

Hannah Hagen
Waukon High School
Waukon, IA, United States of America
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Fighting Food Insecurity in Malawi: Challenges, Solutions, and the Power of Action

Between October 2024 and March 2025, it is estimated that 5.7 million people in Malawi, Africa, will struggle with food insecurity (WFP, n.d.). This depressing reality reflects the daily challenge millions of families face as they fight to put food on the table. Agriculture is the backbone of Malawi, providing employment, economic growth, export earnings, poverty reduction, and the foundation for food security and nutrition. Because it is such a central part of life for most Malawians, improving agricultural efficiency and productivity is one of the most powerful ways to reduce nationwide food insecurity.

Malawi is a small, multiparty republic, landlocked in sub-Saharan Africa, with a population of 21 million and an average household size of four to five members. Roughly 87% of all households engage in agricultural activities, and 45% rely entirely on animal agriculture (FAO, 2022). Livestock such as chickens and goats are not just sources of food; they also serve as savings and income. Yet when preventable diseases spread, families can lose these resources within weeks. Strengthening livestock vaccination programs would not only protect household diets but also provide stability for families who depend on their animals. At the same time, Malawi's limited diet poses another challenge: most families depend on maize as their staple food, often eaten as "nsima," a thick porridge considered a typical meal. Unlike in the United States, where diets usually include balanced amounts of protein, fiber, and healthy fats, Malawians often lack this variety, leaving them vulnerable to malnutrition. With nearly 84% of the population living in rural areas, compared to only 18% in urban centers, families rely heavily on agriculture to sustain their diets and remain in their communities.

Roughly 64% of the land in Malawi is used for agriculture, indicating that most livelihoods rely on agriculture (TRADING ECONOMICS 2025). This fact makes the population extremely vulnerable to damage from natural disasters, especially droughts. Droughts are one of the main causes of production loss in Malawi. Early in the year 2002, hundreds, possibly thousands, of hunger-related deaths occurred during a severe drought. While maize production fell by over 30%, maize prices rose by over 300%. Nearly a third of the population in Malawi was solely dependent on food aid (Malawi Med J. 2007). Because natural disasters are affecting the people of Malawi, and the prices are rarely ever in their favor, it is extremely difficult for them not to fall into poverty.

Food production is the focus of Malawi, with the major crops and livestock exports including tobacco, tea, sugar, cotton, groundnuts, maize, bovine, and animal by-products. The average size of a farm in Malawi is 1.7 acres, with 60% of smallholder farmers cultivating less than 2.4 acres of land (World Bank 2019). Compared to the United States, the average farm size is 463 acres. This truly gives a perspective on how different life is for the citizens of Malawi; they have such limited land to work with, and crop or animal production is their main, if not only, source of food and employment.

Beef consumption in Malawi is projected to rise to 50,000 metric tons by 2026, up slightly from 48,000 metric tons in 2021. While demand for beef has grown slowly at less than 1% annually, production has expanded more steadily, with output expected to reach 63,000 metric tons by 2026 (ReportLinker, n.d.-a). Poultry production shows even stronger growth, projected to increase from 193,000 metric tons in 2021 to 231,000 metric tons by 2026, at a rate of about 3% annually (ReportLinker, n.d.-b). Even smaller sectors like lamb are rising, with production expected to grow by over 2% annually (ScienceDirect, 2023). These numbers show a clear trend: the demand for meat in Malawi is growing. Yet smallholder farmers, who make up most of the livestock sector, face major challenges in keeping pace, especially when preventable diseases and natural disasters put their herds and flocks at risk. Protecting livestock health through vaccination could be the key to helping these farmers meet demand while also supporting food security.

Disease and health issues are a serious factor when considering animal agriculture in Malawi. This is because Malawi is a tropical country, and its environment is favorable for many different pathogens and parasites. The number of parasites and pathogens is high in Malawi because of livestock management practices, like free range grazing, which can lead to animals becoming more susceptible to getting infected with pathogens or infested with parasites. The major diseases that have been reported in Malawi include African swine fever (ASF), Anaplasmosis (BAP), Babesiosis (BB), Foot-and-mouth disease (FMD), and Mastitis. It has been reported that 39.5% of cattle farms in Malawi are affected by mastitis. Cattle and swine are not the only species affected by disease and parasites; poultry producers have also struggled with high mortality rates from Newcastle Disease, pneumonia, coccidiosis, and coryza. Zoonotic diseases have also become a reported issue in Malawi; natives have been reported to have gotten infected with rabies and Cryptosporidium that were transmitted from animals. As for animals, bovine tuberculosis, brucellosis, rabies, and Cryptosporidium have been a constant issue (FAO 2022).

Operational constraints on livestock producers have placed significant limitations on the success of animal agriculture. Most smallholder farmers struggle with poor livestock husbandry and management, which results in lower profitability and higher production costs. Limited access to veterinary care and quality feed makes it even harder for farmers to keep their livestock healthy and productive. When asked about their biggest challenges, dairy farmers in Malawi pointed to low milk prices, low milk yield, overall animal health, availability of feedstock, and the high cost of medication as their main concerns. On top of that, poor infrastructure, including bad roads and limited access to markets, prevents farmers from selling their products efficiently, often leading to financial losses. Without the proper resources, training, and support, these farmers will continue to face hardships in improving their livestock operations (FAO 2022).

