1

An introduction to household economy

This chapter introduces some basic concepts concerning household economy and food supply, as a basis for themes developed later in the manual.

1. Some definitions

The **household** is the smallest coherent economic unit. It is defined here as a group of people, each with different abilities and needs, who contribute to a common economy and share the food and other income from this. According to location, the size and nature of households may vary widely, from "nuclear" households (a man, a woman and their dependent children) to units of a hundred or more people. Intra-household management of production and income – in other words, how households choose between the different options for production and income, and how they allocate resources within the household – is not discussed in this book. A household is most often, but not necessarily, a family.

Household economy is used in this book to mean the sum of the ways in which the household gets its income, its savings and asset holdings, and its consumption of food and non-food items.

Food access (rather than **food supply**). It is now regarded as more useful to analyse food security in terms of people's access to food than in terms of food

The **World Bank** defines food security as "Access at all times to enough food of a sufficient quality to ensure an active healthy life".

production or supply. This enables us to understand why, irrespective of the supply of food, some people get enough to eat and others do not. The world currently produces enough food to feed everyone, were this equally distributed. However, even in a rich country where food is plentiful people may go hungry if they are unemployed and do not have enough money to buy food. People in a poor country who have insufficient land to grow food may go hungry if they cannot find employment that will provide them with money to buy food from the market.

The concept of access is useful even in situations where the food supply is insufficient to meet everyone's needs: in a camp, for example, the people who have more resources or better social connections will often have access to a greater proportion of the available food. Looking at access helps to explain how food is distributed between households. However, we cannot understand access without also understanding supply.

Poverty and **wealth**. Poverty can be defined in several ways. A household experiences absolute poverty when it does not have enough income to obtain the basic material requirements for a healthy and dignified life; some countries have designated "poverty thresholds", above which a household can adequately feed, house and clothe itself.

Starvation is the characteristic of some people not **having** enough food to eat. It is not the characteristic of there not **being** enough food.
Amartya Sen, 1981

Relative poverty describes the poverty of a household relative to other households in the same community, or in the same or another country. A household may be relatively poor but not absolutely poor.

Poverty may also be defined in qualitative terms. At a given level of income, a household may have greater or lesser access to food of adequate

quality, to health care or to education: for example, in many rural households access to animal milk (rather than, for example, more cereals) is a major determinant of child growth – two households with otherwise identical incomes, one of which has milk and the other not, are not, in terms of the welfare of their children, equally poor. Even a well-off household may lack access to health care if this is not provided by the state or is too far away. Whatever the level of household income, poverty may also be defined in terms of the outcome: for example, the nutritional status or risk of illness or death that has resulted.

HEA is concerned with measures of absolute, relative and qualitative poverty, and with wealth.

In the household economy approach (HEA) the wealth of a household is defined by its holdings of assets that have a market value: that is, can be exchanged for money or other goods. In rural areas these typically include cash savings, gold, livestock and farm implements. As the assets of poor households are usually accumulated by savings from current income (often over several generations), there is a trade-off between poverty and wealth: for many households, wealth can only be accumulated if consumption is minimised.

2. The household economy

Especially in rural areas, the concept of household access to food is complicated by the fact that households often produce both food and non-food items for their own use and also obtain food and non-food items by exchanging household production and labour. A household may also have several sources of income. It is useful to keep three headings in mind:

1. Household production, including household labour
2. The exchange of production (and labour) for other goods
3. Consumption.

Each of these may involve both food and non-food items.

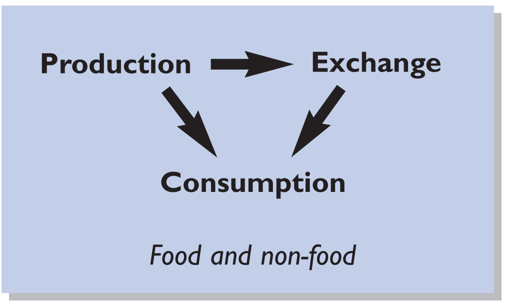


Figure 1

Households in different locations obtain their incomes in an infinite combination of ways. For example, "livestock production" may involve cattle, goats, sheep, camels, pigs, poultry, rabbits, guinea pigs, etc, or any combination of these. These animals may supply food directly (milk, meat, blood or eggs) or income via the sale of livestock products (wool, skins, meat, milk and eggs) or livestock. Each type of livestock will have a different value according to its age, sex and condition, and in some locations its colour, horn length or shape. Similarly, paid employment may involve seasonal day labour, seasonal migrant work within the country or in another country, or some combination of these. However, if the three main headings of production, consumption and exchange are kept in mind, the specific features of any economy can be classified whatever the details of the case.

