



Zambia and Genetically Modified Food Aid

By:

Alexandra C. Lewin

**CASE STUDY #4-4 OF THE PROGRAM:
“FOOD POLICY FOR DEVELOPING COUNTRIES: THE ROLE OF
GOVERNMENT IN THE GLOBAL FOOD SYSTEM”
2007**

Edited by:

Per Pinstруп-Andersen (globalfoodsystem@cornell.edu) and Fuzhi Cheng
Cornell University

In collaboration with:

Søren E. Frandsen, FOI, University of Copenhagen

Arie Kuyvenhoven, Wageningen University

Joachim von Braun, International Food Policy Research Institute

Executive Summary

In 2002 the Zambian government rejected 35,000 tons of food aid because of the possibility that it could be genetically modified (GM). During this time roughly 3 million people in Zambia faced severe food shortages and extreme hunger. As the government turned away this food aid, a debate over GM food aid arose globally. The government of Zambia remains firmly against both milled and nonmilled GM food imports. Other governments throughout southern Africa have placed similar restrictions, although most will accept milled GM food aid.

Much of southern Africa remains skeptical of GM food for a number of reasons. Some of the major concerns include potential health effects, environmental effects, cross-contamination between GM seeds (from nonmilled GM food imports) and GM-free crops in Africa, and increased labeling and certification costs for exporting goods to the European Union.

On the other hand, many pro-GM groups throughout Zambia and the rest of southern Africa advocate for the acceptance of GM food aid. These groups commonly believe that the governments of southern Africa are making the wrong decision in denying food assistance to starving individuals. They point to the benefits of GM technology, which may include improved nutrition, decreased pesticide use, increased production and higher yields, and lower production costs.

Zambians remain extremely poor and malnourished. Poor government policies and widespread corruption, as well as a lack of natural resources, a high rate of HIV/AIDS, rapid population growth, and low agricultural productivity, all contribute to Zambia's chronic food insecurity. Zambians' need for food assistance remains great, yet the government continues to turn away GM food aid.

An examination of the stakeholders involved in the administration of food aid can help to illustrate the inadequacies within the food aid system. Stakeholders include international institutions (namely the World Food Programme), U.S. agribusinesses and shippers, nongovernmental organizations (NGOs), and recipient countries' producers, consumers, and importers. The administration of U.S. food aid has come to be known as the iron

triangle, referring to the power of three stakeholders—agribusinesses, shippers, and NGOs—over global food aid and their practices fostering the current structure of food aid programs.

Many international and development experts have faulted the United States for using the food aid system to benefit a small number of U.S. agribusinesses and shippers. NGOs, the third component of the iron triangle, have also been faulted for their dependence on food aid. The United States has increasingly advocated for widespread GM food acceptance, both within southern Africa and the European Union.

Your assignment is to design a policy (or a set of policies) that attempts to ensure the effective use of food aid, while being acceptable to stakeholders within Zambia, other countries in southern Africa, and donor countries. Policies must address the imbalances seen within the iron triangle and, most important, tackle the root causes of poverty in an effort to alleviate the need for food aid.

Background

Zambia's Rejection of GM Food Aid

Three million people in Zambia, nearly one-third of the country's population, continually face severe food shortages. Witnessing the severe malnutrition in Zambia, governments of many high-income countries have offered food assistance. In 2002 Zambia refused 35,000 tons of food aid from the United States because of the possibility that the food could be genetically modified (GM). Food was sent to Zambia, refused by the government, and then rerouted to neighboring countries that accepted the aid.

Since 2002 the food security situation in Zambia has not improved. According to the Zambia National Farmers Union, Zambia has only slightly more than half of its maize strategic national reserves against the estimated requirement (*Business Day* 2005).

Many factors contribute to Zambia's food insecurity. The country has suffered from harsh weather conditions, including extreme drought and erratic rainfall. Government corruption is widespread, as is

the mismanagement of food supplies. Auditor General Fred Siame reported that the corruption amounts to “billions of kwacha being misapplied every day” (Carnell 2001). A general lack of natural resources, distorted trade policies, and the spread of HIV/AIDS add to the chronic poverty that exists in Zambia.

Zambia’s chronic poverty and its hunger crisis, followed by the government’s rejection of food aid, brought the GM food aid debate into the spotlight. Campaigns have since been launched on both sides of the issue; some believe southern Africa should accept GM food aid, whereas others believe that GM food aid should be rejected no matter what the circumstances.

As the largest donor to the World Food Programme (WFP), the United States provides two-thirds of the food aid needed to meet emergencies around the world (*Amber Waves* 2004). Unlike most donor countries, the United States sends direct food shipments from U.S. farms rather than cash donations that recipients can use to buy food locally. In 2000 the U.S. government supplied 61.5 percent of global food aid (*Amber Waves* 2004). As GM crops are increasingly cultivated in the United States, it makes sense that recipient countries would see an increased volume of GM food aid. Since 1995, production of GM crops in the United States has soared, as has U.S. consumption of GM foods.

