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AGRICULTURE IN DEVELOPMENT: FOOD SECURITY IN AN ERA OF INCREASED DEMAND

INTRODUCTION

The quality of life and national income in a community depends on the communities system of life. Some developing countries are dependent on agriculture, the keeping of animals, fishing, tourism and the extraction of minerals to support themselves. In the past, in the agricultural sector, the production of food crops was very low but it was enough for the needs of a particular community. In developing countries, this situation has changed. Production today does not satisfy the needs of some communities because of population growth.

Consequences of the lack of food production are poverty, diseases, starvation and even revolution. There are more than 820 million hungry people in the world and this number is growing every year. Malnutrition leads to the lack of physical and mental development in children and makes them subject to disease. Malnourished children are likely to miss school and sick, hungry adults will often have to miss work and lose needed income. In order to make sure a community is unaffected by such problems, we must consider food security in an era of increased demand. If we will observe clearly the problem of food security in an era of increased demand, we can begin to understand the problems that we face concerning food production, the causes of these problems and how to solve the problems.

Food production is dependent on technology, government policy, poverty, climactic conditions and education. Improved technology can result in being able to farm larger areas, thus increasing food production. Improvement in chemicals to protect the crops against diseases and dangerous insects can be another factor. This will result in higher quality and quantity food products.

Government policy can affect food production in a positive way by providing free markets for the farmer. A free market creates competition and competition results in improvement in methods. In the 1940s through the 1970s countries, donors, and scientists hold efforts to increase the crop yields of farmers in the developing world. The resulting "Green Revolution" in Latin America and much of Asia doubled the amount of food produced and saved hundreds of millions of lives, while in some areas it had chance negative consequences, including environmental damage and increased inequality.

Poverty can affect food production by preventing a farmer from purchasing more land, tools and the education needed to improve methods. Almost no country has managed a rapid rise from poverty without increasing agricultural productivity. For hundreds of millions of people around the world, poverty is the root cause of hopelessness.

Climactic conditions such as drought and floods can be overcome by technology as in the case of dams and canals. Education can show that certain lands will not grow certain crops.

Tanzania is among the developing country that depends on agriculture, keeping of animals, fishing, tourism, and extraction of minerals. Tanzania centers its agricultural production in different regions. For example, nearly 90 percent of Tanzania's cotton crop is grown in the northwest where planting occurs from late November through January and harvesting begins in June. Rainfall is good for planting crops and the weather is favorable during establishment of the young crops. One hundred percent

of clove produced in Tanzania are produced in both south and north Pemba in Zanzibar. Other Tanzanian products are tea, coffee and corn.

Tanzania's food production is very low compared to the needs of the nation. Production is very low because of climactic conditions, lack of education, and lack of technology. Some communities in rural areas like Kagera village and Mtwara in the Massai District, where production is very low are affected by starvation.

Some organizations help communities to increase their production such as the Tanzania Social Action Fund (TASAF) and the Agricultural Council of Tanzania (ACT). At the time TASAF was designed, about half of all Tanzanians were living on less than \$1 a day, with limited access to basic health, education, water, and other social services. As a result, TASAF had two financing windows: (i) a Community Development Initiative to improve public social service infrastructure and (ii) a Public Works Program for Local Governments to target food to affected areas with cash. TASAF was targeted to the poorest 40 districts (plus the two Islands comprising Zanzibar). All of these organizations help individual farmers to increase their production through a variety of means but, in spite of this help, there remain problems that reduce the production of food products in these societies.

THE USES OF SCIENCE AND TECHNOLOGY

For the districts affected, the uses of science and technology are a very low priority for the farmer. The farmer needs to use modern means of production. Because most of them depend on a mono agricultural system for the whole year, this system can lead to the problem of the soil losing important nutrients. The farmer's grow their plants by depending on the land to continually provide the necessary nutrients without using any fertilizer. By the practice of mono agriculture, the land loses some nutrients that the plants need to absorb as their food. This process will continue until the soil loses all needed fertilizer. After the soil loses its fertilizer, it can result in the farmers harvesting food products of poor quality and quantity. This can minimize the production of needed foods and result in the community losing food it needs. As a result, the community could be affected by hunger and even starvation.

