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Marketing Extension Guide

Planning and designing RURAL MARKETS



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Marketing Extension Guide

Planning and designing
RURAL MARKETS

by
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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome 2003

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Preface

Upgrading rural markets is one way to improve access to marketing opportunities. This guide is designed to assist community planners, rural engineers and agricultural extension units to formulate and implement relevant market development plans.

The types of issues covered in this guide include designing markets that meet a community's social and economic needs; working with communities to identify their marketing problems and to choose a site for a new market; using appropriate and simple methods to survey and plan the site layout and to design market buildings; preparing a market development proposal and making budget estimates; undertaking simple social and economic feasibility studies; looking for financing and constructing the market; and managing, operating and maintaining the market.

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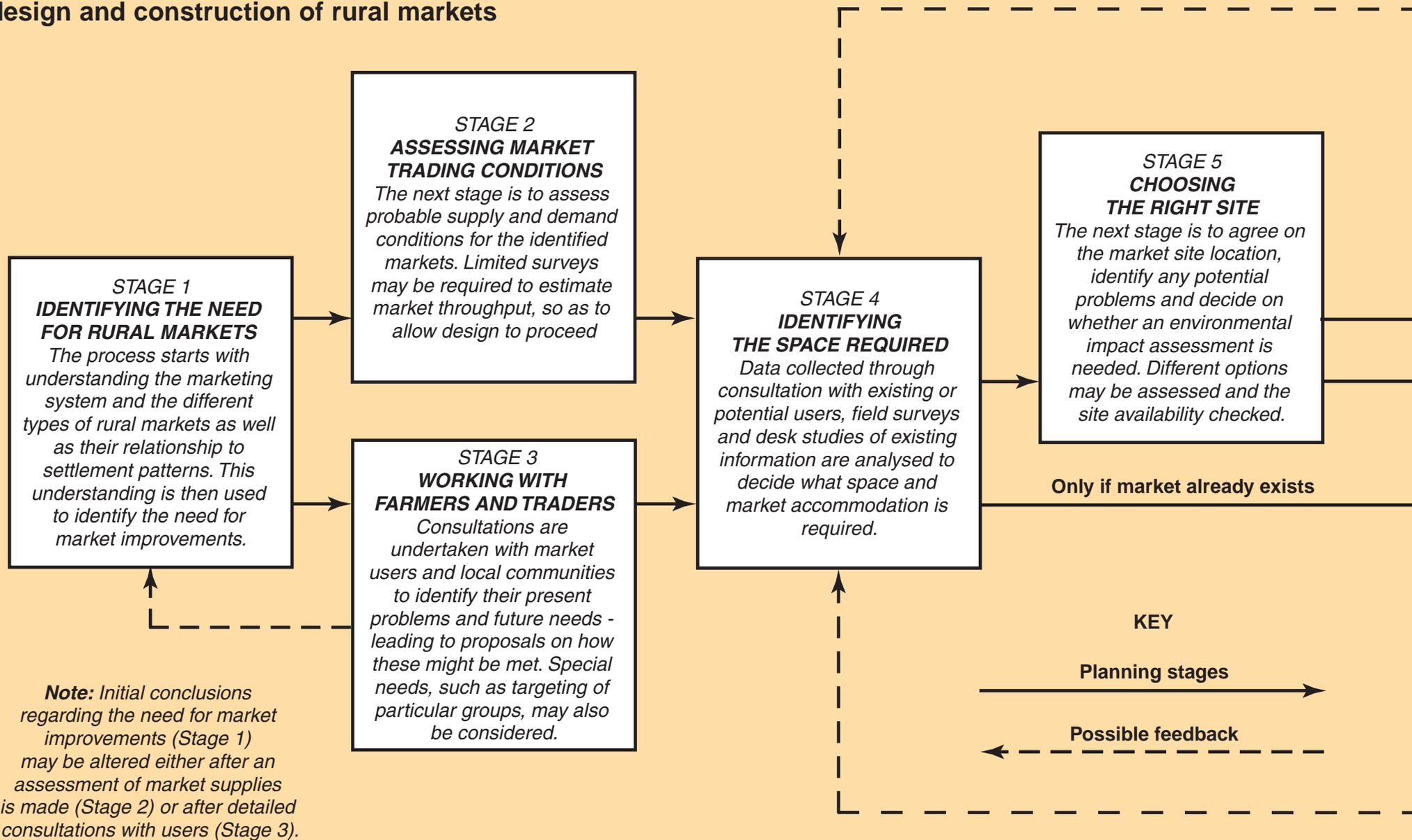
Introduction

This guide is intended to provide a step-by-step approach to the planning, design and construction of simple rural markets. Whether the market is to be built by national or local government, by donors, by a local community or privately, the assistance of extension departments, planners and rural engineers will be required. Such assistance is likely to include:

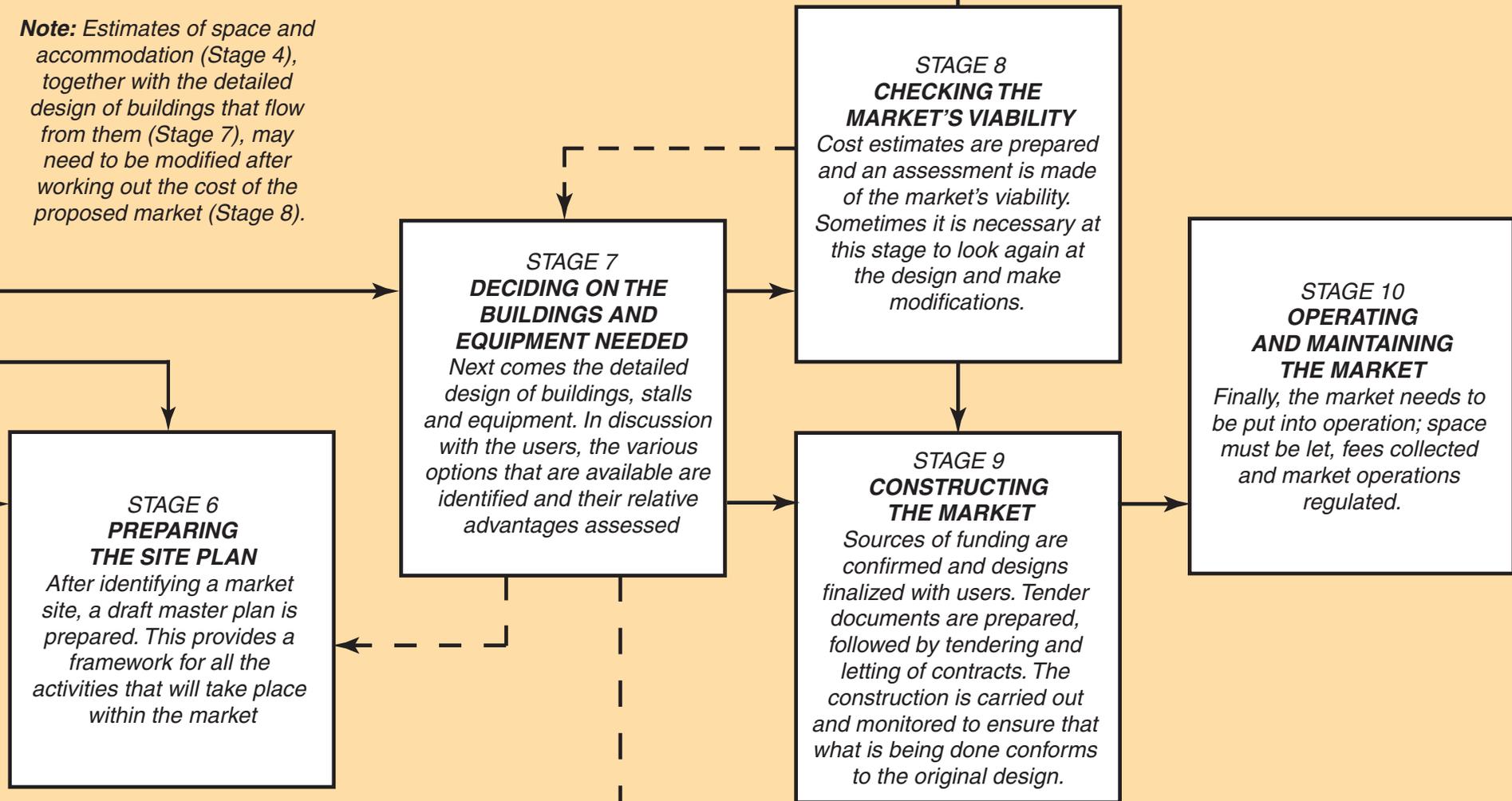
- identifying marketing problems and needs;
- helping with selection of market sites;
- planning, implementing and operating effective market improvement activities; and
- following up and evaluating the results of the development.

The guide follows the development process from identification of the need for a market through to operation of that market. Although each stage in the process is presented as a separate chapter the stages are not necessarily independent of each other. A diagram of the planning process is shown on pages 2 and 3 (Figure 1) with a brief description of each stage and indications of where findings may be used to modify the work of previous stages. An outline of all stages and steps is shown on page 4.

Figure 1
**Outline of work for the planning,
 design and construction of rural markets**



Note: Estimates of space and accommodation (Stage 4), together with the detailed design of buildings that flow from them (Stage 7), may need to be modified after working out the cost of the proposed market (Stage 8).



