

Viewpoint

Feeding the famine? American food aid and the GMO debate in Southern Africa[☆]

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Abstract

The inclusion of genetically modified maize in food aid shipments to Southern Africa during the 2002 food crisis rekindled debates over agricultural biotechnology. As the region edged ever closer to famine – putting the lives of some 14 million Africans at risk – corporate pundits, government officials and biotech's critics debated the health and environmental dangers posed by the new technology.

By situating the decision to send genetically modified maize to Southern Africa in the context of US–European debates over agricultural biotechnology, it becomes clear that the promotion of biotechnology has nothing to do with ending hunger in the region. Indeed, American food aid shipments to Southern Africa have little to do with the famine at all. Instead, I argue that US food aid policy following the 2002 crisis was intended to promote the adoption of biotech crops in Southern Africa, expanding the market access and control of transnational corporations and undermining local smallholder production thereby fostering greater food insecurity on the Continent.

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Introduction

In the spring of 2002, Southern Africa stood on the brink of the worst food crisis since the 1992 drought, as some 15 million people across the region – comprising approximately 26% of the region's population – faced critical food shortages caused by a complex combination of factors, including climatic shocks, HIV/AIDS, structural adjustment, debt, collapsing public services, and poor governance. Across the region, non-governmental organizations and international relief bodies mobilized to prevent famine. The World Food Program (WFP) appealed to the developed world for financial resources to feed hungry populations in Lesotho, Malawi, Mozambique, Swaziland, Zambia and Zimbabwe, and Western governments responded with the usual package of relief, providing various mixtures of cash and in-kind assistance.

However, in October 2002 the relief effort took an unexpected twist, as the governments of Malawi, Mozambique, Zambia and Zimbabwe rejected US food aid because of concerns over the inclusion of genetically modified maize. What had until that point been a routine food aid operation quickly took on added significance, as European and American debates over trade in genetically modified organisms (GMOs) expanded to encompass Southern Africa. The relief effort became enmeshed in the quagmire surrounding agricultural biotechnology and genetically modified food, as the pro- and anti-GM lobbies each moved to outflank the other to capture the moral high ground. Biotechnology's advocates, primarily based in the United States but also including major GM exporters like Canada, Australia and Argentina, accused their opponents of allowing millions of Africans to starve because of irrational fears over hypothetical and unproven risks. The point was most clearly articulated by Andrew Natsios, head of the US Agency for International Development (USAID), who contended that anti-GM "groups are putting millions of lives at risk in a despicable way" (cited in [Vidal, 2002](#)). Those opposed to GMOs countered that the United States was exploiting the Southern African famine as a public relations tool to improve the beleaguered image of agricultural biotechnology. Having been unable to capture popular support for their products, particularly in Europe, the biotechnology industry was now using the Southern African crisis to garner sympathy for genetically modified organisms. Southern Africa had become embroiled in debates that extended far beyond the simple and immediate question of famine prevention.

In this paper, I examine the debates over genetically modified food aid in Southern Africa. I argue that, despite American claims to the contrary, US food aid to Southern Africa had little to do with the impending famine. Instead, the provision of assistance to Southern Africa was primarily intended to secure particular foreign policy objectives of the US government – in this case, promoting the cultivation of biotech crops, expanding market access and control of transnational agricultural corporations, and isolating Europe in the GMO debate. I begin by briefly outlining the scope and causes of the 2002 food crisis in Southern Africa. I challenge the assertion that the crisis

was solely the result of poor governance, arguing instead that the regional food shortage emerged through a combination of factors including climactic variables, international and domestic governance problems, and HIV/AIDS. I then consider the decision of the governments of Southern Africa to reject American food aid despite the looming famine. I argue that the decision to reject US food aid was based not merely on the environmental and health considerations typically raised by biotech's critics, but focused more directly on questions of domestic and international political economy, and on market access to the European Union and the potential premium paid for certified non-GM agriculture in particular. The failure of American policy makers and the biotech lobby to understand the contextual rationality of the decision-making process in Southern Africa exacerbated the crisis while simultaneously undermining the capacity of governments and relief agencies to arrive at direct solutions to the Southern African food crisis.

The Southern African food emergency

Early in the spring of 2002, it became clear that Southern Africa was rapidly slipping into a food crisis. Across the region, over 14 million people were threatened by famine, and an estimated one million metric tons of food was required to meet emergency demand (see [Table 1](#) below).

