

Current Status of World Hunger

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Abstract – The major cause of hunger is poverty. To understand this situation one needs to be aware of hunger terminology and locations where hunger exists and this is discussed in this paper. How much food do we need and where the hungry people are is discussed. Effects of hunger and its consequences are described. Overall progress is being made as suggested by reducing the number of under nourished individuals even as the world's population has increased. But there are still ~800 million hungry people in this world therefore much remains to be done.

Key Words – Malnutrition, Developing Countries, Causes of Hunger

I. INTRODUCTION

Information available is plentiful and an internet search of World Hunger yields in excess of 35M sources. The problem becomes sifting through this vast supply of information to find the most current, credible, sources and summarizing them so that in a short period of time one can have a glimpse of what the situation is today. One fact that seems to be consistent is that “Poverty causes hunger which causes Poverty”. Other factors that contribute to this situation are over population (often caused by no retirement system), poor government decisions, poor infrastructure that would allow distribution, and lack of education to name a few causes.

II. MATERIALS AND METHODS

Research of current literature on world hunger and its causes.

III. RESULTS AND DISCUSSION

Hunger Terminology and causes

What is Hunger? The World Food Programme (2014) gives us some guidelines. The sensation of hunger is measured in many different ways.

a) Under-nourishment - Indicates food intake does not contain enough calories to meet physiological need for an active life. Today, this amounts to 84 million individuals.

b) Mal-nutrition - This is an indication of what to eat or fail to eat which can be characterized by inadequate protein intake, energy and micro-nutrients. This can be complicated by infections and diseases, which is often is the cause of death.

c) Wasting - Acute malnutrition which leads to substantial weight loss which is often caused by starvation and disease.

d) Famine - At least 20% of households must have extreme food shortages and limited ability to obtain these. This condition must exceed 10% of the population. Death rate must exceed two deaths per ten thousand.

The current world calorie food supply content is sufficient for everyone to have a healthy and productive life. Also it is reported that the number of overweight individuals outnumber the hungry (WHO 2014). Therefore distribution is a key factor. Lack of distribution is caused by economic conditions which often results in unemployment which eliminates the currency necessary to purchase food. This is complemented by poor transportation, inadequate storage facilities, resulting in spoilage or waste, government instability, corruption, food prices fluctuation, including shipping cost. Other causes include food wastage, disasters including drought and other natural tragedies, war including tribal conflicts, lack of seed and fertilizers and farming equipment, deficiency in agricultural knowledge, inadequate drinking and irrigation water just to name a few.

Effect of Hunger

Disasters receive the most publicity but emergencies account for less than 8% of hungry people. Hunger causes a slowdown in physical and mental activities and the mind cannot

concentrate, the immune system weakens, and consequently diseases cause a lot of people to die. Approximately 7 million children die before reaching the age of five. Malnutrition causes approximate one-third of these deaths. 161 million under-five year olds were estimated to be stunted in 2013.

How much food do we need?

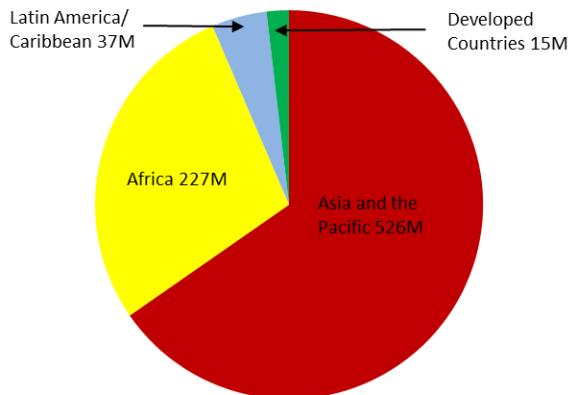
This varies with age, sex, body size, physical activity, and to some extent, on climate. An average of 2100 Kcal (calories) per day per person is needed for a normal healthy diet.

Hunger Statistics

Approximate 805 million people (World Food Programme, 2015) today do not have enough food for a healthy, active life (this is approximately 1 in every 9 people). In the developed countries about 13.5% are undernourished. In Sub-Sahara Africa, 1 person in every 4 is undernourished. Poor nutrition causes 45% of the deaths in children under five (3.1 million children each year). In developing countries, one out of six children (100 million) is underweight. Approximately one in four children in developing countries is undernourished. Hunger kills more people every year than AIDS, malaria and tuberculosis combined.