POOR GOVERNMENT POLICY

Poor government policy can be among the problems that face production in the agricultural sector of the world. Mostly, this problem can be found in Third World countries. This problem is mainly caused by government issues that the farmers don't support and this can lead to a misunderstanding between them. When farmers produce their product, their expectation is to sell their product at a good price so they can pay for their expenses and gain profit from their product. But poor government policy sometimes makes the farmers stop working because they think they will not make a profit. This is a true case that happened and is still occurring in Zanzibar in clove production.

The Zanzibar government buys the cloves from the farmers but the farmers don't want to sell their product to the government because the government will only buy the cloves at a very low cost. Such cost doesn't even pay the expenses of the farmers. Because of this, the farmers decided to sell their product in neighbor countries like Kenya. When they tried to do this, the government forbade them and if the farmer continued the practice and the government found out, the farmer would be punished by the law. Farmers break the law because the government buys cloves for one dollar and seventy-five cents per kilogram while the government of Kenya buys them for five dollars per kilogram. Because of this situation farmers become disappointed and their focus on agricultural production is reduced. When farmers are disappointed they take less interest in farming and decide to focus on other areas for their food such as fishing or the extraction of minerals. As a result, the food production become insufficient for the members of the community and this can lead to hunger affecting their community. In order to

increase food production, this problem must be solved. The government is the main source of solving this problem by creating good agricultural policy through giving the farmers an open market for them to get the best price for their products.

POVERTY

Poverty is another factor in causing the reduction of food production in Tanzania. Tanzania is categorized by the World Food Program as a low developed and low-income food shortage country with almost eighty percent of its total population dependent on mainly subsistence agriculture for their livelihood. Poverty remains widespread and new statistics indicate that over thirty-nine percent of the population lives below the national poverty line. More than forty percent of the population lives in chronic food shortage regions where irregular rainfall causes recurring food shortages.

With an estimated two and half million people already living with HIV/AIDS, this epidemic is making worse the country's poverty level and has reduced agricultural productivity and the availability of farm labor in several districts. The epidemic is seriously undermining the capacity of poor households to maintain their livelihoods and remain "food secure". As a result of these weakening forces, many households are highly at risk to repeated climactic and economic shocks which make them vulnerable to food insecurity. According to the 2004/05 Tanzania Demographic and Health Survey, thirty-eight percent of children fewer than five years of age who live in the country are chronically malnourished.

Poverty and population growth has a great effect on food production. Population growth is not only within the country but also recurring political instability and civil conflict in the neighboring countries of the Great Lakes Region (Democratic Republic of Congo, Rwanda and Burundi) lead to very large arrivals of immigrant into Tanzania. According to the Tanzania's refugee survey "Almost 200,000 Burundians ran away from civil fighting in their country and into Tanzania. "The country is currently hosting 360,000 refugees from Burundi, the Democratic Republic of Congo (DRC), Rwandan, and immigrants with mixed national backgrounds in 12 camps in northwestern Tanzania. Movement limits have forced immigrants to depend almost entirely on the World Food Program's food handouts". These camps cause the population growth to increase and lead to the spread of disease like HIV/AIDS to take place. The diseases affect the loss of labor due to deaths. When the lack of labor occurs, the food production slows down and causes the society to suffer from hunger.

CLIMATIC CONDITION

Climatic condition affects the food industry in Tanzania. National food crop production in Tanzania is likely to decline by 10 percent compared to last year mainly due to low and changeable rainfall. The Ministry of Agriculture expects that Tanzania will be able to meet almost its entire food requirements and the rest to be covered by imports. Tanzania's national food requirements for 2003/04 are calculated at eight-half million metric tons, while preliminary estimates for 2002/03 food crop production were around 7.7 million tons. The Ministry of Agriculture and Food Security thus calculates that Tanzania is likely to meet around 92 percent of its own food requirements.

Compared to last years, food crop production has declined by 10 percent from 8.6 million tons. However, last year crops had been greater than national food demands and the volume of this season's crops is closer to the Tanzanian average. Crop productions are higher than was to be expected. However, according to the Ministry, "there were considerable increases in cultivated area for most crops – up to thirty-nine percent over last year which compensated for yield losses." In 2001, the Tanzanian government had lifted the ban on exporting maize which coincided with high food demand in neighboring

countries, especially in southern Africa. In previous years the domestic market had also been limited, and prices were suppressed in remote areas with poor transport infrastructure.