Sources of household income: production and exchange

Household production and other income that is directly consumed by the household may be:

- from agricultural production. This can be in the form of food crops of various types or animal products (milk and milk products, meat, eggs and blood)
- wild foods that are gathered or hunted. These include fruits, berries and roots, insects, fish, and many types of large and small game
- non-food products, such as firewood, charcoal, fodder and agricultural implements.

Household production and labour that are exchanged in the market for other goods may include:

- Food and non-food agricultural products. A household may produce more cereals or pulses than it needs for consumption and exchange the surplus, or it may exchange production such as livestock or cotton for other foodstuffs and goods.
- Non-agricultural products, such as firewood, charcoal, fodder or handicrafts.
- Household labour, either as paid employment or self-employment. Opportunities for paid employment vary widely according to the area, from local agricultural work to overseas employment (for example, in Europe, the USA or the Gulf States) where some of the income is remitted to the household. There are many forms of self-employment including petty trade, transporting goods and ploughing for other households.

Non-market exchange may also occur. Poorer households may receive income through transfers of food, cash or livestock from better-off households. Gifts are often but not exclusively between kin, although they may also take the form of food and other goods distributed as welfare or relief by religious institutions, government and non-governmental agencies. All societies have mechanisms for redistributing resources from better-off people to poorer people.

As an example, Figures 2 and 3 overleaf show the sources of household food and cash income, and their relative importance, in the Rift Valley of Ethiopia.

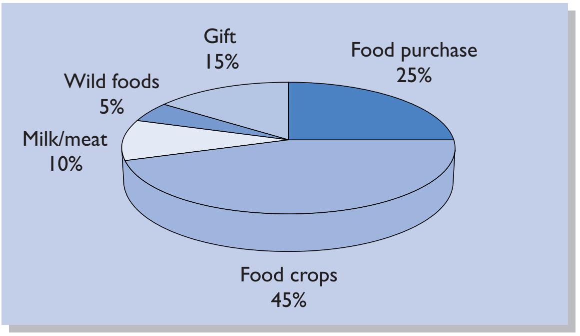


Figure 2: Sources of food, poor households, Rift Valley, Ethiopia

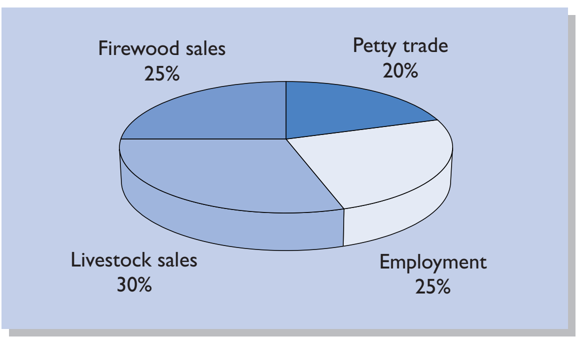


Figure 3: Sources of cash income, poor households, Rift Valley, Ethiopia

Seasonality

Household income usually varies according to the season. During any given year, different crops will be harvested at different times, and milk production will vary according to rainfall and availability of grazing; the same is true of gathering wild foods and fishing. Opportunities for paid employment are frequently seasonal; people often find work in an area, some distance from the household, that has a different seasonal pattern (see Figure 4 opposite).

The seasonality of income means that:

- The sources and types of foods available to the household will differ according to season. For example, the main crop produced by the household may not be sufficient to meet its needs throughout the year, and there may be a period when the household has to reduce its food intake or purchase food to tide it over until the next harvest.

- The level of income will vary according to season, and there may be periods when households are unable to get enough food to meet their needs.