Before Zambia’s rejection of this aid, the WFP had been freely delivering GM and non-GM food aid for seven years (1995–2002). It was not until Zambia’s rejection that other countries throughout southern Africa became concerned about the possibility of GM food in their region.

Zambia rejects both milled and nonmilled GM foods (Zulu 2005). Agriculture Minister Mundia Sikatana stated, “In view of the current scientific uncertainty surrounding the issue . . . government has decided to base its decision not to accept GM foods in Zambia on the precautionary principle” (BBC News 2002). Sikatana also stated, “In the face of scientific uncertainty, the country should thus refrain from action that might adversely affect human and animal health, as well as harm the environment” (Knight 2002).

Organic producers and the Processors Association of Zambia are also concerned about the health effects, and the president Levy Mwanawasa of Zambia has been known to describe GM foods as “poison.”

The main concern regarding nonmilled GM food is the potential for cross-contamination with other maize varieties. If nonmilled GM food is accepted into Zambia, the seeds can be planted. GM crops could begin growing in the region and breed with non-GM varieties. An influx of GM food in the region, many fear, will cause a sharp decline in southern Africa’s ability to export to the European Union (EU).

Countries in the EU have strict GM food import standards. If southern African countries accept nonmilled GM food aid and then want to export their goods to Europe, they must meet the EU’s GM food-labeling requirements. The EU’s strict import policy has the potential to create trade barriers by increasing the cost of exporting goods to Europe. Given that food exports make up roughly 30 percent of Zambia’s gross domestic product (GDP), a market loss in this sector would be extremely detrimental to the country’s economic and social well-being (Agence France Presse 2003).

Rejecting GM food, however, comes with a price. In 2002 Zambia rejected a US\$50 million line of credit from the U.S. Department of Agriculture upon discovering that the agreement would force Zambia to purchase GM commodities (Zulu 2005; Esipisu 2002).

Because Zambia has refused to distribute GM food aid to its people, the WFP has kept this aid in storage units in the country. In 2004 villagers raided these units and stole the GM maize. Shortly afterward, the government increased its efforts to gain support for its rejection of GM foods. Also in 2004 GM soya was reported to have been smuggled into Zambia. The Zambian Minister of Agriculture and Cooperatives Mundia Sikatana stated that, “The government is going to improve phytosanitary surveillance measures at all border posts to inspect all agricultural products coming into the country” (Xinhua News Agency 2004).

In response to food shortages and a rise in the domestic price of white maize, Zambia has imported GM-free foods from neighboring countries

(Shacinda 2005). In 2002, for example, Zambia was able to import non-GM maize from Tanzania.

In the past several years the Zambian government has stepped up its legal protection against GM food. Zambia currently follows the Cartagena Protocol on Biosafety (UN Office for the Coordination of Humanitarian Affairs 2004). The protocol was ratified in 2004, and, as stated by the U.S. Department of State, “the objective of this first Protocol to the Convention on Biological Diversity is to contribute to the safe transfer, handling and use of living modified organisms (LMOs)—such as genetically engineered plants, animals, and microbes—that cross international borders. The Biosafety Protocol is also intended to avoid adverse effects on the conservation and sustainable use of biodiversity without unnecessarily disrupting world food trade.” The U.S. Department of State website also states that “the Protocol provides countries the opportunity to obtain information before new biotech organisms are imported. It acknowledges each country’s right to regulate bio-engineered organisms, subject to existing international obligations. It also creates a framework to help improve the capacity of developing countries to protect biodiversity” (U.S. Department of State 2003).

Most important, the protocol now includes both labeling and documentation requirements. For the 87 member states of the protocol, “all bulk shipments of living or genetically modified organisms intended for food, feed or processing are to be identified as ‘may contain LMOs’” (UNEP 2004). Details about the importer and exporter must also be included in the documentation. This binding requirement helps countries know what they are receiving and whether or not the goods contain LMOs. In other words, this new requirement gives developing countries the right to know the background on imported goods, including food aid. The United States, as well as many other large agricultural producers and exporters, has not supported this reform. The protocol does not state how GM commodities are to be labeled, other than identifying them as “may contain LMOs.” In addition, the protocol does not address food safety, segregation of commodities, and consumer product labeling (U.S. Department of State 2003).

In 2005, as part of Zambia’s National Biosafety and Biotech Strategy, the Zambian government introduced new biosafety legislation. This legislation

further regulates GM goods, establishes a National Biosafety Authority, and launches biosafety research. In addition, the legislation penalizes those who fail to abide by this biosafety legislation (UN Office for the Coordination of Humanitarian Affairs 2004).

Support for GM Foods

Despite the anti-GM movement by the Zambian government, many groups in Zambia have lobbied for GM foods. In 2003 the Biotech Outreach Society of Zambia was set up to promote the acceptance of GM technology (Zulu 2005). This group has lobbied the Zambian government on the basis of a study conducted by southern African scientists. Although the study concluded that environmental risk factors for GM crops remain a challenge, it also concluded that GM foods pose no immediate danger to either humans or animals and that nations should accept GM technology because of the potential for increased yields (Geloo 2005). The African Biotechnological Trust and African Biotechnology Stakeholders Forum have been established by policy makers to increase acceptance of GM crops (Peta 2002b).

