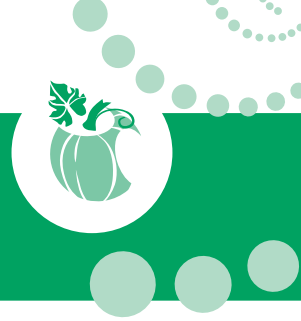


## UNIT 2

# Linking household food security with nutrition and livelihoods



### Introduction

The term food insecurity refers to people who live with hunger and fear starvation. In his World Food Day 2000 message, the Director of the United Nations Food and Agricultural Organization said:

*“The scourges of hunger and poverty are morally unacceptable and have to be defeated. Hunger and chronic malnutrition diminish human life. The lack of physical or economic access to safe, nutritious and healthy food at all times leads to negative consequences for peoples and nations. (Diouf, 2000)”*

In Unit 1 you learned about concepts such as food security and food insecurity and you examined a model that offers a comprehensive picture of food security. In Unit 2 the focus is on how food security and food insecurity affects households. You will get to know what is meant by nutrition, nutrition security, livelihoods and household livelihood security. In today's world these concepts are used widely to discuss the bigger picture of household food security.

### Unit 2 sections

1. A household and its environment
2. The link between household food security and nutrition
3. The link between household food security and livelihoods
4. Assessing food security issues in the community

### Take Action



This section gives you detailed information about the portfolio activities that are linked to Module 1. They focus on the actions with households and are the main assessment activities.

### Learning outcomes

The information in this table is like a good road map for your learning journey. It gives you a clear idea of what you are expected to **know** and **do** at the end of Unit 2. The workbook, portfolio and assignments are all **assessment activities** that are linked to the **learning outcomes**. By completing these activities you can show what level of knowledge and skill you have achieved.

The time estimate for doing the activities helps you to manage your study time. Some of you will take longer while others may need less time. You can keep a check on how long the activities actually take by filling in the time you spent.



Learning outcomes	Assessment Activities	Actual time spent
	<b>Workbook activities</b>	
1. Define a household and its environment..	2.2 Who are the members of the household? (30 minutes)	
2. Explain the link between the household's food security and nutrition.	2.3 The household in which Peace lives: Part 1 (30 minutes) 2.6 Do the children eat enough variety and quantity of food? (40 minutes) 2.9 The nutritional condition or status of children (60 minutes)	
3. Explain the link between the household's food security and livelihoods.	2.12 The household in which Peace lives: Part 2 (40 minutes) 2.14 Livelihood strategies to acquire food (30 minutes)	
	<b>Portfolio activities</b>	
4. Demonstrate understanding of concepts by walking through the community and making observations.	<b>Portfolio Activity 1.2</b> Walk through the community using an observation checklist (5 hours) <b>Log entries</b> Reflection on the walk through the community (20 minutes)	
	<b>Assignment tasks</b>	
5. <b>Assignment 2</b>	The work in Unit 2 will cover part of Assignment 2. You can find information on this assignment in Tutorial Letter 101. (3 hours)	



## Key words

An important goal of this programme is introduce you to the concepts and words in the food security field. To assist you we present a list of key words that are introduced in each unit. The meanings of these words appear in a glossary at the end of the module.



households  
community  
food security  
food insecurity  
malnutrition

under-nutrition  
over-nutrition  
undernourished  
nutritional status  
nutritional security

food availability  
food access  
food utilization  
livelihoods  
vulnerability  
poverty

## 2.1 A household and its environment

In Unit 1 you met Thandi in the case study you read that highlighted her situation. Case studies are examples that reflect real life experiences or events. They help to create interest and encourage the reader to reflect critically on important concepts and issues. The case study enables you to check your understanding of what you are learning as it pushes you to question how things are for people in their daily lives.

We continue Thandi's story in Unit 2 as an interrupted case study and you will find the story broken into small parts throughout the unit. We start by introducing you to six children who are the main characters in the story. They are playing in the street in the community where Thandi lives.





## Activity 2.1: Do this activity in your study guide

What are your impressions of the children in this picture?

Thandi is on her way home from work. She sees some of the children playing in the street. What does she notice about the children?

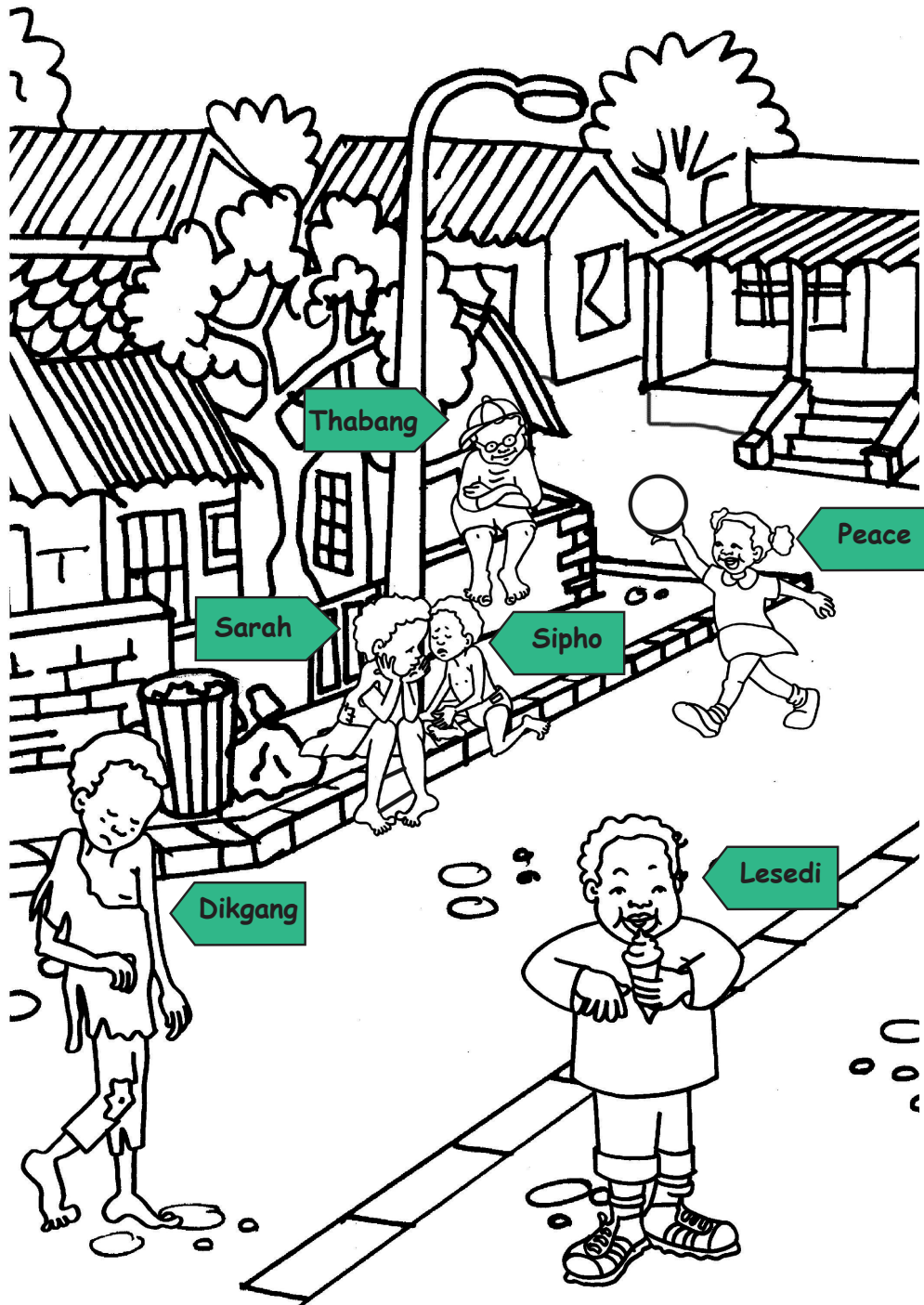


Figure 2.1 Children in a community



Write down your impressions of the children. What does their physical appearance tell you about the possible living conditions in their household? Do they eat well? Is the household able to care adequately for the children? Write what you see and think of some possible causes for their appearance. Remember these are first impressions. By the end of the unit you will be able to tell whether your initial observations were correct.

Name of child	What I see	What I think this could mean
Peace		
Dikgang		
Thabang		
Lesedi		
Sarah		
Sipho		



### Comments on Activity 2.1

*Did you spot the child who seems to eat far too much fattening food? It is Lesedi. He looks overweight and it seems that his household has enough income to afford luxury food such as ice cream and sturdy shoes and clothing. Peace is the smiling and happy little girl who is playing with her ball. She is very active and looks healthy and well cared for. Thabang is the child who watches the other children and is not active. He is well clothed and probably gets enough to eat. Dikgang is very thin and sad looking. He probably does not get enough food and his tattered clothes and barefeet show that his household is struggling to cope. Sarah is quite thin and the patches on her clothes show that her household is not well off. The baby next to Sarah is Sipho. He looks very unhappy and not well cared for. It seems that Sarah is looking after him. You may have thought of more ideas about the possible explanations for the children's physical appearance.*

*Remember that the picture can be misleading and your observations may not be accurate. There are many more issues in correctly analyzing livelihoods and nutritional conditions. A checklist based on issues relating to nutrition and livelihoods can help you be more accurate in what you observe.*

In Portfolio Activity 1.2 you will be able to use a checklist to guide a walk through your community. Observation is only one method of gathering information. You will learn about other methods to collect specific information in Module 2.

The terms nutrition and livelihoods are new to you and you may wonder how they are linked to household food security. As a start here is a simple explanation. Think of the households of the children in the picture you have just examined. Food security or food insecurity depends



on each household's income. A household's income depends on the amount of money they are able to earn from work or services they can offer others. Resources such as products from gardening or small farming are also considered income. Where a household has enough income it is possible for all members to have access to adequate nutritious food. A household that does not have enough resources, struggles to cope and the members do not have access to adequate nutritious food. **The term livelihood refers to the ways and means of living, especially the ability to earn enough money or resources to feed the members of a household.** This diagram shows the dynamic relationship between a household's income or livelihoods inputs and nutrition outcomes such as nutritious food and health.

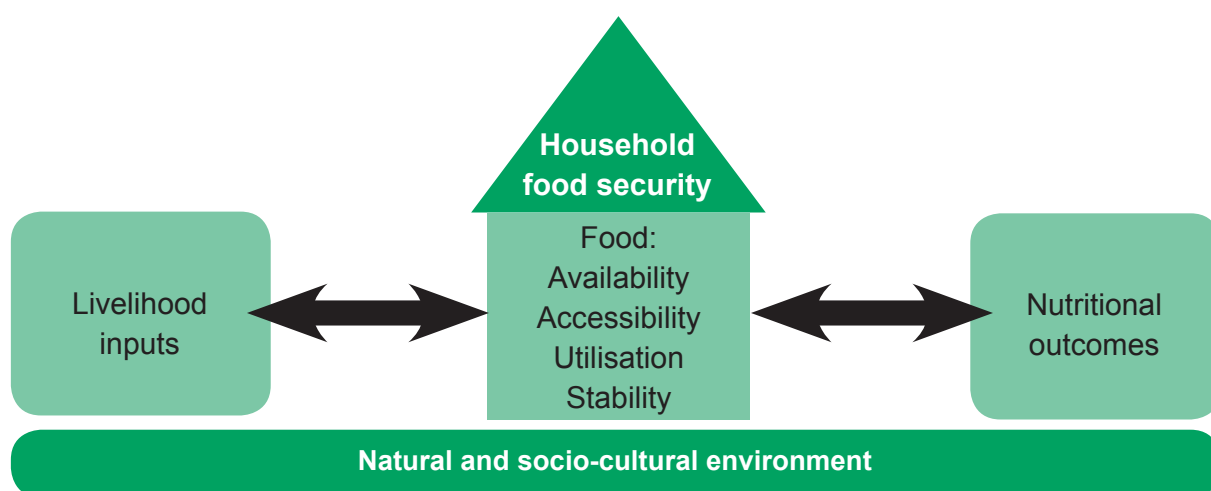


Figure 2.2 Linking household food security, nutrition and livelihoods

Just think. Where members of a household do not get adequate nutritious food they usually suffer poor health and this affects their livelihoods ability. You will learn more about the close link between livelihoods and nutrition. If we help households to identify the causes and outcomes of food insecurity we can help them find solutions that will result in improved and sustainable food security.

### 2.1.1 The environment in which a household functions

Each household is located in a particular environment, which consists of both the natural environment, and the socio-cultural environment of the community.

#### THE NATURAL ENVIRONMENT OF THE HOUSEHOLD

Each of the children you met in the first activity come from a household in a community called Kwaggashoek. Thandi has recently moved there and she wants to get to know her surroundings and the people who live there. She has many questions.





## Thandi's questions about the environment

Thandi knows very little about the natural environment in which the community is situated, as she did not grow up in Kwaggashoek. She is eager to start her own garden as soon as possible but maybe making a garden is going to be risky for her. Where can she find more information about the environment in order to make a garden? Thandi's grandmother, who lives in a community called Phara knows enough about the weather and the soil in her own area and is able to grow many different vegetables in her garden. Will Thandi be able to do the same?

### THE SOCIO-CULTURAL ENVIRONMENT OF THE HOUSEHOLD

The socio-cultural environment has to do with the social and cultural practices, beliefs and traditions of people who live in a particular community.



## Thandi's questions about the people who live in her community

Thandi wonders about the people staying in the houses in this community. Do they speak the same language as she does? Are they from the same culture? Do they have the same beliefs? Do they grow and eat the same foods? Do they have the same eating habits, feasts and celebrations? Do they belong to one tribe or to different tribes? Do they have ward councillors? Do they work together in committees for the benefit of the community? How many households are there and how many people are living in each house?

The questions Thandi has raised give an idea about the kind of questions you can ask to gather information on households. The two environments, the natural environment and the socio-cultural environment, offer many resources and opportunities for providing the food and livelihood needs of households. The access to resources differs from one household to another. Households also differ in the way they use resources from their environment and what they do with the resources in the household. You will learn more about the two environments in the next units.

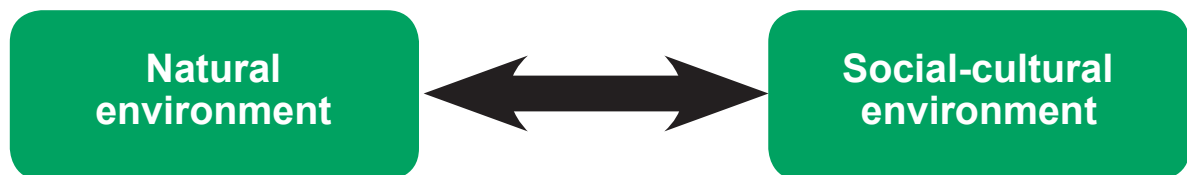


Figure 2.3 Interaction between the natural and socio-cultural environments



## 2.1.2 The household

The word household can have many meanings. For the purpose of information gathering, a household is seen as the individuals or group of people who live together in one homestead or under one roof and who eat from the same pot. They can be related or unrelated, but together they contribute to the household's resources, share the household chores and usually sit around the same fire.

### **What is a household?**

*A household is a group of people living under one roof, sharing resources and eating from the same pot.*

### **What is a community?**

*A community is people from the same location, interacting with each other forming relationships and sharing resources from the local environment.*

The word family is seldom used as, generally speaking, a nuclear family means the father, mother and children living in a household. The word family can also mean the whole family from one lineage.