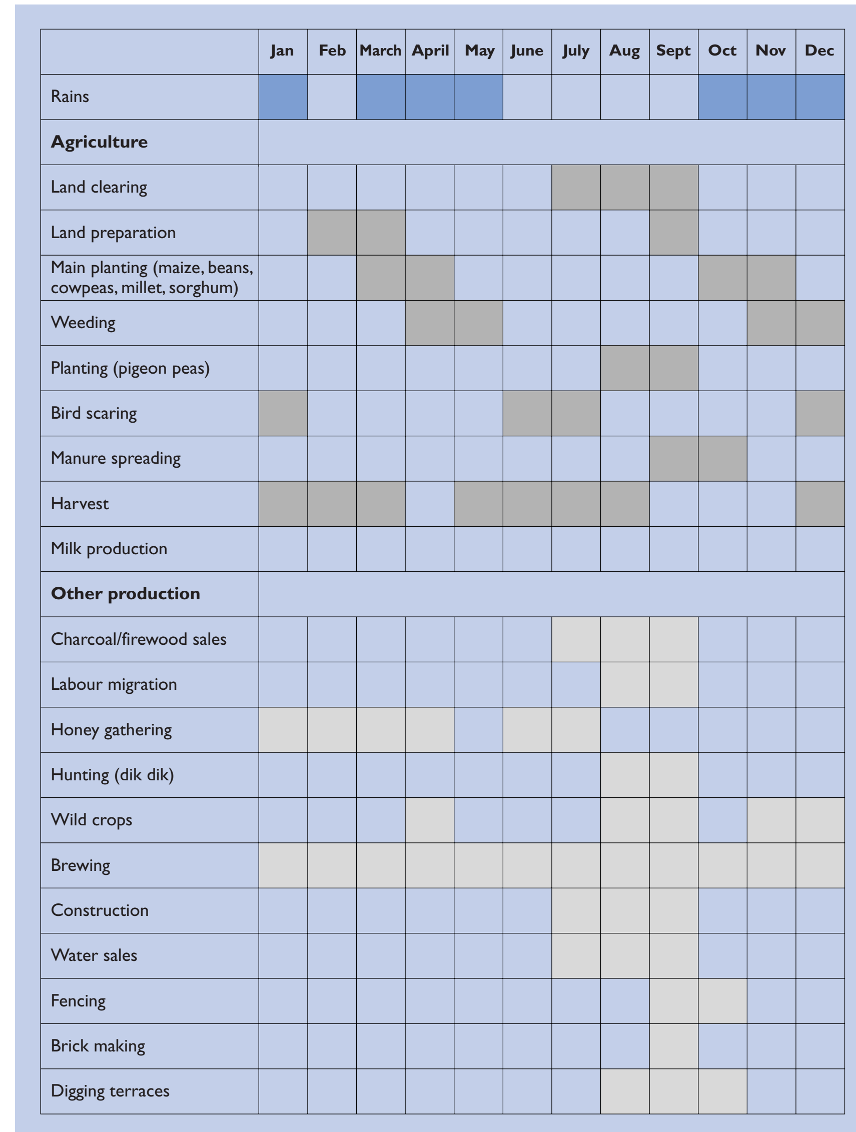


Figure 4: The seasonal pattern of agricultural and other productive activities in Lower Kitui, Kenya, 2000 (Save the Children)

Differences in income levels and the relative importance of different sources of income

In many countries a large proportion of households are, by any definition, poor, and many of these live in absolute poverty, being unable – at least seasonally – to meet their food needs. Yet there is a wide variation in the income levels of households in the same location or between locations.

Within groups of households where each household has the same economic opportunities, there will sometimes be large variations in both the size of income and in the relative importance of different sources of income.

Figure 5 gives an example from Tanzania, in 1999. Here the cash income of the better-off households, after food needs have been met, is approximately seven times that of the poorer households.