It is important to remember that food aid does not occur as an isolated event. It is entirely tied to the chronic poverty that pervades much of Africa. If the economic and social well-being of these countries improved, perhaps the need for food aid would disappear altogether and a discussion about GM food aid would be unnecessary.

Stakeholders

As the issue of GM food aid becomes increasingly contentious among donor countries, recipient countries, NGOs, and international institutions, it is important to examine the role each stakeholder plays in the context of Zambia’s (and the majority of southern Africa’s) food crisis.

The United Nations/World Food Programme

In 2002 the UN issued the following statement regarding GM food:

There are no existing international agreements yet in force with regard to trade in

food or food aid that deal specifically with food containing GMOs [genetically modified organisms]. It is UN policy that the decision with regard to the acceptance of GM commodities as part of food aid transactions rests with the recipient countries and that is the case in southern Africa. It is WFP policy that all donated food meet the food safety standards of both the donor and recipient countries and all applicable international standards, guidelines and recommendations.

Based on national information from a variety of sources and current scientific knowledge, FAO, WHO and WFP hold the view that the consumption of foods containing GMOs now being provided as food aid in southern Africa is not likely to present human health risk. Therefore, these foods may be eaten. The Organizations confirm that to date they are not aware of scientifically documented cases in which the consumption of these foods has had negative human health effects (FAO 2002).

In addition to the UN statement, the WFP sets its own policy regarding GM food assistance. The WFP's proposed policy concerning GM-food aid is as follows (WFP 2003):

Food aid must, from a legal standpoint, adhere to the same laws and international agreements that apply to commercial agricultural trade. WFP food donations must, therefore, meet internationally agreed standards that apply to trade in food products. Where such standards do not currently exist—as is the case with trade in GM/biotech foods—the Programme has no legal authority to impose them and must respond instead to applicable national regulations, if such exist. It is not the legal prerogative of WFP to impose standards on commercial food transactions involving Member States without their expressed consent or to offer technical advice on the desirability or formulation of food-import regulations.

WFP requires its country offices to keep abreast of and comply with all national

regulations on the importation of food, including any that may relate to GM/biotech foods. Such regulations must be followed as rations are developed, procurement actions are undertaken, and country offices seek the agreement of beneficiary governments to import food aid donations, whether purchased or provided in-kind. WFP continues to maintain its long-standing policy that only food that is approved as safe for human consumption in both the donor and recipient countries should be used as food aid. Country offices are expected to comply fully with existing national import policies, whatever form they may take.

WFP anticipates that the Cartagena Protocol will take effect later in 2003. As ratifying nations adapt their import regimes to reflect the provisions of the Protocol, WFP country offices will be expected to comply with any consequent changes in national import regulations.

Within the framework outlined above, the Programme will continue to accept donations of GM/biotech foods. If a donor does not wish to have its cash donations used to purchase GM foods, the Programme will comply with any such request.

The WFP also “complains that its work to assist the millions of hunger-affected Zambians has become ‘more difficult’ due to the continued ban of GM food in the country.” Because the United States is the largest food aid donor, the WFP said it was difficult to find non-GM food aid (Afrol News 2002).

Stakeholders in the United States

As governments throughout southern Africa placed restrictions on GM food imports, the United States increased its lobbying efforts, advocating for GM food aid acceptance. U.S. pro-GM food aid campaigns were visible at both the 2002 World Food Summit in South Africa and the World Summit on Sustainable Development in 2003.

The Iron Triangle. The “iron triangle” is often used to describe the state of U.S. politics, specifically the

close policy-making ties between Congress, special interest groups, and government bureaucracies. In this case, however, the iron triangle refers to the power of three groups that foster the current system of food aid: (1) a small number of food vendors (agribusinesses); (2) a small number of shippers; and (3) NGOs (Barrett and Maxwell 2005).

Food aid has been driven by donors (mainly their domestic farm and foreign policy concerns), rather than the recipient countries (Barrett and Maxwell 2005). A U.S. law requires that 75 percent of U.S. food aid is sourced, fortified, processed, and bagged in the United States (Lobe 2005). Food aid, then, is directly tied to subsidized food grown in the United States. USAID buys the surplus of subsidized food and sends it as direct food aid shipments, creating a guaranteed market for U.S. agribusinesses. The largest beneficiaries of this system are Cargill and Archer Daniels Midland. In 2004 more than US\$700 million in food commodities were sold by just four companies and their subsidiaries to USAID's food aid program (Ghosh 2005).

The iron triangle representing food aid also guarantees business for a limited number of shippers. Another U.S. law states that 75 percent of all food aid must be transported on U.S.-flagged vessels. The U.S. shipping industry handles only 3 percent of U.S. imports and exports yet is required to ship three-quarters of U.S. food aid overseas. The cost of exporting food aid on U.S. vessels has raised the price of transportation nearly 80 percent (Lobe 2005). More than half of the US\$300 million spent to ship food aid exported in 2004 was gained by just five shipping companies (Ghosh 2005).