## THE NUMBER OF MEMBERS IN A HOUSEHOLD

You can use the questions that Thandi asks to help you find out how many members live in a household and what its composition is. The composition of a household has to do with the number of males and females, adults and children.



## Thandi's questions about households

**Thandi is thinking about the households in Kwaggashoek. She wonders:**

- Who is the head of the household?
- How many members are there in each household?
- Are occupants household members even if they are not related to the father and mother?
- Is an orphan part of the household?
- What are the ages of the household members?
- What are the gender roles?

**Thandi finds out information about the members of households of the six children she often sees in her street.**

- Peace stays with her mother, her grandmother and three other sisters.
- Dikgang stays with his father and mother. Dikgang also has three sisters and two brothers. Two 17 year-old cousins who are boys, also live in the house.
- Thabang stays with his father and mother. Thabang and his sister are the only children in the house.
- Lesedi stays with her mother and father, two brothers and one sister.
- Sarah stays with her aunt. The aunt has four children one of whom is Sipho a baby boy of two years. Her other three children are girls. Sarah is an orphan.





The households in Kwaggashoek are all different even though there are similarities. To help Thandi recall the members of each household look at this summary.

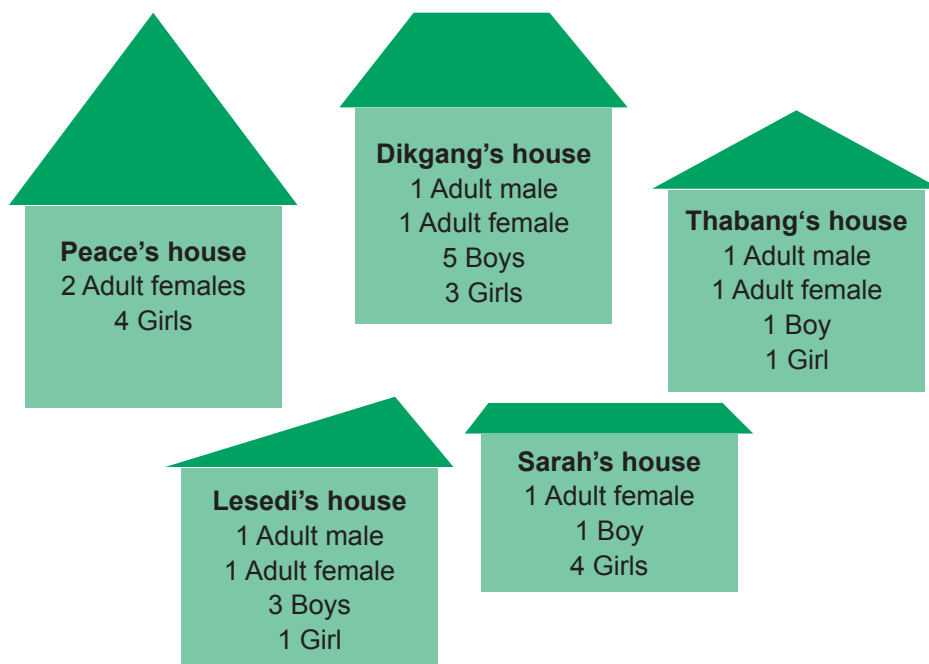


Figure 2.3 How many people live in these houses?

## THE GENDER AND AGE GROUPS OF HOUSEHOLD MEMBERS

Why is it important to know the gender composition of a household? Different members of a household play different roles. These roles are usually referred to as gender roles. Each person, depending on the age and gender, may have specific tasks that he or she is responsible for. Not all members may have equal access to all the available resources.



### Workbook Activity 2.2: Do this activity in your workbook

#### The members and gender composition of a household

**In the first part** of this activity you will write numerical information about the members of each household from the case study into a table in your workbook. This gives you a good overview of the number of adults and children in each household and the number of people in all five households.

**In the second part** of the activity your focus is on the gender composition of the group of households. You have to work out or calculate the percentage of males, females, boys and girls in the five households.





## Comments on Activity 2.2

Were you able to complete the table quite easily? Now you know that the gender composition of the five households is: Adult males: 9%, adult females 19%, boys 31% and girls 40%. Were you surprised to find out that there are more adult females in the group of households than adult males and more girls than boys? Are these households representative of (similar to) the ones you come across in your community?

Of the five households in this case study, two have females as the head of the household. Peace's mother is only a temporary head of household when her husband is not at home. Three households have a male head of household, and one of them is a male who migrates from home in order to work.

In Activity 2.2 you practiced using a table to record and display information. Can you read the table below quite easily now?

Gender of household members					
Children	Adult Males	Adult Females	Boys	Girls	Total no
	n	n	n	n	n
Peace	0	2	0	4	6
Dikgang	1	1	5	3	10
Thabang	1	1	1	1	4
Lesedi	1	1	3	1	6
Sarah	0	1	1	4	6
Total	3	6	10	13	32
Percentage	9.3	19	32	40	100

Table 2.1 Gender of household members



Do you know that you can display the gender composition of the households visually in the form of a bar graph? A bar graph is often referred to as a histogram.

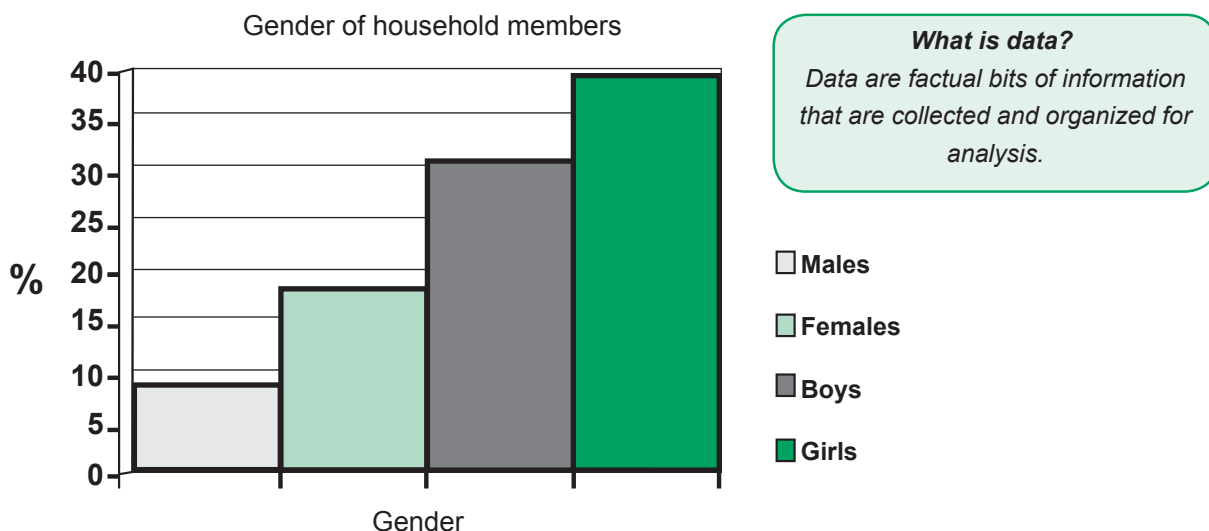


Figure 2.5 The percentage of household members according to gender

### Reading a bar graph

A bar graph has the following parts:

- The *title* of this bar graph is *Gender of household members*.
- The *horizontal line* or *x-axis* shows you the gender.
- The *length of the bars* gives the percentage of males, females, girls and boys in the household.
- The *vertical line* or *y-axis* shows the percentage. You read the percentage from the vertical line on the left. The highest percentage on the y-axis is 40% and the lowest is 0%
- The *legend* tells you what each bar represents. This legend shows the different shades of grey that are used to represent males, females, boys and girls.



### Thandi's questions about households

Thandi cannot remember the ages of all the children. How many are small babies and how many are older children? How many are teenagers or out of school youth? How many of the adults are elderly people? How healthy are the household members? Do they have enough food to feed all members of the household?

When you gather information on households you have to get the age of each member of the household as well as information about the nutrition and livelihoods of the households: What do they do for a living? Where do they buy food? If they do not produce food, where do they



get their food from? What is their main food source? Do they receive any social assistance? All this is called *socio-demographic information*.

The questions that Thandi has asked so far are also ones that you will ask households when you start working with them. You can easily find them in the case study blocks.

## 2.2 The link between household food security and nutrition

Households must have access to adequate food but it is equally important for them to understand how to store and prepare food and how the body uses the nutrients in the food. We call this *food utilization*. As you know *utilization* is one of the four dimensions of food security. Eating adequate food or food intake is not the only factor that influences nutrition. Health and illness determine how the body will use the nutrients in the food.

### **What is nutrition?**

*Nutrition is the supply of food required by the cells in our bodies to stay alive and healthy.*

### **What are nutrients?**

*Nutrients are essential substances in the food that give your body energy and that build up your body so that it can work harder and better.*

There is an overlap in meaning of the utilization dimension of food security and the adequate intake of food in nutrition. Thandi's own situation and her observations of others will help you to see what happens when people take in too much food and what the consequences are when they do not eat enough food.



### **Thandi is concerned about food and health**

As Thandi walks along, she worries about where and when she will get the next meal for her children. She is already giving her food portion to the children because they need the food, so as to be good learners. Thandi notices that not all the children in the street have the same happy faces and healthy bodies. Some of the children in the street look neglected.

Do you still remember Peace, Dikgang, Thabang, Lesedi, Sarah and Siphso? They are the children in the picture at the beginning of the unit. You will find out more about these children. We will start with Peace, the healthy looking little girl. Reading about the children and their households will help you see the link between *food security* and *nutrition security*.





## Peace is a healthy, active and happy girl



**Peace** is the girl with the ball who looks healthy, active and happy. Peace eats three small meals a day that her grandmother or mother prepares. Sometimes she helps to prepare the food herself. Her grandmother makes sure that they do not only eat maize each day. She tries to add a yellow or green vegetable to the meal on a daily basis. These vegetables are mostly obtained from their household garden or from that of the neighbours who exchange with Peace's grandmother. Peace's grandmother also believes in planting the traditional beans that she grew up with. In addition, she usually dries fruit and vegetables from the garden and stores them for when there is no fresh produce.

Peace's grandmother and mother care for the children very well. They prepare food and divide up the food stored, so that there is some food to eat every day. They visit the clinic regularly to receive a food parcel for the small baby. The two women belong to the Mothers' Care Group at the local church.

They keep the house and the outside kitchen very clean. As the house does not have a tap inside, they fetch water from the communal tap. They keep the water containers clean and covered. All members of the household use water sparingly and they also use their washing water for the garden. The children help their grandmother to maintain the garden and carry out the other household chores. This leaves sufficient time for the women to attend their care group for training and for Peace to do her schoolwork.



### Workbook Activity 2.3: Do this activity in your workbook

#### The household in which Peace lives: Part 1

Read the case study that describes the household in which Peace lives and identify the practices that promote food security and health. Write your answers to these questions:

1. What does the household do to provide nutritious food for everyone? (This question encourages you to think of utilization)
2. What else is the household doing to promote good health?
3. Is the household in which Peace lives a food secure household? Give reasons for your answer.





### Comments on Activity 2.3

Peace’s mother and grandmother work hard to have enough food to eat for everyone in the household. They produce yellow and green vegetables in their garden, exchange the vegetables they grow with their neighbours, and buy food from their earnings. The members of the household work together to use the resources they have to meet their needs. They prepare a variety of food to eat each day. Although the meals may be small they manage to have a stable household food supply. In addition they keep the outside area, the house and the kitchen space clean. They also make sure that the containers in which they store water for drinking and washing are clean.

You now have a good idea of the practices in Peace’s household that contribute towards food security. Look again at the practices in this household from the perspective of the four dimensions of food security.



### Activity 2.4: Do this activity in your study guide

#### What contributes to a household’s food security?

Give reasons why Peace’s household can be regarded as food secure. Write your ideas under each of the four food security dimensions.

Food availability	
Food access	
Food utilisation	
Food stability	





## Comments on Activity 2.4

Peace's household is a good example of what a household can do to promote food security. The grandmother and mother:

- *maintain a garden in which they grow a variety of vegetables. Their neighbour is willing to exchange vegetables that grow in her garden. There are shops in the area that stock basic foods. (availability)*
- *can easily get hold of the food because they work hard and have an income of resources from the garden and money from earnings. (access)*
- *have good food preparation, storage and hygiene practices: they prepare three small meals a day to ensure that everyone gets sufficient and varied food. They dry fruit and vegetables for storage and later use. They keep the house and the outside kitchen very clean. They store the water they fetch from the communal tap in clean and covered containers. They visit the clinic regularly where they receive a food parcel for the baby. (utilization)*
- *get their income from different sources. They work hard to ensure that there is sufficient food everyday. Their health practices promote a healthy way of life. (stability)*



“ The women in the care group say that food security is when they have enough food that has enough nutrients for all members of the family. Nutritious food is having vegetables, chicken and sometimes fruit. ”

### 2.2.1 What is food security status?

Food security status refers to the food security situation or the degree of food security in a specific household. Questions based on the four food security dimensions helps to determine the food security status of a household. For example,

- How much food is available?
- To what extent does the household have access to food?
- How does the household utilize food?
- How stable is the food supply?



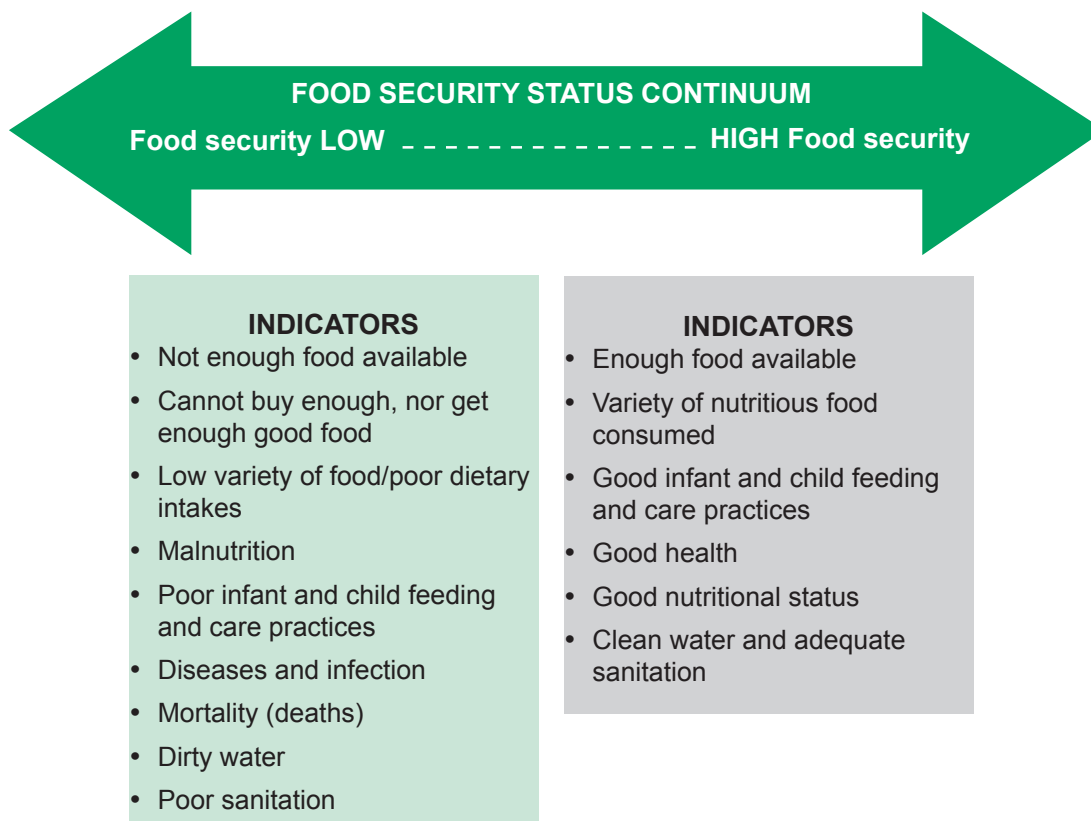
### Possible threats to food security in Peace's household

What would happen if Peace's grandmother fell sick tonight or her mother was injured in a taxi accident? What would happen to the garden food if there were a drought with too little water in the streams and dams? What would happen if their garden and fences were washed away by a rain storm? What if there were conflict in the community and their property was vandalized?