The trigger for the food crisis was the disruption of normal patterns of cultivation by erratic weather, as heavy rains early in the growing season led to floods, which were followed by long periods of drought. The underlying causes, however, remain disputed. The US State Department was quick to promote its governance agenda. It vilified Zimbabwe and the Mugabe regime, arguing that the current land crisis had disrupted commercial cultivation in the breadbasket of the region. From their perspective, the politicization of the land question in Zimbabwe had undermined production across Southern Africa, turning what

Table 1
Food aid requirements by country

Country	Total affected population	Affected population as percent of total population (%)	Estimated food aid requirements
Lesotho	650,000	31	36,000 MT
Malawi	3.5 million	29	237,000 MT
Mozambique	650,000	3	48,000 MT
Swaziland	250,000	26	20,000 MT
Zambia	2.9 million	26	224,000 MT
Zimbabwe	6.7 million	50	486,000 MT
Regional total	14.4 million	25	1,051,000 MT

Source: Compiled from [Oxfam \(2002\)](#) and [SADC \(2002\)](#).

might normally have been a minor weather problem into a regional crisis. The sentiment was articulated by Representative Henry Hyde, who argued before the US House that,

[T]oday, a self-inflicted food crisis grips [Zimbabwe]. The illegitimate Mugabe regime is squarely to blame. Rarely has promise and production so quickly turned to stagnation and uncertainty. Government-sponsored instability, self-destructive economic policies, and the land invasion and confiscation campaign of the Mugabe regime are the chief causes of food shortages, not only for Zimbabwe, but for the region as well. Zimbabwe's declining economy and continued political uncertainty have led to inflation, higher unemployment, and a rise in prices of staple foods ([US House of Representatives, 2002, p. 7](#)).

Elsewhere in the region, other African governments received a smaller (but not insignificant) share of the blame. While the food crisis in Zimbabwe was attributed primarily (if not exclusively) to the policies of the Mugabe government, poor governance in other countries in the region also contributed to the food crisis. Weather remained the proximate cause of the food shortages, but poor governance by African states also received a portion of the blame. The government of Malawi, for example, was criticized for its decision to sell its maize reserve just months before the onset of the crisis. Representative Benjamin Gilman, for example, argued in the same US House hearings that,

Although the flooding that destroyed much of last year's harvest and the dry weather are the primary causes of the food crisis, politics has also played an important role. The fact that Malawi's grain reserve was recently sold off without any clear explanation raises some very serious questions as to the ability and the willingness of the regional governments to act decisively on this issue and to come to the aid of their own people ([US House of Representatives, 2002, p. 17](#)).

Indeed, the decision of the Malawi government to sell its grain reserves just three months before the food crisis appears to represent a particularly telling example of the poor governance decried by US aid agencies and international financial institutions. The warning signs of famine were already emerging at that time, and regional governments and non-governmental organizations should have been preparing to address the upcoming crisis. But the decision by the government of Malawi to divest its national maize reserve was not solely its own. Indeed, according to Malawi's President Muluzi, the government was "forced [to sell the maize] in order to repay commercial loans taken out to buy surplus maize in previous years." He said that the IMF and World Bank "insisted that, since Malawi had a surplus and the [government's] National Food Reserve Agency had this huge loan, they had to sell the maize to repay the commercial banks" (cited in [Pettifor, 2003, p. 1](#)). The World Bank and IMF demanded that Malawi reduce its grain reserves from 165,000 metric tons to 60,000 metric tons to raise

revenue for debt servicing.¹ However, Malawi went further, selling not just the 28,000 metric tons requested by the World Bank or the more stringent demands of the IMF to sell over 100,000 metric tons but the entire reserve, on the advice of a European Union consultant (IRIN, 2002). According to an ActionAid report, much of the maize reserve was purchased by commercial traders, who purchased the grain and hoarded it until prices rose during the food crisis (Devereux, 2002).

As the crisis unfolded, Malawi's international creditors further undermined the capacity of the state to respond to the emerging food shortages. Accusations of mismanagement and corruption, particularly in the events surrounding the Strategic Grain Reserves sale, led the IMF to suspend debt service relief and other international donors, including the European Union and the United Kingdom, to suspend aid. As a precondition for the resumption of development and assistance programs, Malawi's creditors demanded the state immediately remove all farming and food subsidies to allow the market mechanism to determine food prices (Pettifor, 2003). In the context of the food crisis and associated maize shortages, the market price for basic foodstuffs in Malawi spiraled. Ultimately, the government of Malawi was forced to take out new loans from international creditors to purchase grain on international markets at prices much higher than it received when it was forced to sell its maize reserve just a few months earlier. The decision to sell Malawi's strategic maize reserve in the face of an impending food crisis highlights the problem of poor governance – not in African governments – but in international financial institutions and donor governments and their misguided policy prescriptions for the region.

