



## 1 What are marketing costs and why do they vary?

Getting produce to the consumer involves numerous costs



### **Produce preparation and packaging costs**

We assume that harvesting of produce and the movement of that produce to the farm gate or packing shed is part of the production cost. Thus the first marketing cost incurred is *produce preparation*. This includes cleaning, sorting and grading. The second cost that is usually faced by farmers and/or traders is *packaging*. Types of packaging used may range from a simple jute bag, which may account for less than one percent of the marketing cost, to sophisticated plastic packaging for direct shipment of fruits to consumers in supermarkets, which would account for much more.

### **Handling costs**

At all stages in the marketing chain produce will have to be packed and unpacked, loaded and unloaded, put into store and taken out again. Each *individual handling cost* will not amount to much but the sum total of all such handling costs can be significant.

### **Transport costs**

Once packed, produce is then *transported*. In many countries the initial transportation may be done by the farmers or their labourers, carrying the produce themselves or using animal-drawn carts. Alternatively,

traders may send agents around to farmers to collect produce for assembly in one central area. As noted in the Introduction, costs will vary according to the distance between the farmer and market. But they will also depend on the quality of the roads. A farmer living close to a main highway will probably face much lower transport costs than one living at the end of a rough road, which causes much damage to trucks and is often impassable. Transport costs will be lower in countries where trucks and fuel are cheap than in countries where import duties are high. Truck owners have to buy their trucks; costs will be lower where bank interest charges are low than where they are high.

Sometimes *transport costs* are a simple matter to calculate because the farmer or trader pays a set price per kilogram to the transporter. But what do we do when produce is carried on a “per container” basis or when farmers or traders hire a complete truck and transport a variety of crops? How do we calculate traders’ transport costs if they own their own vehicle?

### **Product losses**

*Losses* are common with agricultural produce marketing. Even if nothing is actually thrown away products may lose weight in storage and transit. Thus one kilogram of a product sold at retail level cannot be compared with one kilogram sold by the farmer. Some-



Using local materials for packing can be cost-efficient



Transport costs often make up the bulk of marketing costs



Produce is handled many times before it reaches the consumer



Product losses can be a considerable cost

times very high losses can be recorded, particularly for a perishable fruits and vegetables. Losses will probably be highest in the main season when “gluts” of produce mean that much has to be thrown away unsold. In general, the longer the distance between farmer and consumer the higher the likely loss.

The treatment of losses in marketing cost calculations can be fairly complex. In particular, produce which is bought but not sold can still incur costs such as packaging, transport and storage. If there are no *quantity* losses there can still be *quality* losses and this is reflected in the price at which produce is sold.

### **Storage costs**

*Storage* is an important cost for many products. The main purpose of storage is to extend the availability of produce over a longer period than if it were sold immediately after harvest. The assumption behind all commercial storage is that the price will rise sufficiently while the product is in store to cover the costs of storage. Such costs will vary, depending on the costs of building and operating the store but also on the cost of capital used to purchase the produce which is stored. If a store is used to its maximum capacity throughout the year costs will obviously be much less than if it is only used for a few months and is, even then, kept half empty.

### **Processing costs**

*Processing* is often an important marketing cost. Grains such as rice and maize have to be milled. In working out total marketing costs we need to consider the conversion factor from unmilled to milled grain, as well as the value of any by-products. The price paid to the farmer for one kilogram of paddy cannot be directly compared with the price paid by the consumer for one kilogram of milled rice because they are not the same product. It is surprising how often something as simple as this is overlooked. Similarly, a coffee farmer can't compare directly the export price for a kilogram of green beans with the price he or she receives for cherries or even parchment coffee.

Processing costs can vary according to the efficiency of the organization doing the processing, the processing facility's throughput and the frequency of its operation. It will also vary according to the organization's costs which can depend on factors such as fuel costs, depreciation costs, import duties, taxes and wages.

### **Capital costs**

*Capital* costs may not be very visible but are extremely important. To operate, traders may have to borrow money from the bank. The interest they pay on that money is a cost. If traders use their own money we cannot then say that they have no costs since they could



Storage extends product availability beyond the harvest  
– it can be expensive

have left the money in the bank to earn interest instead of using it for trading. The cost of using their own funds is thus the interest they are not receiving. Economists call this an *opportunity cost*.

There are other opportunity costs. For example, traders could perhaps be using their time to do other work. For them to want to be involved with marketing the profit they make from marketing must be more than their alternative income opportunities. Often it must be significantly more, particularly when they run the risk of losing money.

### **Other costs**

The costs considered above are the major costs that are faced in marketing agricultural produce. But there are many others and people involved with measuring costs need to keep all of them in mind. While they may be low in one country they may make up a sizeable proportion of costs in another. People using markets have to pay market fees. Often they will have to pay to have their produce weighed. Traders normally have to be licensed and pay license fees. In some markets wholesalers charge commission. Taxes have to be paid and, sometimes, bribes are needed, whether at road blocks when transporting produce or to get permission to operate a business. All these costs have to be built into the calculations.



