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## Malnutrition and Poverty in China and Around the World

China, whose population has grown from 556 million in 1950 to 1.3 billion today, has grown tremendously in the last century, internationally, economically, and socially. The Chinese economy's growth is 7-8% per year according to statistics by the Chinese government, and is among the fastest growing internationally. It is because of China's growing role today that it is important to focus on this Asian country. Although China has made gains in reducing hunger and poverty, there are still Chinese who suffer from malnourishment and poverty. These people need to be helped and ways need to be found to resolve poverty and malnutrition.

Malnutrition literally translates into "bad nourishment." Malnutrition is the inadequate or excess intake of nutrients, such as energy, protein, vitamins and minerals. A person is malnourished if he is not able to fully utilize the food he consumes, if he consumes a surplus amount of calories, or if his diet does not have enough calories and protein necessary for growth and maintenance of his body. (Malnutrition)

Internationally, more than 800 million people are malnourished, and 777 million of these malnourished are from the developing world (Malnutrition). There are 177 million malnourished children in the world (Malnutrition). Malnutrition is especially common among people who have inadequate access to health education, clean water and good sanitation, all components essential to preventing malnutrition (Water, Sanitation and Health). Hunger is not the only malnutrition issue internationally. The obese and overweight population is on the rise around the globe, in both developed and developing countries (Obesity WHO).

More than 70% of the children suffering from protein-energy malnutrition live in Asia. Malnutrition can drastically affect a child's development, both physically and intellectually (Malnutrition). Daily in developing countries, malnutrition has a part in over half of 30,100 children's deaths from mostly preventable and treatable causes such as diarrhea, acute respiratory infections or malaria (Malnutrition).

China is home to one-fifth of the world's population, but only seven percent of the world's farmland. Agriculture is the livelihood of one in two Chinese, but only 15% of the nation's land is under cultivation (Dramer 75). Estimates show that there may be 10-15% of China's population not receiving adequate nutrition, especially in rural and less industrialized places. But studies also show that some Chinese are receiving excess nutrition: 18 million Chinese adults are obese and 127 million are overweight (Obesity in China common).

With its 1.3 billion people, China is home to many minorities besides the dominant Han Chinese majority (Green 97). With many people living in both rural and urban environments, with different lifestyles, it is difficult to define a "typical" family living in China. Since 70% of China's citizens live in rural areas, it is safe to assume the typical rural family lives as follows (Waterlow).

This family lives in a small village in southern China and are farmers for a living. With a mother and father, ages 30 and 32, this family also has one child, a seven year old boy. The mother's parents also live with the family, a common occurrence in China, where children are expected to care for their aging parents. They live in a simple brick house nearby where they farm.

The mother and father of the family received nine years of education, 6 years of elementary and 3 years of secondary, through the local schooling system. Their son is currently in elementary school. Some rural villagers in China see little point of schooling because they do not use what they learned to work on the land. Also in China, the number of openings for universities is low, but the number of applicants is high.

The family's diet mainly consists of the food they grow, which is rice. They also may consume some vegetables, grown next to their home, but they rarely eat meat because of its cost. Milk and dairy products are also rare because of availability. Although the family eats enough food to sustain them, they do not necessarily receive all of the proper nutritional requirements, like calcium. Also, because they are on a tight budget, they are not always able to purchase these nutritional foods.

Rice is grown twice a year in water-filled paddies. The men in the village do the plowing and repairing of the water channels, while the women plant rice. It is difficult labor because the villagers cannot afford much machinery; they use water buffalo to assist them. In China, animals are still used more often than tractors. The family does not receive a daily income, but the food that the family does not eat is sold, and the money is used for food and basic needs. Although the family is able to provide for themselves, it is still a daily struggle. The family's needs are mainly food, water and shelter, along with essentials, such as clothing and daily hygiene. They receive the water they need from a pump located nearby their home. (Waterlow)

Poverty is not just being poor or not having enough food. Poverty is being denied the basic opportunity and choices to human development required to have a healthy life and a decent standard of living. Poverty can distort or change a person's values, lifestyle, family and community. (Poverty in China)

