market system												
<i>Factor</i>	S	O	N	D	J	F	M	A	M	J	J	A
Prices of item	Low								High			
Trade volumes	High									Low		
Employment level			Planting: high				Low				Harvest	
Input purchases				\$					\$			
Main harvest sale												
Repayments due	\$	\$										
Flooding season						Flood						

3.8 Revising EMMA's key analytical questions

The preliminary market maps and seasonal calendars – however sketchy and incomplete – are first steps in the iterative process that leads to robust response recommendations. Similarly, the key questions that you identified after the market-system selection (section 2.4) will also evolve and change as you develop your understanding of the situation.

The final activity in Step 3 is to reflect on the preliminary maps, and ask yourself the following questions:

- How does the target population interact with this market system?
- What are the most important channels and actors in the system – likely focal points for enquiries, points of leverage?
- What has been the impact of the crisis?
- What do we not know, and need to know?

Ask yourself who is likely to be able to answer these questions. Who are likely to be the most useful key informants, especially to begin with? These are likely to be larger market actors (e.g. wholesalers) who have an overview of the market system as a whole, including the roles of services (such as finance, transport), policy, and regulation.

You should also think about government officials, the managers of local NGOs, and sector specialists who can help EMMA teams to build up a general preliminary understanding of the market system and the emergency situation.

Checklist for Step 3

- o Introduce the EMMA field team to basic concepts and mapping techniques.
- o Sketch preliminary baseline and emergency-affected market maps.
- o Sketch a preliminary seasonal calendar for the market system.
- o Revise key analytical questions, in light of better understanding of system.