Famine Early Warning System holds that a free market may have caused farmers to increase production, given their improved sales possibilities. Food prices however began to rise higher in some compared to what were the expected. Normally, prices are expected to be stable or falling. This was not seen as a problem for Tanzanian households as most had good access to staple foods. Staple food prices were however expected to calm down over the next few months when harvests from the 'hot' and 'winter' seasons are expected to hit the markets. According to the Ministry, "Prices might start to go up toward the end of the year, if right counter measures are not implemented in time." While farmers were reported to get good prices for their products, the situation was somewhat more difficult for Tanzania's many herders.

Food staple price increases combined with declining livestock prices meant that terms of trade are in decline for pastoralists. This was likely to constrain access to food for poor cattle raising households who are particularly dependent on market supplies. Although rainfall is below the long term average in most locations, vegetation is good enough to provide enough pasture for livestock. Availability of water was also reported to be suitable. "Overall projection for food security in the next few year are good, but rising staple prices cause some worry," the Famine Early Warning System report on Tanzania noted, adding, "Food shortages were however likely to start rising by the 2008, causing further price increases." This situation, however, could be contained if the production opening was "understood and addressed well in advance.

CONCLUSION.

If it is possible to even out farm incomes in the face of short term change in production and prices, why does agricultural policy run into so many difficulties? The reason is the longer-term need to change resources out of agriculture, combined with government policy to ensure farmers a 'reasonable' income. Total production and real incomes have been rising at an average rate of about 2 per cent per year over the last 100 years in the country. Assume for simplicity that productivity expands more or less uniformly in all industries.

The demand for products with low income flexibility will be increasing more slowly than their production, excess supplies will develop, prices and profits will be low, and it will be necessary for resources to move out of this food industry. Exactly the reverse will happen for products with high income flexibility demand will expand faster than supply, prices and profits will be likely to rise, and resources will move into those food industries. With continuous productivity increases there will be a continuous tendency towards excess supply of products with low income flexibility and excess demand for products with high income flexibility. Adjustment to these changes requires a continuous movement of resources out of industries producing food products.

In a free market economy, this real location will take place under the reason of low prices, income, and incomes in the declining food production and high prices and income in the increasing food production. Because of the tendency towards excess supply in the food production sector, prices will fall, taking producers' incomes down with them. There will be a decline in the demand for farm labor and the other effort used in agriculture, and earnings in agriculture will also decline. At the same time, the opposite tendency will be observed in food production sectors with high income flexibility. Here demand will be expanding faster than supply; prices will be rising, taking producers' incomes up with them. The demand for the effort used in food production will be rising, causing effort prices and incomes to increase.

Governments of many countries have felt it necessary to get involved in agricultural markets and have resorted to a confusing group of controls and subsidies. These have often led to the increase of huge surpluses, which have sometimes rotted in storage and sometimes been sold abroad at sponsor prices. The theory of demand and supply can help us gain some approaching into these and other agricultural problems. In case you think that we are giving too much attention to food production in agriculture notice that it is a very large budget item taking up over one half of the total food budget of the world and the developing countries protection of its agriculture is a major contributor to the poverty of the world's poorest countries. In order to make sure that all problems are solved we have to work together by helping each other. Developed countries have to help developing countries.

The main things are to help farmers to be educated, giving them loans and to give them tools. They can be helped by giving education and giving the means by which they can help themselves to afford the expenses. These means can be either to give them loans or give them modern tools. This can be the source of their development in agriculture and will help them produce quality and quantity of food products needed. For the side of government, it has to provide good policy for the agricultural sector such as free market. The farmer's children need to be educated in schools so when they grow they will be educated and know what they are doing. Education for the adults can be done through establishment of classes for them and the establishment of special programs to encourage them to attend the classes.

Tanzania cannot win the fight over poverty, hunger and starvation by itself. It needs the help of the developed countries of the world to do so.

Working Sites:

1. [Tanzania Institute Of Education Human Geography Book Four.](#)
2. <http://www.fas.usda.gov/pecad2/highlights/2005/01/tanzania/index.htm>
3. <http://www.unsystem.org/scn/archives/npp06/ch19.htm>
4. <http://www.tzonline.org/pdf/hivaidsandchangingvulnerabilitytocrisis.pdf>
5. <http://www.tzonline.org/dbtw-wpd/exec/dbtwpub.dll>
6. <http://www.fao.org/docrep/003/x0736m/rep2/tanzania.htm>
7. http://www.fews.net/docs/Publications/Tanzania_2008_01_final.pdf
8. <http://www.reliefweb.int/rw/rwb.nsf/db900sid/ASAZ-7HXJF4?OpenDocument>