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Food Security in Malawi

More than half of Malawi's population lives on less than one dollar a day. Malawi, a land locked country located in southeast Africa, is one of the ten poorest countries in the world. (USAID) The majority of Malawi's families practice subsistence farming, feeding an average of six children (World Statistics) on less than one hectare of land. (World Bank) Maize is the staple food, 85% of Malawian land is used to produce it. (World Bank) The literacy rate in Malawi is 63% but 79% of children attend private school because public education is limited. (USAID) Because of the concentration of larger families on small areas of land, along with the cycle of planting year after year, much of Malawi's arable land has become depleted. (World Bank) Reversing this natural resource degradation and adapting farming to climate change are key factors in this region.

Malawi faces many problems with food production. It depends heavily on foreign aid to feed itself, 14% of its gross national income was from charity donations in the past decade. When harvests fail, most families do not have enough money to buy food. Even with adequate rainfall, 40% of Malawians lack adequate purchasing power to buy enough food to meet their daily needs. Food supplies tend to be secure for eight to ten months of the year in Malawi, but the period from December to February is known as the hungry season in which poor households regularly go without food for days at a time. Certain groups of Malawians are more prone to food insecurity than others. Hunger is the most severe in the southern and central parts of the country which are less productive. The most vulnerable families are those with less than one hectare of land and those that are headed by women who often have little or no access to education. Malawian households headed by women tend to have fewer assets, less access to land, and fewer opportunities for employment off of the farm which can supplement farm income. These factors lead to long periods of food insecurity.

Because of the high occurrence of HIV and AIDS, the lack of quality of health services, and the lack of clean water, life expectancy in Malawi in 2002 was only 38. One in five children in Malawi dies before his or her fifth birthday and almost half of the children are considered undernourished. Despite these poor survival rates, the country's population is extremely young, with 72% of Malawi's population is under the age of 25. This is because of the country's low life expectancy. A problem with having such a young population is that young people often lack the proper skills that are required to support entire families. Malawians, even those who are considered upper middle class, barely have the resources to meet their most basic nutritional needs. Because of this food insecurity, farmers have become even more dependent on maize production, causing soil quality to decline because of monocropping or the repeated growing of corn season after season. (Rural Poverty Portal)

Disaster struck Malawi in 2005. A poor harvest combined with a drought, sent maize prices sky rocketing. The government attempted to aid citizens the traditional way by imposing rations and importing 60 tons of maize. However it was not effective, food was still scarce and many Malawians faced starvation. (Allen) Malawian President Bingu wa Mutharika banned maize and fertilizer exports because the country needed all the food it could get. Merchants in neighboring countries often bought Malawian maize cheaply and sold it at a much higher price, sometimes back to Malawi's government. Mutharika also started a Malawian "solidarity fund" consisting of donations from better-off Malawians to help out the poor. (BBC News) But these

measures were also unsuccessful and Mutharika grew tired of repeatedly asking for charity. So he decided to take a new course and increase subsidies for fertilizer. (NY Times) Subsidies are funds paid by the government or a private corporation to reduce prices of certain goods. This initiates economic activities that would not normally occur. (Economist)

Subsidies had been attempted in many sub-Saharan countries during the 1960s and 1970s, but they did not live up to expectations. The cost of the subsidies was very high and most of the benefits went to already wealthy farmers. (World Bank) The World Bank phased out these subsidies in the 1980s, determining that they did not work. Instead it advised farmers to grow cash crops which could be exported. Farmers could then use their earnings from the exports to buy food. The removal of fertilizer subsidies led a large increase in the price of fertilizer, which made fertilizer impossible to afford for most of Malawi's farmers. (Dugger)

The World Bank's determined later that it had failed to recognize the importance of fertilizer and improving soil quality to the food security of sub-Saharan countries like Malawi. (Dugger) In 1989 the government introduced a smaller-scale free fertilizer program for farmers with smaller land holdings. The funding for this program came from the Department for International Development in Great Britain. Since 1992 private donors have distributed fertilizer through public channels to help struggling farmers restart their operations after bad weather, such as droughts or floods. (World Bank)

Economists have differing views about the effectiveness of subsidies in countries faced with situations like the one in Malawi. Countries providing aid, including the United States, generally advise against subsidies in developing countries like Malawi, though the United States heavily subsidizes its own agriculture. The United States opposition to subsidies is based on its belief that Malawi should to use free-market policies and rely more on private markets as opposed to government interventions. The United States has provided Malawi with \$147 million dollars worth of food since 2002, but did not provide any funding to help the fertilizer subsidy program. (Dugger)

Malawi's subsidies did hurt the private markets and agribusiness in the country. The few farmers who could already afford fertilizer were able to get the fertilizer cheaper through the government subsidy and, thus, did not need to buy from the private dealers. This led to a drop in commercial fertilizer sales and lower profits for the agribusinesses. To counteract these economic losses, in the second year of subsidies, the agribusiness companies accepted vouchers for fertilizer and were repaid later by donors. The subsidies are also very expensive for the government to provide, even with foreign aid. In addition, the risks that are inherent in agriculture such as drought or flood weather could ultimately make the subsidies wasteful. (Economist)

