

# VOICES FROM AFRICA

AFRICAN FARMERS AND ENVIRONMENTALISTS SPEAK OUT  
AGAINST A NEW GREEN REVOLUTION IN AFRICA

edited by Anuradha Mittal with Melissa Moore





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# ACKNOWLEDGEMENTS

We are grateful to the authors and organizations for giving us permission to use the articles in this report.

This publication was supported by grants to the Oakland Institute from Domitila Barrios de Chungara Fund, the Further Foundation, Grassroots International, the Panta Rhea Foundation, the Presbyterian Hunger Program, Peter Rasmussen and Wei Zhang of the He-Shan World Fund (Tides Foundation), and the Vervane Foundation. Our deepest appreciation to Lionel Derencourt at the Presbyterian Hunger Program and Nikhil Aziz at Grassroots International for supporting this work. We also want to acknowledge our individual members whose valuable support makes our work possible.

The recommendations and views expressed in this report are those of the Oakland Institute and the authors, and do not necessarily represent those of the funders.

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Design: Amymade Graphic Design, [amymade@gmail.com](mailto:amymade@gmail.com)

Photograph Credits: We are grateful to Aksel Nærstad of the Development Fund, Norway; Grassroots International; and IFAD for photos used in this report.

Cover Photo: Seed Sovereignty: Farmers display seeds from around the world at the Nyéléni World Forum for Food Sovereignty 2007. Photo Courtesy of Grassroots International.

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## *Note*

*This report uses various phrases and acronyms including genetically engineered (GE), genetically modified (GM), and genetically modified organisms (GMOs) to describe genetic engineering and genetically engineered crops.*

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Food Sovereignty Banner, Nyéléni World Forum for Food Sovereignty 2007  
Credit: Photo Courtesy of Grassroots International

# INTRODUCTION

by Anuradha Mittal

Chronic hunger affects hundreds of millions of people worldwide but it is most deeply entrenched in Africa. In 2004, the United Nations Food and Agriculture Organization (FAO) estimated that the number of chronically malnourished in the world had increased to 854 million, with the situation in sub-Saharan Africa being the most dire: the absolute number of hungry people increased from 169 million to 212 million.

This grave situation was further worsened by an 83 percent increase in global food prices between 2005 and 2008. Provisional FAO estimates show that rising prices have plunged an additional 75 million people globally below the hunger threshold, of which 24 million are in sub-Saharan Africa.

A crisis of this proportion raises major questions about industrial agriculture and how best to address the needs of the hungry. The global food crisis requires intervention and a paradigm shift that recognizes agriculture as fundamental to the well-being of all people, both in terms of access to safe and nutritious food and as the foundation of healthy communities, cultures, and the environment. Unfortunately, the 2008 food crisis—especially the widespread hunger and poverty in Africa—is being used to make the case for addressing hunger by increasing agricultural production through technical solutions such as genetically engineered (GE) crops. Nowhere in the process of crafting solutions are the voices and experiences of Africans, especially African farmers, included.

## Conveying a False Sense of Need

In June 2008, the United Nations held a High-Level Conference on Food Security that gained much prominence in the midst of the food crisis and became a key venue to promote genetically engineered food as a solution to world hunger.

At a United States-led briefing on the sidelines of the conference, Ed Schafer, the former U.S. Agriculture Secretary under George W. Bush, urged genetically-modified organisms (GMOs) are key to producing more food by raising yields and growing disease and pest-resistant crops in developing nations. Gaddi Vasquez, the U.S. ambassador to the FAO in Rome, also promoted GM crops as one of the most promising ways to increase crop yields. The Bush Administration even managed to sneak GMOs into the U.S. aid package to ease the world food crisis; the U.S. Agency for International Development was directed to earmark \$150 million of aid for development farming, which includes the use of GM crops.

Yet, months before this U.N. conference an independent and multi-stakeholder assessment of agriculture concluded that a radical change was needed in agriculture around the world. The International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) issued a report, backed by 58 governments, which concluded that agriculture policy and practice must be changed to address hunger and poverty, social ineq-

uities, and environmental sustainability. The report highlighted the lingering doubts and uncertainties surrounding GMOs and held that GM crops are unlikely to play a substantial role in addressing the needs of poor farmers, as the biotechnology industry dominates agricultural research and development at the expense of other agricultural sciences.

Despite the overwhelming opposition to genetic engineering and chemical-input based agriculture, the biotech industry—with assistance from rich donor nations, multilateral institutions, and the philanthropic community—has used the food price crisis to gain support for GM crops. The result of the biotech industry's well-financed publicity blitz based on “green washing” (biotech is environmentally friendly) and “poor washing” (we must accept genetic engineering to increase yields to end hunger, reduce costs, and improve livelihoods of farmers), have been calls for a “new” Green Revolution, especially in Africa.

## AGRA: Main Driver for a New Green Revolution for Africa

“They [African farmers] need a revolution in policies that will address the underlying long-term problems they face. ...The time for bringing forth a Green Revolution for Africa is now.”

—Dr. Akinwumi Adesina, Vice President for Policy and Partnerships, AGRA, at a conference on hunger in Dublin

Several actors, including the Yara Foundation, Millennium Villages, and the New Partnership for Africa's Development (NEPAD), among others, have been actively rallying for GE crops in Africa for some time. The involvement of the Alliance for a Green Revolution in Africa (AGRA), a widely hailed U.S. philanthropic effort backed by major foundations, has pushed the promotion of a technology-based agricultural revolution to the forefront of policy debate for the continent. Launched in September 2006 as a joint initiative between the Rockefeller Foundation and the Bill and Melinda Gates Foundation, AGRA expands on the Rockefeller Foundation's Green Revolution in Africa Initiative. Founded with an initial commitment of \$100 million from the Gates Foundation and another \$50 million from the Rockefeller Foundation, today AGRA is the biggest grantee of the Gates Foundation. With over \$262 million committed, AGRA is poised to become one of the main institutional vehicles for changing African agriculture.

The extent of AGRA's reach is evident from its unprecedented partnerships with key players in the agricultural arena. At the FAO High-Level Conference on World Food Security in Rome, a Memorandum of Understanding was signed between AGRA, FAO, the International Fund for Agricultural Development (IFAD), and the World Food Programme (WFP) that called for using the Green Revolution to turn Africa's breadbasket regions into a source of emergency food aid for the continent. AGRA has also joined forces with the Millennium Challenge Corp., which was established by the Bush Administration to work with poor countries that guarantee "good governance" and "open economic systems" to battle the food crisis in Africa.

## AGRA: An African-led Green Revolution?

"AGRA is an African face and voice for our work and also informs our work as a key strategic partner...."

—*Agricultural Development Strategy 2008-2011*,  
Bill & Melinda Gates Foundation

AGRA first gained momentum in June 2007 with the appointment of Kofi Annan, the former United Nations secretary-general, as its chairman. Under Annan's direction, AGRA's stated goal is "to trigger an African-led Green Revolution that will transform African agriculture...." However, AGRA's agenda of a Green Revolution for Africa has come under heavy criticism from African civil society. At the World Forum for Food Sovereignty at Nyeleni, Mali in 2007, African farmer, agricultural, and pastoralist

organizations categorically rejected the idea that Kofi Annan could speak on behalf of over 50 countries and 680 million people.

Despite the Gates Foundation's rhetoric, AGRA's vision for agricultural development was not drawn up by African voices, nor does it take into account developing countries' experience with the first Green Revolution. Instead, this agricultural revolution for Africa was designed by Gordon Conway, President of the Rockefeller Foundation through 2004. He outlined his plan in his book *The Doubly Green Revolution: Food For All in the 21st Century*.

The appointment of key staff at the Gates Foundation is also indicative of the direction that AGRA intends to steer agriculture in Africa. In 2006, the Gates Foundation appointed Dr. Robert Horsch as the Senior Program Officer in the Global Development Program, which directly supervises the AGRA initiative. Horsch came to the foundation after 25 years on the staff of the Monsanto Corporation, one of the world's biggest biotechnology multinationals and one of the most aggressive promoters of GM crops. At Monsanto, Horsch was the Vice-President for Product and Technology Cooperation, later Vice-President for International Development Partnership, and also a member of the team that developed Monsanto's YieldGard, BollGard, and RoundUp Ready technologies.

Another major player hailing from the St. Louis biotech hub is Lawrence Kent of the Danforth Center, an institute that is heavily funded by Monsanto. Following Horsch's and Kent's appointments, the Danforth Center's president, Roger Beachy, said that it wouldn't hurt to have two people familiar with St. Louis researchers holding the strings to the Gates Foundation's large purse. Unsurprisingly, on January 8, 2009, St. Louis Post Dispatch reported that the Gates Foundation has awarded a \$5.4 million grant to the Donald Danforth Plant Science Center, to "help the center secure the approval of African governments to allow field testing of genetically modified banana, rice, sorghum and cassava plants that have been fortified with vitamins, minerals and proteins."

Lutz Goedde, another hire from the biotech industry, is the former CEO and President of Alta Genetics, and is credited with making Alta the world's largest privately owned cattle genetics improvement and artificial insemination company. All three are working for the Gates Foundation, funding projects aimed at the developing world.

The appointment of Kofi Annan as AGRA's chairman was a strategic decision that the Gates Foundation made to silence criticisms that its agricultural development agenda

was a “White Man’s Dream for Africa.” In fact, this more reeks of Monsanto’s campaign: “*Let the Harvest Begin.*” Launched in 1998 to gain acceptance of GE crops around the world by projecting the benefits of the Green Revolution in Asia and its potential in Africa, Monsanto’s campaign managed to draw several respected African leaders, such as Nelson Mandela, to speak for a new Green Revolution in Africa. In response, all of the African delegates (except South Africa) to the UN Food and Agriculture Negotiations on the International Undertaking for Plant Genetic Resources in June 1998 issued a counter statement, “*Let Nature’s Harvest Continue.*” The delegates clearly stated their objection to multinational companies’ use of the image of the poor and hungry from African countries to push technology that is not safe, environmentally friendly, or economically beneficial.

## Lack of Accountability, Transparency, and Stakeholder Involvement

“I came away very much wanting to work more closely with agro-ecological groups. We talk to anyone who will talk to us. How could we aspire to be transformational if we didn’t?”

—Rajiv Shah, quoted in *A Green Revolution for Africa?* *New York Times*, October 10, 2008

With the announcement of AGRA, the agricultural development agenda of the foundation has come under heavy scrutiny by civil society groups and social movements. To quell some of this criticism, Rajiv Shah, the Gates Foundation’s Director of Agricultural Development, traveled around the U.S. in 2008 supposedly to meet with groups and solicit input from agricultural scientists, economists,

We have engaged a broad group of internal and external advisors as part of our strategy development process

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Source: Bill & Melinda Gates Foundation, *Agricultural Development Strategy 2008-2011*. p. 113.



and rural sociologists through so-called listening roundtables. However, it is not evident how this input has been incorporated into foundation activities.

More important, it is not apparent how, and if, African farmers have been consulted by the foundation before they launched their multi-million dollar development strategy. It will be very important to know what their reaction to the foundation's strategy is. Not one of those consulted for the foundation's agricultural strategy—is not the reviewers or the external advisory board members—is a farmer from Africa. However, external advisors like Ruth Oniang'o, who is closely associated with some of the African political elite, can be found on Monsanto's web pages claiming that there is an urgent need for food biotechnology in Africa. (<http://www.monsanto.com/biotech-gmo/asp/experts.asp?id=RuthOniango>)

Already locked into tight competition in the commercial seeds market, Pioneer hopes that success with biotech sorghum, in collaboration with Gates Foundation, might help open doors for other biotech crops in countries currently skeptical of genetically modified crops.

In the wake of popular global resistance to GM crops, the Gates Foundation has been deliberately vague about its decision-making process and unclear about its role in the promotion of the use of genetically engineered seeds. However, the foundation continues to spend millions of dollars on the development of genetically engineered “nutritious” bananas, cassava, rice, and sorghum. It awarded a \$16.9 million grant for a project in Iowa aimed at making sorghum into a more easily digestible crop that is richer in vitamins A and E, iron, zinc, amino acids, and protein. A key partner of this endeavor is Pioneer Hi-Bred International, a subsidiary of Dupont, which has donated \$4.8 million in gene technology. Already locked into tight competition in the commercial seeds market, Pioneer hopes that success with biotech sorghum, in collaboration with Gates Foundation, might help open doors for other biotech crops in countries currently skeptical of genetically modified crops.

The Gates Foundation is also providing advocacy grants to support policy and institutional reforms around GMOs

at the national and regional levels. The foundation describes this in its strategy paper as developing “policy space around GMOs” and creating “an appropriate enabling environment.” One of the potential grantees under this scheme is Calestous Juma, professor at John F. Kennedy's School of Government through Food, Agriculture, and Natural Resources Policy Analysis Network (FANPRAN). At the 2008 G8 summit in Japan, Juma, who co-chaired the African Union's High-Level Panel on Modern Biotechnology, took it upon himself to urge the G8 to “Get Biotechnology on the Agenda for Africa.” While hailing the Gates Foundation's \$47 million grant to the African Agricultural Technology Foundation (AATF) to engineer drought-resistant maize and praising Monsanto for offering “proprietary genetic material and advanced breeding techniques,” Juma criticized GMO opponents as “advocacy groups in industrialized countries who purport to speak for developing countries” and accused them of showing little interest in the welfare of the people they claim to be protecting.

Around the safety issue, Juma discarded the application of the precautionary principle, and advocated that the demand that products be proven safe before commercialization has denied Africa a crucial chance to learn to use the technology, and that such demands are ploys used to stall the adoption of new technologies by other vested interests. His key message, yet again, is poor washing: “by failing to adopt biotechnology, Africa puts its poor populations at greater risk of starvation.” This kind of communications strategy, used aggressively to promote GM crops, is viewed by the Gates Foundation as creating “an appropriate enabling environment.”

### ‘Land Mobility’: AGRA's Goal and Vision of Success

The Executive Summary of the Gates Foundation's confidential Agricultural Development Strategy 2008-2011 outlines its theory of change: “Smallholders with the potential to produce a surplus can create a market-oriented agricultural system serving the health and welfare needs of rural populations to exit poverty...The vision of success involves market-oriented farmers operating profitable farms that generate enough income to sustain their rise out of poverty. Over time, this will require some degree of land mobility and a lower percentage of total employment involved in direct agricultural production.”

Despite the foundation's claims that it invests in agricultural development because a growing majority of the

world's poor are reliant on agriculture, the Strategy plan clearly emphasizes moving people out of the agriculture sector. This is in the name of reducing dependency on agriculture, but it doesn't specify where and how this new "land mobile" population is to be reemployed.

