

How two corn cobs upended a foreign aid model in Zimbabwe

American Institute for Economic Research by Craig J. Richardson

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Some years ago on a quiet summer morning, my friend Ben Freeth and I paddled our red kayaks across a lake in southern Virginia, discussing a radical idea: how to disrupt Africa’s familiar pattern of drought, meager harvests, and dependency on food aid. Freeth’s in-laws once owned a successful commercial mango and citrus farm in Zimbabwe, but it was seized by the Mugabe government in the early 2000s, like thousands of others. Hundreds of their workers lost their jobs, and returned to subsistence farming, even as their farm has lain dormant for the past twenty years.

“What about looking at the Amish way of farming?” Ben asked. As executive director of the Zimbabwe-based Mike Campbell Foundation (MCF), a non-profit that helps small-scale indigenous farmers improve yields, he was always thinking about outside-the-box solutions to Zimbabwe’s frequent economic upheavals.

My paddle dipped in the water as I considered Ben’s provocative question. It felt like a stone thrown into the lake, casting long ripples. Amish farmers are largely independent of social and communication networks, and don’t need electricity, commercial seeds, fertilizers, or fuel to run their successful farms. African farmers find themselves in strikingly similar situations, but are hard-pressed to cope with droughts, and frequent shortages of their agricultural inputs.

Because Zimbabwe has nationalized farmland, there is no way to use its land as collateral for a loan. Due to the collapse of the agricultural service sector after botched land reforms of the 2000s, it often cannot purchase seed and fertilizer even when it does have the cash. Tractors, irrigation systems, and other capital machinery are even further out of reach for these farmers. Power and fuel outages are frequent, and the currency is rapidly depreciating. In 2022, [3.8 million Zimbabweans](#) needed food aid from outside agencies.

To solve these problems, the outside world runs to Zimbabwe's and other developing countries' rescue, year after year without fail. On September 21, 2022, President Biden spoke to the 77th session of the United Nations Assembly and announced over \$2.9 billion in new US assistance to address "global food insecurity." This is in addition to the \$6.8 billion already committed this year, according to a [White House](#) briefing sheet. Reasons for the 42 percent boost this year include "the pandemic, the deepening climate crisis, rising energy costs, protracted conflicts... and disrupted global supply chains (that have) dramatically increased global food prices."

Ben decided to pursue his own answers. Later that summer of 2014, he was welcomed by a group of normally reclusive Amish farmers in Pennsylvania. Their meetings taught Ben three key things that allow the Amish to create a sustainable and independent way of life for their families and community. These lessons, it turns out, are transferable to many places in Africa.

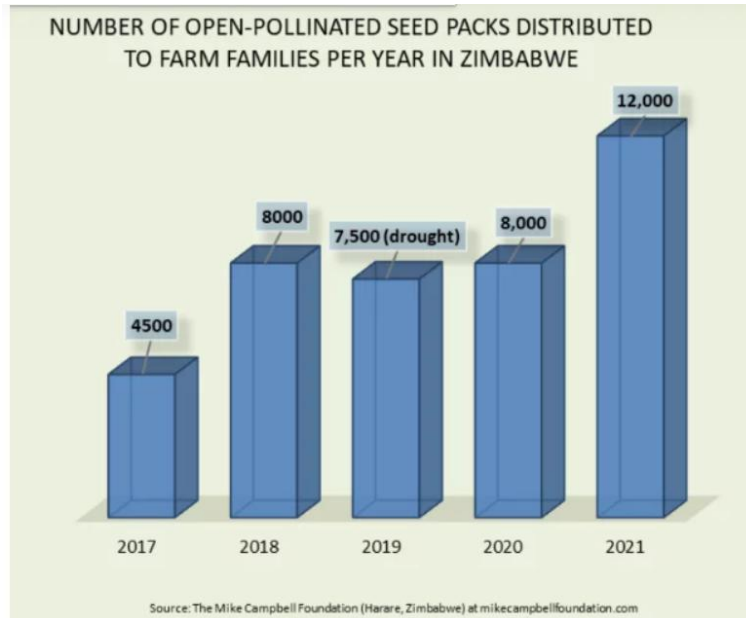
First, chemical fertilizer is normally an input that commercial farms rely upon from various international companies, and it is petroleum based, meaning it is highly prone to market fluctuations in oil prices. Most Amish farms, on the other hand, create fertilizer from compost and manure obtained from their farm's livestock.

Second, Amish farms use livestock as their draft power rather than tractors that rely on the world supply of diesel gasoline. As a result, energy requirements for a given amount of harvest are significantly reduced from the conventional model. Thus, the draft power not only provides fertilizer but also a significant buffering from volatile energy prices. For low-income families at this fragile stage of economic development, this serves as a form of insurance, since private insurance is unavailable.

Third, and most importantly, the Amish farms that Ben visited do not use the hybrid varieties of seed or GMO varieties, [which are common throughout Zimbabwe](#) (as well as the United States). These hybrid and GMO seeds are unable to self-reproduce, necessitating farmers to return each year to buy more, just like perennial flowers. The Amish's open-pollinated (OPV) seeds can be consumed, with some saved for future production. This means the direct seed cost for the following year is zero.

After his visit, Ben took two corn cobs in his luggage back on the plane to Zimbabwe, a gift from the Pennsylvania Amish. Then he invited a small group of farming families to experiment with how well the open-pollinated corn thrived in African soil. The crop was successful, and in subsequent years he worked with a Mexican-based research institution to get an open-pollinated variety that was best suited to the tropical climate. Each year, the number of participating families growing open-pollinated corn grew, from the hundreds to eventually the thousands.

In 2021, over 12,000 Zimbabwean families received a bag of these open-pollinated corn seeds to begin a path of independence from the international donor aid organizations. It's a system built upon resilience, local knowledge, and field training by the Mike Campbell Foundation, in combination with another remarkable non-profit called *Foundations for Farming*, that maximizes agricultural yields. Moreover, it relies on a savvy understanding of how to recraft age-old solutions that are a unique blend of African and Amish knowledge. These successes harness individual energy and pride in an uncertain market and government environment, using unorthodox methods that fit with the hand that has been dealt. It may not be the silver bullet to defeat food insecurity across Africa, but it shows that solutions to thorny problems can start with something as simple as two corn cobs, rather than expensive approaches that result in lifelong dependency on other nations.



Craig J. Richardson is the Founding Director of the Center for the Study of Economic Mobility at Winston-Salem State University. He also was an AIER Visiting Research Fellow from 2005-2012. He received his BA in economics from Kenyon College and his Ph.D. in economics from the University of North Carolina at Chapel Hill.

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