In many ways, the shortcomings of regional governments have become an easy scapegoat for explaining not just the 2002 food emergency in Southern Africa, but the failure of development in the region more generally. Corruption and financial mismanagement may indeed be a problem, and the Mugabe regime is a particularly easy target. In Malawi, the decision of the government to *exceed* the recommendations of its international creditors, and more generally the process by which the grain reserve was sold, may indeed have contributed to the food crisis that affected the country in 2002. But were such governance failures *solely* or even *primarily* responsible for the food crisis?

¹ In testimony before the British Parliament in July 2002, the IMF's Managing Director, Horst Koehler, placed the blame for the pressure on the Malawi government to sell its maize reserve squarely on the shoulders of the World Bank and the European Union, arguing that, "The IMF is not the scapegoat for everything. The advice (to sell the maize) was given by the World Bank and the European Union it's plain wrong to blame the IMF. Ask the World Bank and the EU what they did. The IMF was part of this process, the IMF may not have been attentive enough; but the decision was with the World Bank and EU." Koehler nevertheless concedes that "there have been mistakes made" in Malawi (Jubilee 2000 UK, 2002, np). This testimony appears to contradict an IMF statement that it "strongly advised the government to reduce the level of the grain reserve to between 30,000 and 60,000 tons, on cost-effective grounds, but not to sell it all off." Based on what were, in hindsight, dramatically inaccurate crop forecasts, the IMF said that the stock would have been replenished through local purchases after the 2001 harvest. According to the IMF, "The advice would have been correct if the information was correct" (cited in Devereux, 2002: 10).

Southern Africa has a long history of endemic droughts. As a region, it regularly experiences highly variable rainfall patterns, with periods of excessive rainfall frequently followed by long periods of drought. Since the end of World War II, Southern Africa has experienced eight major drought periods: 1946–1947, 1965–1966, 1972–1973, 1982–1983, 1986–1988, 1991–1992, 1994–1995, and 2002–2003 (WMO, 1995). According to the Intergovernmental Panel on Climate Change (IPCC), the global warming phenomenon is likely to exacerbate rainfall pattern variability in Southern Africa in the future, triggering more frequent food crises (IPCC, 1997; Hulme, 1996). Periods of heavy rainfall followed by periods of long drought—like the period which preceded the 2002 food crisis—will become more common.²

Amartya Sen's (1980, 1981) work on famines demonstrates, however, that famines are not *caused* by changes in rainfall patterns, though such changes may certainly act as a trigger. Famines result from the inability of people to secure access to food—an “entitlement failure,” to use Sen's terminology. Thus, while regions of the United States may experience drought over an extended period of time, famine does not result because individuals have the capacity to secure food from other sources (e.g. to purchase food produced elsewhere). In Southern Africa, the capacity of individuals to turn to alternative sources of food during times of drought is severely limited by a number of factors: the low level of overall development, the imposition of neoliberal structural adjustment programs, the land question, and the HIV/AIDS crisis, to name but a few. A report by the General Accounting Office attributed the food crisis to a number of factors, including erratic weather, a poorly functioning agricultural sector, poor governance, widespread poverty, and the HIV/AIDS epidemic, none of which would have individually led to famine in the absence of the others (GAO, 2003). Although not articulated by the GAO, the report leads to two conclusions in particular. First, neither poor weather nor poor governance was alone responsible for the crisis. Rather, the crisis was the result of a combination of factors, none of which were entirely under the control of governments in the region. The traditional scapegoat for problems in the region (poor governance), as well as the usual explanation for failures in crop production (weather), are incapable of adequately accounting for the 2002 crisis in the absence of other contributing factors. Second, none of the problems noted by the GAO are simple questions which can be easily resolved through the application of new technologies. Agricultural technologies, however productive, cannot resolve what are by definition social, political and economic questions. This important fact is often overlooked by advocates of biotechnology, who assume that higher yields available through new technologies will resolve

² Southern Africa, including South Africa, is responsible for an estimated 1–2% of global greenhouse gas emissions. Nevertheless, the region experiences significant costs associated with changes in the global climate resulting from greenhouse gas emissions. According to a study by the UN Economic Commission for Africa, Southern Africa can expect an increase in climate-related disasters, as droughts, floods and bushfires ravage the region. Crop yields will decline, water will be less available, and diseases like malaria and cholera will increase (UNECA, 2002).

the problem of hunger in the Third World and would have averted the 2002 crisis in Southern Africa.³

Fighting famine in Southern Africa

Hints of the emerging food crisis emerged as early as March 2001, when the Food and Agricultural Organization reported that flooding and usual dry spells across the region would have a negative impact on productivity in the region. The World Food Program and a number of NGOs, including the Red Cross and Save the Children, launched appeals for emergency relief. But the initial appeals were ignored and donor response was slow. It was not until July 2002 that donations started to flow through the World Food Program. The United States took the lead, providing half of the total food aid requirements of the region.