## Business as Usual

"Despite the "new" tag added to its name, the Green Revolution prescribed for Africa basically follows the same formula used in Asia—a technology package for agriculture involving the use of external inputs, massive agricultural infrastructure and modern seeds, but with the twist of genetically modified seeds added into the equation to respond to the environmental consequences caused by the old formula."

—*Unmasking the New Green Revolution in Africa: Motives, Players and Dynamics*

Despite massive opposition to chemical-based agriculture from a broad and diverse social movement of farmers, peasants, indigenous peoples, consumers, environmentalists, and agricultural scientists, AGRA promotes the conventional wisdom of the industrial and market-based agriculture agenda for the whole of Africa—in complete disregard of several prominent studies that emphasize the potential for a different vision for the future.

The 2008 study by the U.N. Conference on Trade and Development (UNCTAD) and the U.N. Environment Program (UNEP), *Organic Agriculture and Food Security in Africa*, found that organic agriculture outperformed conventional production systems based on chemical-intensive farming and is thus more conducive to food security in Africa. An analysis of 114 projects in 24 African countries demonstrated that yields more than doubled where organic, or near-organic, practices had been used. The research also found strong environmental benefits such as improved soil fertility, better retention of water, and resistance to drought in these areas.

In its independent assessment of agriculture, IAASTD emphasized that "the way the world grows its food will have to change radically to better serve the poor and hungry if the world is to cope with growing population and climate change while avoiding social breakdown and environmental collapse." IAASTD specifically called for more attention to small-scale farmers and sustainable agricultural practices, specifically mentioning organic farming as an

option several times. Yet the Gates Foundation's 127-page long Agriculture Development Strategy fails to mention organic or agroecological production even once.

## AGRA Ignores Structural Causes of Agricultural Productivity Decline and Hunger & Poverty in Africa

Because of undue emphasis on science and technology along with market access—both assumed to be the silver bullet solution to Africa's hunger and poverty—the structural factors responsible for hunger and poverty in Africa do not make it into AGRA's agricultural plan.

For instance, the Gates Foundation and AGRA ignore:

### **Decline in Investment in Agriculture Resulting from Externally Imposed Conditionalities**

Conditionalities imposed by International Financial Institutions (IFIs) have prevented African nations from developing viable farm sectors, thereby eroding their ability to maintain agricultural production and increasing their reliance on imported food. Spending on agriculture in sub-Saharan Africa, a region heavily reliant on agriculture for overall growth, accounts for only 4 percent of total government spending and the sector continues to be taxed at relatively high levels. This agricultural fiscal policy owes its origins to the World Bank's structural adjustment program loans (SAPs) that mandated a reduction in government support of agriculture.

These externally imposed conditionalities prevented much needed investments in agriculture: national government funding of agricultural research fell by 27 percent in sub-Saharan Africa between 1981 and 2000, with many governments currently allocating less than 1 percent of their national budgets to the sector. Only a few countries have adhered to the 2003 Maputo Declaration, which established that 10 percent of budgetary allocations should go to agriculture and rural development by 2008.

Multilateral investment in agricultural projects and agricultural research by the governments of rich nations and institutions such as the World Bank has also steadily declined. Just 4 percent of current development aid to Africa goes to agriculture, and agricultural research grants were cut by more than half—from \$6 billion a year to \$2.8 billion—between 1980 and 2006. The Independent Evaluation Group (IEG) report on the World Bank's agricultural programs in sub-Saharan Africa between 1991 and 2006

found that the Bank channelled only \$2.8 billion in lending to agriculture, constituting just 8 percent of its lending to the region.

### **Reduced State Regulatory Role in Agricultural Production and Trade**

In the 1980s and 1990s, the World Bank strongly encouraged countries to end their governments' regulatory roles in agriculture, for example, eliminating agricultural marketing boards. Marketing boards were tasked with buying agricultural commodities from farmers at fixed prices, keeping the commodities in a rolling stock, and releasing them into the market in the event of a bad harvest in following years. Marketing boards also organized the redistribution of food from surplus to deficit areas of the country. By preventing price volatility, marketing boards protected both producers and consumers against sharp price rises or drops, prioritized self-sufficiency, and thus reduced the need for food imports and for foreign exchange earnings to pay for them.

After over two decades of economic liberalization and related reform, the promised or expected gains in growth and stability are yet to be seen. The 2008 food crisis and the vulnerability of food-insecure African countries underscore the fact that the goals of state intervention remain valid.

### **Removal of Agricultural Tariffs and Resulting Import Surges**

"We will use our voice to advocate on key issues, however we choose not to engage in highly-publicized issues (e.g. OECD subsidies).

—*Agricultural Development Strategy, 2008-2011*,  
Bill @ Melinda Gates Foundation

For a foundation that works to promote the well being of poor Africans, the above statement from the foundation's strategy report tells a different story. The Gates Foundation's promotion of agricultural liberalization but silence on the issue of subsidies hardly reflects well on its stated goals. The indiscriminate opening of markets has taken away countries' ability to govern the flow of agricultural imports into their borders, while heavily subsidized agriculture has allowed industrialized countries to capture developing country markets by dumping commodities below their cost of production. The flood of heavily subsidized cheap farm imports has made subsistence farming in developing countries, especially in Africa, uncompeti-

tive and financially unstable with devastating consequences for the rural poor and local economies.

### **Market Access Equals the Pathway Out of Poverty?**

A key component of the Gates Foundation's strategy is the promotion of cash crops, which, along with access to markets, is what it views as the pathway out of poverty. Already, nearly a quarter of African countries depend on a single commodity for 50 percent or more of their export income and more than 20 countries rely on two or three commodities for at least half of their export earnings. The Gates Foundation's strategy to promote cash crops overlooks the reality that the real prices of these commodities are volatile, and, as a direct consequence, commodity-dependent countries are subject to great risk, which affects macroeconomic performance as well as household income distribution. For example, as coffee prices in 2002 fell to less than a third of their 1997 level, Uganda, a country that implemented the economic reforms proposed in the 1990s and increased coffee production for export rather than enhance food security, was deeply impacted by the decline in world coffee prices.

Specialization in a few commodities for export, such as coffee or cocoa, has increased Africa's dependence on food imports from developed countries. Since 1995, the region has seen twice as many new acres of cotton production as new acres of corn, and 50 percent more new acres of cocoa beans than new acres of millet. While farmers have been encouraged to grow cash crops like coffee, sugar, cocoa beans, tea, and cotton for export, export earnings are used to purchase food, often low-priced (through government subsidies) imports from industrialized countries, even as this process displaces small farmers.



Project to improve rain-fed crop production in Quthing District, Lesotho.  
Credit: IFAD, Giuseppe Bizzarri

## African Opposition

Promotional campaigns for a Green Revolution regularly feature a handful of African spokespeople—like Florence Wambugu, a Monsanto-trained biotechnician, or Ruth Oniang'o, external advisor to the Gates Foundation. In the mainstream media, their voices calling for technology to save Africa drown out the genuine voices of farmers, researchers, and civil society groups, and these spokespeople build support for efforts such as AGRA. But there is widespread questioning of and opposition to technology-based solutions to hunger and poverty, especially genetic engineering of agriculture, in Africa.

Africa has been largely united against GM crops, opting instead for comprehensive policy interventions supporting family farmers to produce and trade their crops in a sustainable manner. Even when faced with dire situations of hunger, African countries have still chosen to protect biodiversity over accepting GM food aid, as was the case with Zambia in 2002.

*Voices from Africa* is part of our mandate to ensure space for democratic debate and public participation on social, economic, and environmental issues that affect our lives and thus aims to bring to light the real African views on technological solutions to hunger and poverty on the continent. Unsurprisingly, African farmers, supported by researchers, are the most astute and ardent critics of technological solutions to poverty and hunger. It is crucial, particularly in this time of poor washing amidst growing hunger, that their voices be heard.

*Voices from Africa* is a compilation of views, essays, and statements by the leading voices of African opposition to genetic engineering and tells the stories of their struggles. It is our hope that it will break through the rhetoric, debunk the myths surrounding the purported need for a Green Revolution in Africa, and reframe the debate to ensure food sovereignty for Africa and her people.

## Sources

"African Delegates Reject Monsanto's Harvest." *Global Pesticide Campaigner*. Volume 8, No. 3, September 1998.

Agricultural Development Strategy 2008-2011. Confidential Report, July 2008. Bill & Melinda Gates Foundation. 2008.

Assessment of the World Food Security and Nutrition Situation. Committee on World Food Security. Thirty Fourth Session. Rome, October 14-17, 2008. FAO.

Bourguignon, F., Sylvie Lambert, and Akiko Suwa-Eisenmann. "Trade Exposure and Income Volatility in Cash Crop Exporting Developing Countries." *European Review of Agricultural Economics*. 2004.

Dano, E. Unmasking the New Green Revolution in Africa: Motives, Players and Dynamics. EED, TWN, & ACB. 2007.

Gustin, G. "Gates Grant Will Help Danforth Center Fight Hunger." *St. Louis Post-Dispatch*. January 7, 2009.

Hand, E. "Gates Foundation Taps a Second St. Louisian." *St. Louis Post Dispatch*. January 5, 2007.

Hunger on the Rise: Soaring Prices Add 75 Million People to Global Hunger Rolls. FAO. 2008.

How Trade Policy Undermined Africa's Food Self-Sufficiency. Food & Water Watch. Washington D.C., 2008

Kwa, A. "TRADE-AFRICA: Why Food Import Surges Are an Issue at the WTO." *IPS*. March 7, 2008. Accessed March 10, 2008.

Mittal, A. Food Price Crisis: Rethinking Food Security Policies. Paper Presented at the Technical Meetings of the G 24, September 8-9, 2008, Geneva.

Rieff, D. "A Green Revolution for Africa?" *New York Times*. October 10, 2008.

"Scientists Seek Biotech Answer to Hunger." Reuters.

February 1, 2009.

[http://www.nzherald.co.nz/genetic-engineering/news/article.cfm?c\\_id=220&objectid=10374845](http://www.nzherald.co.nz/genetic-engineering/news/article.cfm?c_id=220&objectid=10374845)

The World Bank. *World Development Report 2008: Agriculture for Development*.

## A Statement by Friends of the Earth—Africa at the Annual General Meeting held at Accra, Ghana, 7-11 July 2008

Members of FoE Africa from Ghana, Togo, Sierra Leone, South Africa, Nigeria, Mauritius, Tunisia and Swaziland met for five days in Accra, Ghana reviewing issues that confront the African environment. A particular focus was placed on the current food crisis and agrofuels on the continent.

FoE Africa groups deplored the characterization of Africa as a chronically hungry continent; and rejected the projection of the continent as an emblem of poverty and stagnation and thus as a continent dependent on food aid. FoE Africa reiterated the fact that the agricultural fortunes of the continent have been dimmed by externally generated neoliberal policies including Structural Adjustment Programmes imposed on the continent by the World Bank, IMF (International Monetary Fund) and other IFIs.

FoE Africa expressed disgust at the manner by which the burden for solutions to every crisis faced by the North is shifted onto Africa. Examples include the climate change and energy crises wherein the burden has been inequitably placed on the continent. Africa is forced to adapt to climate impacts and she is also being targeted as the farmland for production of agrofuels to feed the factories and machines in the North.

FoE Africa resolved as follows:

1. Africa contributed very little to climate change and the North owes her an historical debt to bear the costs of adaptation without seeking to further burden the continent through so-called carbon finance mechanisms.
2. Africa must no longer be used as a dumping ground for agricultural products that compete with local production and destroy local economies.
3. Africa must not be opened for contamination by GMOs through food aid and/or agrofuels.
4. Africans must reclaim sovereignty over their agriculture and truncate attempts by agribusiness to turn the so-called food crisis into money-making opportunities through price fixing, hoarding and other unfair trade practices.
5. We reject the promotion of conversion of swaths of African land into monoculture plantations and farms for agrofuels production on the guise that some of such lands are marginal lands. We note that the concept of marginal lands is a cloak for further marginalizing the poor in Africa through their being dispossessed and dislocated from their territories.
6. Africa has been subsidizing world development for a long time and this has to change and African resources must be used for African development to the benefit of local communities.

FoE Africa calls on all communities of Africa to mobilize, resist and change unwholesome practices that entrench servitude and exploitation on our continent.

Signed:

FOE Ghana; FOE Togo; FOE Nigeria; FOE Cameroon; FOE Sierra Leone; FOE Tunisia; FOE Swaziland; FOE South Africa; FOE Mauritius

# PART ONE:

## Promoting Genetic Engineering in Africa: Who Stands to Benefit?

Since the Green Revolution of the 1970s brought enthusiasm for high-input, chemical based agriculture to the world stage, Africa has been pushed increasingly towards industrial agriculture. During the decades of Structural Adjustment Programs, many African nations' economies were forced to reconfigure to emphasize export-driven production, while state regulation—especially in agriculture—was dismantled. These SAP-dictated policy shifts have had dire consequences. Meanwhile, the human catastrophes of rampant famine, drought, and poverty that have resulted from free market policies have become the face of Africa in the rest of the world's eyes. These so-called development policies and their fallout have set the stage for Africa to become the main front in the current New Green Revolution, or Gene Revolution.

The failure of this neoliberal policy direction is starkly illustrated by Africans' inability to secure their basic human right to food. While most of the world's population has 25 percent more food on average than in 1960, Africa's population has 10 percent less than they did nearly 50 years ago. In the face of this regressive trend, Africans are being told that the best way to produce food for the continent's hungry is to embrace genetically engineered food crops such as maize and potatoes and cash crops like cotton. Yet, last year, researchers at the University of Michigan released a study showing that organic farming could potentially triple the amount of food grown on individual farms in developing countries. And a major study by the United Nations in 2008 revealed "Organic agriculture offers Africa the best chance of breaking the cycle of poverty and malnutrition it has been locked in for decades."

Despite the promising evidence for an organic, low-cost solution, the new thrust of costly technology-driven monocultures, which rely heavily on genetically engineered varieties that require a battery of expensive inputs, is being held up as the solution to hunger and poverty in Africa. But why would resource-poor but knowledge-rich African farmers want to forego traditional agricultural practices that have evolved over centuries to transition to an expensive, unproven agricultural system? As the New Green Revolution has come knocking on Africa's door and many governments have jumped on the bandwagon, farmers across the continent are weighing the touted improvements and benefits of GE crops against the threat they pose to biodiversity, food security, livelihood rights, and communities' cultural heritage.