A step-by-step outline of the planning process

STAGE 1 IDENTIFYING THE NEED FOR RURAL MARKETS

Steps

- 1.1 Identify market channels in rural areas
- 1.2 Define responsibility for decision-making
- 1.3 Review planning considerations
- 1.4 Identify market improvement options

STAGE 2 ASSESSING MARKET TRADING REQUIREMENTS

Steps

- 2.1 Decide on design information needed
- 2.2 Assess supply and demand
- 2.3 Estimate the market's throughput

STAGE 3 WORKING WITH FARMERS AND TRADERS

Steps

- 3.1 Consult with the users
- 3.2 Provide support to the market committee
- 3.3 Assess user needs

STAGE 4 IDENTIFYING THE SPACE REQUIRED

Steps

- 4.1 Estimate sales space requirements
- 4.2 Identify trading spaces
- 4.3 Decide on the market's facilities
- 4.4 Determine the area needed for the site

STAGE 5 CHOOSING THE RIGHT SITE

Steps

- 5.1 Review suitability of site locations
- 5.2 Reviewing site features
- 5.3 Determine if an environmental assessment is needed
- 5.4 Prepare an impact statement
- 5.5 Review site options and availability

STAGE 6 PREPARING THE SITE PLAN

Steps

- 6.1 Gather design data
- 6.2 Organize land uses
- 6.3 Plan vehicular access and circulation
- 6.4 Plan for supplementary uses
- 6.5 Finalize the site plan

STAGE 7 DECIDING ON THE BUILDINGS AND EQUIPMENT NEEDED

Steps

- 7.1 Design buildings
- 7.2 Design infrastructure
- 7.3 Identify environmental impact mitigation measures
- 7.4 Decide on market equipment

STAGE 8 CHECKING THE MARKET'S VIABILITY

Steps

- 8.1 Estimate development costs
- 8.2 Estimate recurrent costs
- 8.3 Estimate benefits
- 8.4 Test financial viability
- 8.5 Assess the proposals
- 8.6 Amend the designs

STAGE 9 CONSTRUCTING THE MARKET

Steps

- 9.1 Obtain consents and agree on the financing
- 9.2 Prepare tender documents and tender the works
- 9.3 Let construction and equipment contracts, supervise construction and monitor implementation
- 9.4 Confirm practical completion and evaluate the works

STAGE 10 OPERATING AND MAINTAINING THE MARKET

Steps

- 10.1 Commission the market
- 10.2 Agree on space allocation and leases
- 10.3 Agree on the market fee schedule
- 10.4 Agree on the market regulations

1 Identifying the need for rural markets

Stage 1 reviews existing marketing problems that may be solved by either new or improved markets, and identifies the kind of market needed and the improvements that will most benefit local communities. At the end of this stage, and subject to discussions with the existing or potential market users (see Stage 3), it should be possible to provisionally address the following points:

How the marketing system works and how this relates to the local settlements.

Who would be responsible for managing the identified market once it has been constructed or improved.

Special planning issues that need to be considered, such as developing markets in particular settlements, markets associated with particular road improvements or the needs of special groups.

The types of marketing improvement that are needed and where they will be undertaken.

STAGE 1 IDENTIFYING THE NEED FOR RURAL MARKETS

The problem

An efficient marketing system can provide better prices to producers and improve the availability of competitively priced produce to consumers. In some cases new markets or improvements to existing markets in rural areas can help overcome many of the marketing problems faced. However, before considering whether to carry out improvements to markets and what type of improvements to introduce, it is important to be sure that markets, or lack of them, represent the main problem. Other causes of inefficient marketing could be:

- poor roads;
- a lack of knowledge about marketing among farmers;
- an inadequate quantity of products to attract sufficient traders.

The benefits of markets

Formal markets in rural areas play an important role in improving agricultural marketing. They can:

- provide a location at which farmers can meet with traders;

- increase retail competition by providing a convenient place where farmers can meet with consumers;
- improve hygiene, if existing marketing activities are carried out in an insanitary manner;
- reduce post-harvest losses by providing protection for produce from direct sunlight, rain, etc.;
- make marketing a more pleasurable activity; and
- provide a focal point for rural activities.

Location for trade. Traders who buy produce from farmers for transport to urban markets experience significant costs in travelling from farmer to farmer to buy small quantities. This is not a major problem if farmers are situated close to major roads and traders simply drive along the road buying from each farmer. When farmers are at the end of poor quality local roads, however, traders lose considerable time. Costs are also high because traders often use the same large vehicles that they use for journeys to urban areas, and poor road conditions may damage those vehicles.

Farmers are also at a disadvantage because they are more or less forced to accept the price the trader offers. They cannot compare the price they are offered with the prevailing local price because there is no local market. Even if they have access to information about the prices in urban markets they cannot really use that knowledge to negotiate with traders because they have no realistic idea of the costs faced by the traders in travelling to their farm or village.

For these reasons “assembly” markets have tended to develop in rural areas. They provide a convenient location for traders to meet with farmers. In some cases these markets operate seasonally or on only one or two days of the week. In others, they operate more or less continuously, with large-scale traders sometimes employing agents in several such markets to buy on their behalf.

Retail facilities. In some countries farmers travel from door to door to sell their produce. This can be time consuming and exhausting and may require investment in transport, such as a bicycle. Door-to-door selling also makes price setting difficult because farmers have little information regarding prices being charged by other sellers. Markets, on the other hand, provide a location where all buyers and sellers can meet. Consumers can see the range and prices of produce on offer and make choices based on their preferences and income. Sellers can take their produce to one location rather than having to go from door to door. They can see how much of a particular product is on offer, compare the quality of their produce with that of other sellers, and set their prices accordingly.