Shortly after the announcement of US donations, concerns over the inclusion of genetically modified (GM) food in aid shipments were raised in the region. Heavily dependent on trade with the United States under the African Growth and Opportunities Act (AGOA), Swaziland raised no objections to the GM aid. Lesotho, also dependant on AGOA, requested that food aid be milled before distribution but quickly backed down on its request and accepted unmilled food aid.⁴

Malawi, Mozambique, Zambia and Zimbabwe, however, were far more cautious. All four challenged the inclusion of genetically modified maize which had not received regulatory approval in the region in US food aid shipments. The concerns articulated by recipients of GM food aid in Southern Africa centered on three key areas: (1) the potential health impact of GM food on recipients; (2) the impact of GM food on domestic agricultural biodiversity; and (3) the impact of GM food on their ability to export agricultural commodities in the future. The governments of Malawi, Mozambique and Zimbabwe all requested that GM maize be milled before distribution as food aid to prevent farmers from replanting the seed in future years. Zambia, however, refused to accept any GM food aid until a team of Zambian scientists could study the potential health impacts of the maize. After visits to the United States, South Africa and consultations with several European countries, the Zambian panel concluded that the distribution of biotech maize carried a high risk of eroding the genetic diversity of local maize varieties, the safety aspects of biotech foods, including toxicity, allergenicity and antibiotic resistance, were not conclusively resolved, and that there is a potential risk that the cultivation of biotech

³ A full consideration of each of these variables lies outside the scope of this paper. For a more detailed consideration, see Zerbe (2003).

⁴ The African Growth and Opportunities Act (AGOA) applied to 39 African countries in mid-2003 and allows for exports of selected commodities to the United States without the usual duties or customs. The official AGOA homepage is located at www.agoa.gov. AGOA has been widely criticized for imposing numerous restrictions on recipients, including the adoption of neoliberal policies, the privatization of state assets, removal of subsidies and price controls, adopting stronger intellectual property protections, and endorsing US foreign policy. For a more detailed discussion, see Bond (2003).

maize in Zambia could endanger future agricultural exports, especially of baby corn and honey but also of organic foods more generally, to the European Union. Based on the report, the Zambian government rejected the inclusion of genetically modified maize in food aid shipments, even if milled.⁵

Rather than address the challenges raised regarding genetically modified food in the region, the initial response of the US aid agencies was to dismiss critics of biotechnology and genetically modified food as ignorant and uninformed. Following Zambia's decision to reject GM food aid, an anonymous official at the US State Department lashed out, arguing "Beggars can't be choosers" (Weiss, 2002, A12). The US Ambassador to the World Food Program, Tony Hall, argued that Zambia's decision to reject US food aid was a crime against humanity. He accused "well fed" European experts of being selfish, arrogant luddites who were endangering the lives of millions of Africans out of sheer ignorance (Hall, 2002). The discourse emerging in Washington and echoed across a number of UN agencies created the impression that choice facing African governments was either to accept GM food aid or let their populations starve.⁶

As opposition to GM food aid increased, however, the US State Department attempted to instill a more conciliatory tone in the discussion. It sought to "educate" food aid recipients on the safety of GMOs, producing fact-sheets which argued that GM food meets rigorous food safety standards and had been consumed by Americans since 1996 without incident. But the State Department continued to refuse to provide cash rather than in-kind aid or to mill food aid before distribution (US Department of State, 2002). It argued that sufficient supplies on non-GM food aid were not available: the United States does not segregate GM and non-GM grains, and sufficient stockpiles were not available outside of the United States. It also rejected the idea of milling grain before distribution, arguing that the costs associated with milling maize were too high.