African farmers and policymakers are in the process of considering what, if any, role these new GE crops should play in African agriculture. However, African decision makers are being denied the opportunity to judge for themselves what would be best for the continent. In a top-down development scheme, powerful multinational corporations that manufacture the seeds, fertilizers, and pesticides have mounted a significant campaign to break down barriers to GMOs in Africa and throw the continent's door wide open to genetically engineered crops. Companies like Monsanto and Syngenta have strategically allied themselves with some of the most prominent philanthropic organizations operating in Africa—organizations whose well-respected work that truly benefits Africans provides perfect cover for the corporate maneuver to penetrate Africa. However, as the push for a New Green Revolution becomes more frantic, its profit-motivated underpinnings and its potentially disastrous results are being exposed and analyzed by Africans living at the ground zero of this struggle.



Women carry millet after a harvest in the Kayes Region, Mali.  
*Credit: IFAD, Roberto Faidutti*

# Africa's Wealth of Seed Diversity and Farmer Knowledge Under Threat from the Gates/Rockefeller "Green Revolution" Initiative

*Statement from African Civil Society Organizations released at the World Social Forum Nairobi, Kenya, January 25, 2007*

Africa is the source of much of the world's agricultural knowledge and biodiversity. African farming represents a wealth of innovation. For example, Canada's main export wheat is derived from a Kenyan variety called "Kenyan farmer," the U.S. and Canada grow barley bred from Ethiopian farmers' varieties; and the Zera Zera sorghum grown in Texas originated in Ethiopia and the Sudan. This rich basis of biodiversity still exists in Africa today, thanks to the 80 percent of farmers in Africa that continue to save seed in a range of diverse eco-systems across the continent.

The future of agriculture for Africa and the world will have to build on this biodiversity and farmers' knowledge, especially in the current context of climate change. The diversity of seed varieties continually developed by African farmers will be vital to ensure that they have the flexibility to respond to changing weather patterns. With the challenges that climate change will bring, only a wealth of seed diversity maintained by farmers in Africa can offer a response to prevent severe food crises.

However, new external initiatives are putting pressure on these agricultural systems. A new initiative from the Bill Gates / Rockefeller Foundation partnership, called the "Alliance for a Green Revolution for Africa" (AGRA) is putting over \$150 million towards shifting African agriculture to a system dependent on expensive, harmful chemicals, monocultures of hybrid seeds, and ultimately genetically modified organisms (GMOs).

Another initiative funded by the G8 is pushing biotechnology in agriculture through four new major Biosciences research centers in Africa. And GM companies such as Monsanto and Syngenta are entering into public-private partnership agreements with national agricultural research centers in Africa, in order to direct agricultural research and policy towards GMOs. These initiatives under-represent the real achievements in productivity through traditional methods, and will fail to address the real causes of hunger in Africa.

This comes at a time when the world is realizing the need for organic agriculture; however these initiatives would promote the use of more chemicals, and less seed

diversity in the hands of farmers. These initiatives will destroy the bases of biodiversity, knowledge, and adaptive capacity—at a time when it is needed most.

This push for a so-called "green revolution" or "gene revolution" is being done once again under the guise of solving hunger in Africa. Chemical-intensive agriculture is, however, already known to be outmoded. We have seen how fertilizers have killed the soil, creating erosion, vulnerable plants, and loss of water from the soil. We have seen how pesticides and herbicides have harmed our environment and made us sick. We know that hybrid and GM seed monocultures have pulled farmers into poverty by preventing them from saving seed, and preventing traditional methods of intercropping which provide food security. We vow to learn from our brothers and sisters in India, where this chemical and genetically modified system of agriculture has left them in so much debt and hunger that 150,000 farmers have committed suicide.

The push for a corporate-controlled chemical system of agriculture is parasitic on Africa's biodiversity, food sovereignty, seed and small-scale farmers. Farmers in Africa cannot afford these expensive agricultural inputs. But these new infrastructures seek to make farmers dependent on chemicals and hybrid seeds, and will open the door to GMOs and Terminator crops. Industrial breeding has in fact been driven by the industry's demand for new markets—not to meet the needs of farmers.

We know, however, that the agroecological approach to farming, using traditional and organic methods, provides the real solutions to the crises that we face. Studies show that a biodiversity-based organic agriculture, working with nature and not against it, and using a diversity of mixed crops, produces higher overall yields at far lower costs than chemical agriculture. A 2002 study by the International Centre for Research on Agroforestry (ICRAF) showed that Southern African farms using traditional agroforestry techniques did not suffer from the drought that hit the region so severely that year.

We reject these new foreign systems that will encourage Africa's land and water to be privatized for growing inappropriate export crops, biofuels and carbon sinks, instead

of food for our own people. We pledge to intensify our work for food sovereignty by conserving our own seed and enhancing our traditional organic systems of agriculture, in order to meet the uncertainties and challenges that will be faced by present and future generations. Agricultural innovation must be farmer-led, responding to local needs and sustainability. We celebrate Africa's wealth and heritage of seed, knowledge and innovation. We will resist these misguided, top-down but heavily-funded initiatives from the North, which show little or no understanding or respect for our complex systems. We ask that we be allowed to define our own path forward.

*This statement was signed by 70 African civil society organizations from 12 African countries at the World Social Forum in Nairobi, 2007.*



A female farmer in Eritrea.  
Credit: Grassroots International

## GMOs Do Not Address the Needs or Concerns of African Farmers

*by Ibrahima Coulibaly, President of the Coordination Nationale des Organisations Paysannes du Mali (CNOP), Mali*

In the absence of coherent agricultural policies that would view family farms as the primary source of production and employment, small-scale agriculture in Southern countries, particularly in Africa, is facing extremely difficult conditions. The failure of agricultural policies to support small family farmers has resulted in their insufficient access to rural credit, financial services from banks and other financial institutions, and agricultural inputs and equipment.

These endogenous factors have been further worsened by the liberalization of agricultural markets, which is a serious obstacle to agricultural development in Southern countries. Imposed by the international financial institutions (IMF and World Bank), free trade in agriculture has opened up domestic markets, making developing countries vulnerable to the dumping of heavily subsidized agricultural products from the North, thereby undermining local agriculture and marginalizing local products. This trend, likely to be reinforced through the Economic Partnership Agreements (EPAS) currently under negotiation between the different economic zones in the South and

the European Union, represents a real danger of total destruction of agriculture in the South.

Despite these unfavorable conditions, family farmers in developing countries have managed to develop strategies, such as diversification of crops, to resist the savage impact of agricultural liberalization. These strategies have enabled family farmers to achieve what many so-called modern enterprises could not have ever accomplished.

In response to the question of what his or her needs are, an African farmer will certainly emphasize access to water, agricultural equipment, credit, and, above all, to remunerative prices. Access to seeds, however, is generally not mentioned because farmers have developed a very effective seed-saving system that has been in place since times immemorial. This traditional agricultural system allows farmers to access good quality seeds year after year through inter-farmer exchanges and in-crop selections of vigorous seeds. This also allows biodiversity, a collective heritage of humanity, to flourish.



This system of agriculture today faces a challenge from the corporate-controlled industrial agricultural system, which seeks to standardize production through monocultures and aims at destroying what is working well by replacing it with a system with major risks. The aim of multinational corporations and promoters of GMOs in Africa is to ruin millions of farmers by transforming them into new kind of slaves, and to expand corporate economic interests through the corruption of politicians and African researchers who are not thinking of Africa's future.

Non-GM seeds provide peasants the ability and the freedom to sow by following the rainfall patterns. The introduction of GMOs takes away this possibility, and above all this freedom, when farmers have to first purchase the expensive GMO seeds. Farmers are becoming dependent on multinational corporations, and African countries, slowly but surely, are losing their food sovereignty. It is a total heresy, given the current situation of agriculture in Africa, to force farmers to pay for genetically engineered seeds for which they have neither fertilizers nor adequate rainfall.

If rich countries really want to fight hunger in Africa, they must instead invest in farmers' access to water (for irrigation) and agricultural equipment. More important, they should stop subsidies handed out to transnational food industry giants, which allow them to dump crops below the cost of production in our countries and depress commodity prices of crops that our countries count on while wiping out poor farmers and destroying rural livelihoods.

Patents on life, imposed through the Trade Intellectual Property Rights regime, have allowed corporate control over our seeds and are unprecedented in the history of mankind. International conventions such as the Convention on Biological Diversity and Cartagena Protocol, ratified by many African countries, don't allow the appropriation of seeds by private interests. Policymakers who choose to ignore these Conventions are committing a grave mistake. Genetically engineered seeds are owned by multinational corporations and farmers are required every year to pay for the right to use them. In addition, geneti-

cally engineered crops threaten to contaminate our rich biodiversity. It is an urgent task today to protect the local patrimony of seeds, varieties, and genes from biopiracy by multinational corporations who are blatantly looting the genetic resources of the South.

The imposition of GMOs in Africa is occurring in a context of strong pressure from the U.S. on local decision makers, a total lack of transparency, and corruption of elites in the political and research arena. As a matter of fact, the U.S. government (USAID) considers that all means are to be used to promote this technology. This includes corrupting the local media, who, after USAID organized seminars, are creating confusion in poorly informed people's minds by pretending that transgenic agriculture is equivalent to organic agriculture.

In Mali, resistance against GMOs has been organized and growing for many years. This included a march to the USAID head office to denounce their intervention in national agricultural policies. In West Africa, the resounding "NO" of farmer organizations to the GMOs is expressed without any ambiguity and clearly reflected through farmers networks such as ROPPA (Réseau des Organisations Paysannes et de Producteurs Agricoles de l'Afrique de l'Ouest) and RECAO (Réseau des Chambre d'Agriculture de l'Afrique de l'Ouest).

All arguments used by seed multinationals and their allies —GMOs will help fight hunger in Africa, decrease the use of pesticides, and save water—are easily demolished by existing analysis and research. And what is clear is that the underlying private economic interest of multinational seed corporations is driving the push for promoting genetic engineering in Africa.

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# The New Green Revolution in Africa: A Trojan Horse for GMOs

by Mariam Mayet, Director, African Centre for Biosafety, South Africa

After more than 10 years of genetically modified (GM) crop plants being grown in the world, only South Africa out of 53 countries on the African continent has commercial plantings of genetically modified organisms (GMOs). Ten countries (Burkina Faso, Egypt, Kenya, Morocco, Senegal, South Africa, Tanzania, Zambia, Zimbabwe, and Uganda) have reported field trials of GMOs. Twenty-four African countries (Benin, Burkina Faso, Cameroon, Egypt, Ghana, Kenya, Malawi, Mali, Mauritius, Morocco, Namibia, Niger, Nigeria, Senegal, South Africa, Tanzania, Tunisia, Uganda, Zambia, and Zimbabwe) are engaged in GMO research and development. And at least 24 countries (Algeria, Benin, Botswana, Burkina Faso, Cameroon, Egypt, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Mali, Mauritius, Morocco, Namibia, Niger, Nigeria, Senegal, South Africa, Tanzania, Tunisia, Uganda, Zambia, and Zimbabwe) have the capacity and institutions to conduct research and development in agricultural biotechnology.

In the last five years, a multitude of genetic engineering and biosafety projects have been initiated in Africa, with the aim of introducing GMOs into Africa's agricultural systems. These include sponsorships offered by the U.S. government to train African scientists in genetic engineering in the U.S., biosafety projects funded by the United States Agency for International Development (USAID) and the World Bank, transgenic research involving African indigenous food crops funded by foreign governments, public-private partnerships set up to disseminate agricultural technologies in Africa, and political regional initiatives to harmonize legal and institutional frameworks in order to expedite the introduction of GM-based agriculture.

There has also been an unprecedented interest by a large and diverse number of players in lifting Africa out of its poverty, with the objective of integrating it into the world market economy. These interests have converged on a common solution: the so-called New Green Revolution for Africa. Central to the New Green Revolution for Africa push is a U.S.-based philanthropic organization, the Rockefeller Foundation. The Rockefeller Foundation has a history of supporting a range of projects in Africa to introduce GMOs into the fields and agricultural systems of the continent, and backing research that supports the suitability and applicability of GM cotton in the Makhathini

Flats in South Africa, where smallholder black farmers grow GM cotton commercially.

However, the Rockefeller Foundation is not alone in having a double agenda in Africa, as there are a number of other players who are involved in the New Green Revolution for Africa project that are also intimately connected with the GM industry.

Monsanto, who has a strong foothold in South Africa's seed industry, both GM and hybrid, has conceived of an ingenious smallholders' program known as the Seeds of Hope Campaign, which introduces a Green Revolution-type package to small-scale poor farmers, followed by GM seeds.

The question has to be asked: will the New Green Revolution for Africa imitate Monsanto's Seeds of Hope Campaign by first introducing a Green Revolution-type package as a dry run and precursor to the introduction of GMOs in Africa? Will the New Green Revolution provide the impetus to finally break South Africa's isolation as the only country in Africa that allows the growing of GM seeds? If so, this will have far-reaching consequences for Africa, as Monsanto's *Bt* cotton project in the Makhathini Flats in South Africa has illustrated.

## The New Green Revolution for Africa

The term *Green Revolution* was coined in 1968 by William Gaud, whilst Director of the United States Agency for International Development (USAID), to describe the so-called success in India and Southeast Asia of an agricultural model that increased crop production in wheat, maize, and rice. The essential features of that model consisted of a technology package involving the use of external inputs such as inorganic fertilizers, herbicides, pesticides, laboratory developed hybrid seeds, mechanization, and extensive irrigation projects. The Rockefeller Foundation played a crucial role in promoting this technology package, which also formed the basis of agriculture development aid and assistance at that time. Despite the devastating ecological, social, and economic consequences that it brought in its wake, the Asian Green Revolution is widely celebrated by its promoters as having brought sufficient and affordable food to the world's poor.

Africa's New Green Revolution is the brainchild of Gordon Conway, a world-renowned agricultural ecologist and former president of the Rockefeller Foundation. There is a veritable smorgasbord of players involved in exporting and promoting various versions of Conway's Green Revolution, including, for example, regional political actors such as the New Partnership for Africa's Development (NEPAD).

The Rockefeller Foundation prescribes a fundamental transformation of Africa's agricultural economy, premised on a brutal departure from the use of traditional seeds and local knowledge and exchange systems. Drawing heavily on Conway, the Foundation recommends the application of modern laboratory-made seeds and inorganic fertilizers as being key to Africa's agricultural development and food security. These prescriptions are principally based on the old Asian model of adopting high-yielding agricultural techniques. However, the Rockefeller Foundation also promotes the production of crops that are drought tolerant and resistant to pests and diseases, and which provide greater nutritional value.