Poverty is measured by three factors: the relevant welfare measure, the poverty line, and the poverty indicator. The relevant welfare measure uses monetary dimensions, for example consumption versus income, adjusts differences in needs of different households, adjusts differences in prices in different areas, and also includes health, nutrition and education along with other factors. Cut off points that divide the poor from the non poor are poverty lines, both monetary and non monetary. Some poverty indicators are the headcount index, which is the share of the population below the poverty line; the poverty gap, which is how far off families are from the poverty line; and the squared poverty gap, which is how far households are from the poverty line along with the inequality in the poor. (Measuring Poverty)

China's rural poor in 1978 was 250 million using the government poverty line, and in 1998, was reduced to 42 million. If one used the dollar per day standard international poverty line, the number of absolute poor is much greater, but the trend of reduction was still the same. (Poverty in China) The population below the poverty line in 2001 was 10%. It is clear that the situation in China is gradually improving. With these improvements, the situation of a typical family will improve also.

Poverty in China may affect women more than men. Although Mao Zedong is famous for his quote, "Women hold up half the sky," women today are still not regarded equally (Dramer 56). Women do not always receive the same amount of education as men. Women are not offered as many jobs as men and are also paid less for their work. Females are not held as highly in some places in the male dominant society. Recently, China has made gains in equalizing the role of women, and in 1995 hosted the United Nations Fourth World Conference on Women (Dramer 56).

People living in rural China may be disadvantaged compared to their urban counterparts. Rural children may not receive the same education as ones living in the city and residents in rural parts do not

always receive the same opportunities as urban residents. In China there are an estimated 80-100 million people on the move, resulting from poverty in rural places (Poverty in China).

There is a high pollution rate in China. The Chinese government hurried to industrialize, but in the process failed to protect the environment against pollution as a result of industrialization (Dramer 80). A World Health Organization report on air quality reported that seven of the ten most polluted cities in the world were in China in 1998 (Environment of China). The leading cause of death in China is respiratory and heart diseases which can be linked with pollution (Environment of China). Pollution is also indirectly linked to poverty. When one is struggling for survival, it is not difficult to disregard the environment, when one's higher priorities are food, shelter and clean water.

Air pollution may damage crops and the agriculture in China, producing lesser quality goods. Acid rain in China affects one-fourth of China's landmass (Beech 48). It is also estimated that since 1949 China has lost 20% of its agricultural land due to soil erosion and economic development (China: The World Factbook). China has become the second biggest polluter in the world, after the United States (Beech 48).

Although resolving pollution would not necessarily erase poverty, it may bring about positive effects. The government would be able to focus more on pollution clean up and prevention. Reduced pollution would also result in higher quality crops, unaffected by factory and industrialized emissions. Resolving poverty would benefit women and small farmers. They would be better able to provide for themselves and their families. They would also be able to receive a more balanced nutritional intake and be able to lead healthier lives.

It is not a problem for China to grow enough food for its population, but it does need to improve its food distribution. Production for rice and other crops is strong. However, people living in rural areas don't necessarily always receive the same amount of food as those in urban areas. The government should identify malnourished areas and make an effort to distribute food to that area for consumption. They should also improve the transportation systems, in order to efficiently and safely carry goods.

The Chinese government should educate Chinese farmers about better ways to improve farming and agriculture. People should also be educated on how to better utilize their land. Farmers then will be better able to provide for themselves and their families. Many farmers are still using old techniques. The government should also offer more jobs for public improvement, such as roads. China has as many as 100 million unemployed farmers. This would decrease unemployment, but also provide the formerly unemployed a better life.

Technology and its uses could also be improved. With improved technology, farmers could be more efficient and could save energy. Even the simple addition of a tractor in some areas would greatly increase efficiency and decrease the workload of the farmer. Biotechnology research on crops, such as rice has also been increasing in China. The results of such research could greatly benefit China. Although China has reached its goal of being 95% self sufficient, it still needs to maintain that sufficiency (World Hunger- China). With technology, China could continue and perhaps maintain its self sufficiency.

