



## Starvation and malnutrition

In round numbers there are 7 billion people in the world. Thus, with an estimated 925 million hungry and/or undernourished people in the world, 13.1 percent, or almost 1 in 7 people are hungry and/or undernourished (FAO 2010). Nearly all of the undernourished are in developing countries.

Hunger concepts and definitions

**Hunger** is a term which has three meanings (Oxford English Dictionary 1971)

- the uneasy or painful sensation caused by want of food; craving appetite. Also the exhausted condition caused by want of food
- the want or scarcity of food in a country
- a strong desire or craving

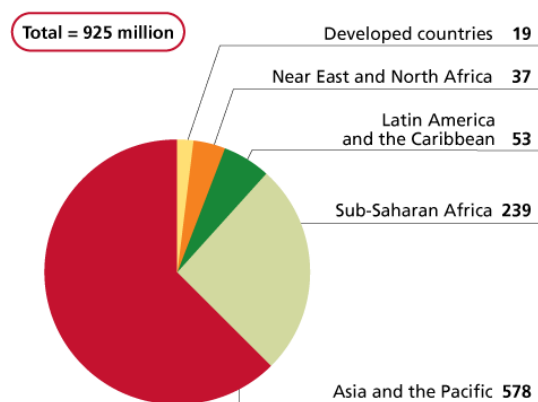
**World hunger** refers to the second definition, aggregated to the world level. The related technical term (in this case operationalized in medicine) is malnutrition.<sup>1</sup>

**Malnutrition** is a general term that indicates a lack of some or all nutritional elements necessary for human health ([Medline Plus Medical Encyclopedia](#)).

There are two basic types of malnutrition. The first and most important is protein-energy malnutrition--the lack of enough protein (from meat and other sources) and food that provides energy (measured in calories) which all of the basic food groups provide. This is the type of malnutrition that is referred to when world hunger is discussed. The second type of malnutrition, also very important, is micronutrient (vitamin and mineral) deficiency. This is not the type of malnutrition that is referred to when world hunger is discussed, though it is certainly very important.

[Recently there has also been a move to include obesity as a third form of malnutrition. Considering obesity as malnutrition expands the previous usual meaning of the term which referred to poor nutrition due to lack of food inputs.<sup>2</sup> It is poor nutrition, but it is certainly not typically due to a lack of calories, but rather too many (although poor food choices, often due to poverty, are part of the problem). Obesity will not be considered here, although obesity is certainly a health problem and is increasingly considered as a type of malnutrition.]

**Protein-energy malnutrition (PEM)** is the most lethal form of malnutrition/hunger. It is basically a lack of calories and protein. Food is converted into energy by humans, and the energy contained in food is measured by calories. Protein is necessary for key body functions including provision of essential amino acids and development and maintenance of muscles.



Source: FAO.

the number of hungry people has increased since 1995-97. The increase has been due to three factors: 1) neglect of agriculture relevant to very poor people by governments and international agencies; 2) the current worldwide economic crisis, and 3) the significant increase of food prices in the last several years which has been devastating to those with only a few dollars a day to spend. 925 million people is 13.6 percent of the estimated world population of 6.8 billion. Nearly all of the undernourished are in developing countries.

Poor nutrition plays a role in at least half of the 10.9 million child deaths each year--five million deaths.

Disease related malnutrition (under-nutrition caused by illness) is a worldwide problem in all health care settings with potentially serious consequences on a physical as well as a psycho-social level. In the European Union countries about 20 million patients are affected by disease related malnutrition, costing EU governments up to € 120 billion annually.

The [World Health Organization](#) cites malnutrition as the greatest single threat to the world's public health.

The world produces enough food to feed everyone. World agriculture produces 17 percent more calories per person today than it did 30 years ago, despite a 70 percent population increase. This is enough to provide everyone in the world with at least 2,720 kilocalories (kcal) per person per day according to the most recent estimate that we could find.(FAO 2002, p.9). The principal problem is that many people in the world do not have sufficient land to grow, or income to purchase, enough food.

**Poverty is the principal cause of hunger.** The causes of poverty include poor people's lack of resources, an extremely unequal income distribution in the world and within specific countries, conflict, and hunger itself. As of 2008 (2005 statistics), the World Bank has estimated that there were an estimated 1,345 million poor people in developing countries who live on \$1.25 a day or less.<sup>3</sup> This compares to the later FAO estimate of 1.02 billion undernourished people. Extreme poverty remains an alarming problem in the world's developing regions, despite some progress that reduced "dollar--now \$1.25-- a day" poverty from (an estimated) 1900 million people in 1981, a reduction of 29 percent over the period. Progress in poverty reduction has been concentrated in Asia, and especially, East Asia, with the major improvement occurring in China. In Sub-Saharan Africa, the number of people in extreme poverty has increased. The statement that 'poverty is the principal cause of hunger' is, though correct, unsatisfying. Why then are (so many) people poor? The next section summarizes Hunger Notes answer.

**Harmful economic systems are the principal cause of poverty and hunger.** Hunger Notes believes that the principal underlying cause of poverty and hunger is the ordinary operation of the economic and political systems in the world. Essentially control over resources and income is based on military, political and economic power that typically ends up in the hands of a minority, who live well, while those at the bottom barely survive, if they do. We have described the operation of this system in more detail in our special section on [Harmful economic systems](#).