The third group affiliated with the iron triangle consists of NGOs. Many of these charitable organizations depend on food aid for much of their annual budgets. In 2001 food aid accounted for one quarter to one half of the budgets of CARE and Catholic Relief Services (Dugger 2005). NGOs like these, known for distributing food in low-income countries, have actually become grain traders. In an effort to generate revenue for their anti-poverty programs, NGOs like these have been found selling large volumes of donated food on local markets. Chris Barrett has pointed out that the costs of transporting, storing, and administering food eat up at least 50 cents of each dollar's worth of food aid, so this approach is not an effi-

cient way to finance long-term development (Dugger 2005).

The United States vs. the European Union. As some governments in Africa reject these GM crops, the United States finds itself pitted against the European Union. The EU has always been much more skeptical of GM foods than has the United States. Between 1999 and 2002, the EU banned GM crops. By the end of 2002, however, the EU decided to allow GM food imports. The new regulations require GM goods to be labeled with a DNA code bar.

During the time that the EU was most wary of GM imports, the United States was pressuring Africa to accept GM food aid. The EU's initial rejection of GM food led to much of Africa's nervousness regarding GM food assistance; if GM seeds contaminated their non-GM crops, Africa's trade relations with the EU could be negatively impacted. Between 1999 and 2002, GM food would have been blocked from EU markets. Since then, labeling requirements have the potential to increase the costs of exporting GM agricultural products to Europe.

The United States has pressured the EU to accept GM crops more widely. In 2003 the United States filed a complaint with the World Trade Organization (WTO) against the EU, stating that "the EU countries have unjustifiably halted approval of new GMO crops since 1998—effectively excluding a growing portion of U.S. farm trade" (Agence France Presse 2003). Argentina, Canada, and Egypt joined the United States in filing this WTO case; supporting third parties included Australia, Chile, Colombia, El Salvador, Honduras, Mexico, New Zealand, Peru, and Uruguay (Pegg 2003). Soon after, however, Egypt, the only African country to support the WTO challenge, withdrew its support owing to both consumer and environmental concerns (Friends of the Earth 2003).

The United States has also accused Europe of spreading "disinformation" against GM foods. Perhaps, some believe, this campaign is an attempt to "settle trade scores between European and U.S. companies at the expense of the poor in Africa" (Peta 2002b). In 2003 former U.S. president Jimmy Carter stated at a benefit for Africa, "It has been very grievous to me ... to hear some either misguided or deliberately lying people in Europe,

to propagate the idea that somehow genetically modified seeds are poisonous" (Reuters 2003).

In June 2003 President Bush gave a speech to the U.S. biotechnology industry, stating, "For the sake of a continent threatened by famine I urge the European governments to end their opposition to biotechnology ... many African nations avoid investing in biotechnology, worried that their products will be shut out of important European markets" (Mulvany 2004).

HIV/AIDS Programs and GM Foods. The United States has linked GM foods with HIV/AIDS programs. With the highest HIV/AIDS infection rates in the world, southern Africa needs assistance to help control this disease. The United States has made GM food available to AIDS patients to help increase the food supply to those infected with this disease. In 2003 Tommy Thompson, then U.S. secretary of health and human services, urged Zambia to rethink its anti-GMO policy. Thompson stated, "It was a wrong decision by the government and I hope they rethink it. We are going to make more food available to AIDS patients and the government must decide" (Shacinda 2005).

Non-GM Food Aid. It is important to note that the United States has offered non-GM food aid to many countries in southern Africa, as well as help in assessing the safety of GM-grain (Dow Jones Business News 2002). In 2002 Andrew Natsios, the USAID administrator at the time, stated, "We offered non-GM foods, but they all declined to accept it. We would have preferred to send non-GM wheat or rice, but they only wanted maize. We tried to source non-GM maize, but the industry said they could not guarantee that it was GM-free" (Vidal 2002). In Zambia, the staple food is maize, not wheat or rice.

Zambia and Other African Countries

Countries within southern Africa have distinct policies regarding GM food imports. Some reject all GM food; others allow it in the country if it is first milled; and others have no restrictions regarding GM food imports. Within these countries, individuals hold a diverse set of opinions on GM food.

Producers and consumers in Africa have a variety of general GM food concerns. Some fear that an

increase in GM production will decrease the diversity of crops throughout southern Africa. Many believe that reliance on fewer species is risky; if a disease were to arise that these GM crops could not withstand, or if an insect becomes resistant to the pesticide, an entire crop could be wiped out. Another shared concern is the cross-contamination of GM crops with non-GM crops. If crops become GM-contaminated, consumers may be unaware of whether or not the food they are consuming is GM-free; producers may be concerned about their ability to export to Europe. Some Africans believe GM food could have adverse health effects. Although they are now in the majority of foods consumed in the United States, many do not believe that food-safety testing for GM food is adequate. Another major concern is the control of biotechnology by only a few multinational companies. Some within Africa fear a loss of food sovereignty as the multinationals grow and dominate the seed market.

