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Malawi: Using Education and Technology to Sustainably Solve Environmental and Social Issues

“The plight of Malawi has been described by some as the perfect storm of human deprivation. It has a combination of climatic disasters, impoverishment, the AIDS pandemic, malaria . . .” (“About Malawi”). Malawi has never been a model country, and has never been food secure. Slash and burn agriculture destroys soil quality, and deforestation causes soil erosion into Lake Malawi, depleting the already overfished population (“General Information About. . .”). Droughts and floods destroy crops, wavering prices make income from cash crops a doubtful thing to rely on, and corruption and poor management hurt the country’s small budget (“Analysis: Malawi”). Poor education leaves many in the same situation as their predecessors with little hope of change (Blythe). In order for this small African country to have food security, it must first ‘cultivate’ sustainable development through better agricultural and forest management practices, coupled with the improvement of education at all levels.

Malawi has long struggled for food security, a lofty goal that many nations cannot meet, while others enjoy far more food than they could ever need or want. Many factors affect food security in this small African nation, heavily dwarfed by its neighboring nations of Mozambique, Tanzania and Zambia. Not only is Malawi weighed down by weather shocks and poor soil quality, but chronic poverty and poor infrastructure also work to drag Malawi’s people down (CFSVA).

Being a poor nation, Malawi relies far too heavily on donor funding to supplement its small government budget; however, misuse of funds has caused donors to pull funding, forcing the government to raise taxes. Many Malawians rely on government coupons to be able to afford seeds and fertilizer, and the budget dip has been a major complication, causing even less Malawians who rely on them to qualify (“Analysis: Malawi”).

In 2009, 75 percent of Malawi’s rural population were subsistence farmers, and 11 percent of those farmers grew cash crops, mainly tobacco (CFSVA). However, growing anything in Malawi is a serious challenge, due to the erratic weather, jumping between droughts and floods from year to year, the poor soil quality, and the unsure market that continues to plague the entire world. Currently, Malawi is facing a drought that has damaged much of the tobacco crop and has forced the government to place a ban on the export of maize, Malawi’s staple food crop, for this year (“Malawi: Rising Prices”).

Poor soil quality is a major issue with Malawian agriculture, as years of Slash and Burn agriculture have extremely damaged soil quality (“General Information About. . .”). Slash and Burn agriculture is the use of fire for the clearing of land, an ancient, devastating practice that is still used by 200 to 500 million people worldwide today. Clearing land by fire not only depletes the nutrients in the soil, but it takes years for the ecosystem to bounce back (“Slash and Burn”). Its obvious impact in Malawi has been devastating, and difficult to stop. Not only has soil quality been depleted, but if that wasn’t enough, deforestation causes soil to erode into Lake Malawi, dramatically affecting fish stocks. In the 1970s, per capita fish consumption was at 14 kg a year, but now has dramatically dropped to 4 kg a year (“General Information About. . .”). In 2009, 96 percent of Malawians used firewood for cooking, which, with its large population of approximately 15 million, has led to the rapid depletion of Malawi’s forest area (CFSVA). The cleared forest land is then burned to be cultivated into farmland, but any cultivation that could happen is made difficult by poor farming practices (“General Information About. . .”). Not only is this style of agriculture dangerously bad for the environment, but it also gives way to other poor farming practices as shown by Malawians and others who use slash and burn agriculture worldwide, just abandoning the field

when it becomes infertile (“Slash and Burn”). Also as a consequence of the poor soil quality, many Malawians depend on fertilizers, (75 percent of which are chemical) which further pollutes the environment and may be a danger for drinking water supplies, as many Malawians currently use wells (CFSVA). When Malawi had a small population, it could use the land practices it had before cultivated with little consequence, but now better forest and land management is necessary (“General Information About. . .”).

The main food crop of Malawi is maize, which is used to make a thick porridge called *Nsima* (“About Malawian Culture”). After maize, vegetables are a common food, trailed by animal proteins. Because of the nutritionally imbalanced diets, malnutrition is rampant. In a 2009 study, 56 percent of girls and 62 percent of boys age 6 to 59 months were found to be stunted. Such data does not bode well for Malawi’s future, as the growing generation will have many health problems later in life (CFSVA).

Education, however, may be Malawi’s saving grace, something that is severely lacking there today. In 2009, 29 percent of Malawians had never gone to school, only 6 percent had attended senior secondary school, and a mere 1 percent had attended a college or university. There also exists a gender gap in Malawian education, as 49 percent of Malawian women have never attended any type of school, while the percentage for men is less than half that, at 22 percent. Education saves lives, lowers birth rates and improves agricultural productivity, all of which are sorely needed in Malawi (CFSVA). It is estimated that in Malawi, one in every seven people is living with AIDS, but social stigmas make many never choose to get tested (“About Malawi”). Malawi has a free health care system, so it is not the price of testing that deters Malawians, but rather social stigma based on lack of education (“About Malawian Culture”).