All kinds of environmental, personal health and socio economic threats can change the food security status of the household from food secure to food insecure. Apart from these threats, there are also household specific threats such as the addition of a new member or members to a household. Where the household was previously food secure and there was enough food for everyone, the supply now has to be shared across more people. To remain food secure the household has to increase its food supply or it is in danger of becoming food insecure.

Food security status is a measure of the degree of food security in a household or community. A number of key *indicators* can be used to establish whether a household or community is food secure or food insecure. The status of households can be placed on a continuum from low to high food security as presented in this diagram.



**Figure 2.6** The continuum of food insecurity and food insecurity indicators

An *indicator* is a standard that can be used to measure the household’s food security status. Food security is hardly ever stable and can change as a result of changed circumstances. The food security status of households can be shown on a scale or continuum from less to more, low to high and inadequate to adequate. The goal of households is to work towards being food secure. But their status constantly moves on a continuum between food security and food insecurity.

*Indicators are standards or ways to measure how much, how many, to what extent.*

**Food behaviour and nutrition** will be discussed in much more detail in Module 4. In this unit we have been using concepts such as *food*, *nutrients* and *nutrition*. Here is a brief description of these concepts to enable you to get an idea of what they mean. Your understanding of these concepts will grow as you progress in the programme.





## THE MEANING OF THE TERMS *FOOD, NUTRIENTS, NUTRITION*

To understand the concepts *nutrition security* and *nutritional status* at household level, you need to know the meaning of the terms: *food, nutrients* and *nutrition*.

**Food** is the product of plants, animals and other organisms like vegetables, fruit, meat and chicken that you eat. Food contains **nutrients** and these nutrients are used in the body for energy and to regulate body processes such as breathing and digesting and getting rid of waste products. Nutrients are essential to support growth and help the body to fight illness and maintain and repair itself. If quality nutrients are taken in appropriate quantities, they can reduce malnutrition and the risk of certain diseases (Whitney & Rolfes, 2002).

Nutrients in food can be divided into macronutrients and micronutrients. Macronutrients are carbohydrates (maize, rice, potatoes), protein (meat, chicken, fish, eggs, legumes such beans), fats and water. Micronutrients are vitamins and minerals, which you get from the food you eat. Some foods contain more vitamins and minerals than others.

**Nutrition** can be described as the study of food and the nutrients and other substances that they contain. It also examines what nutrients do in the body or what functions they perform. A nutritionist is someone who studies nutrition and who is knowledgeable about matters relating to nutrition.

### Nutrients and their function in the body

As you are reading this page your heart is pumping blood through every part of your body, your lungs are filling with air, you are digesting the food you ate earlier, your liver is busy cleaning your blood and helps with digestion, and your kidneys are working hard to get rid of the waste products. Nutrients like vitamins, minerals, water, fats and proteins help to keep these processes working at the same time, to keep you alive and healthy.

Your body is a wonderful organism that uses the nutrients in the food you eat for energy, the growth and repair of cells, and for vital body processes. Nutrition specialists have arranged the nutrients in food into 6 main nutrient groups: carbohydrates, proteins, fats, water, minerals and vitamins. Look at Table 2.2. It shows the six major groups of nutrients in the first column. The three main functions in our bodies are shown in the other three columns. The ticks indicate what functions each group of nutrients provides.

Nutrient	Source of energy	Growth and maintenance of our bodies	Regulate body processes
Carbohydrates	✓	✓	
Proteins	✓	✓	✓
Fats	✓	✓	✓
Water		✓	✓
Minerals		✓	✓
Vitamins			✓

Table 2.2 Nutrients and their functions in our body



You can see from this table that not all foods have the same nutrients. To be healthy you should eat food that provides all six nutrients. As people know foods better than nutrients it is common practice to use food groups and food-based guidelines. These tools were developed by nutrition specialists to assist people to make the right food choices for a healthy diet. Although the examples provided may sound Western, many traditional and indigenous foods also fit into these groups and are covered by the food guidelines.

### Food groups

The foods that are good sources of the nutrients that our bodies need are grouped according to the three main functions of food, also referred to as the three food groups. Foods are also grouped according to the *main nutrient content* using the five-food group guide as you can see in Table 2.3.

THREE MAIN FUNCTIONS	FIVE FOOD GROUPS (RSA)
ENERGY	<ul style="list-style-type: none"> <li>Bread, cereal, rice and pasta group</li> </ul>
PROTECTIVE	<ul style="list-style-type: none"> <li>Vegetable group</li> <li>Fruit group</li> </ul>
BUILDING	<ul style="list-style-type: none"> <li>Milk, yoghurt, amasi (fermented milk) and cheese group</li> <li>Meat, poultry, fish, dried beans, eggs and nuts group</li> </ul>

Table 2.3 The main food groups

### Food-based dietary guidelines

The South African Food-based Dietary Guidelines (FBDG) have been specially developed to consider all foods. These guidelines enable people to choose nutritious food from the variety of food sources that people can produce or afford to buy. This is called a *food-based approach*. These guidelines promote food utilization and health practices that support the efforts of households to be food secure.

*Eat a variety of food* means eating different kinds of foods selected from each food group on a daily basis. Food-insecure and poor households may not have access to food from all the groups. Part of your role as facilitator will be to encourage households to make a selection of as wide a variety of foods as possible from the sources in their environment.

**South African Food-based Dietary Guidelines**

- *Enjoy a variety of food*
- *Be active*
- *Make starchy foods the basis of most meals*
- *Eat plenty of vegetables and fruit every day*
- *Eat dry beans, split peas, lentils and soya beans regularly*
- *Chicken, fish, meat, milk or eggs can be eaten daily*
- *Eat fats sparingly*
- *Use salt sparingly*
- *Drink lots of clean safe water*
- *If you drink alcohol drink it in moderation*
- *Use food and drinks containing sugar sparingly and not between meals*





## Activity 2.5: Do this activity in your study guide

### Matching traditional foods with the Food-based Dietary Guidelines

List 10 traditional foods that are eaten regularly in your community and link them to one or more of the guidelines. An example is given to get you started.

Traditional food	Matching food-based dietary guidelines
<i>Imfino also called Morogo</i>	<i>Eat plenty of vegetables and fruit every day</i>
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	



### Comments on Activity 2.5

*This list of traditional foods helps you to be aware of how foods that are indigenous to an area can promote health. As a household food security facilitator it is your task to help households appreciate the nutrition value of the foods that are part of their traditional food culture.*





## Workbook Activity 2.6: Do this activity in your workbook

### Do the children eat enough variety and quantity of food?

To complete this activity you need the case study about the nutritional condition or status of the children (you will find it above Activity 2.7). Read about the different kinds of foods eaten by the children from the case study. Identify what the children eat and say how this matches the Food-based Dietary Guidelines. Write your answers to these questions in your workbook:

1. Which kinds of food are the children eating?
2. Name the guideline from the Food-based Dietary Guidelines that matches the foods that the children are eating.
3. Who eats the most varied food?
4. Who eats the least varied food?
5. Who eats an adequate quantity of food?
6. Who does not eat an adequate quantity of food?
7. Which guidelines are most commonly followed in all households?
8. Which guidelines are most commonly not followed in all households?



### Comments on Activity 2.6

*Peace is the child who eats the most varied food. Even though the individual food portions are small she gets enough food as she eats three meals a day. Although Lesedi's household is able to provide a variety of food he eats too much food. He also eats food that does not have enough variety of nutrients. The child who eats too little and has the least varied diet is Dikgang. He only has one meal a day and eats mainly maize, which is a carbohydrate. "Make starchy foods the basis of most meals" is the guideline that is followed in all five households. Most households do not have a varied diet of protein, legumes such as beans, and varied vegetables and fruit. Not every household has access to safe and clean drinking water.*

### 2.2.2 What is nutritional security and nutritional status?

The word *security* means that something can be maintained for some time (Kent, 2008). *Nutritional security* means that the nutritional status of persons in a household can be maintained over a period of time because of a secure and stable food supply.

The nutritional security of a household depends on these three main aspects of good nutrition:

- The daily food intake of the household
- Care practices
- Clean water and a healthy environment.



A household must focus on each of these three areas to promote its nutritional security. But the household does not work in isolation. It is dependent on relevant services in the community such as access to safe drinking water, work opportunities and affordable food sources. If Peace's grandmother and mother cannot continue to provide nutritious food, then the household food security and nutrition security will decline and the *nutritional status* of each member of the household is threatened.

When we consume enough of each nutrient that the body needs, maintain good care practices and have a clean and healthy environment for an active and healthy life we can say we have optimal nutritional status. For example, Peace's present *nutritional status* is linked to her body requirements as a young girl. Is she the right height and weight for a girl of her age? If her body measurements for girls her age are right, if she is active and able to do age related activities, then she has good nutritional status. Dikgang is too small and thin for boys his age and he lacks energy and is quite inactive. His physical measurements, his appearance and behaviour suggest his nutritional status is poor. These examples illustrate that *nutrition security* and *nutritional status* are dependent on the daily intake of nutritious food, care practices, clean water and a healthy environment. But *nutrition security* and *nutritional status* do not have the same meaning. This will become clearer to you as you learn more about nutrition especially in Module 4.

### 2.2.3 The building blocks of good nutrition

Food intake, health and care are interrelated. This means that actions affecting one area may have significant consequences for another. Let's look at the descriptions of each of these three building blocks of good nutrition.

#### Food intake

Food intake is about eating varied and adequate quantities of nutritious food that the body can easily absorb and use to keep healthy and active. Here is another way of saying this using *nutritional terminology*: *our food intake refers to the consumption of adequate quantities of nutritious food at the household level (micro-level). Nutritional well-being is influenced by the nutrient content of the food consumed and its absorption by the body.*

A person's food intake is linked to age, gender, level of physical activity and health status. These important nutritional needs are used to gather information in order to assess the household's food security. You will find out more about them later.

#### Care practices

Care and feeding practices require time, attention and support and are very important to meet people's physical, mental and social needs. The knowledge, attitudes and practices of household caregivers largely determine the



“ My children are not choosy because they are accustomed to a simple meal, maize and tinned fish or maize with imfino. Sometimes I also cook maize porridge with pumpkin. ”



“ My mother usually serves us young children their food first, a common practice that helps to ensure proper sharing of food within the household. We are also encouraged to eat on time because this is important for their health. ”



nutritional status of the household. For example Peace's grandmother and mother know how important it is to eat a variety of vegetables and to eat regularly. As result they prepare a varied diet and the members eat three small meals a day. If households have an incomplete understanding of the body's nutritional needs and lack of knowledge of how to meet these needs with available foods, this can lead to malnutrition. We examine malnutrition later in this unit.

### Health and safety

A healthy environment, clean water, hygiene and good sanitation practices are necessary for nutritional well-being. Yet they are not within reach of the majority of the world's population. Infectious diseases and inadequate diet act together, each aggravating the effects of the other to produce what is referred to as the "malnutrition and infection cycle". When people become ill because of poor food intake and poor health practices, the body becomes less able to extract the nutrients from the food. As a result the body becomes weak and the illness becomes worse. The body's need for nutrients is increased during and after episodes of infection. Continuous or chronic and frequent acute infections make it almost impossible to maintain adequate nutritional status and may lead to malnutrition.



*“ I always make sure that the children have washed their hands in a small basin with clean water before eating. ”*

Malnutrition affects the nutritional status of a person and seriously undermines nutrition security. Let's look how the building blocks of malnutrition in the household fit into the food security model that we started building in Unit 1.



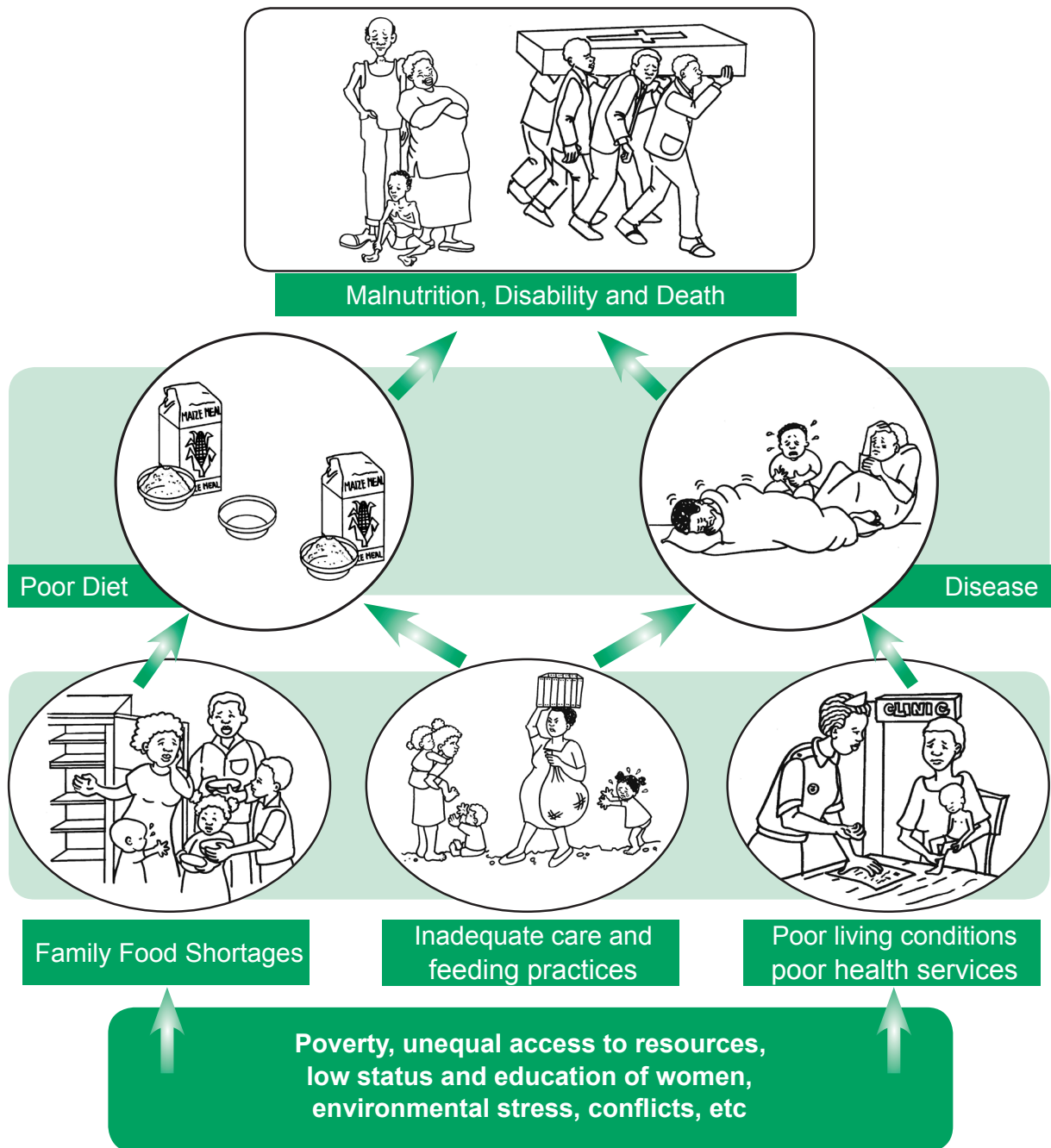


Figure 2.7 Building blocks of malnutrition in the food security model





Try to spot signs of malnutrition in the children in the case study below.