The Foundation also supports the use of GM seeds, both as a means to increasing crop yields and as a way to represent a greener revolution that is less dependent on chemical inputs. The promotion of GM seeds and crops is thus an integral part of the New Green Revolution project. The emphasis on avoiding the shortcomings wrought by the use of agricultural chemicals by the Asian Green Revolution makes the role of GM seeds crucial ingredient in the project.

## Alliance For a Green Revolution in Africa

On 12 September 2006, the Rockefeller and the Bill & Melinda Gates Foundations launched a new partnership named *Alliance for a Green Revolution in Africa* (AGRA). AGRA committed an initial \$150 million to enable the transfer of a technology package featuring improved hybrid seeds, inorganic fertilizers, water management, and extension services to Africa. AGRA's goal is to develop 100 new varieties in 5 years focusing on at least 10 different staple crops, including maize, cassava, sorghum, and millet. Although AGRA does not on its face promote the use of GM technologies, 70 organizations from 12 African countries see AGRA as shifting African agriculture to a system dependent on expensive, harmful chemicals, monocultures of hybrid seeds, and ultimately GMOs.

These groups argue that the Green Revolution under the guise of solving hunger in Africa is nothing more than a push for a parasitic corporate-controlled chemical system of agriculture that will feed on Africa's rich biodiversity.

## Monsanto's Seed of Hope Campaign

The aim of the New Green Revolution for Africa is eerily similar to Monsanto's Seeds of Hope Campaign. During the 1990s, Monsanto introduced Combi-Packs—boxes of materials designed specifically for smallholder farmers with access to 5 hectares of land or more in the Eastern Cape, one of South Africa's poorest provinces. The boxes contained a package of hybrid maize seed, some fertilizer, some herbicide, and pictogram instructions for illiterate users. The Combi-Pack claims to increase the yield of maize crops and to be less labor intensive than conventional farming. These productivity gains are said to give farmers extra time and, in some cases, extra income for other entrepreneurial activities.

Another important component of the Seed of Hope Campaign is the promotion of no or low till farming. This is meant to be a minimally invasive conservation farming technique, in that farmers do not plow or till the land and instead cut small furrows for the seeds. This farming practice entails negligible soil disturbance, maintenance of a permanent vegetative soil cover, direct sowing, and sound crop rotation. It is particularly beneficial for smallholder farmers, because there is no need to use a tractor, which provides major cost savings. However, using this technique requires the increased use of herbicides, since weeds are not removed by tilling the land. Monsanto is therefore a fervent supporter of this technique, despite several studies that have shown that Monsanto's Roundup herbicide is a threat to human health. It is both a hormone-disruptor and associated with birth defects in humans.

In most areas, these packs were sold through private agents. Following the introduction of the Combi-Packs, Monsanto introduced its patented GM maize varieties: Roundup Ready (herbicide tolerant) and *Bt* (insect resistant) maize seeds. Monsanto was also extremely astute in ensuring that massive public funds were allocated to subsidize the purchase of expensive hybrid and GM seeds, herbicides, and fertilizers.

It is important to note that the price for a Combi-Pack with conventional seed is R232, the Roundup Ready GM maize seed is R343, and the GM *Bt* variety is R328, whereas the

estimated income of farmers in the Eastern Cape areas is often no more than R1000 a month. Clearly, GM technology is not affordable by resource-poor farmers, and the withdrawal of substantial state support will leave these farmers out in the cold.

### GM Cotton in the Makhathini Flats: Exacerbating a Flawed Development Paradigm

Poor Black farmers who have been growing GM Cotton in the Makhathini Flats in South Africa since the late 1990s have become pawns in the numbers games surrounding whether or not *Bt* cotton results in increases in yields and savings on pesticide use. The GM machinery, ably assisted by the South African government, has peddled the experience of these farmers as a success story, worthy of imitation on the continent. However, beneath the hype lies a tragic tale of oppression and vulnerability, which the introduction of *Bt* cotton has further exacerbated.

The Makhathini farmers have historically been locked into a system of cotton growing due to a range of economic, political and social forces that resulted in chronic indebtedness. Despite cotton growing sliding into sharp decline in the last decade in South Africa, the government and a range of corporate agribusiness actors, particularly Monsanto, lured the Makhathini farmers into adopting *Bt* cotton. They did this *inter alia*, providing free production packages, including *Bt* cottonseeds, duly subsidized with public funds. Research indicates that the South African government has subsidized the Monsanto-driven *Bt* cotton 'success' story with a staggering sum of R30 million from state coffers to date. Nevertheless, since the arrival of *Bt* cotton in the Makhathini Flats in 1998 and through 2004, farmers' cumulative arrears to the Land Bank have amounted to a whopping R22,748,147.55.

Many reasons may be proffered to explain away the abject failure of the GM project in the Makhathini Flats, however, the central critique must concern itself with the inappropriateness of a development paradigm that seeks to introduce technological solutions to deeply rooted systemic socio-economic problems. Attempts at replicating the Makhathini Flats experience in the rest of Africa, which has also been caught up in an endless cycle of debt, will undoubtedly yield similar results.

Sub-Saharan Africa represents an extremely lucrative market for seed companies. On their face, the development interventions by AGRA appear to be benevolent. However, not only will AGRA facilitate the change to a market-based agricultural sector in Africa that would replace traditional agriculture, but it will also go a long way toward laying the groundwork for the entry of private fertilizer and agrochemical companies and seed companies, and more particularly, GM seed companies.

Hybrid and GM technologies have been designed for large-scale intensive monoculture production, while most arable land in various African countries is generally unsuitable for this system of agriculture. Using new technologies such as hybrid and GM seeds in African regions may not dramatically improve farmers' yield compared to that received from farming with traditional, open-pollinated varieties. In addition, in comparison to using open-pollinated seeds, which are often saved by the farmers themselves, hybrid and GM seeds are expensive inputs, which need to be bought every planting season.

Furthermore, with farmers changing to hybrid and ultimately GM seeds, the availability of saved seeds declines, leaving the farmers no opportunity to go back to their conventional way of farming. A scarcity of open-pollinated seeds among smallholder farmers will have catastrophic consequences on agricultural biodiversity in Africa.

As the Makhathini GM cotton project shows, technological fixes such as improved seeds, pesticides, herbicides, inorganic artificial and GM crops merely serve as stop-gap measures that deflect attention away from the structural problems facing small-scale farmers. The Green and Gene revolutions are nothing more than red herrings to avoid sustainable development interventions that address historical inequalities and give farmers real choices within an ecologically sustainable framework built on people-centered and traditional and cultural value systems.

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# AGRA – A Blunt Philanthropic Arrow

by Nnimmo Bassey, Executive Director, Environmental Rights Action, Nigeria

It is a common saying that when a man has a hammer in his hand every problem appears to be a nail. It takes a wise man to know that a hammer is just one of the tools in the craftsman's box. The Bill & Melinda Gates Foundation made money from technology and it is understandable that they should think that problems can always be solved with a technological fix. Nor does it come as a surprise that the Rockefeller and Gates Foundations should plan to jointly plough \$150 million into their so-called Alliance for a Green Revolution in Africa (AGRA). Tragically, the biotech solutions proposed by AGRA are likely to deepen rather than solve problems of hunger, poverty, and malnutrition in Africa.

The Gates Foundation has recently taken on scientists from the biotech industry, and it is expected to fund projects in areas such as biotechnology to improve seeds and crop yields; fertilizer, irrigation, and other farm management systems; access to markets; and advocacy for improved agricultural policies. They may claim otherwise, but the idea of AGRA is anchored around agricultural modern biotechnology or genetically modified organisms (GMOs). Yet, on the admission of the U.S. Department of Agriculture, genetically modified crops do not give better yields than conventional crops. In addition, the plan's entire framework would turn African farm practices on their heads, wiping out local knowledge and creating more poverty, more hunger, and strange new diseases.

## GM Cassava Fails in Africa

On May 26, 2006, the Donald Danforth Plant Science Center, whose partners include the Monsanto Corporation and the Missouri Botanical Garden, quietly announced that GM virus-resistant varieties of cassava had lost resistance to the African cassava mosaic virus (CMVD) and that expert consultants had been asked to review why and how the modified cassava had changed and to assess future plans.

The Center, with funding from USAID, had been heavily involved in research on Disease-Resistant Cassava to develop and deliver transgenic, disease-resistant cassava planting materials to farmers in Kenya. The failure of GM cassava however undermined the Center's claim on its website that "transgenic plants developed at the Danforth Center have demonstrated strong resistance to the disease in greenhouse trials over multiple years."

This turn of events also undermined plans by the Danforth Center's International Programs Office to push the Kenya Agricultural Research Institute (KARI) to test transgenic cassava plants under natural field conditions. Clearly, the kind of promises held out by the Danforth Center are not credible: "virus-resistance technology will initially be deployed in the East African region's most popular cultivar—Ebwatareka—for adoption by the 22,000 Kenyan farming families . . . the project will help 200,000 Kenyan cassava farmers and their families and increase cassava harvests by 50 percent on a sustainable basis. Similar benefits are promised to neighboring Uganda and to millions of farmers throughout Africa."

This is not the first time that these kind of false promises have been held out to KARI, which previously ran field trials on a much-hyped transgenic sweet potato—part of another USAID supported project. The sweet potato had been touted as high-yielding and virus-resistant, but during three years of field trials KARI discovered the virus resistance was no better than for ordinary varieties and the yields were sometimes less. By contrast, a conventional breeding program in Uganda successfully produced a high-yielding virus-resistant sweet potato more quickly and more cheaply, without any recourse to genetic engineering.

The failure of GM cassava, however, does underlie the reason why African governments, save for pro-GM South Africa, have adopted the precautionary principle and not allowed Africa to be turned into a laboratory for an unpredictable technology.

Source: Mariam Mayet, African Centre for Biosafety, <http://www.biosafetyafrica.net>

What is not being said is that people are not going hungry today because of insufficient food production. Indeed, it is generally agreed that there is enough food in the world to meet everyone's basic needs: an action plan adopted by ministers of the Economic Community of West African States admits that food production in West Africa has doubled over the last 20 years and that only 19 per cent of food needs are met from imports.

So what's the real reason behind the emphasis on biotechnology? The biotech industry has invested hugely in attempts to penetrate Africa—through food aid channels and other assistance channels as well as through commercial routes. However, the food aid channel blew up in the biotech industry and the World Food Programme's face in 2002 when Zambia rejected genetically modified corn as food aid.

AGRA's biotech thrust is wrongheaded: rather than solving problems of hunger and poverty in Africa, it will deepen them. Genetically modified crops create dependence on chemicals such as herbicides as some varieties are engineered to be herbicide tolerant, which often leads to the emergence of super-weeds. Efforts at popularizing GMOs by both USAID and the International Institute for Tropical Agriculture have been carried out in circles that excluded critical opinion. Wherever contrasting views have been elicited, local people and farmers generally reject this technology. AGRA's suggestion that Africa needs a Green Revolution does not appear to have considered the many pitfalls of that revolution.

Efforts at introducing GMOs in Africa have so far yielded poor returns. For example, the cassava engineered to overcome the cassava leaf mosaic disease this has so far failed, and there are already non-GM varieties that do withstand the disease. Why waste resources that could be better used to strengthen agricultural production in Africa by drawing on the rich pool of local knowledge and ensuring food sovereignty, as demanded by farmers and civil society groups at the forum in Selingue, Mali? Africa is not seeking handouts in order to improve her agricultural production systems, and is certainly not pushing towards a so-called Green Revolution baptized in chemical fertilizers and other imported inputs. African farmers, along with peasants around the world, are seeking respect for their right to decide what to plant and how to plant it, as well what to eat and how.

Agriculture means far more than mechanical multiplication of seeds. It is the basis of the African's life. It provides

the platform for cultural, religious, economic, and even political relations. If the Gates and Rockefeller Foundations wish to extend the hand of fellowship to the African continent, they should move away from strategies that favor monoculture, lead to land-grabs, and tie local farmers to the shop doors of biotech seed monopolies. Instead, they can assist in the development of rural infrastructure such as roads and water supplies, and support education to empower the younger generation in the study of useful science.



Farmer Agnes in Lunyerere Village, Vihiga District, Kenya teaches other farmers new planting and harvesting methods.  
*Credit: IFAD, Radhika Chalasani*

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*This article was first published in online magazine, Alliance, Volume 12, No. 2, June 2007.*

# PART TWO:

## Twisting Arms: Efforts to Convert Africa to GE Meet with Civil Society and Farmer Resistance

“[H]igh weather variability . . . will be the primary effect of climate change. It won’t be on rich countries. The irony of it is that its negative effects in the next 50 years will be primarily on the poorest, who had nothing to do with it. And so these agricultural innovations, where they have more productivity and crops that can deal with heat or drought, that is the thing that we owe to the poorest because it’s our effects that are going to make their lives even tougher than they’ve already been.”

—Bill Gates, interviewed by Charlie Rose on December 22, 2008

Amid the existing arguments concerning the root causes and solutions to African hunger and poverty, the significant negative effects wrought by climate change are now coming to the fore. In recent years, biotech companies have invested massively in a public relations effort claiming that genetic engineering will create drought-resistant plants, crops that will thrive in nutrient-deficient soil, and so on, consistently holding up their potential for Africa’s poor. These purported climate change GE crops have yet to prove any more useful than careful breeding of native varieties. Instead, these could be devastating to Africa’s tremendous biodiversity and wreak havoc on food security and public health. Yet they are being thrust on African farmers with both deliberate force and diplomatic coercion. But why would erstwhile well-intentioned foundations and governments support such initiatives?

In a December, 2008 interview with Charlie Rose, Bill Gates, now a full-time philanthropist through the Bill & Melinda Gates Foundation, reasoned that the poorest people in the world will bear the brunt of the negative effects of climate change, which comes as a direct result of actions in the rich countries. So, Gates concludes, the least we can do is help them deal with these issues. Thus, the push for a large-scale New Green Revolution stems in part from the 21st century white man’s burden—the climate changer’s burden—coupled with the greed of multinational corporations. Biotech companies have seized on the opportunity presented by Western foundations and governments’ guilt about global warming, and have successfully convinced decision-makers that GE agriculture is necessary. Whether biotech is the most appropriate solution or the opinion of the intended recipients takes a back seat to quelling their malaise – and making a buck. This, combined with the deeply internalized belief that

modern technology and solutions are the key to all problems, leads to biotech being seen as the only answer to successfully feeding Africa. In this worldview, traditional agriculture as practiced by small-scale farmers is seen as outdated and irrelevant; by extension peasants and small-scale farmers themselves are treated as hopelessly behind the times and are disregarded. It’s this mentality that further throws open the door for biotech.