In order to achieve such benefits, however, markets must be situated in locations acceptable to both sellers and buyers. This is emphasized strongly in this guide. There have been many examples of new markets being constructed in unsuitable locations and never being

used! Existing market sites, or places where buyers and sellers meet informally (e.g. a plot of land at the side of the road), are usually the best places to construct new markets because they are clearly at locations favoured by the users.

Improve hygiene. Existing “markets” are often just areas of available land that buyers and sellers find convenient to use. They may be well established in the sense that they have existed at the site for a long time, or they may be temporary, for example, a vacant plot of land used until it is reclaimed by the owner for some other purpose. Either way, hygienic conditions are usually very poor. In most cases there are no toilet facilities or running water and probably no arrangements for waste disposal. In the rainy or monsoon season the market area may be extremely muddy, but sellers may display their produce on the ground, with a risk of contamination from the soil or mud. Many municipal markets are like this, even though users are often charged a fee. Improved markets should minimize all of these problems. Apart from providing a healthier overall market environment, such improvements can reduce the danger of food contamination.

produce and on its nutritional value. Leafy produce, for example, can be kept fresh by protecting it from the sun and by keeping it moist. This is not possible in markets that do not have either shelter or fresh water supplies.

Provide a rural focal point. Retail markets frequently play an important social function. Farmers in many countries prefer to take their own produce to market rather than sell it to traders. The visit to the rural centre provides them with the opportunity to buy items unavailable in their villages and to catch up with local news. In many countries markets function as more than just trading places. They are the focal point of a rural centre and provide an important place where people can meet. Markets that are attractive places to do business draw buyers and sellers alike. Competition is promoted amongst sellers and at the same time the sellers have a large number of potential customers.

Reduce post-harvest losses. Unimproved markets usually lack any form of shelter. Produce is displayed and stored in the sun. Apart from conditions being very difficult for those using the markets, the lack of protection
8 from the sun can have a major impact on the life of fresh



Step 1.1

Identify market channels in rural areas

As a first step towards identifying requirements for new or improved rural markets it is important to understand how existing marketing functions. The most common transactions in rural areas are described below.

Farm-gate purchases. Purchase of produce may be on an individual basis at the farm gate. Buyers go to the farm, usually at a pre-arranged time. In some cases, such as with fruit crops, the produce can be sold “on the tree” or “in the field” and the buyer arranges for its harvesting. In other cases the sales may be through marketing groups or cooperatives. The farmers in this case may wait for the trader at collection centres.

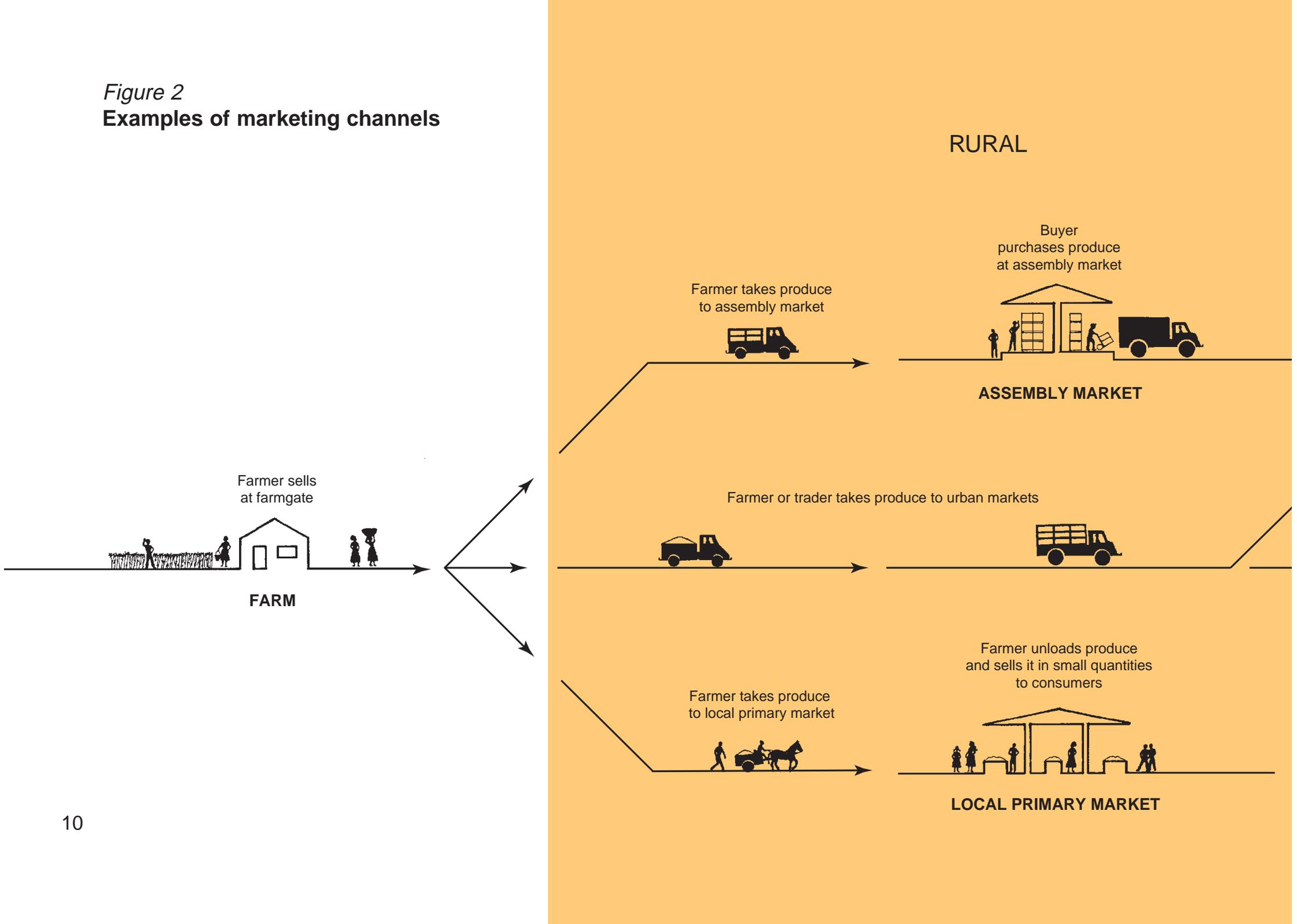
Local (primary) markets. These markets are usually for direct sales of small quantities of produce by farmers to village traders and rural consumers. Rural primary markets often form part of a network arranged on a periodic basis, such as on a specific day of each week. They are commonly organized at a central place in a village or district centre or beside a village’s access road. In some instances, markets in small towns also provide an assembly function.