Education is the difference between Malawians helping themselves, or having to be rescued by a charity, or another country. Not that Malawi should have to go it alone, but Malawians should be given the tools to sustain themselves. Sustainable development will lead to food security, but is only achievable through education, and the want and need for change. For change is sorely needed, if agriculture is to survive at all. Today, in Malawi, youths are taught to set fires for fun at the end of the growing season, proving that the ending of Slash and Burn agriculture will be a difficult thing to stop, as it is very much still the most socially acceptable thing to do. (“About Malawian Culture”). For, if history has shown us anything, it is that people with the best intentions, but from other countries and other cultures trying to come in and “fix” things is not only far too often met with resistance, but sometimes even aggression, causing things to just get much worse, with little hope of betterment. Malawians are a kind and gracious people, but are humans nonetheless, and must be treated with kindness and human dignity. This is why setting in motion the wheels of change in Malawi and elsewhere as an outside source will be exceedingly difficult undertaking. This is why education, by Malawian teachers in Malawian schools, or by fellow Malawian farmers helping other farmers is what will set the wheels in motion (“Friends of Malawi”).

It begins, in part, with the youth of the nation, the small seeds of hope and change planted in young minds, growing into the crop of hope, the knowledge and trust starting with the youngest slowly trickling out until the best way is found. This however, cannot begin until the school systems in Malawi are strengthened, by which is no means an easy undertaking. To begin with, there are very few schools in Malawi, and in the existing schools, problems abound. Students outnumber underqualified teachers 100 to 1, and with no budget for a school lunch system, the children that do go spend all day hungry, which is no condition to learn in. Malawi also loses many teachers a year to HIV/AIDS, putting further strain on the education system. Something must be done, as the government budget has no room for education (Blythe). The best proposal in this case would be (to use a purely Iowan phrase) an “If you build it, they will come” basis to strengthen the school system. To explain; there are already several groups that are ready and willing to build schools in underdeveloped countries, and still others that feel so called to teach. If these groups could work together, with the support of the Malawian government and people,

then, the sorely and desperately needed change could then be set into motion, and no, it won't be perfect, not at first, and many of the first teachers will not be native Malawians, but with work, time and dedication, everything will eventually and sustainably become better. It will take many years, but it shows real hope and promise of sustainable change and development (“Friends of Malawi”).

Malawi's government has done well in the sense that they have made food security the top priority for spending, including providing some fertilizer and seeds at lower costs to its people ("Malawi Profile"). However, there is more that needs to be done, and while it is not an easy job, with hard work and time, it is possible. Not only do the youth of Malawi need to be educated, but the whole nation needs to be educated on things like AIDS and Malaria prevention, and on soil conservation and forest management practices. Some alternatives are already in place, like the growing of nitrogen fixing trees and the growing of legumes ("Analysis: Subsidies"). Steps like this need to be taken by the majority of the population, as well as others like the use of nonchemical fertilizers, crop rotation, and the end of Malawians' use of slash and burn agriculture.

There is also evidence of misuse of government funds, which detracts from the countries ability to have food security. Recently, Malawi's president Bingu wa Mutharika bought an expensive presidential jet with public funds. Sixty percent of Malawi's population lives on less than one U.S. dollar a day. Not only is this one of the main reasons donors have pulled funding, but also depletes the small budget which should be going towards the betterment of the country. This is one of the major roadblocks that could destroy any hope that Malawians have for change. If such misuse of authority is to continue, it could damage plans for school building and completely destroy any trust the outside world has for the Malawian people,, and irrevocably destroy the people's trust in any authority or outside help and leave this small, beautiful seed of hope in rocky, burnt soil, with no hope of growth or future (“Analysis: Malawi”).

Malawi is a small country, with no natural resources. Its only resource, then, is its human element, which, with education and the tools to succeed, will in time make Malawi food secure, and begin to bring them up to world standards. Currently, there is no hope for this, with the life expectancy at 38 years and economic and environmental problems plaguing the population. But, with hard work, and education, there is hope for this small country, and hope for the entire world (“About Malawi”). So that Norman Borlaug's dream of food security can live on, grow wings and take flight, for surely the basis of peace takes roots in the quality of life of all involved, and the world cannot know any true peace if Malawi is not at peace, for the peace of Malawi is just as crucial a part of peace as every other piece of this great jigsaw puzzle is to the greatness of mankind. For a puzzle, and those who put it together, cannot be at peace until it is all together and every piece is accounted for. Malawi has too long been the lost piece under the leg of the table. If Malawi and all the other small lost countries find their place, their peace and their security, than surely the rest of the world will fall into place, too. This runs closely with the doctrines of Heifer International, a Church of the Brethren founded project, that also believes in starting small, not with one small country, but with one person, and in giving that one person the tools they need also giving them the tools means to help others so that all may grow strong, eventually ending in (or rather beginning the great circle of) sustainable development (“Our Approach”).

In conclusion, while Malawi is not a model country, it can, through the want and need for change, the education of its people, technological advances and sustainable agricultural practices, begin not only to provide peace and food security for its people, but even begin to cultivate innovations to feed the world.

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