Yet, despite the huge PR campaign, diplomatic wrangling, and good sounding rhetoric, there is resistance on the ground. Africans’ perspectives on recent developments show how this corporate-philanthropy united front is hammering the continent. Western foundations, governments, and corporations continue to force-feed Africa GE technology. But their bid to address their guilt and simultaneously open new markets for their products does so without regard for the primary stakeholders’ needs or their feedback. These articles detail how GE crops continue to be promoted through devious means such as arm twisting, bribery, and deception. And they also reveal how the corporations that have the most to gain from the adoption of GE are exaggerating its needs and benefits, creating a false sense of urgency to rush the technology into Africa.

But for each insidious push of corporate greed, Africans are organizing and resisting eloquently and powerfully. Africans are dissecting each of these arguments and debunking the lies by analyzing the specific failures and problems associated with genetic engineering in agriculture. African activists’ solid research included here is punctuated by resistance statements from farmers’ groups and civil society movements that underscore the harsh reality of this push-and-pull struggle.

# Is Africa Being Bullied into Growing GM Crops?

by David Fig, Trustee, BioWatch, South Africa

Africa is rapidly becoming a focal point for multinational crop and chemical corporations, clearing the way for the extended uptake of their products and technologies. In particular, African governments are facing enormous pressure to endorse and adopt genetically modified (GM) crops.

Organizations like the Alliance for the Green Revolution in Africa, bankrolled by the Gates and Rockefeller Foundations, are partly to blame through their heavy investment in infrastructure aimed at supporting the development and distribution of GM crops and seeds.

But the African Union (AU) itself is also encouraging the adoption of GM technology. Working in tandem with its development wing, the New Partnership for African Development (NEPAD), the AU's High Level Panel on Modern Biotechnology's Freedom to Innovate plan is the clearest expression yet of the trend to back this controversial and risky technology.

And it does so uncritically, rather than taking a more rational precautionary position that would safeguard Africa's rich biodiversity and agriculture. The AU is also engaged in efforts to revise the carefully crafted African Model Law on Biosafety, which outlines the biosafety provisions necessary for African environmental conditions. The revisions emanate from those seeking to make the biosafety content less stringent, placing Africa under even more pressure to conform to the needs of the gene corporations.

Support for GM technology, though, is by no means universal across the continent.

The AU's efforts in shaping the Freedom to Innovate plan and African Model Law on Biosafety contrast with the leadership role that the Africa Group took in developing the Cartagena Protocol to ensure more stringent biosafety precautions.

Indeed, a number of African governments and civil society organizations are increasingly speaking out against the pressures from gene companies and the foundations that back them to adopt their technologies. For example, Angola, Sudan, and Zambia have resisted pressure to accept GM food aid, while nongovernmental groups such as the African Biodiversity Network, based in Addis Ababa, Ethiopia, defend community and farmers' rights to reject

GM seed. At one stage Burkina Faso implemented a moratorium on the planting of GM crops.

The Freedom to Innovate document does little justice to the debate raging around Africa. Instead it seeks to institutionalize the pro-GM position of larger countries like Nigeria and South Africa across the entire continent. There is no question that Africa needs technology to develop. But it must be appropriate to a country's chosen path of development. New technologies aimed at development must be evaluated in depth by, among others, scientists with no vested interests. Natural scientists must assess GM technology's likely impacts on both the environment and human and animal health. Social scientists must also examine the potential socio-economic consequences of such innovation, including impacts on local food security, trade, or indebtedness.

Stakeholders, including those who safeguard traditional knowledge, could further enrich such assessment by indicating proven alternatives. This model of technological assessment could serve Africa very well. It could enable governments to formulate appropriate policies and development priorities.

Most importantly, if a technology is found to be questionable or negative in terms of its impacts, or if there are no clear development benefits to be derived from its adoption, a precautionary mechanism must exist that can delay and carefully regulate its introduction. The Freedom to Innovate plan tries to advocate the idea that all biotechnology benefits Africa and fails to analyze the risks attached to its adoption.

While some aspects of modern biotechnology might prove useful in African agriculture, this does not mean that one aspect of this—GM crops—can increase continental food security and farmer prosperity. GM technology forces Africa into high-input, chemical-dependent agriculture, which impacts biodiversity and creates debt burdens for small farmers.

In addition, the regulatory steps required for control of GM crops are so demanding of resources that Africa is forced to prioritize their set up, even when other budgetary areas relating to food security may need more pressing attention.



Gene corporations, together with the scientists that work for them, have invested a lot of time, effort, and money in developing GM crops. Not surprisingly, they are the ones who propound the idea that transgenic crops can rescue Africa from poverty and underdevelopment.

But Africa must not let itself be bullied into accepting a technology that has yet to prove itself as appropriate for solving the continent's hunger problems. The AU's role should be one of providing governments with well-reasoned technological evaluation, rather than acting as a proxy for promoting a specific industry's commercial needs.

*David Fig is an independent environmental policy analyst based in Johannesburg, and a trustee of Biowatch South Africa. This was originally published in the Business Daily Africa (Kenya) on November 8, 2007.*



Larison Jean-Baptiste, 31, replants rice seedlings in Andranomahavelo Village, Mahaly, Madagascar.  
Credit: IFAD, Robert Grossman

## The Introduction of Genetically Modified Crops in Africa

by Nnimmo Bassey, Executive Director, Environmental Rights Action/Friends of the Earth Nigeria

In 2004, Nigeria signed a Memorandum of Understanding (MoU) with the United States agreeing to support genetically modified crops, without consulting the Nigerian civil society. Modern biotechnology was one of the key issues discussed at a Ministerial Conference held in Burkina Faso in 2004, which brought together four presidents and 18 ministers from West Africa along with over 300 participants from 22 countries. The West African ministers at the conference, which was organized with support from the U.S. Department of Agriculture (USDA) and the USAID, adopted a resolution calling for greater research and investment in agricultural biotechnology and the creation of a West African Centre for Biotechnology.

While Africa's experience with GM crops is relatively small and only one country, South Africa, allows commercialization of GM crops, the continent is without any doubt a new frontier for the biotech industry. In recent years, pressure to accept genetically modified crops has stepped up on African countries, while African leaders are strongly lobbied to accept the tools of modern biotechnology to purportedly solve the problems of poverty, hunger, and

malnutrition. USAID, which is supporting several biotech initiatives in Africa, has clearly stated that one of its roles is to "integrate biotechnology into local food systems and spread the technology through regions in Africa."

### Promoting A 21st Century African Green Revolution

*Investing in Development: A Practical Plan to Achieve the MDGs*, a 2005 report from the Millennium Project (a project to draw up a plan of implementation for achieving the UN Millennium Development Goals), promoted a "21st Century African Green Revolution" to help launch an "environmentally sound doubling or more of agricultural productivity," within the context of rural development and poverty reduction plans.

This emphasis on genetic engineering was also reflected in the UN Secretary General's call for a "uniquely African Green Revolution" at a high-level event on Innovative Approaches to Meeting the Hunger Millennium Development Goal in Africa held in Addis Ababa in July 2004. The

report of the Science, Technology, and Innovation task force of the Millennium Project also promotes the use of genetic modification in agriculture and pharmaceuticals.

However, the paucity of information, knowledge, and capacity on biosafety and other issues related to genetic engineering of food and agriculture is making it difficult for African countries to make informed policy options and choices. The promotion of another Green Revolution through improved seed varieties without due consideration of food sovereignty or the negative impacts of Green Revolution technologies and practices on health, environment, biodiversity (seeds and wild diversity), long-term productivity, and adverse socio-economic impacts on small farmers is a cause for concern. Also, the promotion of new biotechnologies that involve genetic modification in the absence of proper environmental, health, and socio-economic impact assessment is worrisome.

## Solving Hunger Through GM Food Aid

“We have traditional foods in abundance. I do not know why there is this maize mania when some of the provinces do not even grow maize, traditionally....If we can buy cassava then we have won the war on this hunger and farmers will become solvent to produce more food for the next season.”

—*Mundia Sikatana, Zambia’s Minister of Agriculture*

Controversy around GM food aid erupted in 2002 when several Southern African countries refused to accept food aid containing genetically modified organisms. Zimbabwe, Malawi, and Mozambique refused to accept GM food aid unless it was milled to avoid germination of whole grains while Zambia refused GM food aid in any form. Lesotho and Swaziland authorized the distribution of non-milled GE aid, but warned the public that the grain should be used strictly for consumption and not for cultivation. In 2004, Angola and Sudan introduced restrictions on GM food aid as well.

African countries that took a precautionary approach to GM food aid came under enormous pressure by the World Food Programme and the U.S. to reverse their decisions. Angola’s ban on GM food imports, except for milled GM food aid, sparked reports from the WFP that its decision will result in donor countries (primarily the U.S.) reducing food aid. An unnamed U.S. official was even quoted as saying “beggars cannot be choosers.”

The shipment of whole corn kernels as food aid carries the danger of genetic contamination, as it allows GM grains to be planted in countries that do not have biosafety regulations or the capacity to deal with GM crops. To avoid potential risks associated with GM crops, most of the countries decided that the food aid should at least be milled to prevent the planting of the grain.

However, milling the maize still does not take into account any possible potential risks associated with the consumption of GM food. Many Third World–based organizations have expressed their concern given that the “assumptions about alleged GM food safety are based on a limited range of experiments that do not take into account the specific situation of people in developing countries.” These organizations believe that populations fed with food aid, especially children, are particularly vulnerable to risks due to malnutrition and lack of food, and that any potential danger presented by GM foods might increase when they are consumed by an immune-depressed population.

## Alternatives to GM Food Aid

“It is very interesting to note that for the first time, Zambia was being forced to accept a gift. Doesn’t this worry us as recipients that the giver is insisting that we take the GM foods? Are the Americans just concerned about our stomachs or there is something behind the gift?”

—*Zambia Daily Mail, November 5, 2002*

While the Africans were being forced to accept some GM content in their food aid, the case of Zambia proved that there were alternatives to GM food.

“Is it better to die than to eat GM food?” This question, often raised during the Southern Africa food crisis, presented a scenario in which only GM food was available. This has since been proven false. Alternatives were possible and were later provided in large quantities. Research shows that there was ample non-GM maize and non-GM cereals in the world—in the African countries, India, and Mexico—that could have been provided to countries preferring not to accept GM food. In fact, there was enough non-GM corn in the United States as well. Nonetheless, the World Food Programme argued at the end of 2002 that its main goal was to meet short-term food needs of countries and that it was impossible to mobilize non-GM food fast enough, as organizing food aid operations requires considerable time and resources.

In contrast, the Zambian NGOs pledged that they could quickly mobilize surpluses of traditional foods like cassava to food deficit areas if financial resources were made available. The drought season in Zambia affected the southern part of the country, where the local maize supplies were clearly insufficient. However the northern part of the country, particularly the North Western province, was food secure with an estimated 300,000 metric tons of cassava, one of Zambia's staple foods.

A coalition of groups comprised of churches and NGOs worked with the Zambian government to form an alliance to raise funds for buying cassava from areas of surplus and distributing it to food-deficit areas. Eaten by more than 200 million people in Africa and the main staple food for 30 percent of the Zambian population, cassava was, however, not even included in calculations of the country's food deficit and the WFP did not consider it as a possible solution since it considers cassava to be an inferior food. Given that the WFP in Zambia channels the financial resources of donors and coordinates all food relief efforts, their refusal prevented the project from being implemented. Instead, the WFP brought barley from the United States, which is not a staple food in the country and is used only for producing beer, in complete disregard of the principle that food aid should be socially and culturally acceptable to recipient countries.

The Zambian government, however, stayed firm in its decision not to accept GM food aid and was able to cope with the food crisis with support from many countries and organizations, and the country enjoyed a bumper crop in 2003.

## Continued Pressure from the Donor Countries

"It was a wrong decision by the government and I hope they will rethink it. We are going to make more food available to AIDS patients and the government must decide... GM (genetically modified) food is absolutely safe, our experts have done tests and found it completely safe."

—Tommy Thompson, U.S. Health Secretary, December 2003, referring to the Zambian government's rejection of GM food aid

To continue the pressure on African nations, the U.S. Senate passed a bill in 2003 tying assistance for AIDS to acceptance of GMOs. The United States Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003 urged African states to accept GM food aid, implying this to be a condition for release of assistance funds. In December 2003 this became even clearer when the U.S. Health Secretary Tommy Thompson, in a visit to Zambia on future donations for HIV/AIDS, criticized the decision of the Zambian government to reject GM food aid.

## The Push for GM Crops and *Bt* Cotton in Western Africa

Because Africa is the third largest cotton exporting region in the world, after the U.S. and Uzbekistan, biotech industry is busy promoting *Bt* cotton in Western Africa. The West African countries of Mali, Cote d'Ivoire, Benin, and Burkina Faso that produce and export cotton are being presented with GM cotton as a key technology to increase productivity, reduce poverty, and as an environmental solution to damage caused by pesticides.

In reality, the experience of *Bt* cotton in other parts of the world, and the agricultural practices associated with its introduction, will drive Africa towards unsustainable agriculture while doing away with the rights of African farmers. As the international non-governmental organization (NGO) GRAIN pointed out, the introduction of *Bt* cotton will upset traditional practices and farmers will be obliged to sign Monsanto's Technology Use Agreement, which implies that farmers will be prevented from saving their seeds.

"Monsanto takes the application of its contract seriously. In the countries where the company has introduced *Bt* cotton, Monsanto keeps lists of all farmers who are growing transgenic varieties and monitors them closely. This is as true for countries of the South like Argentina and Mexico as it is for countries of the North. In West Africa, where the majority of farmers are illiterate, one wonders if they will even understand the clauses of the contracts. The fact that there will not be any visible difference between *Bt* cotton and conventional cotton will create even more confusion. In this chaotic situation, farmers risk being prosecuted and judged as criminals."

—*Bt Cotton at Mali's Doorstep: Time to Act!* GRAIN, 2004

## The Way Forward

Africa faces the threat of a GMO invasion from various factors. These include:

- Inadequate and/or nonexistent biosafety regulations;
- Pro-biotech tendency of political leaders who do not pay heed to the precautionary principle;
- Lack of public awareness about the risks associated with the GMOs;
- Aggressive push by biotech corporations to overturn centuries old sustainable agricultural principles;
- Tendency of the UN to believe that world hunger can only be tackled through modern biotechnology;
- Contamination through food aid and other direct and indirect channels.

