

# Malnutrition and Food Security

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## **Abstract :**

*The resources on earth are limited, and as the number of people using these resources grow every second, the resources diminish. One of the main but most basic resources we need to survive is food. Obviously as more people populate the earth, there is a greater and greater demand for food. Agricultural growth and productivity growth depend on the type and magnitude of poverty, Malnutrition and hunger. The rate of population growth is more than the growth of food production in the world. Thus, there is a gap between the food requirement and food production in the world. This study defines poverty, malnutrition and hunger, agricultural production growth and productivity and identifies the magnitudes in terms of general. The findings suggest that several factors contribute to poverty and malnutrition. Fertility rate and births in institutions explain 80% of the causes and consequences of poverty in India and under five mortality rate shows more robustness in explaining poverty than the poverty line.*

**Keywords :** Malnutrition, Food Security , Population.

## **Introduction :**

Currently there are about 7 billion people on earth. It is projected that this number will grow to 9 billion in 2050. Interestingly, there is enough food on earth to feed all 7 billion of us and yet, hunger and starvation are still a looming reality. One out of every seven people go to bed hungry. Every day about 25,000 people die of malnutrition and hunger-related diseases; almost 18,000 of them are children under the age of five. Ironically, the highest rates of population growth exist in developing countries where food is most needed. If the rate of food production is already unable to keep up with the population today, then these countries will face even more serious hunger related problems in the future.

Increasing numbers of people often drive up demand for food, which typically results in additional use of arable land and water. This is especially true in the absence of adequate food production technology and integrated programs that simultaneously address community needs for food and reproductive health. The Food and Agriculture Organization (FAO) projects that by 2050, population and economic growth will result in a doubling of demand for food globally.

## **Hunger and malnutrition :**

Hunger is defined as "uncomfortable or painful sensation caused by a lack of

food. Hunger can be experienced temporarily by people who are not food insecure, as well as those who are" (DFID2003). The term is used to refer to the Millennium Development Goal 1 (MDG) and peoples' experience of food insecurity. Food security exists "when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (DFID,2003). Hunger can lead to malnutrition. Malnutrition/under nutrition can be defined as a state in which the physical function of an individual is impaired to the point where he or she can no longer maintain natural bodily capacities such as growth, pregnancy, lactation, learning abilities, physical work and resisting or recovering from disease. The term covers a range of problems from being dangerously thin(underweight) or too short (stunting) for one's age to being deficient in vitamins and minerals or being too fat (WFP 2009). Malnutrition is a consequence of lack of enough food or the right sort of food. Disease is often a factor, either as a result or contributing cause. Even if people get enough to eat, they will become malnourished if the food they eat does not provide the proper amounts of micronutrients - vitamins and minerals - to meet daily nutritional requirements. Malnutrition is the largest single contributor to disease, according to the UN's Standing Committee on Nutrition (SCN). Every six seconds a child dies because she or he is hungry; (FAO 2006), 10.9 million children under five die in developing countries each year due to hunger. Malnutrition and hunger-related diseases cause 60 percent of the deaths; (UNICEF 2007)

Natural disasters such as floods and long periods of drought are on the increase in both Africa and Asia. Floods and droughts are the greatest threat to food security, with climate change exacerbating the already adverse natural conditions (crop failure is a product of drought, floods and bad weather). War, violence and fighting displaces millions of people from their homes, leading to some of the world's worst hunger emergencies.

High input prices of seed and other requisites makes it difficult for farmers to provide food for their families. Craftsmen lack the means to pay for the tools to ply their trade. Others have no land, farm inputs or education to lay the foundations for a secure future.

Over-exploitation of environment caused by poor farming practices, deforestation, overcropping and overgrazing which in the process exhaust the earth's fertility and spreading the roots of hunger. Increasingly, the world's fertile farmland is under threat from erosion, salination and desertification.

#### **Food Security :**

The FAO defines food security as: "When all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life." Nearly one billion people are undernourished, hungry, and living without adequate daily calories. The people most severely affected by food crises are those already living in poverty. The number of undernourished people in the world was projected to decline in 2010 as the global economy revived following the 2008 financial crisis, but 16 percent of the population in developing countries remains undernourished.