Assembly markets. Larger rural markets are found where greater quantities of produce are traded, either by the producers themselves or by traders. These “assembly” markets (gathering produce in larger quantities for onward sale to outside buyers) are often combined with local rural markets and are normally situated on main highways, other local main roads or near to ferries. Traders or collection agents working on behalf of urban wholesalers normally purchase produce. The market operations may be year-round or seasonal, depending on the types of crops being marketed.

Direct sales to urban markets. Farmers may also take their produce directly to urban areas, either to a retail market or to a wholesale market.

Note: The diagrams in Figure 2 on pages 10 and 11 show examples of how farmers market their products.

Figure 2
Examples of marketing channels

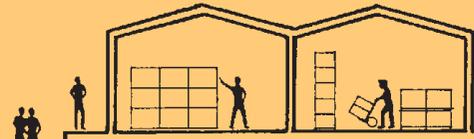


URBAN

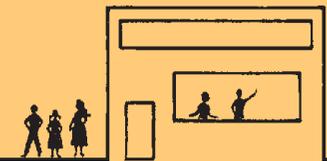
Produce is unloaded, weighed and delivered to wholesaler

Retailers purchase produce from wholesalers and take it to their shops

Retailer sells produce to consumer



WHOLESALE MARKET



RETAIL SHOP

Retailer sells produce to consumer



RETAIL MARKET

Farmer sells produce to consumer



FARMERS' MARKET



Step 1.2
Define responsibility for decision-making

There is no right way to operate a rural market. The extent to which the public sector and local communities are involved depends on who pays for the development and who maintains it. The involvement of central government in small marketing infrastructure is usually limited to capital expenditure, the maintenance being undertaken by local government or the community itself using locally generated funds such as the market fees. A market committee (or, perhaps, a local rural development committee) would usually be the key decision-making body. The existing market users should be closely involved with decisions about whether to improve a market, or to develop new infrastructure (see Stage 3). Most development should involve a high level of local initiative. Sufficient time should be given at the start to ensure the community's involvement in the design process and to establish ownership of the facility.