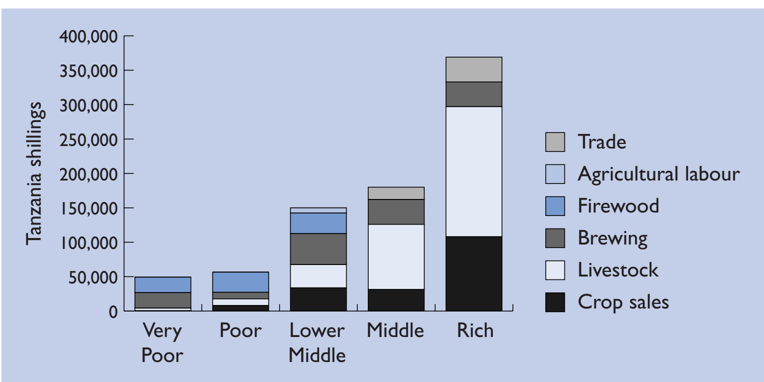
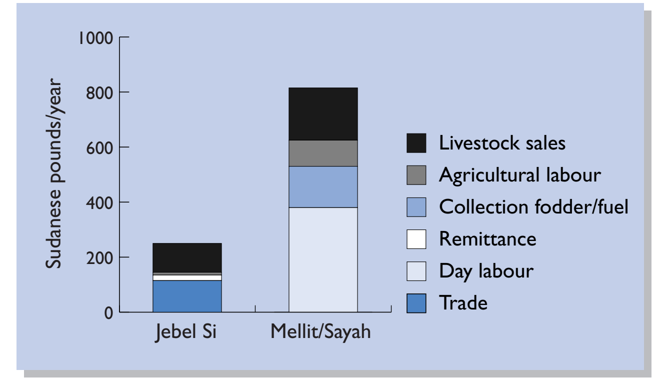


Figure 5: Relative income of different wealth groups in a normal year, Singida Central Sandy Plains, Tanzania, 1999 (Save the Children/Ellen Mathys)

Figure 6 compares the income of two groups from different areas of Western Sudan. By the standards of their own areas, both groups are "poor", yet one has an income almost three times larger than the other's.

For the poorest households, acquiring food may account for as much as 80 per cent of economic activity. Very poor households may have to make trade-offs between obtaining sufficient food (or food of adequate quality) and obtaining clothing and other essential non-food items, such as cloth and soap.

Figure 6: Relative income of the same wealth group for two different locations in North Darfur, Sudan, 1999 (Save the Children/ Pippa Coutts, Youssif Abaker)

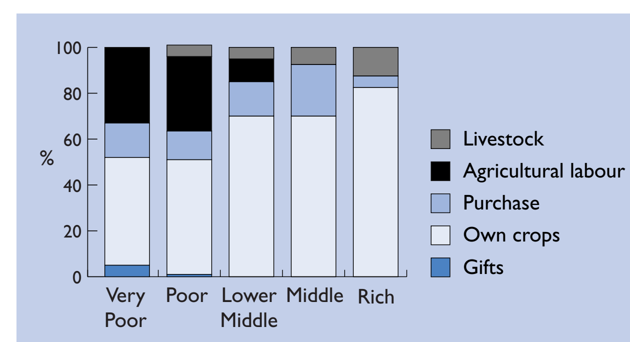


At least seasonally, many poor households may get less food than they need to maintain good health.

The relative importance of different sources of income also varies within an area (Figure 7), according to the access households have to the most productive assets. For example:

- In an area where income is most easily generated from agriculture, some people may have better access to land and hence a larger income from crops.
- In a rangeland area, some people will have more livestock and therefore more access to the animal products and cereals that can be obtained by trading livestock.
- Where the chief income-generating opportunity is employment, the households with more people (especially more skilled people) available to work are the more prosperous.

Figure 7: Relative importance of different sources of income by wealth group, Singida Central Sandy Plains, Tanzania, 1999 (Save the Children/Ellen Mathys)



In general, poorer households will, relative to the better-off:

- demonstrate a greater diversity in their sources of income, as they can survive only by exploiting a much wider range of opportunities, however unattractive these may be (for example, migrant field labour)
- be much more dependent on paid employment for income than the better-off households
- rely much more heavily on purchased food to meet their consumption needs
- spend a much larger proportion of their income on food
- have fewer savings and fewer assets than the better off.

3. Household management

Households face two main problems in managing their income. One is income fluctuations that are broadly predictable, the other is income fluctuations that are unpredictable.