## Possible threats to food security in the households of the children

Apart from Peace, Thandi also knows the other four children in the group she passes on her way home. What is the nutritional security and nutritional status of the other children? Are they also healthy like Peace?

The little boy, Dikgang, in dirty tattered clothes is thin and very frail. He looks as if he is not getting enough food at home or he may be very sick. His eyes indicate that he is not very interested in the game. Dikgang comes from a family where his mother and father work. There are five children in the family, plus two elder cousins who do not have jobs and whose parents have died of HIV AIDS. These family members receive one meal a day of maize porridge with relish or tea, so they often go to bed hungry, except over weekends when there is also meat relish. Thandi wonders whether the parents are still working, or whether they too have lost their jobs. Why is no one in the family caring for the house and cleaning the yard?

The other child in the group, Thabang, is shorter than the other boys of his age, but looks healthy. He does not seem to be very active either. He is said to be a slow learner at school. However he looks fine and is not thin like Dikgang. His father works on a local farm, receiving a small salary and a large bag of maize meal at the end of each month. His mother is doing a piece job as a household helper on the farm. Thabang's mother makes sure that the family has two meals a day and, in addition Thabang receives a school lunch. Although his father does not really like vegetables, they always have some relish and vegetables at least twice a week.

Then there is Lesedi, the son of a local business man, who always wears tekkies. He is quite large for his age and clearly overweight, though he is the same age as Thabang. His family enjoys large food portions at mealtimes and, in addition, they have meat two or three times a week. Apart from this, Lesedi always seems to be eating or chewing something. He is constantly consuming bread, biscuits, tinned foods, sweets and cold drinks from his father's shop. His father sells just about anything in his shop that the community wants to buy and also gives credit to the community until the end of the month, recording this in his little black book.

Sarah is an orphan and stays with her Aunt who has three children. Sarah is baby Siphos baby sitter, and Thandi notices her sitting on the sidewalk next to the waste dump, watching the baby crawling around the children who are playing.

Siphos does not look well cared for. His nose is running and he is very small and thin. Sarah feeds the baby from time to time from her plate. At other times, he helps himself to whatever he can find. Sarah gets served last at mealtimes and does not always have the same sized food portions as the other girls in the family. In addition, she has to work hard cleaning and cooking and does not attend school. Very often she feels sick. Her aunt works two days a week in the city and also receives grants for her three young children and the orphan. Apart from this, her three school-going children receive meals at school, consisting of dried beans or meat, starch and fruit.







## Activity 2.7: Do this activity in your study guide

### Signs of nutrition related conditions in the children

Look again at the picture (Figure 2.1) and the descriptions of the children in the above case study. Use this information to decide whether the following statements are true or false. Circle the correct answer.

1. Lesedi is the child who eats too many energy foods. True or False
2. Dikgang is overweight because he is too thin. True or False
3. Thabang does not have a nutrition related condition because he looks healthy. True or False
4. Sipho is too small and thin for his age because he does not get enough food that is right for his age. True or False
5. A child that is inactive, has low energy and shows little interest in what happens around her suffers from malnutrition. True or False



### Comments on Activity 2.7

Each of the children in this case study could be linked to a nutritional condition that needs attention. Check your answers:

1. *True. Lesedi eats too energy foods such as sweets, biscuits, ice cream and cold drinks. Eating too many of these types of foods has made him overweight and this is not healthy.*
2. *False. Dikgang is underweight because he is too thin.*
3. *False. Although Thabang looks healthy he is under height for boys his age, is inactive and finds it difficult to concentrate and to learn. He may not show obvious signs of malnutrition like Dikgang, but Thabang shows that he is not getting adequate food for a boy of his age.*
4. *True. Sipho is small and thin. Although he is getting food it may not be the right food for a two-year-old child who needs food that helps his body grow.*
5. *False. These may be signs of malnutrition but are not always signs that a child suffers from a food related condition. One would have to check other signs of malnutrition such underweight, under height, low immunity to disease, dry and scaly skin, swollen and bleeding gums, a swollen belly.*

Read more about the specific nutrition related condition of each of the children in the paragraphs below.

**Peace** is described as a healthy and active girl. Her nutritional status may be described as *good* or *optimal*. From observation alone, Peace does not appear to be suffering from any nutrition related condition.



**Dikgang** looks very thin and short. He is a boy who has what is known as a *low weight-for-height*. This is the result of ongoing starvation and weight loss, called *wasting*. He also suffers from hunger. He is receiving very little food and is not receiving food with enough macronutrients to give him energy. He may suffer from protein-energy malnutrition as a hungry and wasted child. Because he does not receive any vegetables and fruit, he may also suffer from micronutrient deficiency.

**Thabang** is receiving enough maize, meat or dried beans, which provide energy in his diet. He is short, but looks healthy. He is certainly short for his age since his growth and normal development have been affected. This condition is also referred to as *stunting* meaning a *low height-for-age*. He is not an active child and does not do well at school. He may eat enough energy foods, but not enough of the essential vitamins and minerals. He does not receive enough vegetables and fruit with micronutrients and may suffer from micronutrient deficiency, a condition which is referred as *hidden hunger*.

**Lesedi** can consume as much maize and meat as he wants to. He can also eat as many chips, biscuits, ice cream and sugary sweets from his father's shop as he feels like. Lesedi is obese or overweight for his age due to excessive food intake of too many energy foods. He probably never feels hungry because his stomach is full all the time. Lesedi does not like to eat vegetables and fruit, so he may be suffering from micronutrient deficiency, even though he is overweight. Strange as it seems he could be suffering from "hidden hunger" even though he is obese.

**Sarah** is very inactive and hungry as she receives less food than the other children in the household and suffers from not receiving energy foods, vegetables and fruit. She looks underweight, and shows *low weight-for-age*. A low-weight-for-age reflects a condition that can be associated with inadequate food intake and/or poor health conditions.

If the baby is eating from Sarah's plate, as well as receiving the food from the food parcel he may be receiving enough food. Both Sarah and baby Siphoh are sitting and playing in a dirty, unhealthy spot. This may be exposing them to germs that cause infection and ill health. The two children may both be suffering from macronutrient and micronutrient deficiency. The poor health environment in which they sit and play daily may also contribute to their bodies not using the nutrients that they need.

Children with macronutrient deficiency do not eat sufficient proteins and carbohydrates and suffer from hunger. Those children who do not eat enough foods that provide adequate vitamins and minerals have a micronutrient deficiency. Although they might not feel hunger they suffer

**What is malnutrition?**

*Malnutrition includes the physiological conditions resulting from an adequacy or imbalance in food intake or poor utilization or absorption of food.*

**What is undernutrition?**

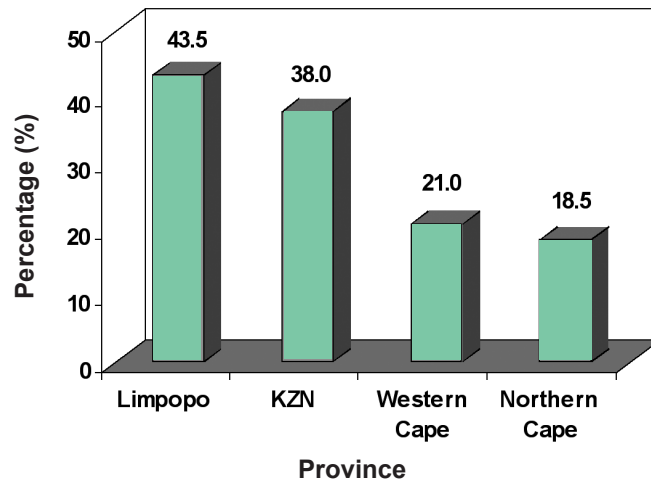
*Under-nutrition relates to people's weight, height and age that are measured to indicate inadequate food intake, poor health and unsanitary conditions. These people do not derive full benefit from what they eat.*

**What is undernourishment?**

*Undernourishment is a food insecurity estimate of the number of people with food unavailable and inaccessible to them to consume.*



from “hidden hunger”. How many children suffer from micronutrient deficiency? Look at the percentage of children with Vitamin A deficiency, which is an example of “hidden hunger”:



**Figure 2.8 Percentage of children with Vitamin A micro deficiency in four provinces**  
(Adapted Wenholdt and Faber, 2006)

Many children in South Africa suffer from “hidden hunger” due to a diet that does not include enough protein, vitamins and minerals. The above bar graph shows the percentage of children with Vitamin A deficiency in four provinces in South Africa. What are the effects of Vitamin A deficiency in children with “hidden hunger”?

According to the World Health Organization (WHO) serious vitamin A deficiency:

For children, lack of vitamin A causes severe visual impairment and blindness, and significantly increases the risk of severe illness, and even death, from such common childhood infections as diarrhoeal disease and measles.

[<http://www.who.int/nutrition/topics/vad/en/>]



### Activity 2.8: Do this activity in your study guide

#### Children in South Africa who suffer from vitamin A deficiency

Interpret the statistics shown in the bar graph (Figure 2.8) by answering these questions.

1. Which province has the highest number of children who suffer a lack of Vitamin A?



2. What percentage of children lack Vitamin A in Kwa-Zulu Natal?

.....  
.....

3. In which province do you find about one in five children with a Vitamin A deficiency?

.....  
.....

4. In which year were these statistics compiled?

.....  
.....

5. What do these statistics tell you about the food security in these provinces?

.....  
.....



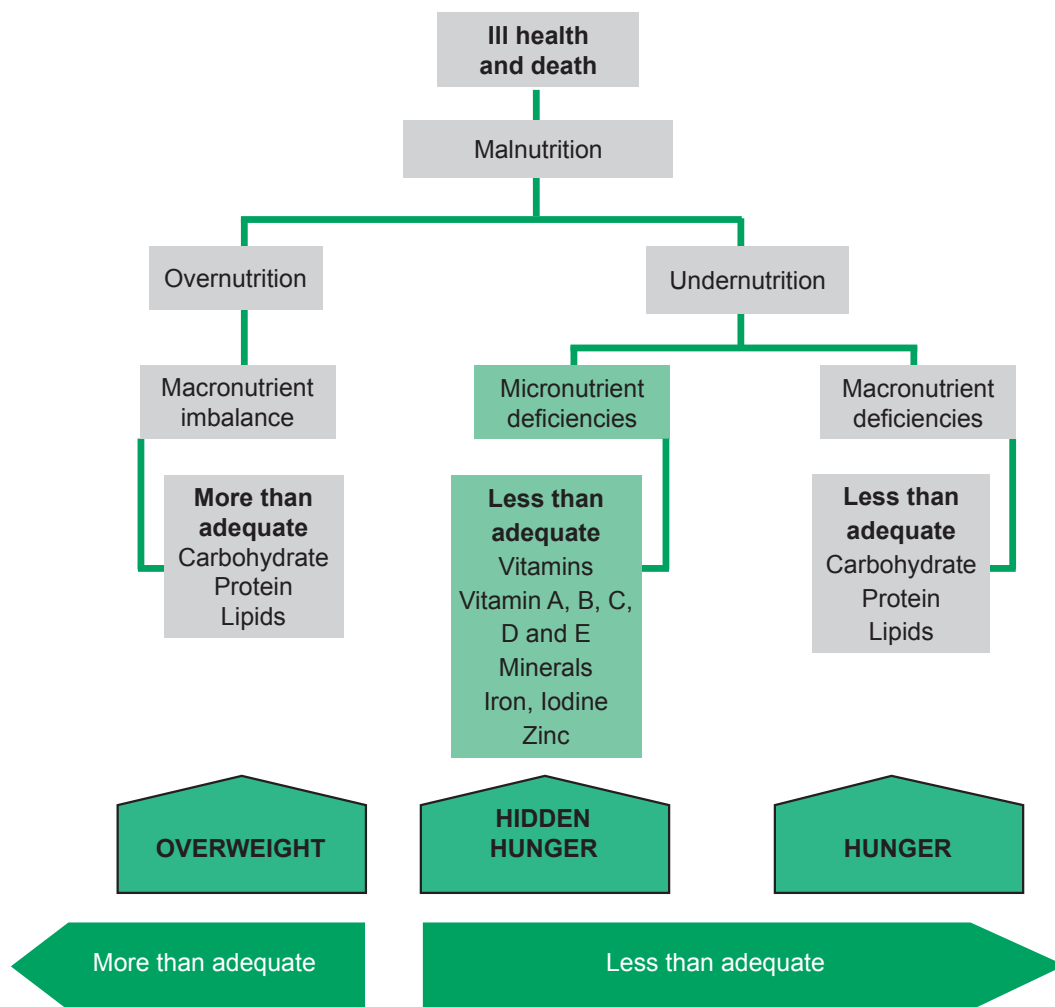
**Comments on Activity 2.8**

*The high incidence of Vitamin A deficiency in Limpopo shows that many households in this mainly rural province are food insecure. Almost four in 10 children in Kwa-Zulu Natal have Vitamin A deficiency and in the Western Cape one in five children have a lack of Vitamin A. Although the Northern Cape has the lowest number of the four provinces even here you find about 1 in 5 children to suffer the consequences of this vitamin deficiency. The statistics were compiled in 2006. They are helpful indicators for policy and decision makers at local, provincial and national level to launch relevant initiatives that promote food security practices in households who live in rural as well as urban communities in these provinces. By including in the diet protein, vegetables and fruit that provide sufficient Vitamin A it is possible to prevent diseases due to Vitamin A deficiency.*

Many children in South Africa suffer from “hidden hunger” due to a diet that does not include enough protein, vitamins and minerals. *Hunger* is therefore a misleading concept and may affect many more children than we can imagine. Hunger will be described in more detail later in this section.

Figure 2.9 shows a classification of malnutrition and indicates the relationship between the intake of nutrients from food and a nutritional condition or status. There are three main conditions: overweight, hidden hunger and hunger.





**Figure 2.9 A classification of malnutrition**  
*(Adapted from Wenholdt & Faber, 2006)*

You may find it difficult to make sense of this diagram because it uses scientific terminology. Do not be too concerned about the meanings of the different terms at this point. You will get more information about all of this in Module 4.

### Tips for reading the diagram

- Read the diagram from the top down.
- Follow the lines between the boxes. Do you notice that there are two main concepts: over-nutrition and under-nutrition?
- Below these two main ideas, there are three levels of nutrients adequacy: macronutrient imbalance, micronutrient deficiencies and macronutrient deficiencies.
- Below the nutrients boxes are the three nutrition conditions: overweight, hidden hunger and hunger.





