

Brianna Cheek  
Hillsboro High School  
Hillsboro, TX  
Malawi, Factor 6: Sustainable Agriculture

### **Farming at Rock Bottom: Malawi's Battle with Starvation**

Hunger is an all-consuming ache. It spreads like a disease, wasting the body and creating a black hole in place of a stomach. Malawi residents know this emptiness all too well, as about 50.7% of the population is poverty-stricken ("Statistics"). 83.9% of the population is rural, and 56.6% of that demographic is impecunious ("Statistics"). These individuals are typically smallholder family farmers, with an average farm size of .28 hectares, or 2.5 acres ("Examples"). The average household size is 4.5 people, which would mainly consist of two parents and children ("Malawi Average").

Indeed, trying to feed so many people with such little land is an ineluctable certitude that malnutrition will afflict the family. Large families cut down portions when there are food shortages in order to feed everyone ("Rural"). Maize is the main food of the Malawians, since it is preservable, full of carbohydrates, and energizing ("Food"). The maize is often turned into "patties... served with *ndiwo*, a sauce or relish made with beans, meat, or vegetables" ("Food"). Not much livestock resides in Malawi, which adds to the undernourishment of the Malawians since they are not getting protein from milk or meat ("Rural"). Furthermore, a high number of Malawi citizens suffer from other ailments, such as HIV and AIDS (Crouch). RIPPLE Africa reports that "in 2012, 27.1% of all reported deaths in the country were HIV [or] AIDS related" ("General"). Other afflictions include malaria, respiratory infections, and diarrheal diseases ("CDC"). Still, Malawi's government does have free national health care, but many individuals may be too rural to access a hospital, or the nearest clinics may be severely underfunded and understaffed ("General"). Similarly, another issue penurious Malawians must endure is the education system. Malawi has free primary school education available, but there are still numerous complications with the system ("Education"). Classes are held outside "because there are more children attending primary schools and not enough classrooms to house the children" ("Education"). The classes are also significantly short-handed, with student to teacher ratios sometimes being sixty to one ("Education"). Also, many poor families simply can not let their children go to school, and need them to stay and help on the farm ("General").

Above all the aforementioned issues Malawi encounters, the main issue Malawi farmers face is maintaining a sustainable source of food. The Ecologist states, "At the end of the harvest Malawi's farmers typically burn their fields to make way for the next crop. But this also damages fragile soils, and deprives them of the organic matter they need to retain water and nutrients" (Crouch). Maize requires a lot of nutrients in order to grow, and since less land is available for Malawians, over-farming the soil is all they can do to survive (Crouch). Moreover, extreme

weather patterns such as floods and severe dry conditions cause poor harvests as well (Crouch). Irrigation could be used to solve this problem, but it is simply too expensive for the majority of rural Malawians to afford (Crouch). Therefore, once a Malawi farm fails, the family has nowhere to go to earn money to survive. The Rural Poverty Portal divulges that “poor rural people tend to live in remote areas with few roads and means of transport, which limits their economic opportunities” (“Rural”). This causes them to be unemployed when the growing season is finished (“Rural”). Market access is also extremely limited, so even if one does acquire money, they often have no way to buy food with it.

Thus, this terrible myriad of situations must be solved, but how can it be? National soil loss rates in 2014 were 29 tons per hectare per year, which is significantly higher than 20 tons per hectare each year in 1987 (Vargas). Poor soil is a worsening problem, and if nothing is done, Malawi will perish. Creating sustainable farms will also improve the Malawian economy, as it is largely based on agriculture (“Rural”). The environment will likewise ameliorate greatly if maintainable farms are established. The Ecologist reports, “increasing population has caused communities to expand...in wild areas...this results in a loss of trees and plant life and of habitat for wild animals” (Crouch). Overfishing has also destroyed the rivers, so that option for sustenance is obliterated (Crouch). Overall, if functioning farms are established, Malawi could cease to be the 8th poorest country on Earth, and could actually flourish and thrive (Crouch).

Furthermore, other issues play a huge part in sustaining agriculture in Malawi. Poor education and water scarcity both have a hand in the state of the country. As previously mentioned, education is severely neglected, which causes many Malawians to have no idea how to farm durably. If basic agriculture education was taught, then future generations would know how to create and maintain nutrient rich soil. Also, water scarcity definitely assists in the agricultural deficiencies Malawi possesses. Between the floods and the droughts farms are ruined, and the irrigation to help destroy this obstacle is too expensive for the poverty-stricken rural Malawians. However, several cheap ways to irrigate have been invented. Many of these systems do not require electricity or expensive piping and simply use gravity, hand-pumping systems, or cheap pipes to distribute water throughout the plot of land (Goodier).