Much processing takes place in villages

An additional cost is that of obtaining information about market prices, market conditions and buyers. When farmers are deciding whether to grow new crops or to rear animals they will have to investigate how to sell those products. This may require costly visits to market towns in order to meet with potential buyers. It is useful for farmers to be able to monitor market prices. Where there are government market information services this can be done by radio; for poorer farmers both radios and their batteries can represent a significant cost. Richer farmers and traders increasingly use mobile phones to obtain market information; these also involve costs.

### **Prices and margins**

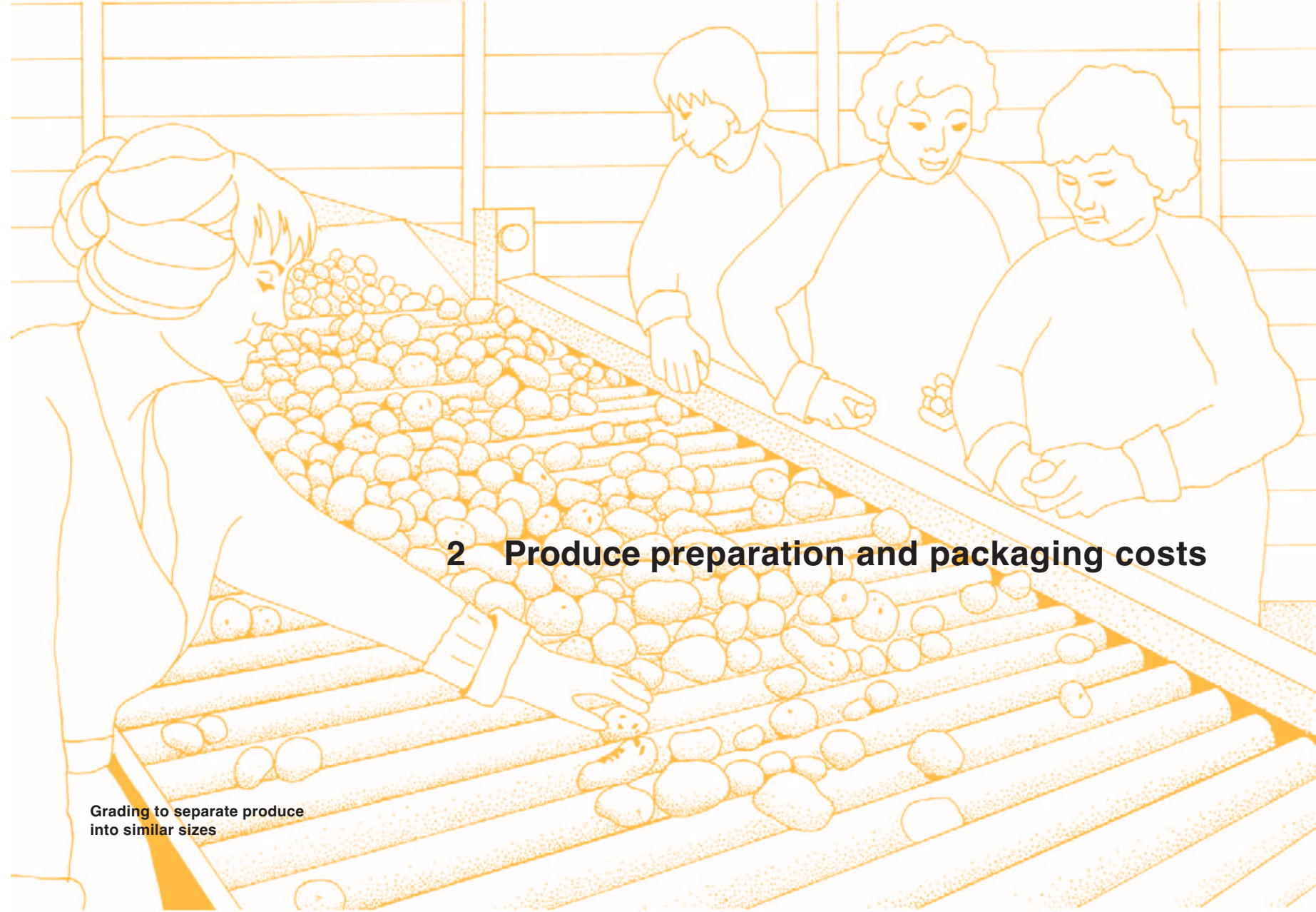
Finally, costs have to be related to *prices* received. In a retail market in the morning tomatoes may be selling at a high price which appears to give the trader an excellent profit. By the evening, however, the trader may be selling them at a far lower price, knowing that the next day a supply of fresh tomatoes will be arriving. This must be kept in mind when comparing the selling price with the amount paid to the farmer. The price paid by the eventual consumer is thus made up of the amount of money paid to the farmer for his produce *plus all of the costs involved in getting it to the consumer in the form in which he or she purchases it and a reasonable return to those doing the marketing*

*and processing for carrying out these functions.* The percentage share of the final price which is taken up by the marketing function is known as the *marketing margin*.