⁵ Zambia's steadfast refusal to accept even milled food aid containing genetically modified maize was justified in public discourse in terms of the potential health risks associated with the consumption of GM maize. In reality, however, the decision was likely based not only on this uncertainty, but equally (or perhaps mostly) on the timing of the decision and the influence of domestic maize producers on the policy process. By the time consensus was reached on the decision to mill GM maize before distribution, crop forecasts for the following season were pointing to a maize surplus in the country. Forecasts that Zambia would produce significantly more maize led to concerns among farmer groups over depressed prices, particularly if US food aid would not arrive until harvest time. The need for American food aid was also reduced in Zambia due to the symbolic importance of the country in larger debates between the US and the European Union over agricultural biotechnology. Zambia's refusal to accept GM food aid mobilized greater aid inflows from Europe, thereby reducing the need for American food aid and making Zambia's anti-GM stance more sustainable.

⁶ During the course of the debates over GM food aid in Southern Africa, it emerged that the World Food Program had distributed GM food aid in Latin America, South Asia, Eastern and Southern Africa in recent years without the approval of recipient states. A statement by the head of the World Food Program, James Morris, conceded that "there is no way that the WFP can provide the resources to feed these starving people without using food that has some biotech content" (*Mail and Guardian*, 1 January 2002). Critics of the policy quickly accused the World Food Program of being a mere pawn of USAID (Sharma, 2002).

But US policy on genetically modified food aid in Southern Africa was faulty in several respects. First, significant stockpiles of non-GM food aid were available, despite assertions by the United States government to the contrary. Inside the region, Kenya, Tanzania, South Africa and Uganda collectively held more than 1.6 million metric tons of maize, more than enough to satisfy production shortfalls in drought-affected countries (FAO, 2002). India had more than 33 million metric tons of grains stockpiled. Such grain could be purchased and transported for less than half the cost of grain shipped from the United States (Sharma, 2002). However, unlike European Union aid which is generally purchased from inside the affected region (so-called “triangular aid”), the United States continues to rely almost exclusively on in-kind donations and financial aid tied to the purchase of American agricultural commodities.⁷ The primary beneficiaries of such requirements are clearly American agricultural producers, for whom prices are maintained at artificially high levels.⁸

Even inside the United States, maize is increasingly segregated according to GM content. According to a survey conducted by the American Corn Growers Association in 2001, over half of all US grain elevators segregated maize according to GM content (American Corn Growers Association, 2001). A similar study commissioned by Pioneer Hi-Bred, a leading producer of GM seed, found that nearly 20% of maize elevators refused to accept any GM seed whatsoever (Pioneer Hi-Bred International, 2000). Since 1999, Archer Daniels Midland, the largest US exporter of soya and maize, required its producers to segregate GM and non-GM crops (Reuters, 1999). And since the StarLink scandal in 2001, in which a GM maize variety not approved for human consumption due to potential allergenicity was found in the general food supply, the segregation of GM and non-GM maize has become a common practice for many American producers, handlers and exporters (Greenpeace, 2002). The decision of the US government to distribute GM food in aid packages in Southern Africa clearly was not the result of a lack of non-GM alternatives. Rather than the *inability* to source non-GM food aid, the decision to provide only genetically modified maize to Southern Africa reflected the *unwillingness* of USAID to engage in any discussion of the safety and desirability to GMOs in the region.

US agencies also refused to mill GM maize before distribution. According to them, milling of aid would increase the cost of food aid and reduce its shelf-life by making it more susceptible to pests. But recipients repeatedly stressed the importance

⁷ The information sheet produced by the US Department of State to defend American food aid policies in Southern Africa makes a halfhearted attempt to defend this policy. When asked “Why doesn’t the US donate cash instead of food to food aid programs?”, it replies that, “The United States is able to grow food in enormous capacities. As the world’s largest food exporter, the United States gives most of its food assistance ‘in-kind.’ That is, we send US-produced food commodities abroad and have done so for nearly 50 years. US farmers have widely accepted bio-engineered corn and soy varieties for their environmental and economic benefits” (US Department of State, 2002, np).