Predictable income fluctuations

Within a given year, household income will not remain consistent, but will fluctuate according to the seasonality of different income sources (see above). The household must therefore manage its income to maintain a reasonably constant level of food and non-food consumption and to provide for periods of increased need: for example, the additional food required during spells of heavy physical labour such as land preparation. For the poorest households there may be a hungry season when household food needs cannot be met. Adults may minimise their food intake and restrict their activities or give preference to children. In some economies people can manage the flow of income to some extent: for example, pastoral people may time livestock conceptions to maximise the period during which animals are lactating and milk is available. In general, however, a household's ability to manage income will depend on its level of savings and reserves, which can be used to bridge income gaps. Poorer households may also have to take loans for this purpose. These range from short-run credit (where, for example, a richer person will provide seed and other inputs to enable a poorer person to cultivate crops and will receive part of the crop in return), through cash loans to be repaid at interest, to systems of hereditary debt, where the recipient may be bound by a debt that realistically cannot ever be repaid.

In some semi-arid areas, rainfall and crop production may fluctuate wildly from year to year. A household can anticipate this and manage its income to ensure a regular food supply. Crops are stored in years of surplus production to cover years when the household is in deficit.

Unpredictable income fluctuations

Poor households live in an environment of uncertainty, where there are constant threats to their income. These may come from within the household – for example, the illness or death of a family member may result in loss of earnings or the need to pay funeral costs – or from some change in the wider situation, such as drought, war or price changes.

In most poor countries there is no government welfare provision – other than famine relief – and income failure may lead to destitution. The security of a household will therefore depend primarily upon its own management, and to a variable extent on the economic support it can expect from other households.

Household risk management depends upon three principal strategies:

Minimising risk

Households tend to choose income options that minimise the risk to their income and food supply, even if this sometimes means a lower return; in other words, they are "risk averse". For example, when offered the choice between paid employment where the return can be reliably predicted and a cash crop where the return is potentially greater but uncertain, a household may choose employment. Many strategies are used to reduce the threat to agricultural production: in parts of Rwanda, for example, several types of bean seed, each of which flourishes under different rainfall conditions, are often planted together, thus increasing the chance of a crop, though at a higher initial investment.

Maximising savings and assets

Households will often save and invest as much of their surplus income as they can, even to the extent of minimising consumption. Ideally, savings should be in a form that is secure, holds its value over time and offers a return, either interest or some other benefit. In practice, however, the opportunities for saving open to a household are limited. Cash is seldom an attractive option, as banks are often inaccessible, particularly to the poorest people, inflation is often high and there is the constant danger of theft. Households typically diversify their savings, eg:

- as gold (often jewellery)
- as livestock (which gives a return in the form of milk and meat, and interest in the form of offspring. Moreover, cattle, camels, sheep and goats are mobile and can be moved in the event of drought)
- as items such as corrugated roofing that are not only useful but also retain their value and can, if necessary, be sold.

Cash savings may be kept in the form of hard currency remitted from other countries.

Sharing risk

Within larger kin groups and between households, risk can be shared by the transfer of goods between households in time of need. This strategy covers a vast range of situations and methods of transfer, but there are three basic types:

- gift, where food or some other item is transferred freely and without obligation from one household to another
- reciprocity, where the transfer imposes an obligation on the recipient to return the goods or some other service at a later time
- obligation, where the giver is obliged to relinquish some item under specified circumstances, eg, the transfer of a cow in time of drought.

In fact, various intermediate forms are found: for example, where a gift is given on the understanding that the recipient "pays" by providing some service such as nominal agricultural work. Transfers may also occur through the transfer of people between households, eg, by adoption or fostering. The important feature of all three types of transfer is that they occur on non-market terms: all other things being equal, the gift is independent of its market value.

4. Markets and exchange

> Household economy does not exist in isolation but in a market context. The household economy can be understood only if we understand this context.

The purely local subsistence economy, where a household produces most or all of its food needs, has become a rarity. There are now very few people, even in the remoter rural areas of poorer countries, who do not depend in some way on the market to obtain food. To the extent that a household relies upon exchanging crops, livestock and labour for food and other goods, its income will depend on the relative value of the items it buys and sells.

Trade confers major benefits: it gives access to manufactured goods that improve the quality of life, and to income that can be used to obtain health care and education. But involvement with the market is not without its risks, particularly for poor families.

Definitions

Market is used here and in HEA to mean a place where exchange occurs. The nature of markets varies widely: trade may occur through local arrangements between surplus and deficit households, through itinerant traders, through village shops or through weekly and permanent market centres. Labour markets may sometimes operate throughout an area – for example, a commercial agricultural district – rather than in a specific named place. A hierarchy of markets is often found, with larger markets in district centres, perhaps offering a wider range of commodities, and smaller markets at a more local level.

