Food Security Information for Action

Food Security Concepts and Frameworks

Lesson 2

Concepts related to Food Security

Learner’s Notes

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Learning objectives

At the end of this lesson you will be able to:

• understand the concept of vulnerability and how it is applied to food security; and

• comprehend the relationship of food security to the concepts of hunger, malnutrition and poverty.
Introduction

Vulnerability is a well established concept that has more recently been applied to the analysis of food security.

By incorporating an understanding of vulnerability, food security policy and programs broaden their efforts from addressing the current constraints to food consumption, to include actions that also address future threats to food security.

In this lesson, other concepts that relate to or depict human well-being in one way or another will also be introduced, including:

- Hunger
- Malnutrition
- Poverty

It is important to understand how these concepts are different from, but related to, food insecurity.
**Vulnerability**

The dynamic nature of food security is implicit when we talk about people who are vulnerable to experiencing food insecurity in the future.

These are people who are able to maintain an acceptable level of food security today, but may be at risk of becoming food insecure in future.

Achieving food security requires not just achieving an adequate level of food consumption and good nutrition, but maintaining this level at low risk over time.

**Vulnerability** is defined in terms of the following three critical dimensions:

1. vulnerability to an **outcome**;
2. from a variety of **risk factors**;
3. because of an **inability to manage** those risks.

The term “vulnerability” is not used consistently in food security analysis and literature.

You may find it used to describe an outcome such as hunger, food insecurity or famine, or used to emphasize the susceptibility of a population to explicitly-identified hazards that could lead to these outcomes.

The bottom line is that it is important to be clear on precisely what is meant by vulnerability in any food security analysis that you read or write.

**Example: Analyzing the risk of becoming food insecure**

For example, we may be interested in analyzing the risk of becoming food insecure as a result of a flood.

If a household lives outside a flood plain then the exposure to flooding is low and therefore the risk of a flood causing the household to become food insecure is low (unless their crops are in the valley!).

However, if they live on the flood plain, but they have the ability to cope with the hazard, for example by being very mobile, and being able to move their animals and/or food crops to safety, then the risk may still be low.
The practical value of vulnerability analysis is that it helps to design better food security responses. Vulnerability analysis has implications for both emergency programming and for longer-term food security policies.

For example, a severe drought may trigger an immediate humanitarian response. A simple analysis may recommend a response that is proportionate to the severity of the drought through a general food distribution to all households in the affected area.

However, vulnerability analysis may recommend interventions that are based on a deeper understanding of the impacts of the food shock on individuals and households with differential abilities to cope. This allows for a more precisely targeted response than a simple estimation of the aggregate food gap.

Vulnerability analysis is important in influencing the design of ‘developmental’ interventions that precede or follow a shock.

Understanding the dynamic nature of food security opens up new intervention opportunities. The insight of why and how people become food insecure suggests ways of preventing this happening. If interventions are designed in ways that increase resilience – by enhancing the ability to manage risk over time – then the very need for a humanitarian intervention when a hazard occurs will diminish.

Vulnerability analysis suggests two main intervention options: either to reduce the degree of exposure to the hazard, or to increase the ability to cope.

**Resilience**

Resilience is defined as the ability of the household to keep within a certain level of well-being (e.g. food security) withstanding shocks and stresses, depending on the options available to the household to make a living and its ability to handle risks.

To give a simple example, vulnerability to drought might be reduced by introducing drought tolerant varieties, improving soil and water management, or introducing crop insurance schemes.
Hunger, malnutrition and poverty

Let's now focus on the concepts of hunger, malnutrition and poverty. It is important to understand how these concepts are related to food insecurity. To what extent do they overlap? In what ways do they differ?

This understanding can highlight how achieving food security can contribute to other goals, such as the reduction of poverty, hunger and malnutrition. Moreover, understanding these linkages can clarify how poverty reduction programmes and fighting malnutrition can contribute to building food security.