⁸ In an oft-cited quotation, USAID acknowledges that, “The principle beneficiary of America’s foreign assistance has always been the United States. . . Foreign assistance programs have helped the United States by creating major export markets for agricultural goods, new markets for industrial exports, and hundreds of thousands of American jobs” (USAID, 1997, p. 4). For a more detailed discussion, see Diven (2001).

of milling maize before distribution. By milling maize, farmers would be unable to replant seed distributed as aid, thereby ensuring that GM maize would not undermine the production of local varieties or endanger access to European markets. For USAID, however, milling was entirely unnecessary. “Starving people do not plant seeds. They eat them!” argued USAID head Andrew Natsios (GRAIN, 2002). But as experience in Mexico demonstrates, farmers will plant GM varieties received as aid, and the new varieties will interbreed with local varieties.⁹

The potential of GM seed received as food aid to cross with local crop varieties was a central concern of recipient countries. Indeed, the call to mill maize seed before distribution, rejected by the US as excessively costly and unnecessary, was intended to reduce precisely this risk. Washington, however, failed both to understand the nature of the concern of the governments of the region and to take them seriously. For Washington, the choice was simple: either accept US food aid unconditionally, or allow your population to starve. For the governments of the region, however, the matter was far more complex. For them, the decision to accept US assistance in the form of GM food aid represented a trade off, not just between the potential short and long term health of their populations, but between the short and long term health of their economies. Although the governments of the region were concerned with the unproven health consequences of consumption of GM maize, the decision of all the states of the region except Zambia to accept milled GM maize demonstrated that the potential health consequences of GM food consumption were less of a consideration than the potential environmental and trade impacts of unintended and unregulated GM production. Some observers were still worried about the untested health effects of GM food, particularly under the conditions in Southern Africa. For them, US assurances that Americans had been consuming GM maize since 1996 did not absolve the potential negative effects of GM maize consumption in Southern Africa, because the conditions of consumption were fundamentally different. The limited tests conducted on the safety of GM maize consumption in the United States did not adequately represent the lived conditions in Southern Africa. First, the quantity of maize consumed in the region far exceeds anything consumed by Americans. Across Southern Africa, maize meal represents the primary staple food, consumed in large quantities at every meal. In the United States, by contrast, maize consumption is fairly limited. Critics of biotechnology in Southern Africa argued that the sheer volume of maize consumed by Southern Africans meant that they were exposed to far greater quantities of GM food (and therefore far greater levels of potential risk) than the tests conducted in the United States. Second, and more importantly, biotech’s critics argued that the effects of consuming GM maize under the near-famine conditions in Southern Africa were vastly different than under the normal conditions of plenty in the United States. The metabolism of food in

⁹ During the food aid crisis, the FAO was criticized for not taking the threat to local genetic diversity seriously enough. The FAO argued that, unlike Mexico, where maize originated, the danger of the unchecked spread of new breeds to local biodiversity in Southern Africa was not particularly important: “Maize is known for its propensity to outcross, but this is less of a concern in Southern Africa where there is no large genetic diversity of this crop” (cited in GRAIN, 2002, np).

the human body may differ when that body is subject to the stress of hunger and famine. They argued that no tests had been conducted to ensure that the consumption of GM maize under such conditions was safe.

But the decision to accept unmilled GM maize represented a more general threat as well. The economies of Southern Africa, particularly Zambia and Zimbabwe, have developed close ties to European markets, and the bulk of agricultural exports from the region are destined for the EU. European consumers have repeatedly expressed distaste for genetically modified foodstuffs. And they have the money to pay a premium for organic agriculture. The potential cultivation of genetically modified seed (especially maize), either accidentally through spills or cross-pollination or through intentional cultivation of such crop varieties by Southern African farmers eager to replant their fields after the drought, endangered regional exports of non-GM crops to Europe. Yet US policy makers initially seemed to be oblivious to concerns about export markets, and the need for the governments of the region to maintain a degree of economic viability and vitality after the crisis.

USAID had failed to anticipate any challenge to the inclusion of GM food in aid shipments. Indeed, at the height of the crisis, the assistant administrator for USAID, Roger Winter, conceded that, “We were not aware that this [GM food aid] suddenly was going to emerge as such a heavy impediment to a timely response in the region” (Robinson, 2002: np). USAID argued that Mozambique and Zambia had, like much of Latin America, accepted US food aid shipments for years without challenge. Similarly, the US Department of Agriculture argued that it was impossible to predict the policies of recipient states regarding GM food aid because of non-transparent decision-making structures and processes (GAO, 2003, p. 30). But challenges to trade in biotech crops had been raised at both the national and regional level. Zimbabwe, for example, had raised concerns regarding the potential adverse environmental and trade impact of biotech products as early as 2001, and both the Southern African Development Community (SADC) and the Organization of African States (OAS) had actively been developing a strong regulatory framework for biotech crops for over five years.

The concerns regarding the unregulated cultivation of GM crops in local production through the importation of GM seed as food aid were only resolved after South Africa – itself a significant producer of genetically modified foods – agreed to intervene and mill US food aid shipments before distribution. Following this concession, Malawi, Mozambique and Zimbabwe agreed to accept milled food aid for distribution.