Value. In most locations, trade is now conducted through the medium of cash (usually the national currency, although in border areas and in countries where the national currency is unreliable, multiple currencies, including hard currencies, may be used). Barter – the direct exchange of one commodity for another – is also encountered. Less often, specific commodities (such as tobacco in parts of South Sudan) is used as a currency, although the range of transactions that can be carried out with such "cash" may be restricted. But whatever the medium of exchange, market exchange (including barter) is conducted on the basis of value, which is liable to change under different conditions. This should be distinguished from "non-market" exchange, where food, cash or assets are transferred, for example by gift or on a reciprocal basis, without involving the concept of market value.

Market use

Households resort to markets for a variety of purposes:

- to use any income above their consumption requirements to obtain manufactured goods (such as soap and cloth), education and health care
- to increase household income through specialised production and "adding value". A household may choose to grow a crop that is most easily and reliably produced in its area, and to exchange all or part of it for other crops produced in other areas. These may be food crops – in central Afghanistan, for example, high-quality potatoes are grown and exchanged for wheat grown in other areas, with the producer making a profit (in terms of dietary energy) on the exchange – or they may be cotton, coffee and a wide range of other cash crops, or products such as handicrafts and firewood. Pastoral people often do not have enough animals to enable them to subsist directly from animal products. To get enough food, they depend on the exchange of livestock for cereals
- to obtain paid work on larger land holdings, cash-crop plantations, urban areas or in other countries.

In practice, the way households use markets often depends upon the ease of physical access. Distances to the markets may often be long and the travelling time substantial. Some pastoral people may only be within reasonable striking distance of a market at a few periods during the year. In some areas, access to markets is insecure and there is a risk that goods will be stolen. It may also be difficult for people to transport heavy or bulky goods over long distances.

Price

Prices at any market will vary according to:

- the extent of competition between traders. A free market in which several traders compete for custom will tend to have lower selling prices and higher buying prices than one dominated by a single trader or a cartel (a group of traders working together), who can, within limits, set the price to their own advantage. This latter situation is still encountered frequently in poorer countries
- the costs incurred by buyers or sellers. Many markets charge sellers for the use of the market, and in some countries transactions of specific commodities, such as livestock, may be taxed. There may also be transportation costs. Governments may also intervene to stabilise and manage food prices
- the balance between supply and demand at the market. A larger supply to a market (see Figure 8) relative to demand will tend to produce lower selling prices, and vice versa.

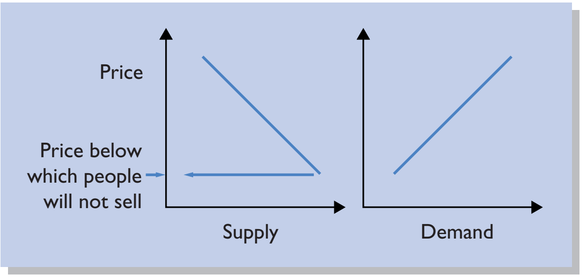


Figure 8: Relationship between supply/demand and price and floor price.

Supply and demand

Patterns of supply and demand vary. For example:

- The supply of a commodity at a market may be entirely from local producers or from a much wider geographical area, including international imports.
- Demand may also be entirely local, or may be from traders who are supplying a distant urban or export market.

In a given area, the normal supply of (for example) cereals to a market may be from local producers and the demand from local people who wish to acquire

It is important to remember that supply and demand will be different for each type of commodity. Different considerations may also apply to different types of one commodity, eg, sorghum, barley, wheat. Some of these may be produced in the area, others traded from a distance.

grain. Under these conditions, any small change in the supply to the market, perhaps because of a poor local crop, can lead to a sharp change in cereal prices. The number of people wishing to buy cereals may remain the same, or even increase, and prices may rise to high levels. However, in a market connected to larger cereal-producing areas (for example, through a government distribution system), a similar failure of local supply might have no effect on prices, or at most cause only a small increase, as any local shortfall would be made up by supplies from other areas.