Where does the problem exist? (Figure 1)

Figure 1. Percentage of hunger people according to location and development status.



A large percentage of individuals with hunger are in the developing countries (FAO, 2014). More

specific hunger world maps can be located at (FAO world hunger site 2025) and Google world hunger map 2015.

The World Food Program (2014) indicated that ¾ of the hungry people live in rural areas and about 50% depend on farming with no other sources of income and therefore many are moving to cities in hopes of finding employment. This leads to rapidly increasing poor and hungry city dwellers. Even developed countries such as the U.S. are not exempt from this problem. According to Feeding America (2015) 14.6% were in poverty. In 2013, 62% of these insecure households participated in one of three federal food assistance programs (Supplemental Nutrition Assistance Program, National School Lunch Program, or Special Supplemental Nutrition Program for Women, Infants and Children).

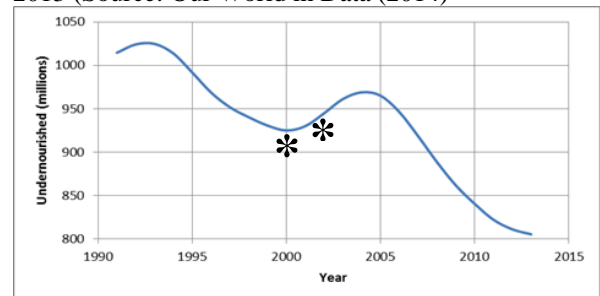
Result and consequences

Progress in reducing world hunger will contribute to greater possibilities for peace and stability and a reduction of violence. Adequate food accompanied by adequate health and education will produce healthier babies, with stronger immune systems for life, and the children are more likely to attend school (World Food Programme, 2015). This will also contribute to world productivity and economy and a population with higher self-respect.

Is the hunger problem increasing or decreasing?

Progress concerning the decrease in chronic hunger was made in the 1980s and the 1990s but progress levelled off between 2000 and 2010. See Figure 2.

Figure 2. Undernourished people in the world 1990-2013 (Source: Our World in Data (2014))



* Major droughts occurred in South Asia in 2000 & 2002

IV. CONCLUSION

Overall progress in being made as suggested by reducing the number of under nourished individuals even as the world's population has increased. But there are still ~800 million hungry people in this world therefore a big effort is needed for increased research, education, awareness, reduction in poverty, government red tape and politics, graft. Other efforts include improving productivity of seeds, such as those proposed by Bill Gates.

Relation of meat to the world hunger problem

There is little argument that low income countries with growing incomes have experience increasing meat consumption. Two examples of this are India and China. In Japan more meat and poultry is consumed than grain products. How to solve the hunger problem comes from a lot of different sources, some of them are practical and others show a lack of understanding. Increase in efficiency in agriculture based on science has made a tremendous contribution to solving hunger problem (E.g. green revolution caused India to go from a food deficient to a food surplus country) and will continue to contribute to the hunger solution. Another suggested solution is an increased emphasis on a balanced vegetarian diet since animals require more pounds of feed than pounds of meat or milk produced. But this ignores the fact that high quality well balanced protein is what that is deficient in the world and animal products are highly digestible with a balance of amino acids and will automatically balance and satisfy this requirement. It also ignores the fact that a large percentage (FAO estimates that pasture and fodder crops are 70% of the world agricultural area) of the world's surface is not suitable for crop land but these areas produce a lot of cellulose which humans cannot digest and the only way to harvest it is with ruminant livestock. In addition animals can consume a lot of industrial and food processing by-products (E.g. Approximately 50 percent of the weight of the corn (maize) plant is residue which animals can consume) and turn it into a well-balanced high quality protein food that humans require and is the missing link in what is need in the hungry world. The human diet should contain animal products (meat, dairy and poultry, and fish products),

vegetables, fruits, and nuts. Animals are efficient food processing plants for optimal human nutrition and animals can be an instrumental and a critical link in solving the world's hunger problem.

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