## Activity 2.9: Do this activity in your study guide

### The nutritional condition or status of children

This activity builds on what you have done in the previous activities. You can now combine the information about the nutritional condition of the children from the case study.

1. Use the case study and what you have learned about the conditions associated with nutrition to complete the information in this table.

Name of child	Physical appearance and behaviour	What food is eaten	Nutritional condition or status
Peace			
Dikgang			
Thabang			
Lesedi			
Sarah			
Sipho			

2. Decide which of the children can be described as overweight, have hidden hunger or experience hunger. Place a tick (✓) in the correct column opposite the name of the child. Some children may have more than one tick. If the conditions do not apply leave the space empty.



### Comments on Activity 2.9

*Peace gets adequate nutritious food and her nutritional status is good or optimal. None of the three malnutrition related conditions apply to her. Although Lesedi does not suffer hunger because he eats sufficient food, he may suffer from micronutrient deficiency or hidden hunger because he does not eat enough of the right foods that provide his body with vitamins and minerals.*

*The other four children all show signs of malnutrition related conditions.*

- *Dikgang is frail and too thin for his height. He only eats one starch meal a day and usually goes to bed hungry. His condition is hunger and hidden hunger.*
- *Thabang gets two meals a day and there is some variety in his diet. He is not getting enough food though as he is quite small for his age. While he may not be hungry his condition is hidden hunger.*



- Sarah looks underweight for her age. She gets less food than the other children. Her condition is hunger and hidden hunger.
- Siphso may not be getting the right food for his age. He eats from Sarah's plate and from the food parcel but this may not meet his age related needs. His condition is hunger and hidden hunger.

How does your table compare with this one?

Children	Overweight	Hidden hunger	Hunger
Peace			
Dikgang		✓	✓
Thabang		✓	✓
Lesedi	✓	✓	
Sarah		✓	✓
Siphso		✓	✓

Most of the children suffer from hunger and hidden hunger. Poor nutrition is very serious in children as they cannot grow and develop, as they should. Children who have malnutrition related conditions are often not interested in their surroundings and they do not have the energy to play or interact with other children. They find it hard to concentrate at school and do very poorly. If child does not get enough of the right kind of food during her growth years she will suffer the consequences of malnutrition. These include stunted growth, an inability to fight infections, and an inability to learn and develop at school

## 2.2.4 The causes of malnutrition

Did you that *mal* is a word from Latin meaning bad. So *mal*nutrition refers to *bad* nutrition. You have seen from Thandi's story that the causes of food security are quite complex. This is also the case with malnutrition. When you look at the food security model in Figure 2.10 below, you will notice that there are three major groups of causes of malnutrition, namely *immediate causes*, *underlying causes* and *basic causes*. Before we look more closely at the causes let's look at the results or manifestation of malnutrition.

### Manifestation of malnutrition

When people do not consume adequate food on a regular basis they suffer ill health and disease and eventually death. Here is another way of saying this using *nutritional terminology*. *Malnutrition can be manifested in morbidity (ill-health and disease) or in mortality (death). Morbidity is a state of injury, ill health or disease. Mortality refers to death, or the frequency or number of deaths.* This word is also used as an indicator of the degree of malnutrition or food insecurity on the national level.



### **Immediate causes**

When you look at the food security model that we are building, you will notice that the immediate causes of malnutrition are on the micro level and are understood to be inadequate dietary intake, ill health or sometimes a combination of these factors. Sometimes the human body of such a person cannot absorb the nutrients it needs and this becomes one of the most important causes of malnutrition. This links with the household food security dimension *utilization and* influences a person's food security status.

### **Underlying causes**

The food security model shows that the underlying causes of malnutrition include many factors that influence food intake, caring practices and a safe and healthy environment. Food intake depends on access to food by the household and the consumption of food. Both of these are part of the household food security dimension *utilization*.

### **Basic causes**

Resources on the different levels of action are important for household food security. The framework clearly shows that inadequate human and environmental resources, poor economic systems and political and ideological factors are basic causes that contribute to malnutrition. The basic or root causes have to be addressed to provide a long-term solution to food security and nutrition problems.

We can summarize the above by saying that each group of causes can be aligned with the building blocks of the micro, meso, exo, and macro levels which we examined in Unit 1. It is important to realize that these three groups of causes of malnutrition do not function independently, but interact in important ways. In other words factors at one level influence other levels. The manifestation of malnutrition such as ill health disease and death and *immediate causes* of malnutrition affect the individual. The *underlying causes* may operate at the household and community levels, and the *basic causes* at higher or macro levels (national, regional and global).

How do the concepts *manifestation*, *immediate causes*, *underlying causes*, and *basic causes* fit into our food security model? Take a close look at Figure 2.10 below:





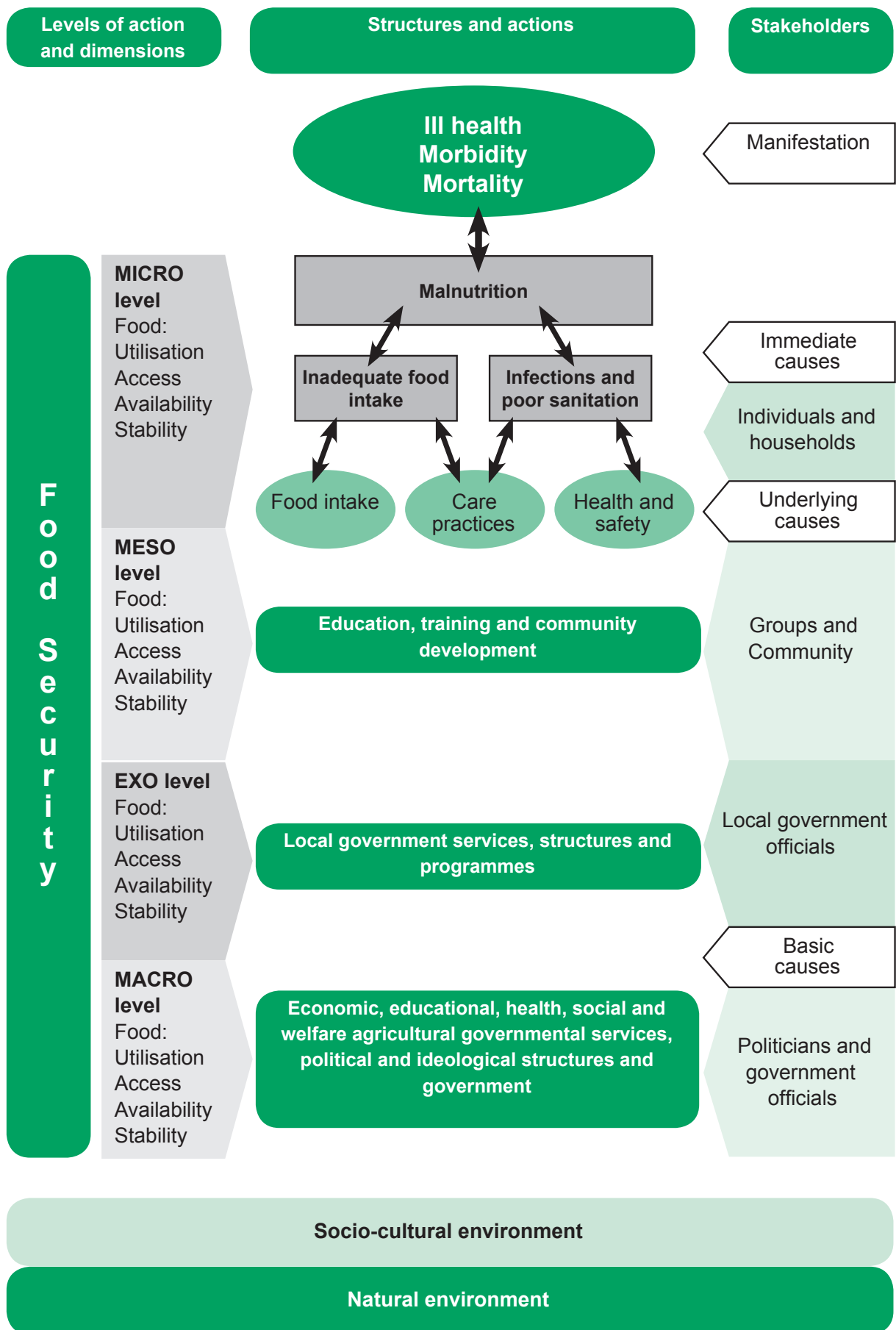


Figure 2.10 The nutrition and malnutrition building blocks of the food security model





## Activity 2.10: Do this activity in your study guide

### Test your understanding of the nutrition and malnutrition building blocks of the food security model

Here are 5 multiple-choice questions. Tick **the statement** that **best** answers the question. Look for the most comprehensive answer.

#### Malnutrition is caused on the micro level by:

- inadequate food intake
- storing and preparing food to ensure that there is an adequate supply
- making sure that everyone in the household washes their hands before meals
- All of the above

#### The manifestation of malnutrition is:

- inability to fight infections
- poor health
- death
- All of the above

#### The underlying causes of malnutrition are linked to:

- the health of members of the household
- how well people are able to absorb the nutrients from food
- none of the statements
- health and safety practices, care practices and food intake.

#### Those who can do something to prevent the underlying causes of malnutrition are:

- the head of the household
- all the members of the household
- the community
- All of the above

#### Those who can do something to prevent the basic causes are:

- People working in national government structures
- Politicians and government officials at provincial and national levels
- The heads of state in countries in the region
- People working in the agriculture sector





### Comments on Activity 2.10

*The causes of malnutrition are not straightforward. The food security model is a tool that shows the comprehensive nature of malnutrition and food insecurity and how they are linked. To fully understand malnutrition in a particular household and community you have to examine all the possible factors that contribute to malnutrition.*

- 1. Malnutrition is caused on the micro level by inadequate food intake. The focus in this question is on the cause. The other statements looked at actions to prevent malnutrition.*
- 2. The manifestation of malnutrition includes all the statements: inability to fight infections, ill health and death.*
- 3. The underlying causes of malnutrition are linked to food intake, care practices and health and safety. The other statements had showed some of the causes but the last one was the most complete answer.*
- 4. Everyone in the household and the community can work on actions to prevent the underlying causes.*
- 5. Politicians and government officials at provincial and national levels can do something to prevent malnutrition.*

---

## 2.2.5 The relationship between food insecurity and malnutrition

**You have learned from the case study in Activity 2.9 that malnutrition is a condition**, an outcome of food insecurity. You also discovered that it might be related to food and non-food factors, such as inadequate care practices for children, insufficient health services and an unhealthy environment.

Malnutrition and food insecurity tend to overlap in most instances. Food insecurity may be present in varying degrees. Inadequate food intake is not always the only reason for food insecurity. If a household has a malnourished child, this is not always as a result of a lack of food in the household. For example, if a mother uses incorrect weaning or feeding practices with her infant, the child may be malnourished, despite there being sufficient food in the household. A household with malnourished individuals will always be classified as food insecure, regardless of whether the causes of the malnutrition were food-related or related to non-food factors.

Malnutrition is a physiological nutritional condition, whilst household food insecurity is the result of an insufficient food intake causing malnutrition. *Hunger* is a physical condition caused by not eating enough food.

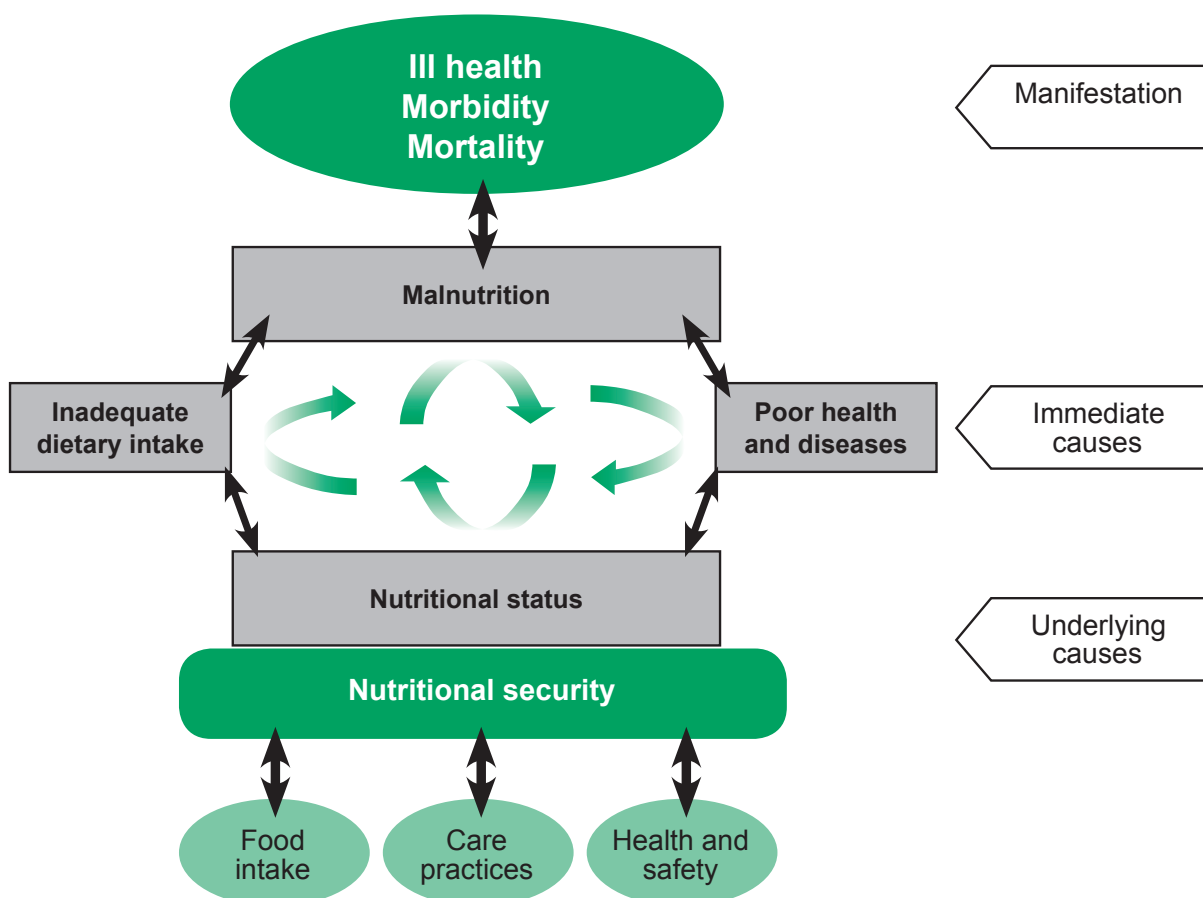
The summary in Table 2.3 shows the degrees of malnutrition and how food insecurity is linked is in each case.



<b>Malnourished and food-insecure</b>	The results of both malnutrition and food insecurity lead to the highest degree of malnutrition and are severe in a small percentage of cases.
<b>Malnourished due to non-food reasons</b>	Some people may be malnourished for non-food reasons for instance due to poor health and/or caring practices. These people will be food-insecure because of the food utilization component. For example the bodies of people who are malnourished may not be able to use the food nutrients.
<b>Temporary food insecurity</b>	Amongst the food-insecure are those who are temporarily food-insecure and hungry at the end of the month or the season. However they will not necessarily be malnourished.
<b>At risk of future food insecurity</b>	This group of food-insecure people includes those at risk of future food insecurity, but who are not currently hungry or malnourished.