Although, how can the issue of unsustainable farms be solved once and for all in Malawi? The answer may seem minute, but a furry, common pet may be the key savior of the poor rural farmers. Rabbits, specifically New Zealand Whites or Florida Whites, would have multiple uses and be renewable posthaste as well as for long-term survival. There are several reasons why these rabbits would be life-changing for Malawians; the first being to help sustain the farms. A rabbit family can produce “at least two cubic yards of manure” per year, and its feces is made up of “2% nitrogen, 1% phosphorus, and 1% potassium” (Bennet). This gentle yet abundant fertilizer won’t burn the roots of the maize, but will still provide the crop with the proper nutrients it needs to thrive. The urine of the rabbits can be used as a pesticide too (Dijk). Also, rabbit meat would add much needed protein to Malawians’ diets, as a group of rabbits can provide “100 to 125 pounds” of meat each year (Bennet). Rabbits also don’t take up a lot of

space like other livestock do, so the already small farms do not have to be sacrificed to make room for the animals. Lastly, rabbits are also good for the long haul; they reproduce rapidly and in large litters, and the “natural lifespan of a rabbit is about 10 years” (Bennet). The main obstacle with this solution is how the rabbits will be fed, at least until the Malawians start to make enough money to pay for the rabbit feed. Bunnies cannot eat maize, so another alternative must be found (Krempels). The cheapest way to feed them would be naturally, as “they can live on waste materials such as maize husks and vegetable leaves,” which would not harm the Malawians already minute food supply (Dijk). But, the problem with bringing in a species that is not indigenous to Malawi is that the creatures would be more susceptible to illness (Dijk). However, this issue can be mitigated by keeping the hutches and rabbits clean and monitored (Dijk).

Yet, how can Malawians be convinced to switch to this method of farming and rabbit production? The solution may lie behind bars. In the Malawi prison system, many penitentiaries are sustaining themselves using New Zealand Whites. The manual for this production states that the “Rabbits are produced...for meat consumption. As the prison farms had not enough funds to buy animals such as cows and to provide them with the high quantities of feed they need, a solution was found in rearing small animals such as rabbits. Rabbits...do not compete with humans for food and the meat is tasty, of good quality and similar to chicken meat.” They also use the “skins in the compost heap...[or they] tan the skin and use it for sandals and blankets.” Thus, this sustainable technique is already successful in Malawi; it is only a matter of informing the dispersed and rural citizens of the procedure. The Malawians would be more willing to adopt a new way of life if they knew that it is already being used by their own people (Dijk).

Similarly, how can the American public be persuaded to help? Truly, the only way to get people to care about other countries is if they see the problem with their own eyes. Commercials broadcasting the dire situation many Malawians are in would cause numerous Americans to feel sympathy, which makes them willing to donate. Even if someone believes that America has its own problems to worry about, witnessing the dreadful circumstances Malawians face would cause their hearts to stir. There are over 300 million people in the United States; if just half of them were to donate 1 dollar each, the crisis in Malawi would be eradicated (“U.S.”). According to the Wall Street Journal, another tactic to predispose individuals to contribute to a cause is to give them recognition of some sort (Prior). Whether it’s from getting their name printed in a newsletter, or being able to post something on their Facebook wall so others can see their generosity, people are more willing to pitch in if they are acknowledged for their deed (Prior). Turning the basic human desire for attention and admiration might seem iniquitous, but for the good of Malawi, it might just be worth it.

Given these points, as one can see, Malawi is in distress. There are numerous issues plaguing the country, but the main problem is starvation from a lack of options. When the only way to survive is to farm and the crops do not grow, there is absolutely nothing the family can do. Nonetheless, there are several organizations that are trying to aid Malawi, one being Raising Malawi (“Raising

Malawi”). This association is mainly focused on solving the health, education, and orphan difficulties Malawi faces, but these issues actually all lead back to sustainable agriculture. As Ban Ki-Moon once said, “Saving our planet, lifting people out of poverty, advancing economic growth...these are one and the same fight. We must connect the dots between climate change, water scarcity, energy shortages, global health, food security and women’s empowerment. Solutions to one problem must be solutions for all” (Ki-Moon). Donating to local organizations like The Hunger Project and the aforementioned Raising Malawi is something everyone can do (“Raising Malawi”; “Malawi”). Communities can gather together to collect money, the government can form relations with Malawi to help them receive the tools the country needs to rise out of poverty, and organizations can be formed to go to Malawi and teach these families about how to use rabbits, cheap irrigation, and the small plots of land they own to create sustainable sources of food. A non-governmental organization would be the best way to aid Malawi, since it would allow people to be directly sent to the region to teach the residents of Malawi how to farm step by step. The funding raised would go straight to the afflicted citizens, and then communities could begin to rely on themselves. Still, it is up to everyone to alleviate the tribulations Malawi is experiencing, so those living there no longer have to constantly worry about where their next meal is coming from. Then, they can dance, laugh, sing, love, and simply enjoy life as humans are supposed to. Hunger will no longer be a consuming ache, a spreading disease, or a black hole, but instead a distant memory. And then one day Malawi may be able to proclaim, “Nthawi potsiriza kudya, anabwera kusangalala.”