Hunger

Reducing hunger is often used as a policy goal. It is an emotive term that has been used as a rallying cry for action.

The 1996 World Food Summit set out to halve the number of hungry people by 2015; similarly, the hunger target of the Millennium Development Goals (MDGs) calls for the prevalence of hunger to be cut in half by the same target date, 2015.

But how does hunger differ from food insecurity?

Hunger is usually understood as an uncomfortable or painful sensation caused by insufficient food energy consumption. Scientifically, hunger is referred to as food deprivation.

Undernourishment

In this context, the measure for hunger compiled by FAO, defined as undernourishment, refers to the proportion of the population whose dietary energy consumption is less than a pre-determined threshold. People suffering from undernourishment are referred to as the undernourished. Besides being a measure of hunger, the undernourished are also referred to as suffering from food deprivation.
Hidden hunger

Sometimes, you may also hear reference to ‘hidden hunger’.

This occurs when people meet their protein-energy needs, but not their micronutrients needs, due to low dietary diversity and/or as a result of chronic disease.

Simply put, all hungry people are food insecure, but not all food insecure people are hungry, as there are other causes of food insecurity, including those due to poor intake of micro-nutrients.

Malnutrition

Food insecurity and malnutrition are also closely related, but distinct, terms. Malnutrition results from deficiencies, excesses or imbalances in the consumption of macro- and/or micro-nutrients.

The vast majority of malnourished individuals in the developing world experience undernutrition (a deficiency of proteins, carbohydrates and fats and/or vitamins and minerals) as opposed to overnutrition (an excess of certain food components such as saturated fats and added sugars in combination with low levels of physical activity, normally resulting in obesity).

The consequence of malnutrition is poor infant and child growth and an excess of morbidity and mortality in adults and children alike.

Nutritional status is determined by the quantity and quality of foods consumed and by the ability of the body to use them. These factors are influenced by the interaction of diet, care, and health status.

Hence, malnutrition may be an outcome of food insecurity, or it may relate to non-food factors, such as inadequate care practices for children, insufficient health services and an unhealthy environment.

The relationship between malnutrition and food insecurity can be visualized as overlapping domains:
1. **Malnourished and food insecure**
   There is a large degree of convergence where people may be both food insecure and malnourished.

2. **Malnourished due to non food reasons**
   Some people may be malnourished for non-food reasons – for instance due to poor health and/or caring practices.

3. **Temporary food insecurity**
   Amongst the food insecure are those who are temporarily food insecure and hungry – but this has not yet manifested itself as malnutrition.

4. **At risk of future food insecurity**
   Finally, the category of food insecure also includes those at risk of future food insecurity, but who are not currently hungry or malnourished.

**Poverty**

Food insecurity and poverty are deeply interrelated phenomena. Any attempt to define, measure, or combat them requires that the relationship between them should be explicitly taken into account.
It is relatively easy to subjectively assess who is poor within a particular society. However, it has proven to be much more difficult to develop an objective description of poverty.

As with the concept of food security, there has been an evolution in the way that poverty is generally understood.

A current and widely used definition of **poverty** is that:

"Poverty encompasses different dimensions of deprivation that relate to human capabilities including consumption and food security, health, education, rights, voice, security, dignity and decent work."

(Organisation for Economic Co-operation and Development – OECD)

From this definition we see that poverty is understood as having many dimensions. It is not defined purely in economic terms, but includes a variety of non-income components which interact with and reinforce each other.

However, many of these dimensions are individually difficult to measure. Furthermore, it is unclear how these different dimensions can be combined into a single composite measure of poverty.

Consequently, at an operational level, poverty is most often defined in terms of income. The most common measures of poverty are national income poverty lines and an individual income of less than US$1 per day.

**Poverty lines**

A food poverty line indicates the per capita cost of purchasing a specific basket of food items which yields a certain nutritional “minimum.”