Sometimes the marketing margin can be quite a high percentage and this may be used to argue that farmers or consumers are being exploited. However, high margins can often be fully justified by the costs involved. Without an understanding of those costs and how they are made up it is impossible to know whether margins are reasonable or not.

The final stage of marketing – selling to the consumer





## 2 Produce preparation and packaging costs

Grading to separate produce into similar sizes

## Produce preparation costs

Preparation of produce for the market can often be time consuming. However, money spent at an early stage on preparation and packaging should be more than repaid by higher prices and lower losses. Higher costs can be expected to result in higher returns. Preparation activities, sometimes undertaken by farmers but more frequently by traders, include:

- cleaning, such as removing soil and foreign matter;
- trimming, to remove unwanted leaves, stems or roots;
- sorting, to remove rejects and non-marketable produce (see Chapter 5);
- curing, for example as with onions, garlic or potatoes;
- grading, to separate produce into similar sizes and qualities before packaging, thus increasing the market value of the produce;
- waxing and wrapping, for example as with oranges in some countries, to preserve the produce and make it more attractive to the consumer.

## Packaging costs

Most produce needs packaging. Exceptions are generally larger fruits and vegetables such as pumpkins and water melons which may be transported in bulk. Leafy vegetables, such as cabbages, are also often transported in bulk. Here the outer leaves themselves act as a form of packaging by protecting the inner leaves. There is no packaging cost but it should be

### Packaging serves

three basic purposes ...

... handling and transport convenience ...





remembered that the outer leaves are often thrown away before sale and thus there is a cost in terms of product *loss*.

Packaging serves three basic purposes. Firstly, it provides a convenient way of handling and transporting produce. Costs would certainly be much higher if everything had to be carried and moved without any form of packaging. Secondly, it provides protection for the produce from damage during transit and handling.

... product protection ...



The efforts which are continually being made to improve bulk packaging are designed mainly to improve the protection offered rather than to increase the convenience of the packaging from a handling point of view. Finally, packaging can be used to divide the produce into convenient units for retail sale and to make the produce more attractive to the consumer, thus increasing the price at which it can be sold. The more sophisticated the packaging, the greater the cost.

... marketing attractiveness



Quite often, the farmer will provide the packaging, such as jute or gunny sacks for maize and paddy, which is used right through the marketing chain. More complex and expensive packaging, such as plastic crates, will, on the other hand, normally be the trader's responsibility.

A fruit or vegetable may be packed and repacked several times on its way between producer and consumer, depending on the length of the marketing chain. The farmer may use one type of packaging (for example a sack) to take produce to market. At the market a trader may transfer the produce to a wooden box or plastic crate for transport to the wholesale market. Retailers buying at the wholesale market may then transfer the produce to their own packaging and then repack it (for example in plastic bags) for convenient sale. All of these various types of packaging involve costs, and need to be taken into account when working out total marketing costs.

The simplest packaging cost to calculate is when the bag, box, crate or basket is used only once. All you then need to know is how much produce the package contains in order to work out the packaging cost per kilogram. Often, however, things are not that simple.

With the use of more sophisticated bulk packaging, every effort is made to use the packages over and over again. In these circumstances you need to make an estimate of how many times the container is used to arrive at a cost per journey. Allowance must also be made for repairs and for the cost of transporting the empty package back to the beginning of the marketing chain. If a trader owns a vehicle and all his or her business is in one direction (that is from farms to town) then the cost of returning the containers is negligible. If, however, transport costs for the empty containers have to be paid this can increase packaging costs significantly. An example of this calculation is shown in Figure 1.

The type of packaging used in a particular country and for a particular marketing chain will depend on the costs and benefits of using it. Thus, plastic crates are likely to be used more for produce marketing in a country where they are manufactured than in a country where a 100 percent import duty is charged on such crates. Sophisticated packaging will be used more when it significantly reduce losses; non-perishable produce will not require expensive packaging because the benefits of using it will be marginal. The possibility of using improved packaging made with local materials should always be studied carefully.

*Figure 1*

### **Calculating packaging costs**

Assume that oranges are packed **20 kg** at a time in wooden boxes which, with occasional repairs, can be used for **10 trips**. A box costs **\$ 10**, repairs and cleaning during its life costs **\$2** and each time the box is transported back empty to the producing area costs **\$1**.

Then the packaging cost per trip is ...

**[(original cost + repairs) ÷ number of trips] + transport when empty**

or

$$(\$10 + \$2) \div 10 \text{ trips} + \$1 = \$2.20 \text{ per } 20 \text{ kg}$$

and

$$\$2.20 \div 20 \text{ kg} = \$ 0.11 \text{ per kg}$$