## Works Cited

- Bennet, Bob. "Rabbits for Gardeners." National Gardening Association, 23 June 2008, [garden.org/learn/articles/view/252/](http://garden.org/learn/articles/view/252/). Accessed 18 Jan. 2017.
- "CDC Global Health - Malawi." *Centers for Disease Control and Prevention*, 12 May 2016, [www.cdc.gov/globalhealth/countries/malawi/](http://www.cdc.gov/globalhealth/countries/malawi/). Accessed 18 Jan. 2017.
- Crouch, Marc. "Sustainable Agriculture in Malawi: a Desperate Struggle." *The Ecologist*, [www.theecologist.org/blogs\\_and\\_comments/Blogs/2834345/sustainable\\_agriculture\\_in\\_malawi\\_a\\_desperate\\_struggle.html](http://www.theecologist.org/blogs_and_comments/Blogs/2834345/sustainable_agriculture_in_malawi_a_desperate_struggle.html). Accessed 18 Jan. 2017.
- Dijk, Lisa van. "Rabbit Production Guidelines for the Malawi Prison Service." Penal Reform International, Jan. 2003, <https://cdn.penalreform.org/wp-content/uploads/2013/06/man-2003-rabbit-production-guidelines-en.pdf>.
- "Education in Malawi." *Starfish Malawi*, [starfishmalawi.com/education-in-malawi/](http://starfishmalawi.com/education-in-malawi/). Accessed 18 Jan. 2017.
- "Examples." *Rural Poverty Portal*, IFAD, [www.ruralpovertyportal.org/en/topic/statistics/tags/land](http://www.ruralpovertyportal.org/en/topic/statistics/tags/land). Accessed 18 Jan. 2017.
- "Food & Daily Life — Malawi — Our Africa." *Our Africa*, [www.our-africa.org/malawi/food-daily-life](http://www.our-africa.org/malawi/food-daily-life). Accessed 18 Jan. 2017.
- "General Information about Education in Malawi, Africa." *RIPPLE Africa*, [www.rippleafrica.org/education-in-malawi-africa/general-education-in-malawi-africa](http://www.rippleafrica.org/education-in-malawi-africa/general-education-in-malawi-africa). Accessed 18 Jan. 2017.
- Goodier, Rob. "Ten Low-cost Irrigation Techniques." *Engineering For Change*, [www.engineeringforchange.org/ten-low-tech-ways-to-irrigate-crops/](http://www.engineeringforchange.org/ten-low-tech-ways-to-irrigate-crops/). Accessed 18 Jan. 2017.
- Ki-Moon, Ban. "We the Peoples." Address to the 66th General Assembly, 21 Sept. 2011, Speech. [www.un.org/sg/en/content/sg/speeches/2011-09-21/address-66th-general-assembly-we-peoples](http://www.un.org/sg/en/content/sg/speeches/2011-09-21/address-66th-general-assembly-we-peoples) Accessed 18 Jan. 2017.
- Krempels, Dana. "What should I feed my bunny?" *Proper Rabbit Maintenance*, Department of Biology - College of Arts and Sciences, [www.bio.miami.edu/hare/diet.html](http://www.bio.miami.edu/hare/diet.html). Accessed 18 Jan. 2017.
- "Malawi Average Household Size." *ArcGIS*, Esri, [www.arcgis.com/home/item.html?id=db2f9eefdda5473abb55c99b084df110](http://www.arcgis.com/home/item.html?id=db2f9eefdda5473abb55c99b084df110). Accessed 18 Jan. 2017.
- "Malawi." *The Hunger Project*, [www.thp.org/our-work/where-we-work/africa/malawi/](http://www.thp.org/our-work/where-we-work/africa/malawi/). Accessed 18 Jan. 2017.

Prior, Anna. "How Charities Can Get More Out of Donors." *Wall Street Journal*, 15 Dec. 2014, [www.wsj.com/articles/how-charities-can-get-more-out-of-donors-1418598068](http://www.wsj.com/articles/how-charities-can-get-more-out-of-donors-1418598068). Accessed 27 July 2017.

"Raising Malawi." *Raising Malawi*, [www.raisingmalawi.org/#home](http://www.raisingmalawi.org/#home). Accessed 18 Jan. 2017.

"Rural Poverty in Malawi." *Rural Poverty Portal*, IFAD, [www.ruralpovertyportal.org/country/home/tags/malawi](http://www.ruralpovertyportal.org/country/home/tags/malawi). Accessed 18 Jan. 2017.

"Statistics." *Rural Poverty Portal*, World Bank Indicators, [www.ruralpovertyportal.org/en/country/statistics/tags/malawi](http://www.ruralpovertyportal.org/en/country/statistics/tags/malawi). Accessed 18 Jan. 2017.

"U.S. and World Population Clock." *Population Clock*, U.S. Census Bureau, [www.census.gov/popclock/](http://www.census.gov/popclock/). Accessed 26 July 2017.

Vargas, Ronald, and Christian Omuto. *Soil Loss Assessment in Malawi*. The Food and Agriculture Organization of the United Nations/ The UNDP-UNEP Poverty-Environment Initiative/ The Ministry of Agriculture, Irrigation and Water Development, Malawi, 2016. [www.fao.org/3/a-i6387e.pdf](http://www.fao.org/3/a-i6387e.pdf). Accessed 18 Jan. 2017.