Step 1.3
Review planning considerations

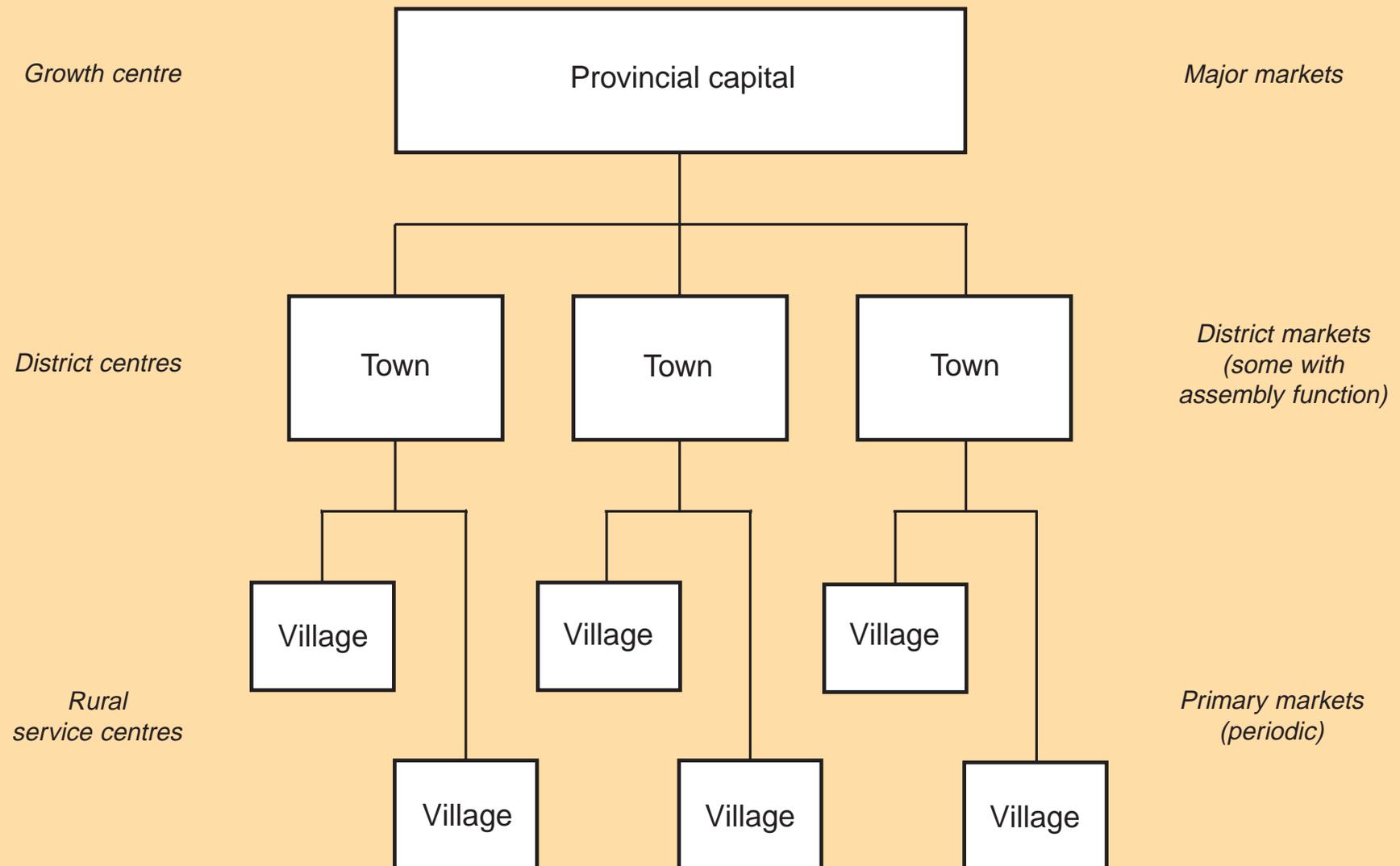
Not all villages have permanent markets and the distance to market can vary a lot. A key concept in rural development is how rural settlements relate to the overall pattern of towns and villages.

Relationship of markets to settlement patterns. Some settlements act as “central places”, providing the population of the surrounding “catchment” area with goods and services. They may also function as points for assembly of local farm produce for onward movement to urban areas. There are usually three levels of “central places” in rural areas (see Figure 3):

- growth centres;
- district centres; and
- rural service centres.

1. *Growth centres*: major regional or provincial towns. The centre contains a range of services such as a college, a hospital, banks, a major market (often with some wholesaling functions) and specialized shopping facilities.

Figure 3
Central places in a rural area



2. *District centres:* rural settlements whose primary function is to provide administration and to deliver public services. These centres might contain a secondary school, a health clinic and a market, which could perform assembly functions for the district. The market is often found close to a bus station and a number of permanent shops.
3. *Rural service centres:* normally located in the centre of a village (and associated smaller villages) serving a population of around 5 000 people and an area not usually exceeding a 10-kilometer radius. Services provided at such a centre could include a primary school, a health post or dispensary, a police post and a primary market, often operating periodically. Market “catchment” areas are often defined by bus routes (or sometimes by short river journeys) and by walking distance. This could be up to one hour (i.e. 5 to 6 kilometres) or even more.

Planning policies. Local planning authorities may have clear plans as to which settlements should be developed and which should not. Ranking systems are sometimes used to determine which settlements are to be given priority. This is often based on rural road development policies. The guidance of local planning authorities on how to interpret such policies should always be obtained when planning markets.



Step 1.4

Identify market improvement options

Justification for new markets. The basic choice is usually between choosing a new site or upgrading an existing market or trading area. The better option is normally to improve conditions on an existing site, particularly if this can be accompanied by improvements in the market’s management.

Deciding on rural market improvements. It is necessary to adopt some objective criteria in considering options for market improvement. This will depend on need (see Stage 3) and the market’s financial or economic viability (Stage 8). However, at an early stage, some overall criteria must be adopted to allow a preliminary selection of markets to be made. The following are some criteria that could be used:

- Improvement or construction of only those markets that have an assembly function and can promote agricultural production could be considered.
- The improvement of primary markets that have only a local retail function, or the construction of new markets, might be linked to those areas with an expanding population.