Levels of supply and demand will also vary with price: in general, a high price for a commodity will tend to increase supply and reduce demand, and a low price will have the reverse effect. Demand for a commodity may move between markets: if prices are high at one market, people may be able to travel to take advantage of lower prices elsewhere.

Market elasticity is a measure of how responsive one variable (such as price) is to changes in another variable (such as demand): for example, in Figure 9 when demand increases, prices tend to rise – the rate at which demand will rise is a measure of elasticity.

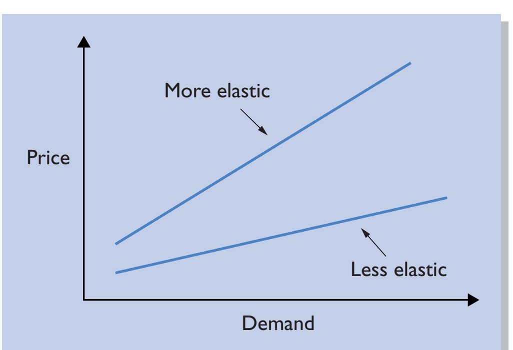


Figure 9: Price changes with changes in demand: two markets with different elasticity

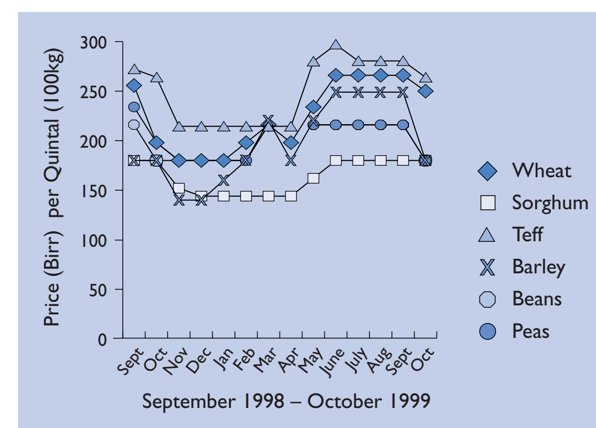
Floor price. For most commodities there is a price below which people will not sell. The rate of pay for day labour, for example, is often very low, as the supply of labour may exceed the number of jobs available. But there will be a limit to how far prices will fall as, below a certain level, the rate is too low to allow subsistence and people will refuse to work. Livestock may be sold for very low prices when people are desperate to sell: for example, when it is clear that animals will perish because of a lack of grazing. Under such conditions the floor price may be any sum that is offered – sometimes merely the value of the animal's skin.

Fluctuations in price

A major problem for household management is that the price of many commodities fluctuates between seasons and between years, in some market systems in an unpredictable way.

The seasonal price fluctuations of locally produced commodities at least are usually broadly predictable. For example, crop prices (Figure 10) in producer areas are generally lowest immediately after the harvest. If farmers have to sell produce immediately after a harvest in order to obtain cash to meet their consumption needs, they will obtain a much lower return than if they sell at a later period. Richer households with savings and reserves may be able to wait and

Figure 10: Market prices of major food crops, Gidan Woreda, North Wollo, Ethiopia, 1999 (Save the Children/Ellen Mathys)



sell their products at a later time to get a higher price. Poorer households, which depend on exchange of their labour, livestock or cash crops for survival, may have to sell even if prices are against them. Food and other goods produced outside the area and imported for sale will tend to show the seasonal price pattern of the producer area.

Larger and less predictable price fluctuations may follow surges in supply or demand. In some cases these may drastically alter the value of the household's assets: for example, a household with a hundred goats each worth $10 may be considered wealthy, but a sudden fall in livestock prices may reduce the household to poverty (see Chapter 2).

The unpredictability of commodity prices is one reason why people may choose to keep their savings in edible form, as food stocks and livestock, rather than converting them into cash or other goods.

5. Household expenditure and consumption needs

All households have needs over and above an adequate food supply. A reasonable standard of living is difficult to define, but even the most basic level of existence requires clothing, shelter, salt, fuel and soap. Many people would also include kerosene or some other source of light; some would include alcohol and tobacco, almost the only luxuries available to the rural poor. Also, expenditure on weddings, funerals and other ceremonies are essential for a proper and dignified social existence. Access to basic health care and education, in areas where they are available at all, now usually involves some costs, in direct charges and incidental costs such as books.