These are challenges that Malawi livestock farmers face constantly, and there has been very little done to find answers and solutions for these issues. Natural disasters, disease and health issues, as well as operational constraints, have been the more significant problems throughout Malawi. Most people, especially youth, limit themselves to what they are told they can accomplish. “What can I possibly do?” is a question many people ask themselves, including myself. Anything is possible with the right effort, a willingness to learn, and the determination to fail, adapt, and persevere until the right solution is found. Regardless of someone’s age, ethnicity, or background, they can tackle any challenge or struggle in this world. It is not the “qualified” that always solve the biggest world problems; it is those who take action to see change. This is exactly why I will share my plan to address the constant challenges Malawi faces in animal agriculture, particularly the barriers caused by animal health issues.

One of the most effective and realistic solutions to improve food security in Malawi is the widespread use of poultry vaccination programs. Chickens are the most owned livestock in Malawi, providing households with both a direct source of protein through eggs and meat, and a form of income when sold at market. However, diseases such as Newcastle Disease (ND) frequently wipe out entire flocks in a matter of weeks, leaving families without food or income. The thermostable I-2 vaccine has been shown to be highly effective in protecting chickens from ND, and it has the advantage of being affordable and able to withstand Malawi's hot climate without refrigeration, making it ideal for rural settings (FAO, 2019).

Evidence from Malawi shows that vaccination already works when adopted. The Rural Poultry Centre reported that households who vaccinate their chickens keep an average of 14.7 birds, compared to only 6.9 in unvaccinated households. In addition, mortality rates in vaccinated flocks were found to be five times lower than in unvaccinated ones. Since 2019, nearly 1.8 million chickens have been vaccinated in about 150,000 households across Malawi, clearly demonstrating the potential for scaling this intervention (Rural Poultry Centre, 2025). These results show that even small improvements in poultry survival can translate into major gains for families, especially when chickens are a primary protein source for children.

The benefits of poultry vaccination go beyond animal survival; they extend directly to household nutrition and income. Studies conducted in East Africa found that households participating in routine poultry vaccination programs not only produced more eggs but also saw improvements in child nutrition, including reduced rates of stunting and malnutrition (ILRI, 2020). In Malawi, where diets are often limited to maize-based staples such as nsima, the added protein from eggs and chicken meat can significantly improve dietary health. At the same time, extra eggs or birds can be sold, providing families with income to cover school fees, healthcare, or reinvestment in their farms.

To make vaccination sustainable and accessible, Malawi can build on existing systems that already support animal health. Programs like GALVmed, Inter Aide, and the Basic Services Development Agency (BASEDA) have trained local "community vaccinators" who travel door to door, offering vaccinations at a small fee. This community-based model ensures vaccines reach the most remote villages while creating jobs for trained vaccinators (FAO, 2022). To strengthen these efforts, vaccination campaigns should be paired with agricultural extension programs, such as Village Agricultural Committees and radio outreach, which have already proven effective in delivering agricultural advice to rural farmers (Fröbe-Kaltenbach & Ragasa, 2019). By combining vaccination with education and awareness, farmers will not only adopt vaccines more widely but also improve their livestock management practices.

Scaling poultry vaccination programs across Malawi has the power to make a tangible impact on food security. It protects the animals that millions of families depend on, improves household nutrition, and creates a reliable safety net against hunger and poverty. With the right investment in vaccines, training, and education, Malawi can take a major step forward in strengthening its agricultural system and reducing food insecurity for generations to come.

As well as coming up with new vaccines and inventions that help prevent and treat diseases, one of the most impactful long-lasting "medications" is information. Most farmers in Malawi only know the basics, like feeding, watering, and protecting their animals, and many are unaware of the opportunities and technologies that are both available and cost-effective. For example, certain plants such as *Mucuna pruriens* and *Tephrosia vogelii* can be used as natural insecticides to protect livestock, yet many producers never learn about these options. Research has shown that when Malawi farmers are given access to strong

extension outreach, through systems like Village Agricultural Committees, government agents, and even radio, they gain not only more information but also a wider variety of advice, making it easier for them to adopt new practices and improve productivity (Fröbe-Kaltenbach & Ragasa, 2019). I believe that if we, as youth, adults, amateurs, or professionals, were to stop viewing problems like disease, natural disasters, or poor management as “not significant,” and instead genuinely be open to every possible solution, whether big or small, we could see real change. If more farmers in Malawi were informed about proper animal husbandry practices through these outreach systems, it could significantly increase their production levels and overall income, giving families greater stability and hope for the future.

While these may be only ideas, they represent the foundation for real change, change that could transform the lives of the people of Malawi. No one should have to wake up each day uncertain of whether they will have enough to eat. Too often, we leave these issues in the hands of the "qualified" experts, if years of experience and authority will bring the solutions we desperately need. But has waiting for the right person ever truly solved these pressing problems? The hardships that not just Malawi, but counties all over the world have faced, both past and present, will persist unless action is taken now. We cannot afford to wait for someone else to care, to lead, or to act. Change does not begin with titles or positions; it begins with those who are willing to stand up and make a difference. It begins with you.

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