Table 1
Types of rural market intervention

<i>Type of market</i>	<i>Reasons for undertaking improvements</i>	<i>Ownership</i>	<i>Possible interventions</i>
Existing primary markets located in traditional rural village centres	Inadequate and insanitary facilities Poor management Production growth Population growth	Public	Repair existing facilities New building and infrastructure
		Private	Planning assistance Repair existing infrastructure
Primary markets in newly planned rural settlements	Production growth Population growth	Public	Site acquisition New building and infrastructure
		Private	Planning assistance New infrastructure
Existing assembly markets	Inadequate and insanitary facilities Poor management Production growth Agricultural diversification	Public	Repair existing facilities New building and infrastructure
		Private	Planning assistance Repair existing infrastructure
New assembly markets	Production growth Agricultural diversification	Public	Site acquisition New building and infrastructure
		Private	Planning assistance New infrastructure

- Market improvements might be planned where there are poor public health and sanitation conditions in existing markets because of inadequate space and facilities available in the market area.
- Improvements could depend on the willingness of market traders to improve the efficiency of existing market operations and to accept higher rents and charges to cover the costs.
- Emphasis could be placed on those markets where the private sector takes responsibility for improving

individual sheds and stalls, allowing the improvement programme to concentrate on upgrading “common” infrastructure (i.e. roads, paving, fencing, drainage, toilets, etc.).

An initial assessment can be made using these criteria. This will reduce the need to cover all the markets in an area and should simplify the design process. A simple chart could be drawn up to classify the potential market interventions, as shown in Table 1.

2 Assessing market trading requirements

Stage 2 involves the review of data necessary for market design. Existing agricultural production statistics can be used together with surveys to estimate supply and demand. The following activities should be carried out:

Collection of information on local crop and livestock production, on the functioning of the various marketing channels and on general trade conditions in the market's catchment area.

For new, larger markets and assembly markets, an assessment of the supply and demand conditions.

An estimate of the present quantities of produce that are traded and a projection of the future market throughput.

STAGE 2 ASSESSING MARKET TRADING REQUIREMENTS

Overall approach

What is supplied to the market? In Stage 1 the reasons why market improvements might be needed were broadly identified. This stage involves estimating the levels of supply that could pass through new or improved markets. For existing markets the assessment can be based mainly on observing what is happening in the market. Where there is no existing market the assessment must be based on local supply and demand estimates and forecasts.

Supplies to a market and the type of market used vary depending on the type of local agriculture. For example, in areas where there is large-scale production of fruits and vegetables for urban areas, a new or improved assembly market may be required. In areas where production is primarily of export commodities, which usually have well-established independent marketing channels, only rural retail markets may be required.

Catchment areas. One of the most difficult points to consider is the “catchment area” to be served by a

particular market. This could be reviewed by looking at the production areas within walking or animal cart distance of a market, in which case a maximum radius of 10 km from the market might be a reasonable assumption. When an assembly market is being planned, and farmers have access to public transport or small trucks, a longer distance could be assumed. If there are no other large rural centres with markets a “catchment area” for an existing or new assembly market could have a radius as high as 50 km.

provide what is usually referred to as secondary data, examples of which are:

- population data (age composition, gender, migration, and mortality rates, annual growth rates);
- agricultural production data – areas and yields, location of agricultural production areas (irrigated and non-irrigated), forested areas, fishing concessions;
- relevant studies on crop marketing, existing market channels, location of agroprocessing and storage facilities; and
- available site engineering data and maps, strategic and physical planning standards and master plans, environmental data and building cost data.

Primary data. Primary data may also be needed. This involves working with communities, market traders and farmers to collect data and, if necessary, undertaking field surveys to fill gaps.

Market surveys. The types of survey that could be undertaken are as follows:

- inventory surveys that describe physical and trading conditions in existing markets;
- traffic surveys to measure the number of vehicles using a market, the mode of transport used and the origin and destination of agricultural produce;
- socio-economic and environmental impact studies of specific issues or areas; and



Step 2.1

Decide on design information needed

Secondary data. All rural planning depends on the availability of information. The first approach to collecting this information is to undertake a review of existing published documents and maps, such as regular population and agricultural census reports. These

- case studies of small businesses, such as market traders, to investigate their financial viability. This is particularly important in order to evaluate their capacity to pay increased fees, which may be necessary after making improvements or building a new market.

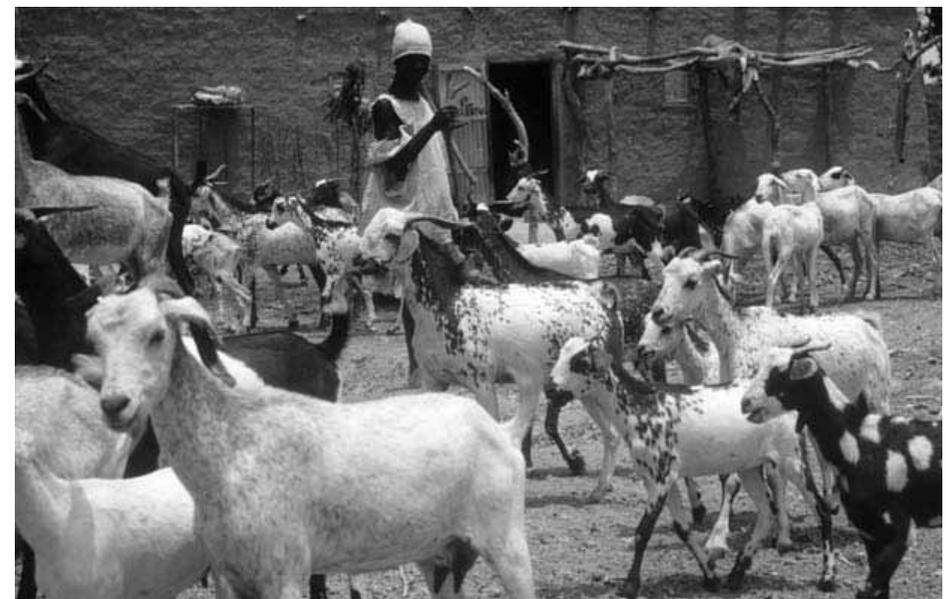
The market inventory survey (detailed in Annex A) usually consists of two parts: a general review of market operations and a physical survey, which involves mapping the site and its facilities.