Obesity, another form of malnutrition, is a factor which needs to be resolved in China. A government report showed that from the years 1992 to 2002, the rate of obesity rose a startling 97%. In those ten years, over 60 million people became obese. A Chinese vice health minister, Wang Longde has said about this increase, "The Chinese population does not have enough awareness and lacks knowledge of what is a reasonable nutrition and diet." The government should promote proper nutrition and exercise to its citizens. (Chinese concern at obesity)

Factors of malnutrition include an unsafe and insufficient water supply, poor hygiene and inadequate sanitation. Both China and the world could help prevent malnutrition by improving access to water and water quality, and improving hygiene and sanitation. In 2002, 1.1 billion people (17% of the world) were without access to improved water sources and almost two thirds of that 1.1 billion lived in Asia. Also in 2002, 2.6 billion people (42% of the population) did not have access to improved sanitation. Over 50% of those lacking access, almost 1.5 billion, live in China and India. (Water, Sanitation and Hygiene)

"We shall not finally defeat AIDS, tuberculosis, malaria, or any of the other infectious diseases that plague the developing world until we have also won the battle for safe drinking water, sanitation and basic health care," said Kofi Annan, the United Nations Secretary General (Water, Sanitation and Hygiene). Many diseases stem from the lack of clean safe water, sanitation and hygiene.

Annually, 1.8 million deaths are attributed to diarrheal diseases, with 88% of diarrheal disease attributed to unsafe water, and deficient sanitation and hygiene. World wide, 6 million people are visually impaired by trachoma, a contagious viral disease characterized by inflammation of the conjunctiva and cornea of the eye along with the formation of scar tissue. Trachoma is closely linked to the lack of face washing, many times because of lack of safe water. 133 million people suffer from high intensity intestinal helminthes infections, such as ascariasis, trichuriasis, and hookworm, which many time leads to serious consequences like cognitive impairment, massive dysentery, or anemia. By increasing access to safe water, sanitation and better hygiene, the rate of trachoma morbidity was reduced by 27%; ascariasis morbidity was lowered by 29% and hookworm morbidity by 4%. (Water, Sanitation and Hygiene)

Contamination of ground water by arsenic has been found across the globe. In China alone, there are also over 26 million cases of dental fluorosis and over one million cases of skeletal fluorosis, which can be potentially crippling, as a result of elevated amounts fluoride in their drinking water. Health consequences of both arsenic and fluorosis can be avoided by reducing consumption, finding alternative water sources, and removing the fluoride or arsenic. Fluorosis can also be averted by using deep seated water, river water and building reservoirs. (Water, Sanitation and Hygiene)

It is clear that promoting safe clean water, good sanitation and hygiene is crucial in resolving malnutrition, preventing disease and promoting healthy lives. These factors bring forth a healthy environment crucial to living a healthy, nourished life. Public access to these factors can be improved by creating new water sources or improving access to these sources.

Worldwide governments and organizations should promote education in order to teach people how to prevent malnutrition by eating properly, including all of the essential nutrients. Many times, after people are discharged from the hospital after being treated for malnutrition they return to their previous environment and become malnourished again (Malnutrition). Overweight people are sometimes unaware of the consequences of their excess intake and do not realize the importance of a balanced diet. It is through their lack of knowledge and perhaps resources that these people, both underweight and overweight, become malnourished.

Malnutrition is something that affects people of all different races, cultures, nationalities, and ages. It affects both the rich and the poor and it affects one in three people internationally (Malnutrition). Obesity alone comes at a high cost. The resulting disabilities and diseases can affect one's income along with the health care system (Obesity). By taking steps such as education and better public access to clean water, the world is on its way to resolving malnutrition and poverty.

China, with its large population and limited amount of farmland, needs to develop better ways to grow and distribute goods for its people. China is able to grow enough food, but it is distribution which presents a problem. China should also resolve its issue of pollution in order to promote better agriculture and health. Pollution may also reduce the amount of usable farmland, which is a concern in a country where only a portion of the land is used for agriculture. By resolving the problem of pollution, many health problems stemming from pollution would be reduced. Technology is also a factor in China which would help resolve poverty and malnutrition, either by decreasing workload, increasing products, or improving goods.

By promoting clean water, sanitation, hygiene, and technology, along with education about malnourishment and prevention, international governments and organizations can work together to help reduce malnourishment and poverty. It will improve both the bodies of the malnourished and their lives, and affect people in every country around the world. By helping resolve the dilemma of malnutrition and poverty, not only will the typical family in China's lives be improved but people around the world's lives will be too.

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