**Table 2.3** Examples of the relationship between malnutrition and food insecurity.

When people suffer from malnutrition they often become infected with diseases because their body is not able to fight the germs that cause the diseases due to lack of nutrients. They often become chronically ill and eventually die. This is referred to as the “malnutrition cycle”. The cycle displays how malnutrition and other worsening factors affect those suffering from malnutrition. It is illustrated in Figure 2.11. The arrows indicate the cyclical nature of the different effects of malnutrition and how severe ill-health can lead to death.



**Figure 2.11** How the malnutrition cycle fits into the food security model



## 2.2.6 How does hunger link with food insecurity?

We have all experienced pains in our stomach and a feeling of weakness when we are hungry. This feeling of hunger is a physiological symptom of the need for food. But hunger is more than an empty stomach. It is a serious nutritional condition that large numbers of people in our country and in the world have to deal with daily. Hunger results from the scarcity of food and the lack of access to food for long periods of time. Hunger is linked to the four dimensions of food security, namely: *availability, access, utilization and stability*.

**Availability** and **access** to food depend on a variety of factors. These include:

- Adequate food sources that are easily available
- Getting hold of enough food (acquisition)
- Having an income and cash transfer through social safety nets that make it possible to get hold of food
- Processing and storing food.

If any of these factors fails, then the household members may experience hunger and may also face starvation.

**Utilization** issues relate to food intake and appropriate caring behaviour. The proper utilization of food enables people to prepare adequate food to eat it in ways that promote health and that are culturally acceptable. This in turn will reduce the risk of infection. Health is further supported by the use of safe water and unpolluted air. Inadequate food intake is the most important contributory factor in hunger. In addition, if food is available but is not prepared and served in a healthy manner then the food will not contain the right nutrients. Another factor to consider is personal and cultural food preferences. If the food is not prepared in a way that is acceptable to the individual or that follows specific cultural practice then the person may refuse to eat it and thereby experience hunger.

Hunger is a very real experience for communities suffering from poverty and food insecurity. These communities are likely to experience both malnutrition, which affects their productivity, and possible starvation. Hunger is best portrayed by the following four situations:

- Famine and starvation, with not enough food of any sort to eat.
- Having enough food to eat, but that is of an inferior quality.
- Having enough food to eat that is adequate in quantity but with inadequate amounts of nutrients.
- Having enough food to eat that is adequate in quantity, but not preferred by the consumer.

The phrase *hunger gap* is often used to describe the period just before the main harvest, when people do not have enough food, when the food stores of the household are often low and people need to lower their food intake in order to survive until the harvesting time. It may also happen that a drought, disease outbreak or extreme weather leads to a loss in crops or livestock. In such cases the situation becomes even worse and it may take two to three years to recover their position.

From a food security perspective we can say that an absence of hunger consists of having



adequate amounts of food in both quantity and quality and an optimal concentration of all the necessary nutrients in the body. An absence of hunger also depends on the absence of possible infections, such as malaria and gastro-intestinal parasites (for example worm infections), which, together with a lack of nutrients, can cause malnutrition.

## 2.2.7 The link between poverty and food insecurity

People who live in poverty also show severe signs of malnutrition. Chronic malnutrition leads to mental and physical disability and ultimately death. Millions of lives are damaged in this way. The costs associated with poverty are huge for individuals and households, as well as for communities and nations. Understanding the link between malnutrition and poverty is crucial for anyone who works with food insecure households.

People can be caught in a vicious cycle of poverty as illustrated in Figure 2.12. Once a person or community falls below a standard of living that is deemed necessary for survival, a chain of events happens that perpetuates the situation. The poverty continues until people receive support to climb out of their destitute situation.

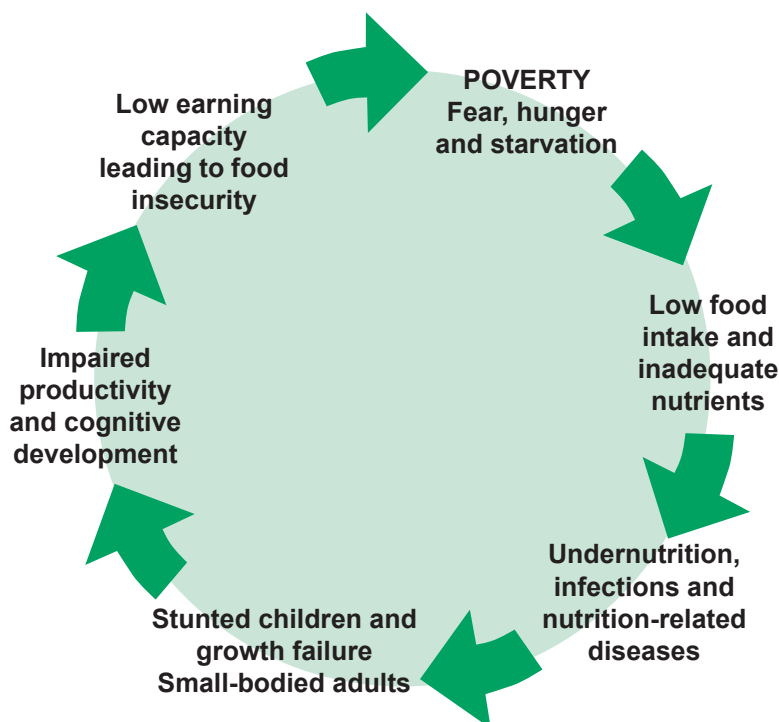


Figure 2.12 The vicious cycle of poverty (Adapted from FAO, 2008)

The 'vicious cycle of poverty' depicts the impact of poverty on food security. As food sources and resources decrease and assets decline less food is consumed. This can lead to undernutrition, diseases and infections, stunted development and slow growth in children. This, in turn, leads to small body size in adults, and may also lead to impaired learning capacity, decreased productivity and ultimately, to low earning capacity. This whole vicious cycle may start with poor consumption strategies.

Poverty is accompanied by malnutrition, as well as by vulnerability, isolation, and illiteracy,



accompanied by a breakdown of human dignity. As the cycle repeats itself through seasons and generations, the poverty cycle becomes more intense and destroys livelihoods. The way to break the poverty cycle is to begin by monitoring vulnerability and then taking steps to ensure food security and good nutrition already in the early stages of a developing crisis or an emergency.



### **Activity 2.11: Do this activity in your study guide**

#### **The effects of poverty**

The cycle of poverty shows how the effects of poverty are interrelated. Decide which of these statements are True or False. Draw a circle around your answer.

1. Stunting and growth failure in children is not linked to poverty. True or False
2. Poor nutrition and malnutrition can seriously affect a person's learning ability. True or False
3. If a person does not eat adequate nutritious food his energy levels will drop and he will be more productive. True or False
4. There is a direct link between lack of nutritious food and a body's inability to fight germs and infections. True or False
5. Women and girls who live in poor communities are not more vulnerable to food insecurity than men and boys. True or False



#### **Comments on Activity 2.11**

1. *False. Children from poverty-stricken households often suffer from malnutrition that can result in stunted growth. Stunted growth is a very serious condition in children and is associated with severe malnutrition especially in the early childhood years. Children who have stunted growth have low body weight and height for their age.*
2. *True. Learning capacity depends on good nutrition. But access to good education and training is equally important. Poor households are usually far away from good education facilities.*
3. *False. High energy level and productivity is linked to regular good nutrition.*
4. *True. A person who consumes an adequate quantity of nutritious food is usually healthy and able to fight infections.*
5. *False. The cultural practices in communities determine who gets access to food when food is scarce. Across the world statistics show that women and girls are usually more vulnerable in food insecure households and communities.*



## 2.3 The link between household food security and livelihoods

The concept *livelihood* as used in this module, simple means *making a living*. When we talk about making a living we think of resources (assets), capabilities (what people can do) and activities. In a food security context it refers to people, their capabilities, their assets, their income and the activities needed to sustain a means of making a living, including ways of obtaining food.

The concept **sustainability** means the ways in which households sustain or keep themselves alive. It is how households make a secure living today and in the foreseeable future. Households have sustainable livelihoods when they can cope with and recover from shocks and stresses and can maintain their capabilities and assets, without undermining their natural environment. **Sustainable livelihood** refers to people's capacity to generate and maintain their means of making a living, as well as enhancing their well-being and that of future generations.

### 2.3.1 What are livelihood strategies?

Households have different ways or strategies of making a living. Earlier in this unit you read about Peace and how her grandmother and mother provide for the children and adults in the household. In this part of the case study you can find out more details about how the household is coping.



#### Livelihood strategies in Peace's household

Peace is part of a poor household, but a well cared for household that manages to put to good use the few resources they have. Her mother is a vendor and her grandmother keeps a household garden and is one of the few people that still collect food from the veld, when it is available. The grandmother also keeps a few goats, which she exchanges or sells when required. Peace's mother sometimes sells food from the grandmother's garden or helps to dry and store food for wintertime. With the profit the mother makes, she buys healthy food and vouchers for electricity. She collects firewood, redundant wooden objects or dung from the veld to use as fuel to cook or prepare the food. Peace's mother receives a child grant of R220 for her baby and Peace's grandmother receives a grant for the elderly.

Peace's father is a migrant worker with a second wife in the city, so they only see him three to four times a year, when he leaves them R200. They wish they could own the plot that the grandmother received from the chief. Pearl's uncle told the family that they could apply for the necessary papers from the community land administration committee under the Communal Land Restitution Act. Then, if they could only save enough money, they could have their own water tank for watering a bigger garden and could also plant feed for their chickens and goats.







## Workbook Activity 2.12: Do this activity in your workbook

### The household in which Peace lives: Part 2

Identify the strategies used in a household from a case study that contribute to food security. Select from the case study the ways in which the household creates a livelihood for the benefit of each member. Describe them in your workbook.



### Comments on Activity 2.12

*Peace's household uses a combination of livelihood strategies:*

- *Household food production. The grandmother maintains a vegetable garden and she keeps small livestock such as goats and chickens;*
- *Receipt of social grants and a food parcel;*
- *Sale or vending of crafted items and second-hand items;*
- *Processing and selling of extra food;*
- *Gather food from the veld; and*
- *Receipt of a small sum of money (payments) three to four times a year from Peace's father.*

The livelihood strategies are intended to bring in money or encourage activities that provide the necessary resources needed by the household. These livelihood strategies consist of a range and combination of activities that household members undertake in normal times in order to maintain a livelihood. The combination of activities for men and women differs according to their gender roles and the time spent on a particular activity.

According to De Sagte (2002), these activities can be classified as *productive activities*, *community maintenance activities* and *reproductive activities*. Productive activities can be divided into two groups;

- natural resource-based activities, such as garden production, land cultivation, livestock keeping, weaving, collection and gathering;
- non-natural resource-based activities such as services, payments, as well as informal and formal trade.

The diagram (Figure 2.13) gives a visual representation of the different categories of livelihood activities.



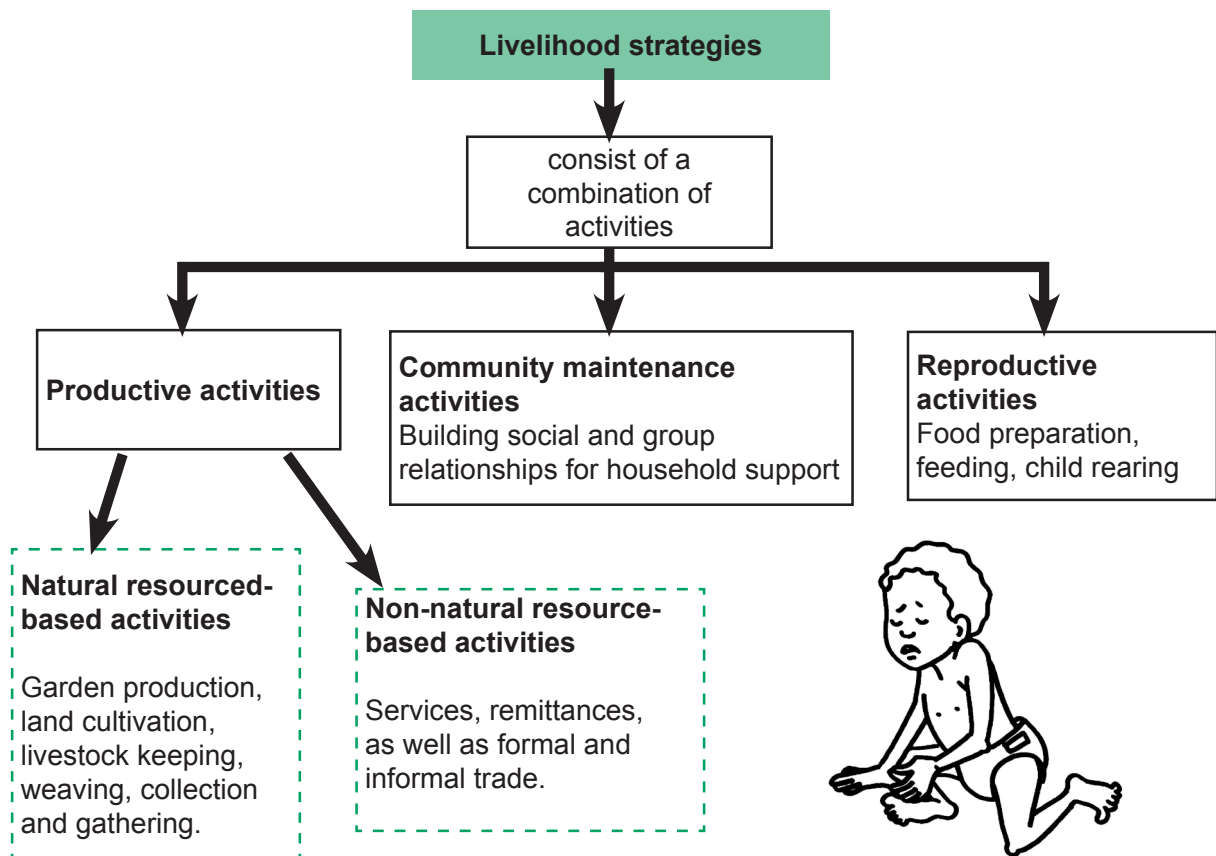


Figure 2.13 Livelihood strategies consist of a range of activities

Most households employ a combination of the two kinds of productive activities. Urban households may rely more on activities that are non-natural resource-based. Even in urban settings, however, many households will use the limited land space around or near the compound for small-scale crop production and may also keep some small livestock. For each of these livelihood activities different groups of assets and resources should be available.

Households are also involved in community maintenance activities and reproductive activities. It is important to know who is involved in which activities, the age and gender of the household members, how much time they spend on the activities and their decision-making power on the resources or assets required for the activities.

### 2.3.2 What are livelihood assets?

Livelihood assets can be natural, physical, financial, social and human. Let us take a closer look at each of these assets.

#### Natural capital or assets

Natural assets consist of natural resources that are useful for livelihoods, for example land, water, wildlife, wild foods, and other resources from the natural environment.

#### Physical capital or assets

The physical assets are the physical resources that include the basic infrastructure and



production equipment. These resources consist of transport, housing, energy, communication and water systems, and equipment.

### Financial capital or assets


The financial assets are the financial resources that are used to secure livelihoods. They come from savings, credit, remittances (payments), social grants and pensions, all of which are used to secure livelihoods.