A household is regarded as poor if its consumption expenditure is below this minimum level.

National income poverty lines are usually based on the cost of purchasing a food basket to satisfy the requirement for a healthy existence and adding an allowance for non-food expenditures.

This methodology introduces a link between household poverty and food insecurity, as poverty is implicitly seen as the inability to adequately provide for the household’s food
needs.

However, the poverty measure is based on the potential for the household to satisfy these needs – it does not look into the actual food consumption level.

The relationship between food insecurity and poverty is quite complex and can be seen as a vicious cycle:

While poverty is undoubtedly a cause of hunger, lack of adequate and proper nutrition itself is an underlying cause of poverty.

Hunger, food insecurity and malnutrition prevent poor people from escaping poverty because it diminishes their ability to learn, work, and care for themselves and their family members. Chronically hungry people may not be able to build the necessary assets to enable their exit from poverty.

**How food insecurity increases poverty**

Several links can be identified:

- At the most basic level, a person requires sufficient energy intake and an adequate nutritional status to be able to work and be productive. Malnourished people do not have the capacity for sustained work, and hence cannot live “an active and healthy life”.
• Poor nutrition is associated with poor school performance. Because of hunger, the child is tired and inattentive. Cognitive ability itself is impaired, sometimes irreversibly, as a result of prolonged and severe malnutrition. The result is that children do poorly at school, thereby damaging their future economic prospects.

• People who are food insecure are risk averse, as a fluctuation in income could be catastrophic to their future livelihoods. As less risky investments tend to have lower returns, the tendency is for poor nutrition to be associated with lower income.

However, the poverty measure is based on the potential for the household to satisfy these needs – it does not look into the actual food consumption level.

It is argued that a strategy for attacking poverty in conjunction with policies to ensure food security offers the best hope of swiftly reducing mass poverty and hunger.

This provides the justification for maintaining the focus on hunger reduction and food security in strategies and policies. Specific action to fight hunger and malnutrition are needed, in conjunction with other anti-poverty measures, to most effectively tackle both.

It is interesting to note that the first Millennium Development Goal is not simply about reducing poverty – it also maintains a distinct focus on reducing hunger.

**Goal 1: Eradicate extreme poverty and hunger**

**Target 1:** Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day.

**Target 2:** Halve, between 1990 and 2015, the proportion of people who suffer from hunger.

While there is no doubt that sustainable poverty reduction is an essential precondition for reduction in hunger and malnutrition, income growth, even if sustainable and equitable, is not sufficient to achieve food security without complementary public interventions.
Example: Changing level of child malnutrition
A recent global study analyzed the determinants of changing levels of child malnutrition between 1970 and 1995, as measured by the percentage of underweight children under five.

The most important factor in explaining reductions in malnutrition was the growth in per capita income.

However, this factor alone could only explain roughly half the reduction in child malnutrition over this period.

The remainder was explained by improvements in health, clean water, sanitation, and education (particularly women’s education).

The implication is that economic growth alone will not take care of the problem of food security. What is needed is a combination of income growth, supported by direct nutrition interventions and investments in health, water and education.
Summary

Vulnerability is defined in terms of the following three critical dimensions:

- vulnerability to an outcome;
- from a variety of risk factors;
- because of an inability to manage those risks.

Vulnerability analysis has implications for both emergency programming and for longer-term food security policies.

Hunger is usually understood as an uncomfortable or painful sensation caused by insufficient food consumption, specifically to insufficient food energy consumption.

Malnutrition results from deficiencies, excesses or imbalances of energy, protein and other nutrients.

Poverty encompasses different dimensions of deprivation that relate to human capabilities including consumption and food security, health, education, rights, voice, security, dignity and decent work.
If you want to know more

Online resources


Additional reading

- Dilley M. and Boudreau T.E. Coming to terms with vulnerability: a critique of the food security definition. Food Policy, Volume 26, Number 3, June 2001, pp. 229-247(19)