In practice, many households in the poorest areas have difficulty in meeting even their basic food needs, and they often have to make trade-offs between acquiring enough food, acquiring food of adequate quality and meeting non-food costs.

Household expenditure can be divided into two broad categories, although the distinction is not always precise:

- **Obligatory expenditure**. That which the household cannot avoid: for example, food, clothing, salt, the minimum costs associated with births, deaths and weddings, emergency medical costs, debt repayments, etc
- **Discretionary expenditure**. That over which the household has greater or lesser control: for example, school fees, most incidental medical expenses and in some locations, meat, fats, oils and other more costly foodstuffs.

The division between the two will depend on the absolute level of household income. Poorer households may have to make trade-offs between different costs: for example between expenditure on food and the costs of sending a child to school.

6. Individual and household food requirements

HEA is chiefly concerned with the adequacy of household access to food energy. Protein and other specific nutrients which are necessary for an adequate diet are not discussed in this manual.

Human beings can consume a wide variety of diets and still meet their food and nutrient requirements.

Food energy is usually measured in terms of kilocalories (kcal). A kcal is defined as the quantity of heat required to raise the temperature of a litre of water from 15°C to 16°C.

The energy requirement of individuals vary according to their age, sex and level of physical activity and the environment to which they are exposed. In general, growing children have a greater energy requirement relative to their weight than adults. People require more food energy to maintain body weight in cold climates or if they are doing hard physical work.

Table 1 shows the energy requirement to maintain body weight for individuals of different ages in a population with the demographic profile of a developing country. The average requirement across the whole population is 2,070 kcal per person per day.

Table 1:
Energy requirements for a population with a developing country demographic profile assuming a light activity level and an ambient temperature of 20°C, a body weight for men of 60 kg and 1.55 BMR, and a body weight for women of 52 kg and 1.56 BMR. From: World Food Programme/United Nations High Commissioner for Refugees, *Guidelines for estimating food and nutritional needs in emergencies*. December 1997

Age group (years) Male and female combined	% of total population	Energy requirement per person kcal per day
0	2.59	820
1	2.46	1,220
2	2.45	1,380
3	2.44	1,500
4	2.43	1,620
0-4	12.37	1,290
5-9	11.69	1,860
10-14	10.53	2,210
15-19	9.54	2,420
20-59	48.63	2,230
60+	7.24	1,890
Pregnant	2.4	+285 kcal/day
Lactating	2.6	+500 kcal/day
Whole population		**2,070**

In practice there is much variation in actual energy intake within and between populations, and this may be less than or more than 2,070 kcal per day. Food intake is very difficult to measure and exact measures of actual human intakes are

rarely available. However, rough estimates of household consumption can be obtained from household income and consumption data, and there is indirect evidence from anthropometric surveys. Body weight varies widely between populations and some populations will need more energy to meet environmental costs: eg, at higher altitudes where ambient temperature is lower, or where people cannot afford adequate shelter, fuel and clothing even when it is relatively warm. Poorer groups often have access to less food energy than the better-off and, as already noted, there may be seasonal swings in food availability and consumption.

Household energy requirement will vary according to the composition of the household. For example, using the data in Table 1, a household with six people, two adults under 59 years of age, and four children with ages 1, 3, 7 and 10 years would have an average requirement of 1,875 kcal per person per day. A household with two adults under 59 years and four older children (5, 8, 10, and 13 years) would have an average requirement of 2,100 kcal per person per day.

In any case, it is only possible to estimate actual consumption and to make rough estimates of actual variation in requirements. As a rule of thumb:

- moderate levels of activity will add about 140 kcal per person, and heavy work (eg, heavy land preparation) will add about 350 kcal per day when averaged across a whole population
- each 5°C below an average ambient temperature of 20°C will add 100 kcal to average requirement.

Summary

- For HEA, food security is defined in terms of household access to food, not in terms of the supply of food.
- Poverty may be defined in absolute, relative and qualitative terms and in terms of the achieved outcome.
- Household income varies in size and quality within households and between households in different locations and across seasons.
- In general, households manage their affairs so as to minimise the risk of income failure and to secure their future food supply and livelihood, rather than to maximise income.

To the extent that a household depends upon market exchange, its income will depend on the relative value of the commodities sold (including labour) and the food and non-food items purchased.