### Social capital or assets

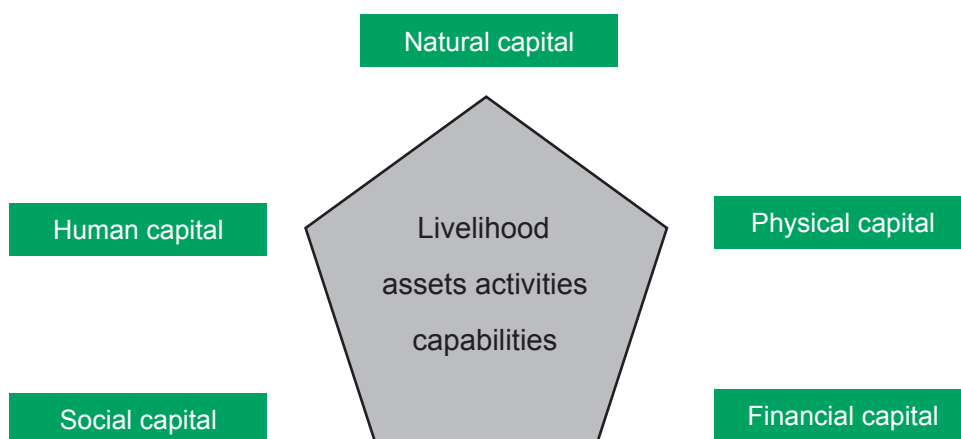
The social assets are the quantity and quality of social resources, such as networks, membership in groups, social relations and access to local and national institutions, which people can draw on as a means of securing their livelihoods.

### Human capital or assets

Human assets consist of skills, knowledge, the ability to work and good health, all of which are important for securing livelihoods. The assets are displayed in the sustainable livelihood framework as a pentagon with five corners, which you can see in Figure 2.14.



“ I lost my job at the maize mill. I was just long enough in the job to quit planting my fields back home. The government closed the maize board. I was jobless with no income. I could not go back to my village as the fields had not been cleared and planted. There would be no harvest for the next season. I cannot go home without any money to buy seeds. ”



**Figure 2.14 The asset pentagon of the sustainable livelihood framework**  
(De Sagte, 2002)

**The assets are the groups of available resources that should be within reach of the household (micro level) or which are in the community (meso level).** The household should have the capability or skills to use them. Assets and resources are allocated differently within households. They are allocated according to age, gender roles, the control of resources and by those who hold the power of decision-making for the members of the household. Assets that are external to the household and that require a higher level of decision-making must be acquired from the local government (exo level) or the government (macro level). Apart from household’s choices, livelihood assets can be controlled and transformed by means of policies and institutions, which are the concern of the local government or the government.







### Comments on Activity 2.13

Did you fill in all the livelihood activities? The table you completed should be similar to the one given below.

Livelihood activities	Assets	Level
Vending goods	Financial	Meso
Making a garden	Physical	Micro
Keeping chickens and goats	Physical	Micro
Food parcel	Social	Macro
Grants: One child and one elderly person	Social	Macro
Remittances from father	Financial	Exo / Macro
Process food for winter	Natural	Micro
Collect food and firewood from the veld	Natural	Micro
Collect water from the communal tap and electricity	Physical	Exo / Macro
Participate in mothers' training at the care group	Human	Meso
Attend health clinic	Social	Exo / Macro
Participate in school education	Human	Exo / Macro
Attend mothers' group	Social	Meso
Attend church	Social	Exo

Only when Peace's household engages in activities to provide a livelihood can they have access to this range of livelihood assets and resources. Then the household can have food security and good nutrition.



How do the livelihood assets fit into our food security model?

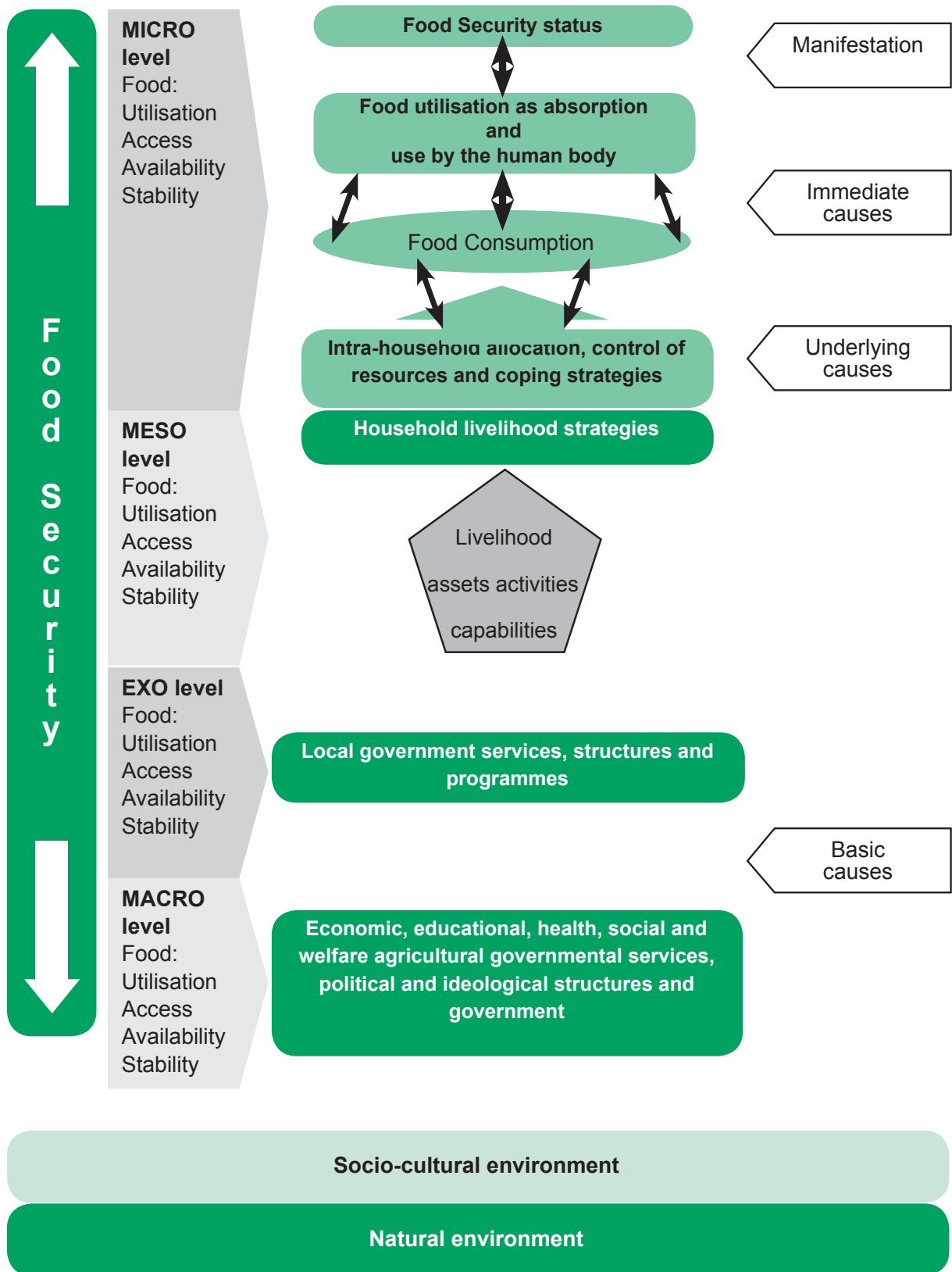
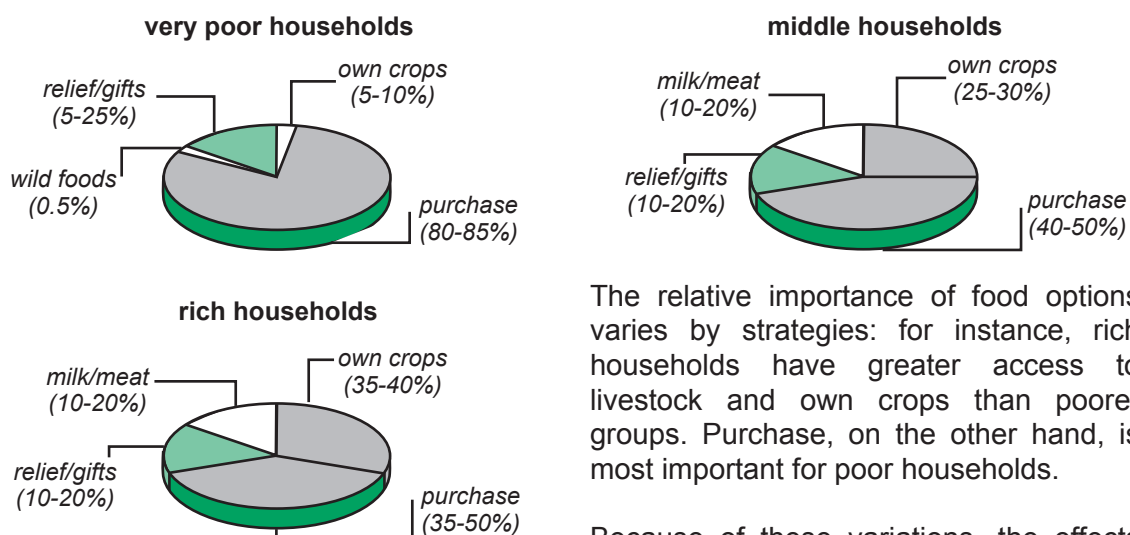


Figure 2.15 The livelihood building blocks of our household food security model



Households with access to many assets, for example financial assets (money) or physical assets (livestock), may be protected from food insecurity because they have enough assets to provide food security. Households with fewer assets and livelihood strategies may have less access to food sources and may not be food secure.

Here is an example of the food strategies utilized by three different wealth groups in Kitui, Kenya in a 'normal' year. A normal year means a year in which there are no natural disasters or upheaval caused by political strife and war. As you can see the relative importance of food option varies for each group.



The relative importance of food options varies by strategies: for instance, rich households have greater access to livestock and own crops than poorer groups. Purchase, on the other hand, is most important for poor households.

Because of these variations, the effects of food shortages are different for each wealth group.

Figure 2.16 Strategies for households in Lowland Kitui, Kenya in a normal year



## Workbook Activity 2.14: Do this activity in your workbook

### Livelihood strategies to acquire food

Interpret pie charts that show statistics on the livelihood strategies of three economic groups of households. Look at the pie charts in Figure 2.16. They show the results of a community survey of food sources for very poor, middle income and rich households.

1. What is the difference in percentage of the food sources in each of the three categories? Use information from the pie chart to complete the table in your workbook.
2. Complete these statements in your workbook
  - The households that purchased the most food are...
  - The households that purchase the least food are...
  - The reasons for the differences between the food sources for households are...



- The households that would be more vulnerable if there were droughts are...
- The households that have members who are the most likely to lose their jobs are...
- The households that can afford protein-rich food such as milk and meat in a normal year are...
- The households that will benefit from receiving a grant are ...
- The households that will benefit from a food parcel in an emergency are...
- The households that will benefit from a seed parcel to enable those living there to grow their own food are...



### Comments on Activity 2.14

*The information presented in the pie charts, shows that the three groups rely on different food strategies to obtain food. Rich households have greater access to livestock and own crops than poorer households and this makes them less dependent on purchasing food. Purchasing food is a strategy most commonly used by very poor households. The effects of food shortages are different for each group. Poorer households have to apply coping strategies much sooner than wealthier households.*

---

## 2.3.3 What are coping strategies?

In any crisis situation communities and households, whether they be poor or not very poor, will develop short-term responses to reduce the risks to their lives and livelihoods. These responses are known as **coping strategies** and can be divided into two categories: *consumption coping strategies* and *livelihood coping strategies*.

### Consumption coping strategies

Coping strategies related to food are referred to as **consumption strategies**. Consumption coping strategies are short-term and can be corrected when food becomes available again. Initially, people choose short-term strategies that are **not damaging** to livelihoods, for example, eating cheaper food, eating fewer meals a day, and collecting veld foods or wild foodstuffs. These coping strategies are temporary consumption responses to food insecurity and can easily be reversed when circumstances become normal once more.

Typically, food-insecure households employ four types of consumption coping strategies.

- Firstly, households may change their diet. For instance, households might switch food consumption from preferred foods to cheaper, less preferred substitutes.
- Secondly, the household may attempt to increase its food supplies using short-term strategies that are not sustainable over a long period. Typical examples are consuming of wild foods, immature crops, or even seed stocks.
- Thirdly, if the available food is still inadequate to meet their needs, households can try to reduce the number of people that they have to feed by sending some of them elsewhere. For example, sending the children to the neighbours' house when those neighbours are eating.





- Fourthly, and most commonly, households can attempt to manage the shortfall by rationing the food available to the household. They could cut down the portion size or the number of meals eaten. They may also favour certain household members over others, or skip whole days without eating.

Maxwell (2004) developed an instrument to measure consumption coping strategies. The questions asked in the instrument interrogate the consumption coping strategies that households had employed over the previous 30 days. However, in addition to this information, one also has to know whether this period was for a normal month and in which season, since certain factors may have a serious influence on circumstances in a normal month.

Look at Maxwell's strategy tool very carefully. Then answer the question that follows.

### **Coping Strategy Index**

*(Maxwell, et al., 2004)*

#### **In the past 30 days:**

- How many days have you had to eat food that you would not prefer because you do not have, or do not have money to buy the preferred food?
- How many days have you had to borrow food, or buy food on credit because you do not have, or do not have money to buy food?
- How many days have you had to rely on wild foods, or harvest immature roots?
- How many days have you had to consume seed stock?
- How many days have you had to leave your children to beg, scavenge, or fend for themselves?
- How many days have you had to ration portion size because you do not have enough food, or do not have money to buy food?
- How many days have you had to restrict your own consumption to make sure the children get enough to eat because you do not have, or do not have money to buy food?
- How many days has your family had to go the whole day without eating?

### **Question**

To which of the above questions can you or someone you know answer “*more than three days*”?

Consumption strategies require minor changes to the use of household assets and resources and are not damaging to livelihoods. However, what happens in the long term when there are no other options but to sell or exchange the assets that provide people with a livelihood?