Other producers and consumers, however, may want access to GM food aid. In the face of starvation, poor Africans have taken extreme measures, such as eating soil, roots, and leaves, just to stay alive. They are often unhappy that their governments are making decisions for them. It is a widespread belief that if Africans resort to these types of emergency coping strategies, they should not be denied access to GM food (Peta 2002a).

Producers may also want to increase GM imports. GM foods have proven beneficial in South Africa. Often GM seeds can reduce the amount of pesticides needed, increase yields, and provide increased nutritional value. By decreasing production costs, GM seeds could also raise profits for producers. Without the opportunity to grow GM seeds, producers may be missing out on both increased domestic production (and consumption) and a large potential export market.

Governments in southern Africa, however, are almost unanimous in placing some kind of limitation on GM food imports. Of these countries, Zambia and Zimbabwe have garnered the most media attention. South Africa is the only country in the 14-nation Southern African Development Community (SADC) that has licensed the production of transgenic crops, including both cotton and maize. Currently, about 80 percent of South Africa's cotton farmers are using GM seeds,

leading to higher yields, a lighter workload, and less money spent on pesticides (Reynolds 2003).

Selected examples of governments throughout southern Africa and their attempts to limit GM food imports are described below.

Zimbabwe. Just 40 percent of Zimbabwe's consumption needs can be met from its domestic production (FAO 2003). Between 2000/2001 and 2001/2002, Zimbabwe's maize harvest fell by 50 percent. In 2002/2003 its grain harvest was expected to fall a further 50 percent (ACT International 2002), yet the country is adamant against importing nonmilled GM food aid (Business Day 2005). President Robert Mugabe has rejected thousands of tons of corn and sent it elsewhere in an effort to prevent it from being planted as seed (Corey 2003).

Although the government of Zimbabwe has largely rejected GM food aid, many citizens have expressed their desire for this GM food. Decisions made in Harare may prevent food from reaching those who need it most.

Angola and Sudan. Sudan has imposed restrictions requiring that food imports be non-GM certified. Under U.S. pressure, however, the Sudanese government put in place an interim waiver on the GM food restriction until July 2004 and then extended the waiver for another six months, through at least January 2005 (African Centre for Biosafety and EarthLife Africa 2004).

Concerned with biosafety and biodiversity, Angola has insisted that food aid, if GM contaminated, must be milled before it can be accepted into the country (Reuters 2004).

USAID and WFP have criticized the decisions of these two countries (African Centre for Biosafety and EarthLife Africa 2004). These organizations have pressured both countries to remove these restrictions; the WFP has said that Angola's food aid would decline if it must first be milled (Reuters 2004).

In 2004, 60 African farm campaigners signed an open letter to the WFP stating that the United States pressured both Angola and Sudan to accept GM food imports. This letter included signatures from the South Africa-based African Center for

Biosafety and Biowatch, Friends of the Earth Nigeria, Namibia's Earthlife Africa, and Sudan's Ecoterra (Reuters 2004).

"The protest letter points out that the WFP knew as long ago as May 2003, the Sudanese government intended to impose restrictions on GM food aid. Furthermore, they allege that the WFP must also have been aware of the August 2003 recommendations of the Advisory Committee on Biotechnology and Biosafety of the Southern African Development Community, (SADC), of which Angola is a member, that its member states mill all GM grain before accepting it as food aid. Thus, they say, the WFP has had adequate advanced warning to react to the decisions taken by the governments of Angola and Sudan in an appropriate and timely manner" (African Centre for Biosafety and EarthLife Africa 2004).

Other African Countries. Other African countries have introduced bans and restrictions on GM imports as well (Mayet 2005):

- Algeria introduced a ban on the import, distribution, commercialization, and use of GM plant material in December 2000.
- Benin prevents imports of GM food aid, with a moratorium on GM imports until national legislation comes into force.
- Lesotho has permitted the distribution of nonmilled GM food aid, alerting citizens that grain should be consumed and not cultivated (no monitoring in place).
- Mozambique's government prepared to accept GM food aid if maize is milled before distribution.
- Namibian government rejected GM maize in 2002 and instead received wheat for food aid.
- Nigeria's government prepared to accept GM food aid provided maize is milled before distribution.
- Swaziland permitted the distribution of nonmilled GM food aid, alerting citizens that aid is to be consumed and not cultivated (unclear if monitoring is in place).

Lobby Groups

In addition to international institutions, donor countries, and recipient countries, lobby groups around the world have voiced their opinions on GM food aid. Selected examples are listed below.

Greenpeace. In 2002 Annette Collier, the GM campaign coordinator for Greenpeace in South Africa stated, "When it comes to famine, telling anybody not to eat GM food in this situation is a position we absolutely cannot take." Collier also said that Greenpeace has not changed its stance that "GM food is not the long-term solution to the African situation" (Johnson 2002).