To challenge this threat, the need for informed public participation and monitoring of the implementation of various projects, initiatives, and developments related to genetic engineering cannot be overstated. It is essential that non-governmental organizations, civil society groups, and the public are informed of these developments and that they are empowered to be able to respond to the important challenges that confront the region.

Biosafety and GMOs have been topics of discussion at the international level since the negotiations of the UN Convention on Biological Diversity. When the Convention was adopted in 1992, concerns around the adverse impacts of GMOs on the conservation and sustainable use of biological diversity were firmly on the agenda. In 2000, when the Cartagena Protocol on Biosafety was finally adopted, international consensus had grown to include GMO risks to human health and socio-economic impacts “arising from the impact of GMOs on the conservation and sustainable use of biological diversity, especially with regard to the value of biological diversity to indigenous and local communities.” This agreement, now being implemented at the national level in various African countries, should be supported and upheld.

Alternatives to GM exist. As the African Center for Biosafety asserts in the case of *Bt* cotton:

“It is recommended that African producers and governments reject the introduction of GM cotton, and the utilization of existing agricultural infrastructure and institu-

tions for the insertion of GM cotton into their systems. Far more sustainable alternatives to GM cotton exist. Pest management techniques that rely on increasing producer’s knowledge and integrating farmers’ own knowledge with environmentally sustainable best practices from elsewhere are preferable to the introduction of technology that draws pest management away from control of the direct producer.”

Although genetically modified crops have been aggressively introduced in the world, they remain limited to a few countries and are pushed by a handful of companies. We still have time to seal Pandora’s box if we take prompt action and if Africa learns from the experience of GM crops after a decade of their commercialization in other parts of the world.

*Nnimmo Bassey is the Executive Director of Environmental Rights Action in Nigeria, a non-governmental advocacy organization founded to deal with environmental human rights issues in Nigeria. ERA is the Nigerian chapter of Friends of the Earth International (FoEI), the world environmental justice federation campaigning to protect the environment and to create sustainable societies. This article was excerpted from Genetically Modified Crops: The African Challenge, authored by Nnimmo Bassey, Executive Director of Environmental Rights Action/Friends of the Earth Nigeria, with contributions from Juan Lopez and Farah Sofa.*

# African Food Sovereignty or AGRA

by Mukoma Wa Ngugi, Political Columnist, BBC Focus on Africa

“Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts the aspirations and needs of those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations. It ensures that the rights to use and manage lands, territories, waters, seeds, livestock and biodiversity are in the hands of those of us who produce food.”

—Declaration of the Forum for Food Sovereignty, Nyeleni, February 2007

African farmer, agricultural, and pastoralist organizations from over 25 countries gathered at the Nyeleni Center in Selengue, Mali, from November 25 to December 2, 2007, to discuss, among other things, the pitfalls of the Alliance for a Green Revolution in Africa (AGRA). Chaired by former United Nations Secretary General Kofi Annan, AGRA, is an initiative of the Bill and Melinda Gates Foundation and Rockefeller Foundation.

Now, the theme of this conference might at first glance seem outrageous. After all, we are talking about Bill Gates here—a man who has become the poster child of good philanthropy. But this is precisely the point: because AGRA is a Bill Gates initiative with widely respected Kofi Annan as the chair, most of us accept it to be a welcome philanthropic gesture towards Africa. But it is important that we examine it carefully because what is at stake here is the very future of the continent’s agricultural practices—what is grown, how it is grown, who gets to grow it, who processes it, who sells it, and where and how much the African consumer will pay. Simply put, if food is the basis of life, what is at stake is the very sustenance of the continent.

AGRA claims that it will help “millions lift themselves out of poverty and hunger by dramatically increasing the productivity of hundreds of millions of small-scale farmers and improving livelihoods.”

An outcome statement produced by the Selingue conference organizers, however, states: “AGRA is actually the philanthropic flagship of a large network of chemical-seed, and fertilizer companies” and is designed to “attract private investment, enroll African governments, and convince African farmers to buy new seeds and fertilizers.” Waiting in the wings are seed and fertilizer organizations such as Syngenta and Monsanto, amongst other players.

AGRA also states that it will “develop and strengthen Africa’s small and medium-scale seed companies to develop and sell appropriate seeds to farmers, develop rural agro-dealers (small rural shops, mainly owned by women), and work with local food processors that can add value to products and local micro-finance institutions.”



Group of farmers working the fields, Eritrea.  
Credit: Grassroots International

Pointing to Asia, AGRA claims that the Green Revolution lifted millions from poverty. This claim was refuted by the participants at the Mali conference, who pointed out the tragic case of suicides among Indian farmers. In India, farmers initially flourished under the Green Revolution because millions of dollars were used to buoy the farms.

But as soon as the money stopped being pumped, Indian farmers found that they could not afford hybrid seeds or the expensive pesticides required. They entered into debt, eventually losing their land to banks. The Green Revolution in India really was the pauperization of the poor Indian farmer. AGRA's promise of agro-dealers in Africa and its promise to follow the Asian model means small-scale African farmers will be strangled by ever-widening circles of dependency and debt.

AGRA claims that it is African led because it appointed Kofi Annan as its chair. In Selengue, conference participants responded that Kofi Annan cannot speak for over 50 countries and 680 million people.

AGRA's critics contend that the alliance will not take a definitive stand against genetically modified foods. This lack of a position on GMOs was of grave concern to the organizations in attendance at Selengue. The AGRA website leaves a lot of wiggle room when it states that "introduction of genetically engineered crops are not part of AGRA strategy at this time" but a little later states that "AGRA will not shy away from considering the potential of biotechnology in reducing hunger and poverty and we do not preclude future support for genetic engineering as an approach to crop variety improvement...."

Soon after being appointed chair, Kofi Annan declared that AGRA will not use GMO's—a statement that is contradicted in the website statement quoted above—which

he and AGRA later retracted. In a sense, AGRA critics are right when they call it a Trojan horse for GMOs.

Once the mask of philanthropy is removed, we find profit-hungry corporations vying to control the seed market in African countries, create a path for genetically modified seeds and foods, and pry open a market for chemical fertilizers—which in turn will have an adverse effect on African indigenous seed populations and destroy biodiversity, not to mention the likely devastation of the environment and the salination of the soil. The philanthropic gift for Africa is, in reality, paving the way for further exploitation of our resources.

Africans should grasp what is at stake here and mobilize against AGRA. African leaders have already sold off the land and the right to natural resources. They have sealed off some parts of the continent into export processing zones. They have allowed foreign military bases onto African soil. They have given organizations such as the International Republican Institute free reign to determine the very nature of African political institutions. But it should stop here. Africans simply cannot let them sell off the right to food sovereignty. If they are allowed to, they are selling off the very future of Africa.

*Mukoma Wa Ngugi is a political columnist for the BBC Focus on Africa. He is also the author of a collection of poems, Hurling Words at Consciousness (AWP, 2006).*



Women in the village of Douga, Mali drying corn kernels in the sun.  
Credit: IFAD, Horst Wagner

# Thika Declaration on GMOs

Statement issued at the Kenya Small-Scale Farmers Forum, August 20, 2004

“It is not that farmers are against new technologies, so long as these technologies will not force and destroy our indigenous seed varieties, will not change our native farming systems knowledge, and will not render us helpless and at the mercy of the transnational companies to monopolize even on what we eat.”

—Moses Shaha, Chairman of the Kenya Small Scale Farmers Forum, *Kenya Times*, 25 August 2004

We, the Kenya’s Small-Scale Farmers Forum leaders, representing crop farmers, pastoralists, and fisherfolk, do declare today, August 20, 2004, that farming is our livelihood and not just a trade. Farming has been passed down from generation to generation, and is now threatened by Genetically Modified Organisms (GMOs).

GMOs are a danger to food security and our indigenous gene pool. Patented GMO crops threaten farmers’ ability to save and share their indigenous seeds which have stood the test of time. Thus they will reduce our seed security and food security, without the long and short-term effects on our health and environment being known. GMOs will hand control of our food systems to the multinational companies, who have created these seeds for financial gain, and not for our need.

These new seeds may create conflict between farmers due to the risks of cross-pollination from GMO to non-GMO crops leading to contamination between farms.

GMOs will increase costs for farmers. This new kind of agriculture has been produced using a complicated and expensive process called genetic engineering. To make their profits back from the farmers, the companies patent the GMO seeds, which leads to higher costs for farmers, who are then forbidden from saving and sharing their seeds for planting the following season. If the seeds fail, farmers are left in great destitution. The agrochemicals

associated with GM crops will oblige farmers to pay the high prices set by the companies, and replace the need for paid farm labor, thereby threatening our livelihoods.

GMOs threaten Kenya’s environment. A clean environment is a fundamental right for all. GMOs on the contrary are contaminative, unfriendly to our biodiversity, and pose a threat to the existence of our indigenous seeds, to organic farming systems, and to human and animal health in general.

Our government is being arm-twisted to accept GMOs by multinationals, without considering the effects on small-scale farmers.

Small-scale farmers in Kenya should be included in policy formulation on agriculture research and food security. Government should invest in irrigation, improvement of infrastructure, appropriate technologies, marketing, subsidies, credit, farm inputs and better rangeland management, and NOT ON GMOs.

We believe that God created life, and no one can own it, not even Monsanto, Syngenta, or other multinational companies. We therefore reject all GMOs in agriculture, and call upon the Kenyan government to respect our indigenous expertise. Therefore to be able to fully understand the effects of GMOs on our livelihoods, health and environment, we demand a twenty-year moratorium on GMOs in Kenya.



Nyéleni Center, Built for the Nyéleni 2007 World Forum for Food Sovereignty  
Credit: Aksel Naerstad



Farmers in Tigray Province in the north of Ethiopia.  
*Credit: Aksel Nærstad*

## DAILY NATION

### Editorial: How Safe are GM Foods?

*Daily Nation, Kenya*

Last December, some civil society and farmers' groups took for testing maize seeds grown in different parts of the country. They were confirmed to have been genetically modified.

Maize is our national staple, yet we are now growing and consuming a variety that is potentially harmful to our health.

Secondly, it is not clear why officials from the Kenya Plant Health Inspectorate Service, the Ministry of Agriculture, and the Kenya Agricultural Research Institute have not taken any action since last month when the matter was brought to their attention.

While we acknowledge that verifying the accuracy of the sampling method and the reliability of the results requires time, the issue at hand touches on the confidence that Kenyans have on the willingness of those bodies to protect the common good.

We need to know, for instance, why global biotechnology corporations, as well as the lobbies, are so determined to have our farmers cultivate genetically modified maize and other crops.

In a globalized world, there is nothing wrong with any company wanting to capitalize on market opportunities in Kenya. But the Government needs to protect our own companies that market seeds.

We should avoid, at all costs, a situation where our farmers will end up being forced to source maize seeds solely from the multinational companies.

We also need to establish that such seeds are safe for our health. This is crucial because this modification involves pumping poison-emitting bacteria into maize seeds to fight pests or resist drought.

The onus is with our research bodies to establish the effect of GM foods on humans. We cannot expect laboratories abroad to do this for us.

*This editorial was originally published in the Kenyan newspaper Daily Nation on March 25, 2008.*



# Statement by Civil Society on Biotech ECOWAS Conference

*Issued in Bamako, Mali, June 24, 2005*

Civil society groups have expressed their reservations about genetic modification (GM) among the tools of biotechnology and wish to inform the ECOWAS Ministers as well as African and international public opinion of the reasons underlying this position.

## We Denounce and We Reject:

- The patenting of life, which comes with GM, because it dispossesses small-scale African producers and violates their economic and cultural rights
- The absence of labeling of GM products, which violates consumers rights to information
- The lack of any mechanism for traceability in our countries, which prevents us from identifying the source of any eventual problem brought on by GM

## We Demand:

- The recognition of liability of producers/users of GM technology with regard to any damage to the environment or human health, in conformity with the Cartagena Protocol on Biosafety
- That the adoption of any innovation using genetic modification be postponed in the long term (10 years) to allow different actors to build their capacities in terms of verifying the absence of risk from GMOs

These five recommendations were the subject of intense debate between civil society and experts both at the plenary session of the Ministerial Conference and in the working groups. However, they have been left out of the final report that is being officially submitted to the ECOWAS Ministers.

## Signed:

- West African Network of Peasant Organisations and Producers (ROPPA) / West African Network of Chambers of Agriculture (RECAO)
- Consumers International
- Mali Coalition for the Protection of Genetic Heritage
- Francophone Africa Coalition for the Protection of Genetic Heritage



Female farmer in the Tigray Province in the north of Ethiopia  
*Credit: Aksel Nærstad*

*Statement issued by peasant's organizations, consumer associations, the Mali Coalition for the Protection of Genetic Heritage, and the Francophone African Coalition for the Protection of Genetic Heritage, at the closing of the ECOWAS (Economic Community of West African states) Ministerial Conference on Biotechnology in West African Agriculture.*

# PART THREE:

## Turning the Tide Against GE in Africa

*“History has many records of crimes against humanity, which were also justified by dominant commercial interests and governments of the day.... Today, patenting of life forms and the genetic engineering that it stimulates, is being justified on the grounds that it will benefit society.... But, in fact, the development of other options is deliberately blocked by monopolizing the raw biological materials. Therefore, farmers become totally dependent on the corporations for seeds.”*

—Nobel Laureate Wangari Maathai, *Green Belt Movement, Kenya*

The threat to African food security and food sovereignty—from genetically engineered crops, biopiracy, climate change, and free market ideology—is very real and requires a pro-poor, solution-oriented policy change. Recently, the International Assessment of Agricultural Science and Technology for Development—the biggest study of its kind ever conducted—concluded that GM was not the answer to world hunger. When asked if GM could solve world hunger, the study’s director, Professor Bob Watson, said, “The simple answer is no.” Additionally, new studies have shown that using GE seeds actually *reduces* crop yields by between 6 and 11 percent for common GE crops such as soy and cotton, likely because the genetic modifications for herbicide resistance negatively impact the plant’s uptake of essential nutrients from the soil. Yet, in May 2008, the Bush Administration crassly snuck phrasing promoting GE into the aid package designed to ease the world food crisis, again using the lies that GE crops “increase yields through drought resistance and pest resistance.” This ramping up of the insidious effort to force GMOs into developing countries must stop.