In 2006 half of the farmers in Malawi received enough fertilizer for one acre of land for \$15, approximately one-third of the market price. (Dugger) The Ministry of Agriculture used more than 50% of its budget to pay for these subsidies. (World Bank) During the following harvest, fertilized soil and good weather paid off, producing a record breaking harvest. Maize production jumped to 2.7 million metric tons in 2006 and 3.4 million in 2007, up from 1.2 million in 2005. These harvests lowered food prices in Malawi and resulted in higher wages for agricultural workers. Following the successful harvests, Malawi was able to sell maize to neighboring countries, providing them with food and also earning much-needed cash for Malawi's own economy. Farmers, who have flourished by comparison to years before the subsidy, are big supporters of President Mutharika. Some experts wrote off the subsidies success, saying the record breaking harvest were just the result of fortuitous weather. But studies by researchers at the Imperial College London and Michigan State University concluded that the

subsidy program has improved the agricultural economy and was a major factor in the production gains. (Dugger)

To build on this success and aid agribusiness, the World Bank has suggested using “smart subsidies”, which offer a few improvements and are used only in certain situations. These smart subsidies would be carefully targeted only to those farmers in dire need. The subsidies would be distributed as vouchers redeemable in private agribusinesses only to farmers who cannot afford to buy on the open market. This use of vouchers would help struggling agribusinesses and would encourage more private investment. The World Bank also wants to provide fertilizer that is specialized for the specific climate and soil that vary in different regions of the country. One difference between the World Bank’s advice and the government’s actual subsidy program is that the World Bank insists on having exit options or an end to the subsidies. Farmers dependent on the subsidies become a powerful political group and often make the subsidies hard to remove as has happened in other developed countries like the United States. (World Bank)

Another option to increase Malawi’s agricultural productivity and its food security is expansion of irrigation. Almost all of Malawi’s 27 districts have access to fresh water but only two percent of Malawi’s arable land is irrigated. (IRIN) The United Nations Food and Agriculture Organization (FAO) has begun to develop small scale irrigation schemes in Northern Malawi. It provides human power treadle pumps and water pipes to small-holder farmers so they can pump water to their fields from local rivers and lakes. The FAO is also educating farmers about water management and natural resource conservation. Already these irrigation programs have shown signs of promoting welcome crop diversification in areas that typically monocrop maize. (IPS) The Malawian government is also involved in promoting irrigation. Treadle pumps were distributed to farmers by parliament (IRIN), but the government has bigger plans. According to the government, Malawi is currently irrigating 22,000 of 400,000 hectares of irrigable land. The Malawian President Mutharika, who also serves as the Minister of Agriculture, proposed creating large irrigation programs with water from Lake Malawi. Lake Malawi is the world’s ninth largest lake and touches the whole country. In the government’s budget for 2008 to 2009 the Ministry of Irrigation and Water Development allocation was increased by 50% to \$55 million. If these irrigation schemes are successfully completed, Malawian farmers would no longer be dependent on rainfall as their only source of water. That would greatly improve farmers’ food security and help relieve the ongoing threat of droughts. (IPS)

The Agriculture Association in Malawi is also urging farmers to plant *Jatropha curcas*, a crop which can be used to produce biodiesel. *Jatropha* is a shrub that is drought resistant and does not need fertilizer to grow. Malawian farmers are being provided with *Jatropha* seed and are paid one kwacha (Malawian currency) for each shrub they plant. The shrubs and the land still belong to the farmers, and they can sell the *Jatropha* seed they grow for a profit to earn income for food. The association is encouraging planting *Jatropha* on idle land, which does not have to be cleared and is not subtracting from the potential maize production. The biodiesel produced from *Jatropha* seeds is mixed with petroleum diesel. Biodiesel is clean-burning, environmentally friendly and has a strong global market, especially in the developing world, which is trying to reduce its use of fossil fuels. The production of biodiesel will also help lower fuel prices in Malawi, bringing down the price of transportation. With the profit from exporting biodiesel, Malawians will have more money to import necessary goods. (Environmental News Service)

My advice for organizations aiding Malawi would be to continue and improve the current fertilizer subsidy program. In addition agencies should also help Malawi create irrigation schemes for small-holding farmers and promote increased *Jatropha* growth. Preventing starvation in Malawi should be the number one priority and necessary measures, such as subsidies and new

irrigation, must be taken to accomplish that. The increased use of fertilizer and irrigation in Malawi will allow farmers to till already cleared farmland instead of opening untilled land. Opening land is a major contributor to increased carbon emissions. Charity organizations should also invest in educating farmers on modern farming techniques. They should also subsidize genetically-engineered seed which can resist insects and increase yields. This additional subsidy could be supported if countries such as the United States sponsored along with the World Bank and Great Britain. The subsidies in Malawi should be geared towards its becoming self-sufficient, so it can produce its own food without foreign aid.

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