Friends of the Earth International. Friends of the Earth International (FOEI), a "federation of autonomous environmental organizations from all over the world," believe that countries should have the right to reject GM foods (FOEI 2007). A report by FOEI states, "To date, GM crops have done nothing to alleviate hunger or poverty. The great majority of GM crops cultivated today are used as high-priced animal feed to supply rich nations with meat. More than four out of every five hectares of GM crops are engineered to withstand the application of proprietary herbicides sold by the same company that markets the GM seed, and have little if any relevance to farmers in developing countries who often cannot afford to buy these chemicals" (FOEI 2007).

CORE. CORE, the New York-based Congress of Racial Equality, has focused their GM efforts against Greenpeace. Because of Greenpeace's efforts against GM technology in agriculture, CORE believes that Greenpeace is worsening Africans' situation by helping them stay poor, sick, and underdeveloped (CORE 2003).

Policy Options

Although the WFP sets the framework for food aid, it is really the policies of the United States and countries throughout southern Africa that influence the actions of the WFP.

U.S. Policy Options—Emergency Food Needs

Understanding the iron triangle of food aid helps explain the need for policy change. The iron tri-

angle of food aid currently benefits a handful of large agribusinesses, shippers, and NGOs.

The United States has distinct policy options for helping increase the effectiveness and fairness of food aid programs. The first set of policy options address the more immediate need for aid and the current food shortages.

In *Food Aid after Fifty Years*, Barrett and Maxwell propose a number of potentially effective policy options for food aid donors like the United States. The book argues that food aid should be used only if there is problem with food availability, together with market failures that contribute to lack of access to food. If local markets are functioning well, food aid should not be sent. Instead, the authors say, it is more effective to provide cash transfers or jobs to targeted recipients. If local markets are not functioning well and there is sufficient food available nearby to fill the gap, food aid can be provided through local purchases. Last, if local markets are not functioning well and there is insufficient food available nearby to fill the gap, food aid should be provided through intercontinental shipments (Barrett and Maxwell 2005).

The Institute for Agriculture and Trade Policy has called for a transition to untied, cash-based food aid. This proposal would include the phasing out of all sales of food aid and monetization and impose strict limitations on shipping food aid over long distances, except in emergencies (Lobe 2005).

In 2005 the Bush Administration proposed a new law that would allow the U.S. government to buy food in Africa for Africans facing food shortages. Instead of paying large sums to ship food aid from the United States, this proposal would enable U.S. food assistance to be purchased closer to recipient countries. Both Oxfam and CARE supported this change, but it was rejected by Congress.

Even if the Bush proposal were to be accepted, the United States would likely continue shipping some food aid from its shores. Consequently, one option may be to force all U.S. growers to separate GM and non-GM grains. USAID could buy from growers knowing whether or not they were getting GM food or GM-free food. This change would make it easy for USAID to purchase food that would then be accepted by African countries (Greenpeace 2002). In 2004 a survey by the

American Corn Growers Association found that almost one-quarter (23.7 percent) of U.S. grain elevators were already “requiring segregation of biotech corn from conventional corn varieties” (American Corn Growers Association 2004). The segregation of products, however, may cause a price increase for both GM and GM-free foods.

Another option is to send only milled GM food aid to Africa so that the United States does not have to differentiate between countries that accept GM crops and those that accept only milled GM foods.

As the United States continues to increase its cultivation of GM crops and send in-kind food donations to southern Africa, it is boosting the marketing of transgenic crops in these regions. USAID has several marketing campaigns underway to foster the acceptance of GM food aid. They have recently set up CABIO, a biotechnology initiative designed to market GM foods in the developing world. Before CABIO, USAID established the Agricultural Biotechnology Support Group, which “pushed African governments to introduce intellectual property legislation, clearing the way for biotech corporations to operate in Africa” (Greenpeace 2002). USAID also funds the International Service for the Acquisition of Agri-biotech Applications (ISAAA). ISAAA, a pro-GM advocacy organization, pressures the developing world to adopt biotechnology. Other sponsors of the ISAAA include Monsanto, Syngenta, Pioneer Hi-Bred, Cargill, and Bayer CropScience (Greenpeace 2002).

U.S. Policy Options—Long-Term Strategies

The United States could invest in programs to address the internal challenges fueling much of southern Africa’s chronic poverty. Investments in health programs, infrastructure, increased agricultural productivity, and transparent governance are just a few policy arenas where the United States may prove useful.

The least likely, but perhaps most effective, policy change would be for the United States to reform its domestic agricultural subsidy programs to eliminate surplus production. Without this surplus, the United States could look for other methods of aid that could benefit both the United States and countries throughout southern Africa.

Policy Options in Southern Africa— Emergency Food Needs

Two arenas are in great need of reform. First, policies to address emergency food needs must be set in place. Second, and most important, policies must be established that work to overcome the root causes of poverty in Africa and the internal challenges faced by these countries.

Policies to address food emergencies should include a coherent policy toward GM food aid, as well as methods for using assistance from donor countries effectively. Governments in southern Africa can choose to either reject or accept GM food aid; they can also demand that GM food be milled before crossing their borders. The 14-member SADC recommends that its members accept milled GM grains. In addition, these countries can decide whether or not they want to invest in biotechnology and make transgenic crops a reality in their region.