Genetically engineered crops are a wrongheaded approach for solving poverty and hunger anywhere, but they are a desperately bad fit for Africa. Because three-quarters of sub-Saharan farmland is plagued by severe soil degradation, losing basic nutrients season after season, it would be a disastrous mistake to turn to crops whose nutrient uptake is hindered in any way. Instead, Africans are asking for real change that will sever the long trend of benefiting outside interests—change that will truly improve livelihoods, safeguard the continent’s rich biodiversity, and provide ample food for all. For example, low-cost agroecological farming that fixes nutrients in soil and does not require expensive inputs would be a far better solution. The Director General of the World Agroforestry Centre confirmed that their research shows that farmers can

easily double their production of basic cereals by planting leguminous “fertilizer trees,” which transfer atmospheric nitrogen into soil where it improves soil health.

African scientists, policymakers, farmers, and activists have debunked the myth that genetic engineering holds the solution to the complex challenges facing the continent, and the tide is beginning to turn against genetic engineering in Africa. All the while, GE crops have co-opted the agricultural research agenda, rural development discourse, and tremendous resources and funding that could have contributed toward sustainable, African-led change. At the November, 2008 Conference on Ecological Agriculture: Mitigating Climate Change, Providing Food Security and Self-Reliance for Rural Livelihoods in Africa, organized by the African Union and UN Food and Agriculture Organization, the Assistant Director-General of the FAO concluded that, “Agriculture can be at the center of the solution to climate change and this is especially true if we link sustainable natural resource management with agriculture. This can then be the basis for development and food security....”

It is time for an end to business as usual. African farmers do not need top-down, force-fed technocratic solutions. They want cost-effective options that take into account unique challenges and opportunities that face Africa, including the integration of multipurpose crop systems, improved access to land, and support for traditional plant varieties and breeding techniques. This is a choice between profits or people. Policies that support food sovereignty are the clear choice as far as Africans are concerned, and it is time to stop touting the benefits of GE and listen to the chorus of voices from Africa calling for sustainable and lasting change.

# Are New Technologies an Answer to the Needs of Small-Scale Farmers?

by Makhathe Moahloli, Executive Director/National Coordinator of Katleho Moho Association (KMA), Lesotho

For thousands of years, small farmers have grown food for their local communities—planting diverse crops in healthy soil, recycling organic matter, following nature’s rainfall patterns, and protecting our rich biodiversity. This system of agriculture, built on farmers’ knowledge of the local environment, passed on from one generation to another. This relationship between nature and humankind is today threatened by the Green Revolution and genetic engineering of our food and agriculture.



Plenary at Nyéléni 2007  
Credit: Aksel Nærstad

Farmers were told that the use of chemicals to feed plants and fight pests could improve productivity. Scientists developed new kinds of seeds—industrial hybrids—that work well with chemicals inputs. These new seeds, different from natural or open pollinated seeds, have been developed in laboratories by giant multinationals and not by farmers. Farmers who have saved seeds over centuries are now required to purchase these seeds each year.

To further their profits, corporations have developed Genetic Use Restriction Technologies (GURTs) as well. There are two main categories of GURTs: trait-related, or

T-GURTs, and variety-related, or V-GURTs. The T-GURTs aim to control the use of traits such as insect resistance, stress tolerance, or production of nutrients. The genetic use restriction technology allows traits to be switched on and off by application of a chemical catalyst, very often owned by the same company that controls the seeds.

The V-GURTs aim to control reproductive processes that result in seed sterility, thus affecting the viability of the whole variety. Seeds produced using this technology will germinate only if an activator compound is used. Referred to as Terminator Technology, this mechanism has generated widespread condemnation and protests from farmers, indigenous peoples’ groups, and civil society organizations. The intense lobbying efforts of social movements and the concerns of developing countries aired during the last Conference of the Parties to the Convention on Biological Diversity (COP 8) in Curitiba, Brazil in 2006 resulted in the continuation of the global moratorium on field-testing or full-scale application of terminator technology. However, the promoters of GURTs want it discussed further at COP 9 in Bonn, Germany in May 2009.

While the proponents of these technologies claim they will increase production and benefit farmers, in reality they pose serious challenges to farming communities worldwide. Just to mention a few: the technology constitutes a severe threat to our biodiversity; few farmers will be able to afford the expensive maize seeds; countries will face a loss of crop diversity, especially in cross-pollinating crops; and contamination will deny farmers the opportunity to save seeds for exchange and re-planting.

Given the threats that these benign-sounding technologies present to our communities, it is essential to raise awareness about them. Recent policy advocacy workshops organized by the Katleho Moho Association (KMA) for government officials, parliamentarians, civil society, and farmers unions have demonstrated that most people are not even aware of international agreements, conventions, and treaties to protect our biodiversity and environment.

In a supervisory visit of seven villages in which the Community Biodiversity Development Conservation Pro-

gramme (CBDC) operates, the staff tried to ascertain if the target communities understood the threat of genetic engineering to traditional seed systems and farming. In routine village visits we heard that introduction of new technologies is increasing the vulnerability of the farming communities, particularly small-scale farmers. Our farmer members have asked for initiatives that will call for rethinking of introducing these technologies in developing countries, particularly in Africa.

In one of these visits, 78-year-old Ralobisi Seleke from Ha Moahloli village stood up to say: “I am sure that I am the oldest among those who are here. I have learned that these technologies are meant to make the poor poorer and the rich richer. This Green Revolution has damaged our nature and continues to make it worse. We need to stand up and voice strongly our opposition to the developers of this technology and ask them to stop with immediate effect.”

He went on to list some of his concerns, including threats to biodiversity as large land areas are planted under a monocrop; prioritizing market and export crops over crops for domestic consumption; increased mechanization, use of chemicals, and irrigation; use of hybrid seeds that need to be bought yearly; increased dependency on multinationals for chemical seeds and inputs; and environmental and health risks associated with the industrial model of agriculture. Seleke also indicated the benefits of ecological agriculture, including protection of biodiversity and environment and the ability of farmers to use available resources (saved seeds, animal manure).

In our experience, the use of traditional seeds and farming systems are also the best means to reduce poverty in rural areas such as Semonkong in Lesotho. The CBDC’s Seed and Food Security Programme has made a strong case for promoting traditional farming systems, stating that local seeds and indigenous knowledge will benefit the current population and future generations. Ever since the inception of the CBDC program in 2006, many target farmers have improved their livelihoods. As a result, our approach is gaining acceptance among smallholder farmers who believe in food sovereignty and are joining hands to campaign against technological solutions such as the New Green Revolution for Africa. For instance, Mrs. Makaizara Molapo, a farmer, told our staff, “I find CBDC useful because it tackles prevailing food insecurity and challenges that face smallholder farmers. The CBDC has helped us reduce dependency on agricultural inputs because it promotes seed multiplication, and use and con-



Seed Sovereignty: Farmers display seeds from around the world at the Nyéléni World Forum for Food Sovereignty 2007.  
*Credit: Grassroots International*

servation of indigenous seeds instead of buying hybrids or using emerging technologies.”

To ensure well-being of small-scale farmers, several other factors need to be taken into consideration instead of depending on technologies such as genetic engineering. First, farmers need to be involved in the planning and decision-making process of initiatives launched to increase agricultural productivity in Africa. Second, there is a need for investment in capacity building for farmers and participatory research to strengthen their knowledge, which will be transferred from generation to generation. Third, there is a need to build awareness on environmental issues, international conventions, and treaties to safeguard our biodiversity, in addition to ensuring that farmers are involved in national, regional, and international debates on policies that impact agriculture. And it is essential to ensure domestic markets for farmers, to protect their livelihoods.

We all know that we don’t need a technological solution to accomplish food security or to protect livelihoods of our farmers. We need collective effort, backed by the political will and financial support, for development policies that focus on supporting small-scale farmers who form the backbone of our agrarian economies.

*Makhathe Moahloli is the Executive Director and the National Coordinator of the Katleho Moho Association (KMA) in Lesotho, a community-based organization that focuses on improving livelihoods through health initiatives and agricultural development.*

# What Kind of Aid Does Africa Need? Not Dumping of Food or Industrial Agriculture

by *Diamantino Nhampossa, Executive Coordinator, União Nacional de Camponeses UNAC (National Peasants Union), Mozambique*

My country—Mozambique—is one of those African countries in which the consequences of colonization, neo- or re-colonization, and structural adjustment programs are visible. A growing number of poor people are living in rural areas without basic public services like water, health services, and education, while our main urban centers show a concentration of wealth in the hands of a small group of people. The suburbs are becoming more crowded than ever, and everyday life is a big challenge.

If we look at the kind of agricultural policies that are being proposed for our countries today, we do not find any reason to believe that there is real interest in tackling the root causes of poverty or in promoting broad-based rural development. The economic structural adjustment programs have severely weakened our agriculture economies. And now trade agreements, touted as Economic Partnership Agreements (EPAs), are a weapon with the potential to destroy our local markets for agriculture products.

While the proposed Green Revolution may result in increased production of a few food items, it is not without its social and environmental costs. There is considerable evidence that the Green Revolution in the past benefited those farmers who could afford the technology at the expense of poor farmers who could not. This led to increased landlessness as poor farmers saw their debts increase and lost their holdings, increased migration to the cities, and increased incidence of hunger. Despite the claims of increased food production, widespread hunger still persists in the countries that underwent the Green Revolution, although a number of them have food surpluses for exports. The irony of our global economy is that food flows through trade from areas where people are hungry toward areas where there is money.

Peasant farmers' access to land is crucial for agricultural development in Africa. Mozambique was successful in passing legislation that could assure land access and control by peasant families. However, the spirit of this legislation is restrained by a lack of agricultural policies that would support peasant and family farm agriculture.

Access to and control of land by the poor has to be accompanied by appropriate measures that assist farmers to produce food for local markets—policies based on the principles of food sovereignty. The development of agriculture and rural areas requires the state's commitment to pro-peasant and pro-family farmer policies that promote sustainable peasant-based agriculture. Sadly, current policies in most countries favor large export producers and hurt peasant food producers. It is urgent that we reverse such misguided policies.

The International Conference on Agrarian Reform and Rural Development's (ICCARD) declaration states that "policies and practices for broadening and securing sustainable and equitable access to and control over land and related resources and the provision of rural services should be examined and revised in a manner that fully respects the rights and aspirations of rural people, women and vulnerable groups, including forest, fishery, indigenous and traditional rural communities, enabling them to protect their rights, in accordance with national legal frameworks." Via Campesina supports this statement by the world's governments and demands that they make it a reality.

The ICARRD statement goes on to say, "Agricultural policies need to find balance between national policy space and international disciplines and commitments. Indeed, agricultural policies are an important tool to promote land and agrarian reform, rural credit and insurance, technical assistance and other associated measures to achieve food sovereignty and rural development." Indeed, food sovereignty policies are far more important for the well-being of our peoples than living up to certain types of negative international commitments, like those of the WTO's Agreement on Agriculture, which hurt peasant and family farmers.

In today's Africa, free trade agreements have made it easier for private traders—the only buyers and sellers of food left, now that the marketing boards are largely gone—to import subsidized food from rich countries instead of negotiating with thousands of small local farmers. Faced with this negative panorama, peasant families in Mozam-

bique and across the continent are abandoning agriculture in search of low-wage jobs in urban slums and are joining the international migrant stream. This is the sad reality, and EPAs will only make this worse.

Our country, like other African countries, has become highly dependent on foreign budget support over the last 20 years. This funding was generally directed to implementation of an agenda that was based on policies directed towards the liberalization and privatization of the country's economy. During all these years almost nothing was directed to agriculture, especially peasant agriculture. Places that were once our green and productive lands are now abandoned by farmers, and are becoming unproductive deserts.

Today's rural life has been devastated by years of free trade and anti-peasant policies imposed on our governments by their bilateral and multilateral allies. The forced privatization of food crop marketing boards—which, though flawed, once guaranteed African farmers minimum prices and held food reserves for emergencies—and the closure of rural development banks, which gave farmers credit to produce food, have left farmers without financing to grow food or buyers for their produce. We are living a policy-driven disaster.

What kind of aid does Africa need? Not dumping of food aid by rich countries that destroy local efforts to produce. Not the imposition of industrial-style agriculture based on chemicals and “high-yielding” seeds, with the paradoxical outcome of greater production of a few food crops accompanied by even worse hunger and environmental degradation. Pesticides and chemical fertilizers eventually degrade the soil, leading to declining productivity, and the high cost of those inputs will deepen the divide between rich and poor farmers, swelling the ranks of the hungry.

Developed countries have many examples of the negative impacts of monoculture and GM crops, however this same system of agriculture is being promoted in African countries such as Mozambique. One needs to question, why? We must learn from the lessons of the past and be innovative and courageous in our aid and agriculture policies. If not, the errors of the past will simply be replicated, and smallholder farmers will become even more impoverished.

It is important to recognize the difference between “development” and “advancement in technology.” Technologi-

cal advancement does not necessarily improve standard of living for poor rural peasant farmers. More often than not it further entrenches their impoverishment. Technology is not always the panacea.

One alternative that is left to fight poverty in Africa is the proposal of food sovereignty that comes from the movement of peasants, indigenous peoples, migrants, women, and rural communities, which was confirmed during the international farmers forum held in 2007 in Mali. Food sovereignty is the peoples' right to healthy and culturally-appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts those who produce, distribute, and consume food at the heart of food systems and policies, rather than the demands of markets and corporations. It defends the interests and inclusion of the next generation. It offers a strategy to resist and dismantle the current corporate trade and food regime, and dictates that food, farming, pastoral, and fisheries systems should be determined by local producers.

Food sovereignty gives priority to local and national economies and markets and empowers peasant and family farmer-driven agriculture, artisanal fishing, pastoralist-led grazing, and food production, distribution, and consumption based on environmental, social, and economic sustainability. Food sovereignty promotes transparent trade that guarantees just income to all people and the rights of consumers to control their food and nutrition. It ensures that the rights to use and manage our lands, territories, waters, seeds, livestock, and biodiversity are in the hands of those of us who produce food. Food sovereignty implies new social relations free of oppression and inequality between men and women, peoples, racial groups, social classes, and generations.

Lastly, it is essential to support the declaration of the International Conference on Agrarian Reform and Rural Development (ICARRD) of the Food and Agriculture Organization of the United Nations, and to fully support its implementation. It is an important guideline for the future of Africa and rural areas around the world.

*Trained as a lawyer, Diamantino Nhampossa is the Executive Coordinator of the União Nacional de Camponeses (UNAC National Peasants Union) in Mozambique and a member of the Via Campesina's International Coordinating Committee for the Africa Region.*

# Twelve Reasons for Africa to Reject GM Crops

by Zachary Makanya, Participatory Ecological Land Use Management Association (PELUM), Country Coordinator, Kenya

Africa is in danger of becoming a dumping ground for the struggling GM industry and a laboratory for frustrated scientists.