**Conflict as a cause of hunger and poverty.** At the end of 2005, the global number of refugees was at its lowest level in almost a quarter of a century. Despite some large-scale repatriation movements, the last three years have witnessed a significant increase in refugee numbers, due primarily to the violence taking place in Iraq and Somalia. By the end of 2008, the total number of refugees under UNHCR's mandate exceeded 10 million. The number of conflict-induced internally displaced persons (IDPs) reached some 26 million worldwide at the end of the year . Providing exact figures on the number of stateless people is extremely difficult. But, important, (relatively) visible though it is, and anguishing for those involved conflict is less important as poverty (and its causes) as a cause of hunger. (Using the statistics above 1.02 billion people suffer from chronic hunger while 36 million people are displaced [UNHCR 2008])

**Hunger is also a cause of poverty, and thus of hunger.** By causing poor health, low levels of energy, and even mental impairment, hunger can lead to even greater poverty by reducing people's ability to work and learn, thus leading to even greater hunger.

**Climate change** Climate change is increasingly viewed as a current and future cause of hunger and poverty. Increasing drought, flooding, and changing climatic patterns requiring a shift in crops and farming practices that may not be easily accomplished are three key issues. See the Hunger Notes special report: [Hunger, the environment, and climate change](#) for further information, especially articles in the section: Climate change, global warming and the effect on poor people such as [Global warming causes 300,000 deaths a year, study says](#) and [Could food shortages bring down civilization?](#)

## 11 Facts About Global Hunger

1. 13.1 percent of the world's population is hungry. That's roughly 925 million people who go undernourished on a daily basis, consuming less than the recommended 2,100 calories a day.
2. The world produces enough food to feed all 7 billion people who live in it, but those who go hungry either do not have land to grow food or money to purchase it.
3. The difference between hunger and malnutrition is that malnutrition means the body does not have the necessary vitamins and nutrients necessary to grow or fight off disease. In developing countries where sanitation is poor, lack of nutrition only makes children and adults more vulnerable to illness.
4. Poverty is the main cause of hunger, and hunger is a cause of poverty. When people go malnourished, they lose brain functionality and the mental resources to be a productive asset in society or earn money.
5. In 2010, an estimated 7.6 million children — more than 20,000 a day — died from hunger.
6. Nearly 98 percent of worldwide hunger exists in underdeveloped countries. Hunger is often passed from mother to child. Each year, 17 million children are born underweight because their mothers are malnourished.
7. Almost 1 in every 15 children in developing countries dies from hunger.
8. While hunger exists worldwide, 62.4 percent of the hunger exists in Asia/South Pacific. .
9. More than 20 percent of children in Asia and Africa are underweight for their age.
10. When a mother is undernourished during pregnancy, the baby is often born undernourished, too. Every year, 17 million children are born this way due to a mother's lack of nutrition before and during pregnancy.
11. Similarly, women in hunger are so deficient of basic nutrients (like iron) that 315,000 die during childbirth from haemorrhaging every year.

## World Hunger: A Vicious Cycle

### Synopsis

**Overview:** Hunger is the feeling one experience with a lack of food, the “persistent gnawing condition resulting from a lack of adequate food intake, which prevents one from working or thinking correctly.” Starvation is the most severe case of the condition of hunger. Starvation and hunger, if not combated, lead certainly to malnutrition. Malnutrition is the condition resulting from a lack of life sustaining vitamins, minerals, proteins, fats, and carbohydrates.

Up to one billion people worldwide consume less than the minimum critical daily caloric intake needed to avoid hunger.

Hunger is most severe in the poorest parts of the world. Africa, India, Pakistan and Indonesia have the largest percentage of hungry people of all the countries in the world.

In Africa in particular, hunger and disease are a vicious cycle. Hunger, along with many other effects causes the immune system to weaken, making the body more susceptible to other diseases. These diseases, including [AIDS](#), kill the older generation of people, the ‘bread winners’ and those who work in the fields to grow the food. When those people die, only the younger generations of children are left to fend for themselves and because they lack the care of a parent or adult, they are unable to sustain themselves with sufficient food intake. Also, because the infant mortality rate in third world countries is so high, families have large numbers of children to increase the chance that some will survive. By doing this, however, there are more mouths to feed and subsequently more hungry people in the world. Furthermore, malnutrition slows the intellectual development of children and young adults, and therefore, the problems of hunger and disease in third world countries cannot be solved internally but need outside influence and aid. The UN and other world hunger organizations offer significant economic and medical aid to these countries to help stamp out hunger.

Hunger is not a problem because the world food production is not enough to feed all of the people in the world; it is a problem because the food is not distributed equally among all of the countries and people in the world. Third world countries that have a great percentage of the population starving do not have the resources to obtain or grow food. These countries also have a lower standard of living than second or first world countries, as well as a non-existent economic infrastructure, or if one does exist, it is unstable. These factors also have an impact on a country's technological capabilities. [See hunger map for world starvation figures and estimates.](#)

If all the food in the world were divided equally among all the people in the world, each person would get three times the minimum amount needed to survive. If there was a feasible way to accomplish this enormous task, the

solution to world hunger would be found. Until then, charities and donations must aid the organizational fight against world hunger.

**Statistics:**

- Every 3.6 seconds someone dies of hunger.
- Every year 15 million children die of hunger.
- One in twelve people worldwide is malnourished, including 160 million children under the age of five.
- Nearly one in four people, 1.3 billion total, live on less than US\$1 per day.
- One out of every eight children under twelve in the US goes to bed hungry every night.
- Half of all children under age five in South Asia and one third of those in sub-Saharan Africa are malnourished.
- To satisfy the world's sanitation and food requirements would only cost US\$13 billion – what the people of the United States and the European Union spend on perfume each year.
- Some 800 million people in the world suffer from hunger and malnutrition, about 1000 times as many as those who actually die from it each year.
- The Indian subcontinent has nearly half the world's hungry people. Africa and the rest of Asia together have approximately 40% and the remaining hungry people are found in Latin America and other parts of the world.