If countries decide not to accept GM food aid, they must come up with other ways to overcome the food shortages in their region. The African population is growing by 3.5 percent a year, whereas African agriculture is growing by less than 2 percent a year—not fast enough to feed the continent’s growing population (Peta 2002a). Countries in need of aid could seek non-GM imports from surrounding countries.

Policy Options in Southern Africa—Long-term Strategies

The second set of policies must address medium- to longer-term strategies necessary to create greater sustainability, including improved social and economic well-being. Some of the issues most in need of attention include poverty reduction, access to basic services and farm inputs, the creation of buffer grain stocks (which can decrease overall vulnerability to food shortages), improved infrastructure (especially roads), and increased agricultural production. The majority of these issues can be addressed through decreased government corruption, transparent governmental bodies, and accountability within the administration.

Many agree that an integrated approach is necessary for sustainability. The United Nations has discussed how to achieve a Green Revolution in

Africa. A senior official with the UN International Fund for Agricultural Development stated that “a Green Revolution in Africa could mean increased use of chemical fertilizers and high-yielding crop varieties that can survive in harsh terrains that are subject to recurrent drought” (Brough 2003). This same official stated, “The challenge in Africa is to achieve increased agricultural productivity in harsh or risk-prone environments,” referring to the need for crop varieties that can cope with less rainfall, poorer soils, and a high level of pest attacks (Brough 2003).

Assignment to Students

Your assignment is to design a policy (or a set of policies) that attempts to ensure effective use of food aid, while being acceptable to stakeholders within Zambia, other countries in southern Africa, and donor countries. Policies must address the imbalances seen within the iron triangle and tackle the root causes of poverty in an effort to alleviate the need for food aid altogether.

Additional Readings

Barrett, C., and Maxwell, D. 2005. *Food aid after fifty years: Recasting its role*. London: Routledge.

Guest, R. 2004. Africa earned its debt. *New York Times*, October 6.

References

American Corn Growers Association. 2004. New national survey of over one thousand grain elevators shows twenty-four percent require GMO corn variety segregation; twelve percent report offering premiums for non-GMO corn. Press release, October 25.
http://www.acgf.org/programs/news_releases/index.htm.

ACT (Action by Churches) International. 2002. Food crisis threatens more than 14 million people.
http://act-intl.org/news/dt_nr_2002/dtsouthernafrica0302.html.

African Centre for Biosafety and EarthLife Africa. 2004. African groups accuse WFP and USAID of denying Africa's right to choose to reject GM food aid. Press release, May 4.
<http://www.gmwatch.org/archive2.asp?arcid=3416>.

Afrol News. 2002. Continued pressure against Zambia on GM food. October 29.
http://www.afrol.com/News2002/zam009_gmo_foodaid3.htm.

Agence France Presse. 2003. EU intransigence on GMOs hurts Africa, Asia. May 13.
http://archives.foodsafetynetwork.ca/agnet/2003/5-2003/agnet_may_14.htm.

Amber Waves. 2004. Fifty years of U.S. food aid and its role in reducing hunger. U.S. Department of Agriculture, Economic Research Service.
<http://www.ers.usda.gov/Amberwaves/September04/Features/usfoodaid.htm>.

Barrett, C., and Maxwell, D. 2005. *Food aid after fifty years: Recasting its role*. London: Routledge.

BBC News. 2002. Famine-hit Zambia rejects GM food aid. October 29.
<http://news.bbc.co.uk/2/hi/africa/2371675.stm>

Brough, D. 2003. UN's Annan urges 'Green Revolution' in Africa. Reuters, February 21.
<http://www.cropchoice.com/leadstryca90.html?recid=1413>.

Business Day. 2005. Zambia lifts its ban on maize. August 29.
<http://www.businessday.co.za/articles/world.aspx?ID=BD4A85399>.

Carnell, B. 2001. Zambia needs food aid; Internal audit finds massive government corruption. July 31.
<http://www.overpopulation.com/articles/2001/000079.html>.

CORE (Congress of Racial Equality). 2003. Greenpeace miss-guided: CORE blasts lethal Greenpeace polices. Press release, May 8.
http://www.core-online.org/News/archived_news/greenpeace.htm.

Corey, C. April 2003. Most of Africa interested in biotech food, USAID's Natsios tells Congress. U.S. Department of State.