### **Livelihood coping strategies**

In the long-term as more households adopt the same consumption coping strategies, the value of these strategies becomes diminished and they change to livelihood coping strategies. An example of this might be when the price of livestock falls and wages become insufficient. Livelihood coping strategies that are irreversible demand the extensive use of household

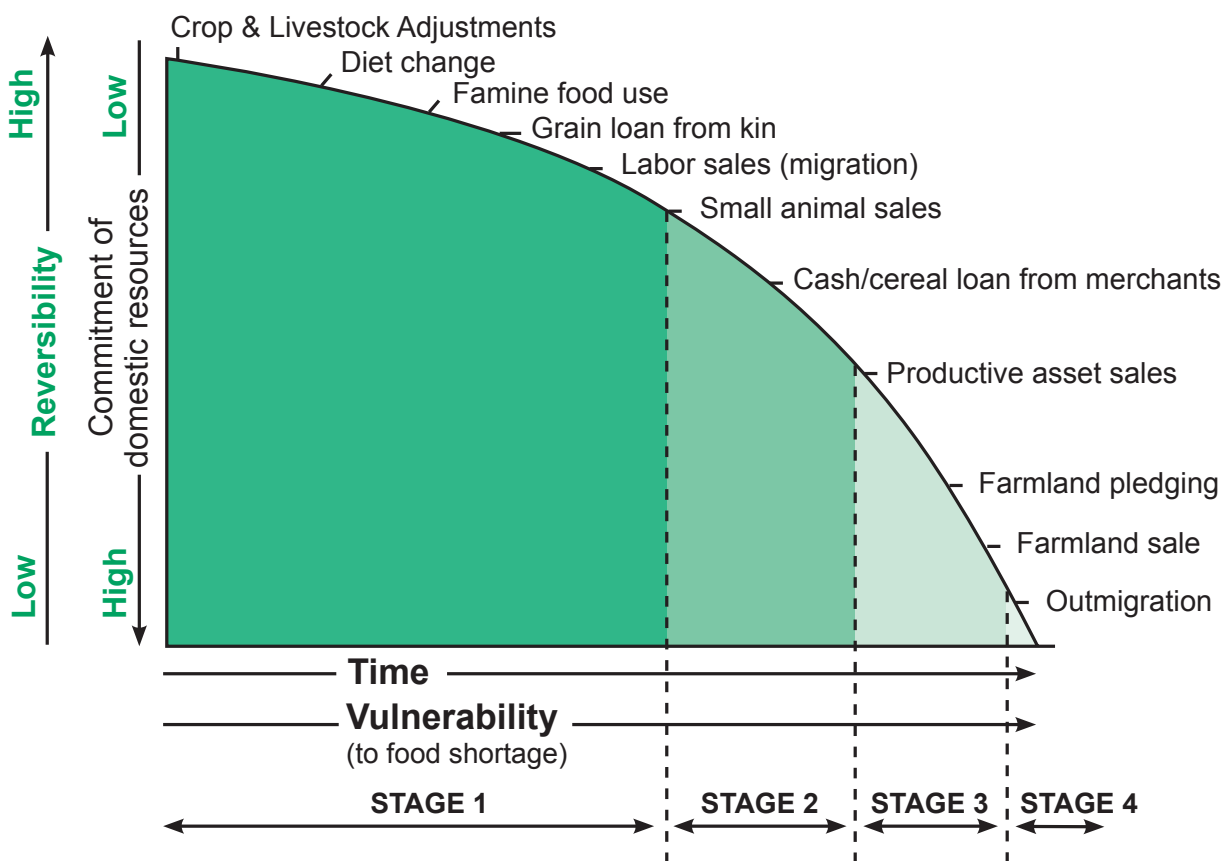


resources. Such households may have to resort to **damaging strategies** that can undermine long-term livelihood viability. For example households may have to sell off key assets such as livestock, take out loans at exorbitant rates or even re-mortgage their land. These strategies are irreversible and affect future livelihoods.

People often use coping strategies to prevent the risk of the total loss of assets and food insecurity. In political or conflict-related emergencies, options may include engaging in violent, illegal, unsafe or socially degrading activities.

### How do consumption coping strategies change to livelihood coping strategies in the long term?

Figure 2.17 shows how households cope with food insecurity over time. The coping strategies change gradually over time and in order to explain what happens researchers divide their progression into four stages separated by dotted lines in Figure 2.17 below.



**Figure 2.17 Coping strategies as responses to household food insecurity.**  
*(Adapted from Watts (1983) by Frankenberger & Goldstein, Office of Arid Lands Studies, The University of Arizona in Maxwell and Smith, 1999)*



## STAGE 1

The first stage of household food insecurity is marked by the initial shortage of food, or inability to provide sufficient quantities of food to all members of the household. In this stage a number of strategies may be used:

- Stored grain or extra livestock may be sold, traded, or used for food (
- Changes in diet and frequency of meals per day
- Gathering of wild foods (famine foods)
- Inter-household transfers and loans (borrowing food/money from family)
- Seeking wage labor

As you can see from Figure 2.17 in stage one, assets are kept by the household for as long as humanly possible, i.e., until food consumption becomes the top priority over asset preservation.

## STAGE 2

The second stage of food insecurity is often marked by:

- sales of non-productive livestock
- sales of jewelry, insurance assets
- credit/loans from merchants
- temporary migration for work or land
- skipping meals for entire days (days/week)
- withdrawing children from school

At this stage household coping strategies are aimed at generating financial resources to buy or access food for the household by selling assets that normally would serve as insurance against crisis such as extra livestock and jewelry. In this stage generally, the assets that are preserved are those related to income generation, such as land, farming equipment, oxen, cattle, etc.

## STAGE 3

**In this stage the household strategy moves from trying to preserve assets and focuses on food consumption.** At this point usually the other strategies have failed to provide sufficient food quantities or the crisis that made the household vulnerable has gone on for too long. When the crisis has reached this stage famine conditions have essentially set in and the disposal of the assets jeopardizes the future security of the household. During this stage the following things happen:

- sale of all livestock
- sale of productive equipment
- sale or mortgage of land
- redistribution of children (rare)
- migration
- In the case of natural disasters, such as drought, many assets will be lost involuntarily, specifically livestock succumbing to disease or starvation.



## STAGE 4

Stage four represents a state of complete destitution. The household no longer exists as it once did and permanent migration by either the whole or part of household occurs in order to resettle on suitable land, find wage labor, or more likely to access food aid assistance. These are described as distress strategies. By this time individuals are generally too weak to work and simply need food and care to survive. Characteristics of stage 4 include:

- permanent migration
- begging for food/resources
- complete dependence on external aid

Some distress strategies may be detrimental to health such as eating food that is not normally eaten and strategies that carry social costs. Such detrimental strategies cause degradation to societal values and norms and can result in activities such as: sex for money, alcohol abuse and criminal activities that are carried out in order to acquire resources. In this sense, coping strategies and mechanisms to adapt to the extremes of food insecurity and hunger, lead to poverty and malnutrition.

From Figure 2.17 it can be seen that initially during stage 1 the chances of reversing the household's situation are high as the strategies involve low commitment of their resources e.g. changing their diet or borrowing food or money from friends and family. However as the situation worsens the household is forced to get rid of more and more of their precious assets resulting in a situation that becomes harder and harder to reverse, leaving the household increasingly vulnerable and unable to cope.

## 2.4 Assessing food security issues in the community

People who work in food security around the world follow tried and tested approaches to assist food insecure households and communities to help themselves. As you know the 'Triple A cycle' approach comprises three main sets of activities: assessment, analysis and action. During the assessment phase people gather selected data by using a variety of methods such as observation, interviews, storytelling, resource mapping, transect walks, ranking and scoring. These community participatory techniques are also referred to as PRA (Participatory Rapid Appraisal) approaches and methods. Their purpose is to encourage the community to participate actively in raising awareness of and analyzing knowledge of their own life conditions in order to create an action plan that enables them to make informed changes to improve their situation. You will learn more about PRA approaches and methods and how to use them with the households in the next modules.

This section introduces the concept of assessment and shows you that the kind of questions used during the assessment phase are based on the food security model that we have built up in Units 1 and 2. Food security assessment can be done on a small or large scale. As a food security facilitator you will work with households on a small scale and the assessments you do with the households are to assist each household to find ways to improve their food security. The data you collect can however feed into large-scale assessment. Such assessment could be carried out by government or by an organization to determine the food security of households in a particular area, province or country.



**The general objective of a food security assessment whether it is large or small scale, is to understand how severe the food insecurity is, and why this is the case.** The more specific objective is to determine if there is a need to intervene so as to return people to a normal food security situation in the short term and what is necessary for the long term.

A large-scale food security assessment and analysis should consider the food security situation of various groups of people. In addition, food security assessments can help to predict a future shortage of food or the duration of an insecure food period.

**During a food security assessment answers are gathered to questions such as these:**

- How many people live in the house?
- What are the gender and age of the household members?
- How do people acquire food to meet their food needs?
- What variety of food do they consume?
- Who is responsible for acquiring, producing or buying the food?
- Who is responsible for processing, preparing and serving the food?
- How do people make a living?
- What resources do they have?
- Who controls and makes decisions regarding resources?
- Who accesses these resources for food over time?
- How does a normal situation compare to a crisis?
- Can people manage without assistance from an organisation or the government?
- If not, how can an organisation or the government support coping strategies?

*(International Federation of Red Cross and Red Crescent Societies, 2006)*

Why do we ask these questions? We need to understand **how people make a living**, whether it is by means of food production, working for a salary or a mixture of the two. More specifically, we need to know **how they meet their food needs, who acquires food and who the responsible food caregiver is**. We need to understand **what resources people have available** such as land, animals, fishing areas, pasture for grazing, the number of livestock, and the labour force. We need to understand **who controls the decisions that are made, who can access the resources that are available and whether this access changes over time**. For example, it may be that water sources for animals are restricted in the dry season so that only those who can pay to make use of such sources may access them.

The assessment has to compare the **current situation with the normal situation**. Comparisons between the two allow people to decide how and why the situation has deteriorated. This is the first step towards understanding the needs that arise due to a hazard or chronic crisis and will enable people to determine the best response.

What have you learned so far? You have been actively involved through reflections on case studies and activities and they have helped to open your eyes to the complexity of food security and food insecurity. Thandi's case study has shown how important it is to examine a situation carefully and to use a range of questions to get a comprehensive picture of a household's



situation. Hopefully you can identify the components of the food security model and have a basic idea of what each of the key concepts means. Here is the completed food security model. See Figure 2.18.

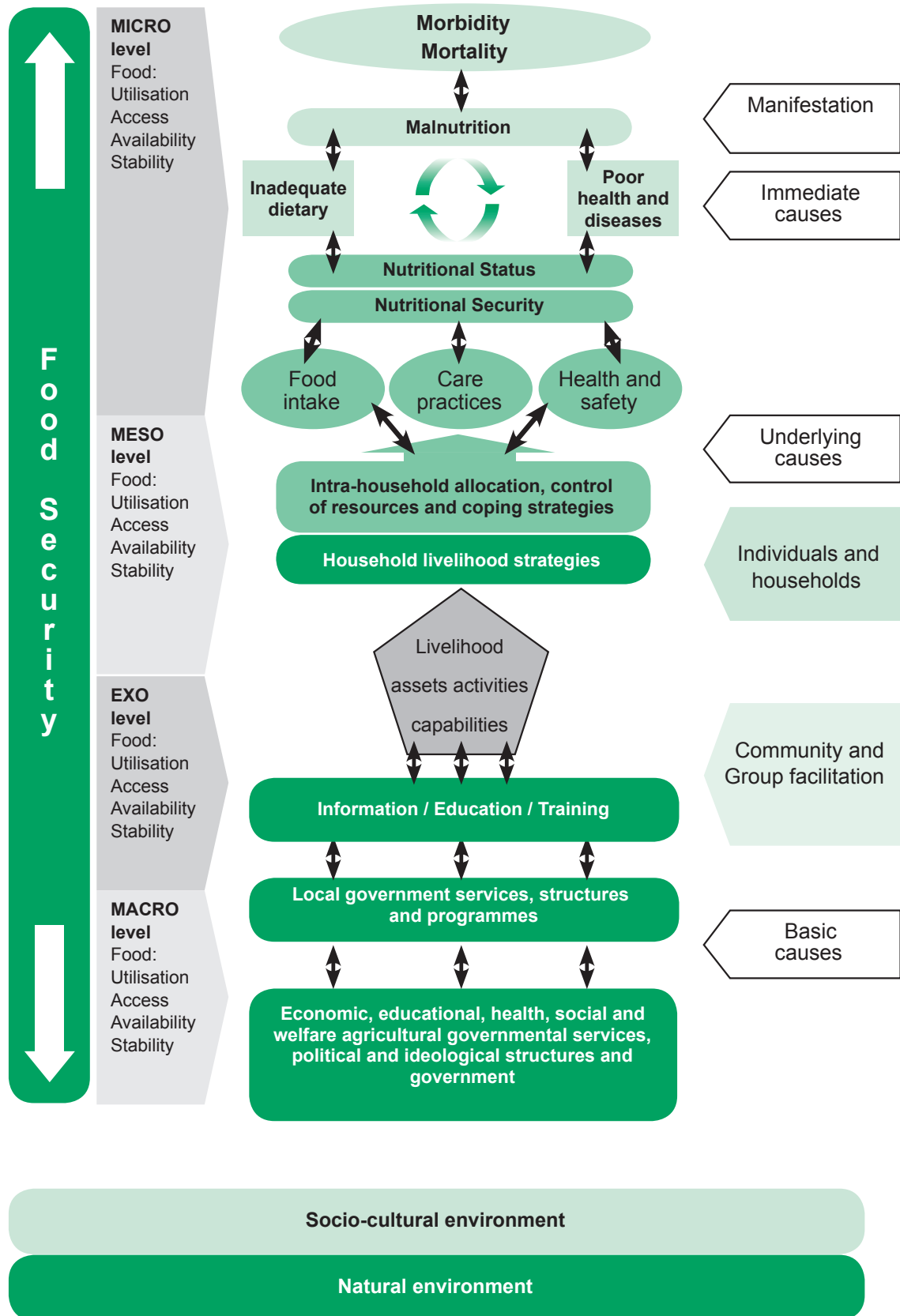


Figure 2.18 Our completed food security model with livelihood and nutrition building blocks



The key concepts and words we used to build our model come from frameworks developed by international researchers. Why do we need frameworks and models? They promote a coherent and integrated look at food security related issues. These frameworks are used at international and national level to gather and access information on households and communities, analyze this information and plan action projects. You do not have to memorize or study the detail of each of these components or frameworks. At this stage it is important for you to be able to identify each component and its key words or concepts. **Later on the information and insights you have gained will inform your work with households.**

**You are now ready to take a walk in your chosen community. This is your opportunity to practise what you have learned so far and to observe the community environment with the eyes of a food security facilitator.**



## Portfolio Activity 1.2: Do this activity in your portfolio sheets

### Observation checklist and a walk through the community

You can collect an enormous amount of information through observation. In your walk through the community you can observe what is happening with regard to food availability, food accessibility, food utilization and food stability.

In this activity you will walk with one or more people from the organization you work with or a selected person who is familiar with the community. Your tasks include preparing a set of observation questions, preparing a route map, recording your observations as you go along, and writing your observations in a short report. (Find details in the **Take Action** Section)

Preparing yourself for the walk through the community is essential, as you want to gain as much information as possible. Remember observation is only one method of gathering information. To get a comprehensive picture of what is really happening you have to talk to different kinds of people and use other methods that enable you to see things from different perspectives.



## Log

### Reflection on the walk through the community

Get into the habit of reflecting on your actions in your logbook. These questions can help you to organize your thoughts. Write your responses in your portfolio evidence sheet.

1. What observation made you feel happy? Why did it make you feel happy?
2. What observation made you feel sad? Why did it make you feel sad?
3. Do you think the households in this community are food secure? Give evidence to back up your response.
4. What would you do differently in a future observation walk?
5. What have you learned about yourself by doing this task?





## Concluding Comments

Understanding the various dimensions of food security and how they are interrelated is important for anyone working with people in communities that are food insecure. The completed food security model which includes the nutrition, malnutrition and livelihoods components is a helpful framework for people working in government structures. IT assists them to establish priorities in food security policy and programme formulation, make long term investment decisions and evaluate response options when responding to food insecurity. It is also a helpful framework for people who work on the ground with households in small-scale interventions.

In Unit 3 we examine the various strategies that are in place to address food security issues. We identify the stakeholders that can influence food security and how you, as a facilitator working in communities, can link households with these stakeholders in order to enhance their food security.

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