For more complex markets (such as an assembly market) this data should be supplemented by a traffic and origin/destination survey. Where there is a total lack of information on production, a sample survey of farm households may be necessary, although this level of investigation is probably not appropriate for most rural markets. A count of the existing sellers and observation of the market users' activities, together with discussions with traders, should be adequate for most markets.



FAO/16188/G. Bizzarri

It is essential to review production of both crops and livestock in the area to be served by the market.



FAO/10995/J. Van Acker



Step 2.2 Assess supply and demand

It may be necessary to make an assessment of potential supply and demand to determine the existing or likely flows through new markets. The methods for doing this are shown in Annex B and the steps involved are as follows:

- review crop and livestock production, to identify the quantities that could be marketed;
- review the role of market channels, to find out where the produce is presently going;
- review existing consumption, on the basis of average food consumption levels;
- determine on-farm use, to identify what is retained by the farmers for their own use; and
- determine non-market sales, to quantify how much produce is not likely to go through the market.



Step 2.3 Estimate the market's throughput

Existing throughput. The last step at this stage is to estimate the planned market's throughput. The basic calculation method, which is the same for both primary and assembly markets, is shown in Form 6 in Annex B. Using this method for each of the main crops it is possible to estimate the following on an annual basis:

- marketable surplus;
- total non-market sales;
- planned or existing market sales;
- imports into the area to meet any deficit; and
- total market throughput.

Future market throughput. In calculating future market throughput additional factors need to be considered. The future throughput of produce marketed at an assembly market is dependent on how local production increases and what proportion of this increased growth will pass through the market. For a primary retail market the future throughput will depend on local retail demand, which will be affected by local population and income growth. The easiest way to handle this calculation is to assume that the competition from other marketing channels remains

Table 2
Calculation of future market throughput
 (tonnes per year)

<i>Fresh produce</i>	<i>Present throughput</i>	<i>Retail trade</i>			<i>Assembly trade</i>			<i>Total future</i>
		<i>Through-put</i>	<i>Growth factor</i>	<i>Future</i>	<i>Through-put</i>	<i>Growth factor</i>	<i>Future</i>	
	a	b (60% of a)	c	d (b × c)	e (40% of a)	f	g (e × f)	h (d + g)
Vegetables	2 000	1 200	1.40	1 680	800	1.40	1 120	2 800
Potatoes	2 500	1 500	1.40	2 100	1 000	1.60	1 600	3 700
Fruits	2 000	1 200	1.40	1 680	800	1.50	1 200	2 880
Meat	800	800	1.40	1 120	-	-	-	1 120
Eggs	500	500	1.40	700	-	-	-	700
Fish	200	200	1.40	280	-	-	-	280
Total	8 000	5 400		7 560	2 600		3 920	11 480

a constant proportion, to divide the market throughput into retail and assembly trade and then to apply growth factors for:

- retail trade, based on population growth and changes in consumption (remember that census data is often out of date and this may be significant when growth rates are very rapid); and
- assembly trade, based on expected production growth for different crops.

To make projections it is necessary to assume a time period. In financial and economic analysis this is usually taken at 20 to 25 years, based on the life of the investment. However, such long-term projections are difficult to justify and would give an exaggerated impression of demand for space. For rural markets a 10-year projection period is more appropriate. For example, if the growth is 3.5 percent per year, for 10 years it will be a growth factor of 1.035^{10} , roughly equivalent to a 40 percent increase or a multiplier of 1.4.

In many cases, of course, a market has a mixture of functions. For example, retail trade might account for 60 percent of the total and the balance might be assembly trade. This assumption is made in the example shown in Table 2.

Given the uncertainty of making such estimates it is usually necessary to make two projections – high and

low – of future throughput, which reflect optimistic and pessimistic views of likely growth scenarios. The basis for the growth factors should be discussed with local agricultural officers to ensure that they are consistent with current information and policies.

As was suggested earlier, for simple improvements to an existing primary market such detailed calculations can be omitted. By counting the number of stalls (n) and multiplying this by the average daily sales per trader (s) and the number of marketing days (d) in a year, a rough estimate of the annual total (T) throughput can be derived. $T = n \times s \times d$. This can be projected into the future using a simple growth factor (as in Table 2).

Note: More detail on methods that can be used to project demand is given in the FAO Agricultural Services Bulletins Nos. 90, 121 and 141 (see Further Reading at the end of the guide).