Zambia, however, continued to resist. It refused to accept any GM food aid, even if milled, from the United States. Consequently, it became a focal point for tensions and accusations between advocates of biotechnology in the United States and critics of biotechnology in non-governmental organizations and the European Union. American and European trade disputes over genetically modified foods, which made their way to the World Trade Organization in May 2003, were central. Zambian President Levy Mwanawasa positioned himself domestically as the champion of Zambian sovereignty: “We may be poor and experiencing food shortages,” he said,

“but are not ready to expose people to ill-defined risks. . . I am not prepared to accept that we should use our people as guinea pigs” (cited in [Cauvain, 2002](#), np).

Outside the region, tensions between the United States and the European Union escalated. The United States argued that Europe’s refusal to certify the safety of genetically modified foods made the EU culpable in the African food crisis. Although the EU publicly stated that the decision of African governments to accept GM food aid would not endanger future exports to Europe, the EU officially refused to state that GM foods were safe. The European Union maintained that the decision on whether to accept GM food aid had to be made by African governments in consultation with the United States.

According to Robert Zoellick, US Trade Representative, the EU’s refusal to reassure hesitant African governments about the safety of biotechnology exacerbated the crisis, ultimately providing justification for the filing of the World Trade Organization case by the United States. Zoellick argued that, “This dangerous effect of the EU’s moratorium became painfully evident last fall when some famine-stricken African countries refused US food aid because of fabricated fears stoked by irresponsible rhetoric about food safety.” For the United States, African caution regarding GMOs stemmed directly from the resistance of European consumers to food biotechnology. American officials went on the offensive. In a speech before the Biotechnology Industry Organization in Washington, DC, President George Bush dismissed European concerns over GMOs as being based on “unsound, unscientific fears,” and argued that the EU moratorium “has caused many African nations to avoid investing in biotechnologies for fear that their products will be shut out of European markets” (cited in [BBC, 2003](#), np).

In its response to the US decision to file a case before the World Trade Organization, the European Commission on 17 June 2003 dismissed the criticisms raised by the United States. The statement is worth citing at length:

Food aid to starving populations should be about meeting the urgent humanitarian needs of those who are in need. It should not be about trying to advance the case for GM food abroad, or planting GM crops for export, or indeed finding outlets for domestic surplus, which is a regrettable aspect of the US food aid policy. In the Southern African food crisis, the US has even refused to fund milling costs, as requested by Zimbabwe and Mozambique in order to avoid any possible concern about the spread of transgenes in those countries. . . The EU policy is to source food aid for emergency situation as much as possible in the region, thus contributing to the development of local markets, providing additional incentives for producers and ensuring that products distributed closely match local consumption habits. ([EC, 2003](#), np).

While a complete analysis of the WTO case over the European Union moratorium on the approval of new GMOs falls outside the scope of this paper, it is important to note that the US decision to file the case only served to highlight the lack of understanding American policy makers had both of the apprehension of European consumers towards agricultural biotechnology and the complexity of the decision making environment in Africa regarding the acceptance of GM food aid. Regardless

of the decision at the World Trade Organization, Europe is unlikely to accept the current generation of GM food, which offers few benefits to the consumer. Already startled by a number of crises involving the safety of food, European consumers steadfastly and overwhelmingly oppose the introduction of genetically modified crops. Even in the United Kingdom, probably the most pro-biotech of European countries, popular opinion has forced supermarket chains to refuse to carry GM foods, and an inquiry commissioned by the government and a long consultative process with the general public has concluded that GM crops carry uncertain risks to the environment. The EU has already proven its willingness to reject WTO decisions where there is scientific uncertainty regarding the potential health effects of a product and strong public support for the continued moratorium (as, for example, in the case of bovine growth hormone, where the EU has accepted the imposition of countervailing sanctions against some of its exports to maintain the moratorium on BGH) (Levidow and Susan, 2000). The implementation of the Cartagena Protocol on Biosafety, the “precautionary principle,” which permits the regulation of GMOs in the context of scientific uncertainty regarding the risks of such organisms, only strengthens the EU’s position. There is therefore little reason to believe that EU policy vis-à-vis agricultural biotechnology would be fundamentally different (Levidow, 2000).