- http://italy.usembassy.gov/viewer/article.asp?article=/file2003_04/alia/A3041130.htm
- Dow Jones Business News. 2002. U.S. offers Zambia assistance to assess safety of GM corn. August 28.
<http://www.gene.ch/genet/2002/Sep/msg00000.html>.
- Dugger, C. 2005. African food for Africa's starving is roadblocked by Congress. *New York Times*, October 12.
<http://www.nytimes.com/2005/10/12/international/africa/12memo.html?ex=1286769600&en=1bc36f245d786ce8ei=5088partner=rssnytemc=rss>.
- Espisú, M. 2002. Eat GM food or starve, America tells Africa. Reuters, July 26.
<http://www.hartford-hwp.com/archives/45/235.html>.
- FAO (Food and Agriculture Organization of the United Nations). 2002. UN statement on the use of GM foods as food aid in Southern Africa. August 27.
<http://www.fao.org/english/newsroom/news/2002/8660-en.html>.
- . 2003. UN agencies warn that food aid needs in southern Africa remain substantial. June 13.
<http://www.fao.org/english/newsroom/news/2003/19403-en.html>.
- Friends of the Earth. 2003. Egypt withdraws from WTO GM complaint. Press release, May 28.
http://www.foe.co.uk/resource/press_releases/egypt_withdraws_from_wto_g.html
- FOEI (Friends of the Earth International). 2007. *Who benefits from GM crops?*
<http://www.foei.org/publications/pdfs/gmcrops2007full.pdf>.
- Geloo, Z. 2005. The rise and fall of the GM debate in Zambia. PANOS/AII Africa Global Media, May 3.
http://www.bioportfolio.com/may_05/05_05_2005/The_Rise_and_Fall_of_the_GM.html
- Ghosh, J. 2005. The murky world of food aid. *Political Affairs Magazine*, October 26.
<http://www.politicalaffairs.net/article/view/20891.Knight>, W. 2002. Zambia bans GM food aid. October 30.
<http://www.newscientist.com/article.ns?id=dn2990>.
- Greenpeace. 2002. Bush using famine in Africa as GM marketing tool. October.
<http://www.greenpeace.org.uk/MultimediaFiles/Live/FullReport/5243.pdf>.
- Johnson, K. 2002. Among food activists in Europe, famine sparks GMO revisionism. *Wall Street Journal*, September 3.
- Lobe, J. 2005. Group slams the "iron triangle" of food aid. Inter Press Service, July 29.
<http://www.commondreams.org/headlines05/0729-03.htm>.
- Mayet, M. 2005. GM crops for Africa? No thanks! Institute of Science in Society. April 10.
<http://www.i-sis.org.uk/GMCFANT.php>.
- Mulvany, P. 2004. The dumping-ground: Africa and GM food aid. Open Democracy, April 29.
http://www.opendemocracy.net/ecology-africa_democracy/article_1876.jsp.
- Pegg, J. R. 2003. U.S. challenges Europe's policy on biotech crops. Environmental News Service, May 14.
<http://www.ens-newswire.com/ens/may2003/2003-05-14-10.asp>.
- Peta, B. 2002a. Accept GM foods or starve. *Sunday Independent*, October 19.
http://www.int.iol.co.za/index.php?set_id=lg&click_id=68&art_id=ct20021019205031398F300434.
- . 2002b. South Africa defies European pressure to favour GM foods.
<http://environment.independent.co.uk/article132761.ece>
- Reuters. 2003. Carter: Africa needs GM crops. September 5.
<http://www.biotech.wisc.edu/SEEbiotech/seemail/sept2003/090503.html#cart>
- . 2004. African groups criticise U.S. over GMO food aid. May 4.
<http://www.forbes.com/business/newswire/2004/05/04/rtr1358095.html>.
- Reynolds, T. May 2003. GM cotton gives more for less for S. Africa farmers. Reuters.
<http://www.planetark.org/dailynewsstory.cfm/newsid/20705/story.htm>

- Shacinda, S. 2005. Zambia to buy 200,000T Maize from South Africa, Tanzania. Reuters. September 15.
http://www.absp2.cornell.edu/newsroomarchives/dsply_news_item.cfm?articleid=279.
- Townsend, M. 2002. Blair urges crackdown on Third World profiteering. *The Observer* (UK), September 1.
http://observer.guardian.co.uk/uk_news/story/0,6903,784262,00.html.
- Tren, R. 2003. Greenpeace policies keeping Africa poor. *East Africa Standard*.
http://www.igreens.org.uk/greenpeace_policies/keeping_afri.htm.
- UNEP (United Nations Environment Programme). 2004. UN announces new measures to boost safety in trade of genetically modified organisms. March 1.
<http://www.globalpolicy.org/socecon/trade/gmos/2004/0301protocol.htm>.
- UN Office for the Coordination of Humanitarian Affairs. 2004. Zambia: Government drafts bio-safety legislation. December 14.
<http://www.irinnews.org/report.asp?ReportID=44657>.
- U.S. Department of State. 2003. *Fact sheet: Cartagena Protocol on Biosafety*. July 21. Bureau of Oceans and International Environmental and Scientific Affairs.
<http://www.fas.usda.gov/info/factsheets/biosafety.asp>.
- WFP (World Food Programme). 2003. WFP policy on donations of foods derived from biotechnology. May 29.
<http://www.wfp.org/eb/docs/2003/wfp016888~3.pdf>.
- Xinhua News Agency. 2004. Banned genetically modified soya beans smuggled into Zambia. December 7.
http://news.xinhuanet.com/english/2004-12/07/content_2305556.htm.
- Zulu, B. 2005. As drought takes hold, Zambia's door stays shut to GM. April 21.
<http://www.scidev.net/content/features/eng/as-drought-takes-hold-zambias-door-stays-shut-to-gm.cfm>.