Seven countries account for two-thirds of the world's undernourished population: Bangladesh, China, the Democratic Republic of Congo, Ethiopia, India, Indonesia and Pakistan. Additionally, the impacts of climate change on temperature, precipitation, and agricultural productivity are likely to diminish food security in some places. Recent research suggests that climate change will have major impacts on staple crops- especially in Asia and Africa, where widespread hunger is greatest. Overall demand for food is affected by population growth, while economic development and rising incomes tend to shift diets toward meat and animal products that are more expensive and resource-intensive to produce. Meanwhile, food prices are driven by the prices of key agricultural commodities such as meat and grain, stocks of agricultural stores, energy prices, crop failures, demand for biofuels and agricultural trade policies.<sup>8</sup> Although prices for major agricultural commodities including vegetable oils, grain, dairy products and rice declined somewhat following peaks in 2008, they have risen quickly compounding the challenges of chronic food insecurity. The food supply is also affected by high prices for energy, such as petroleum, which raise prices throughout the supply chain and, in turn, increase consumers' costs. Fisheries are also important food sources, particularly for many poor people in developing countries. In some low-income countries, fish comprises 19 percent of animal protein consumption overall. Fisheries and aquaculture also contribute to economic growth and human welfare in many countries, since millions of people around the world depend on them for their livelihoods. The 2009 World Summit on Food Security noted that low-income households, women, and farmers with small holdings can face unequal access to food supplies and markets. Women and children, particularly pregnant and breastfeeding women and infants, are often the most severely affected by a lack of food. Pregnant and breastfeeding women require 300 to 500 extra calories each day, requirements that are difficult to meet in situations of food insecurity. An estimated 17 million infants are born underweight each year, a risk factor that contributes to more than half of all newborn deaths. Further, when food is scarce, mothers often sacrifice food for their children. In some places male children receive a larger share of available food than their female siblings. Children are also particularly vulnerable because they are still developing, and childhood malnutrition has lifelong implications in terms of productivity, premature death and disability.

#### **Population and Food Security :**

Most of the countries with the highest numbers of people facing food insecurity also have high fertility rates and rapid population growth. This increases the challenge of adequately meeting nutritional needs. Sub-Saharan Africa has the highest population growth rate in the world. By 2050, even if fertility rates decline, the population of the region is projected to more than double.

Population pressures in coastal areas are also affecting food security in countries where there is a high dependence on fisheries for protein. In the Philippines, for example, recent research has shown that human pressures, including population growth, have adversely affected the productivity of municipal fisheries.

#### **Suggestions and Recommendations :**

Short term solutions to food insecurity include social protection programs such

as food aid, both in emergencies and long-term provision of supplies to those hardest hit by hunger. However, food aid without simultaneous developments in local agriculture sectors does not provide a sustainable solution to food insecurity. Increasing agricultural productivity in developing countries, for example through the development of drought-resistant crops and soils, will be a key factor in meeting food demands. Investment in rural infrastructure such as roads, irrigation, and storage facilities could support efforts towards increased agricultural productivity. These investments, if made, could also have serious environmental consequences. Thus, investment in sustainable technologies able to support increased agricultural intensity will be crucial for both meeting the demands of a growing population and adapting to environments increasingly affected by climate change. Increased production of food alone will not solve the world's food security problem. Projections from the International Food Policy and Research Institute (IFPRI) suggest that slower population growth could significantly lower malnutrition along with increased agricultural productivity, economic growth and investment in health and education. Because population trends will continue to affect the demand for food for decades to come, it is important that demographic projections be incorporated into plans to improve agricultural production and achieve greater food security. An estimated 215 million women in the developing world want to avoid pregnancy but lack modern contraception. Increasing access to voluntary family planning would improve women's and children's health. It would also allow couples to plan and space childbearing, enhancing their ability to provide enough food for their families. Investments in international family planning and reproductive health can improve families' well-being at the household level, while helping to slow population growth in areas most affected by food insecurity.

#### References :

1. Lobell, DB, MB Burke, C Tebaldi, MD Mastrandrea, WP Falcon and RL Naylor. 2008.
2. "Prioritizing Climate Change Adaptation Needs for Food Security in 2030." *Science* 319: 607-10.
3. Food and Agriculture Organization of the United Nations (FAO). 2009. *The State of World Fisheries and Aquaculture 2008*. Rome : FAO.
4. United Nations Children's Fund (UNICEF). 2008. *The State of the World's Children 2009*. New York, NY: UNICEF.
5. Pelletier, DL, EA Frongillo, DG Schroeder and JP Habicht. 1995. "The Effects of Malnutrition on Child Mortality in Developing Countries." *Bulletin of the World Health Organization* 73(4): 443-448.
6. United Nations. 2010. *The Millennium Development Goals Report 2010*. New York: United Nations.
7. World Bank 2007; Chen, SRavallion. 2008. *The Developing World is Poorer Than We Thought, But No Less Successful in the Fight against Poverty*. Washington, DC: The World Bank.
8. Rosegrant, MW, MS Palsner, S Meijer and J Witcover. 2001. "2020 Global Food Outlook." Washington, DC: International Food Policy Research Institute.
9. Castro and D'Agnes. 2008.
10. Population Action 2011.