Neither did the United States appreciate the position of African governments. The decision to reject unmilled US food aid in Malawi, Mozambique and Zimbabwe, and to reject all GM food aid in Zambia, was not simply the result of the pressure of special interests in the European Union. African governments were not the unknowing and unwilling pawns in the advancement of the agendas of various non-governmental organizations in Europe. In rejecting US food aid containing GMOs, African governments were operating in the best interest of their countries in the context of the current international political economy. They were attempting to ensure the long-term viability of their economies, centered on agricultural production, in an international economic environment where the deck is stacked against them. Unable to compete with the huge subsidies afforded farmers in the United States and the European Union, African governments were attempting to develop specialized production in non-GM and certified organic agriculture.¹⁰ Given the premium paid for such crops, not just in the European Union but also in Japan and the United States, the decision to accept or reject American food aid had to balance the short term survival of large portions of the population against the long term survival of the economy. American refusal to mill GM maize before its introduction only served to make this decision unnecessarily difficult.

¹⁰ Farm subsidies in the United States and the European Union have increased under the World Trade Organization, despite a commitment from both to reduce subsidies. According to the OECD, the United States provided \$24 billion to agriculture in 1999, accounting for half of all farm income. The level of farm subsidies was increased under the 2002 farm bill. The European Union provides subsidies at similar levels to its farmers under the Common Agriculture Program (OECD, 2000; Zerbe and Carol, 2002).

Conclusion: US food aid policies revisited

Despite resort to humanitarian rhetoric in its attack of European Union policy, the food aid distributed by the United States during the 2002 food crisis in Southern Africa demonstrates the continuing focus on the expansion of American policy objectives which marked earlier aid programs. The steadfast refusal to mill GM maize before distribution as food aid in particular highlights the ways in which American food aid was intended to serve specific American policy objectives. Indeed, three areas in which the decision to send food aid to Southern African advanced American goals can readily be identified: surplus disposal, market development, and foreign policy considerations. Let us briefly consider each.

Surplus disposal

Following the introduction of genetically modified maize in the United States in 1996, maize exports to Europe collapsed. From a peak value of \$305 million in 1995, maize exports to the EU collapsed to just \$2 million in 2001 (USDA, 2003). The increased competition for European markets from non-GM producers left the United States with large quantities of surplus maize which it was unable to sell on international markets. Export to Africa under the banner of food aid disposed of (an admittedly small portion of) the growing maize surplus (Vidal, 2002).

Market development

While surplus disposal played only a minor role in US policy during the food crisis, longer-term market development was more central. USAID has a long history of promoting agricultural biotechnology in Africa. Indeed, the agency has made it its mission to “assist developing countries in building the framework for decision-making that will facilitate access to these opportunities the science [of biotechnology] holds and will ensure the safe and effective application of this technology” (USAID, 2003, np). However, Africa has been at the forefront of challenging the expansion of agricultural biotechnology, and especially of the proprietary system of patent rights that surrounds it—opposition most clearly articulated in the African Model Law on plant genetic resources (Zerbe, 2003). But, for USAID, the food crisis represented an opportunity to expand the promotion of biotechnology on the continent. Faced with the choice of importing GM food aid or allowing their populations to starve, USAID was banking on the governments of Southern Africa to choose GM food.

Foreign policy objectives

As noted above, US biotech corporations had been locked out of Europe since the EU imposed its moratorium on the approval of new GM crops. With no sign of the moratorium being lifted, the United States chose to pursue a more aggressive strategy. In exporting unmilled GM maize to Africa, it seems as if the US was hoping to

expand the cultivation of GM crops in Africa, thereby isolating Europe and undermining its opposition to agricultural biotechnology in international fora. The more countries cultivating GM crops, the more likely US pressure on the European Union (either backdoor diplomacy or public pressure through the World Trade Organization) would be successful. Either way, European markets would again be opened to US maize exports.

But the United States failed to anticipate the strength of African opposition to GM food aid. By demanding that US food aid be milled before distribution, African governments were not simply giving into misguided European fears over agricultural biotechnology. Rather, they were attempting to secure the long-term economic viability of their agricultural sectors. Unable to compete directly against American and European farmers who are heavily subsidized and protected by their governments, African farmers were responding to European demands for non-GM agriculture through specialized production. The importation of GM seed would have undermined their capacity to engage in such specialized production, cutting off an important source of foreign exchange, particularly for Zambia and Zimbabwe. By failing to recognize the importance of non-GM production for the future health and vitality of the economies of Southern Africa, and by demanding that countries accept US food aid unconditionally in an effort to promote its own foreign policy and commercial objectives, the US policy exacerbated the food crisis. What should have been a routine food relief operation became a highly charged debate over the future of agricultural biotechnology not just in Africa but around the world.

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