The push to bring genetically modified (GM) crops into African agriculture is not letting up, even as – and partly because—the GM industry is faltering in much of the world. A growing list of organizations, networks, and lobby groups with close ties to the GM industry are working to promote GM agriculture on the continent. GM crops are so far only commercially available in South Africa, but there have been field trials in countries including Kenya, Egypt, and Burkina Faso, and also in Senegal and Zimbabwe where there was no public knowledge or regulatory oversight. There is also concern that GM crops are coming in by way of food imports and seed smuggling, even for countries that have taken measures to prevent imports of GM food, such as Zambia, Angola, Sudan, and Benin.

The proponents of GM technology sell a sweet message of GM crops being the second Green Revolution and the answer to African hunger, but the reality is quite different. A close look at GM crops and the context in which they are developed makes it clear that GM crops have no place in African agriculture.

Here are twelve reasons why:

## GM Crops will Contaminate Non-GM Crops—Coexistence is Not Possible

GM crops are plants and, as such, they cannot be easily controlled. Pollen can travel long distances by way of wind and insects. Human error and curiosity or regular farming practices also help seed to spread. GM crops can therefore never coexist with non-GM crops of the same species without the risk of contaminating them, especially in Africa where tight controls over seeds and farming are unrealistic. This contamination would have serious implications for small-scale farmers. For instance, it would endanger the indigenous seeds that these farmers have developed over centuries, seeds that they trust and know. Farmers with contaminated fields could also end up being forced to pay royalties to the companies that own the patents on the GM crops that contaminated their fields.

## GM Crops Will Foster Dependence on a Corporate Seed Supply

Most GM seed manufacturing companies prohibit farmers from saving their on-farm produced seeds for the next season and from sharing them with their neighbors, relatives, and friends. This is imposed through elaborate contracts, agreements, and conditions, which are imposed by the multinational seed companies. More than 80 percent of the small-scale farmers in Africa today save their on-farm produced seeds for the next season. Farmers sometimes do this because they do not have enough money to buy new seeds and sometimes because they value their own seed. Also, seed sharing (with neighbors, relatives and friends) is a cultural norm in many African communities. The introduction of GM seeds will jeopardize these traditional and vital practices.

## GM Crops will Usher in So-Called Terminator and Traitor Technologies

So-called Terminator and Traitor technologies are two examples of Genetic Use Restriction Technologies (GURTs). Terminator seeds are genetically modified so that the plants that they grow into produce sterile seeds (seeds that are infertile cannot germinate in the next season or any other time). Traitor technology produces GM crops that need to be sprayed with certain chemicals in order to grow properly. It is important to note that these technologies, which are targeted specifically at developing countries, offer no positive benefit to farmers at all. GURT technologies will cause African farmers to become wholly dependent on companies for their seed supply and for the costly chemicals that their seeds will not be able to grow without.

African countries should enhance their investments in agricultural research. But such investment must support farmer-driven research and it must focus on specific and local problems that affect farming communities.

The technologies promise rich rewards for the multinational companies, but they spell doom for small-scale farmers in Africa.

## GM Crops Will Increase the Use of Chemicals

More than 70 percent of all the GM crops currently grown in the world are genetically modified to resist certain herbicides. Farmers that grow these GM crops must use the herbicides sold by the very companies selling the GM seeds. Not surprisingly, studies show that these crops are increasing the use of herbicides, especially as certain weeds develop resistance. Once again, the GM seeds hold the promise of huge profits for multinational corporations, but only increase costs for small-scale farmers in Africa.

## GM Crops are Patented

Transnational corporations own nearly 100 percent of the agricultural biotechnology patents and the majority of these patents are controlled by a handful of pesticide corporations. These companies will use their patents to block research that does not suit their interests and to trap farmers into paying them royalties every year on seeds and into a never-ending dependence on their chemical inputs.

## GM Crops Favor Industrial Agriculture Systems

GM crops are designed for agricultural systems with characteristics that are a mismatch for Africa:

- **Large farms:** In Africa, small-scale farmers with 0.5 to 3 acres of land are 80 percent of the population. Appropriate agricultural technologies should help small-scale farmers to diversify and intensify their on-farm enterprises.
- **Monocropping:** Due to the small farm size and challenging environmental conditions, monocropping is not favorable for African agriculture.
- **Subsidies:** While the farmers in the west are highly subsidized, African farmers do not get any subsidies and cannot even recoup the cost of their crop production.
- **Mechanization:** While farming in the developed coun-

tries is highly mechanized, most African farmers depend on human and animal power.

- **Reliance on external inputs:** African farmers cannot afford the high cost of inputs that accompany the cultivation of transgenic crops. This is one of the main reasons for the failure of the Green Revolution in Africa.

## GM Crops Threaten Organic and Sustainable Farming

Most of the farmers in Africa practice organic agriculture (by default or by choice). Genetic engineering poses a great threat to such farmers in several ways, including the following:

- Many farmers in Africa rely on *Bacillus thuringiensis* (*Bt*), a microbe found in the soil that farmers can use as a natural insecticide. The toxin-producing genes of *Bt* have also been genetically engineered into certain crops so that these GM crops constantly express the *Bt* toxin. The widespread growing of GM *Bt* crops will encourage the development of resistance to *Bt* among important crop pests, thus rendering this natural insecticide useless.
- Organic farmers practice mixed cropping and crop rotation. These practices will be threatened by herbicide-tolerant GM crops, which use broad-based herbicides that kill all plants, not just the weeds that farmers may not want.
- Natural fertility is a key factor in organic/sustainable agriculture. The herbicides encouraged by GM crops kill fungi and bacteria essential to soil fertility management.

## The Biosafety Systems Required are Unrealistic for African Countries

African nations lack the expertise, equipment, infrastructure, legislation, and regulatory systems to implement effective biosafety measures for GM crops. They also lack the funds to build these up and will have to look for outside funding, which will increase their already heavy foreign debt loads. Should the development of GM agriculture really be a priority for African governments at this point in time?



## GM Crops will Not Reduce Hunger in Africa

Hunger in Africa is not due to a lack of food; there is enough food for all. The main problem is the poor purchasing power of the population because of poverty. This poverty is exacerbated by trade liberalization in the context of deep global inequality. With trade liberalization, African farmers have to compete directly with the heavily subsidized and marketed agricultural products from the West. It is like a soccer match with the small-scale farmers playing uphill.

## GM Crops Will Not Resolve Problems with Pests

GM crops encourage the prolonged and continuous use of herbicides and pesticides, including the pesticides expressed by GM plants. As a result, pests and harmful weeds inevitably develop resistance, forcing farmers to use more pesticides and more toxic mixtures. Attempting to overcome pests by the selective use of pesticides targeted at one particular pest is particularly short-sighted in tropical agriculture because simply eliminating one pest allows space for secondary pests to proliferate and take over.

The best way to bring about sustainable development is to strengthen existing local production systems while protecting them from such threats as GM crops.

## GM Crops Will Encourage the Arbitrary Destruction of Biodiversity

African biodiversity is rich and complex, but it is also fragile. GM crops could easily upset the ecological balance, bringing serious repercussions for farming and the surrounding environment.

## GM Crops Are a Threat to Human Health

Little is known about the impacts of GM crops on human health. Extensive and independent studies have simply not been done. But the risks are clearly real, especially for Africa, where diseases that are effectively controlled in the West still run rampant.

## What Is To Be Done?

Africa needs to apply the precautionary principle, which advises to not proceed when there is no certainty for safety of health and the environment. Given Africa's lack of resources for effective biosafety measures—and lack of awareness about GM crops among the public and farmers in particular—the only practical and appropriate position for African governments to take at present is to declare a moratorium on the commercialization of GM crops. This must be upheld until adequate research has been carried out into the different socioeconomic, environmental, and agronomic issues surrounding GM crops and until there is enough public awareness for proper public consultations to be carried out. The right of African governments to make their own decisions should be respected by other countries.

This does not imply that African countries should put agricultural research on hold. On the contrary, African countries should enhance their investments in agricultural research. But such investment must support farmer-driven research and it must focus on specific and local problems that affect farming communities. It is time for African governments and their development partners to address the root causes of poverty and food insecurity. In line with this, much more can be done to support:

- Fair trade and improved food processing and marketing systems;
- Improved rural infrastructure;
- Farmer-friendly credit schemes;
- Low cost irrigation systems;
- Rural training to sharpen the skills of local farmers in food production and food processing; and
- Rangeland management.

In a world of increasing uncertainty and complexity, African peasant farmers want agricultural practices and agro-ecosystems that they control and that ensure both social and ecological resilience.

Only Africans can provide African solutions to African problems. Outsiders may help, but the insiders—those who are affected— must do the job. The best way to bring

about sustainable development is to strengthen existing local production systems while protecting them from such threats as GM crops.

*Zachary Makanya works for the PELUM (Participatory Ecological Land Use Management) Association, a regional network of over 200 civil society organizations in east, central, and southern Africa, which is working towards sustainable agriculture, food security, and sustainable community development in the region. PELUM helps to build the capacity of member organizations to work with small-scale farmers to improve their livelihoods through ecological land use and management. PELUM is also involved in campaigning, advocacy, and lobbying on policies and issues that affect the livelihoods of small-scale farmers. This article was first published in GRAIN's Seedling Magazine in July 2004.*



A female farmer, outside of Beira in Mozambique.  
Credit: Aksel Nærstad

## Hands Off Our Food!

*by Gertrude Kenyangi Kabusimbi, Executive Director,  
Support for Women in Agriculture and Environment (SWAGEN), Uganda*

Anyone who hears an advocate of the Green Revolution for Africa expound on its virtues, will get excited by the promise that within twenty years farmers will double or even triple their yields and sell the surplus in the market. It looks like the path of least resistance, but wait a minute.

To think that a technological fix will solve the problem of declining food production in Africa is incredibly simplistic given the complex nature of the problem.

Have they considered the realities of Africa? For instance:

- 90 percent of the population in the majority of Sub-Saharan African countries are peasant farmers with holdings averaging 2 hectares who use self regenerating planting materials, as opposed to state managed food production. Our method, giving the grassroots peasant farmer control of production of food for their own consumption, is the first defense against hunger.
- 55 percent of the peasant farmers live below the World Bank's poverty line (below U.S. \$1 per day) and cannot afford the package of inputs required to grow GM crops. They will fall in debt to secure a livelihood from the land.

- Socio-political conditions often degenerate into armed conflicts, rendering large portions of the population refugees and internally displaced persons. This population is unable to engage in such highly organized agriculture because of the destruction of infrastructure and the presence of land mines in farming areas. In addition, the HIV/AIDS pandemic has severely affected household agricultural production, as it grounds those of productive age and claims the resources of poor people for medical treatment.
- Of the crops promoted by the Green Revolution for Africa—rice, wheat, and maize—only maize is a significant small farmer crop in a few countries of eastern and southern Africa. More widely used crops such as sorghum, millet, cassava, and groundnuts are not part of the package.
- As members of the WTO, most African countries do not have the power to protect their farmers from the dumping of subsidized food from the U.S. and the E.U. even as the latter protect their own markets from food imports through various non-tariff barriers.

In a world of increasing uncertainty and complexity, African peasant farmers want agricultural practices and agro-

ecosystems that they control and that ensure both social and ecological resilience. These are the best disaster-prepared community responses during times of vulnerability caused by market shifts, natural disasters, climate change, and seasonal disruptions to livelihoods.

Linking African peasant farmers to input-dependant agriculture such as inorganic fertilizers, genetically modified seeds, and chemicals to control pests and diseases has the potential to expose livelihoods to the uncertainty of international commodity markets and create dependency on a product that is inextricably linked to fossil fuels for its manufacture and transport. Yet, Africa is constantly bombarded with demands to protect and conserve the environment. What double standards!

Besides, even if locking ourselves into concepts such as the Green Revolution for Africa, which originated outside of Africa, were to boost production and reduce hunger in the short-term, it would sow seeds for chronic stress to

livelihoods and agro-ecosystems from which it would be impossible to recover.

We demand to be consulted, not hoodwinked! You cannot purport to address hunger without addressing the hungry. Africa is not a homogenous mass of land inhabited by obscure subspecies of human beings who have no capacity to weigh issues, make independent choices, and take informed decisions. Africa is the cradle of mankind and origin of civilization. We demand respect for our indigenous knowledge and locally appropriate technologies. We are not guinea pigs to be used in unproven theories and experiments. Give us a break!

*Gertrude Kenyangi Kabusimbi is the Executive Director of Support for Women in Agriculture and Environment (SWAGEN), based in Kampala, Uganda. SWAGEN works to simultaneously to reduce poverty and conserve biodiversity through initiatives and partnerships with the forest-edge community and other national partners.*

## **African Communities Must Have the Right to Reject GMOs**

*Communiqué issued at the Regional Conference on Biosafety, Nigeria, in Abuja, Nigeria, from November 27 to 29, 2006*

*Alarmed* by the discovery of illegal Genetically Modified rice in Sierra Leone and Ghana;

*Concerned* that such contaminated food got to West Africa through food aid from USAID and with the possible knowledge of the World Food Programme;

*Worried* by intense pressure from the Biotech industry, donor agencies such as USAID, and the Bill Gates Foundation on African governments to accept Genetically Modified crops;

*Concerned* by the non-existence of strong, people-centered biosafety laws in countries of the region to effectively regulate and protect people from the GMO invasion and its inherent hazards;

*Fearing* that our people will be impacted through negative effects of GMO crops on local livelihoods, local farmers and public health;

*Emphasizing that* the solution to food security in Africa is not GMOs, a product of profit-driven biotech industries, but policies to achieve improved farming practices, development of rural infrastructure, and effective distribution networks for agricultural products;

*Recognizing* the contribution of science to development, but cautious about the science of genetic engineering that transfers genes from other species using viral bacterial, viral agencies and genes from unrelated species;

*Acknowledging* the fact most African countries are Parties to the Cartagena Protocol on Biosafety which mandates each country to put in place effective biosafety laws;

*Recognizing* that the resort to biofuel, supposedly as an alternative to fossil fuel, is not the answer to critical issues of climate change and food shortages in the world;

### **The participants recommend that:**

African governments put in place strict biosafety laws based on the precautionary principle;

That such laws provide for the right of communities, regions and/or entire nations to completely reject GMOs;

Rather than biofuel, African government should promote other safe sources of energy like solar and wind since the inherent impacts of biofuel may outweigh its usefulness;

Immediate recall from Africa of all long grain rice imported from the United States unless proven not be contaminated by LLRice601;

Suspension of rice imports from the United States unless accompanied by a valid GM-free certificate;

All African governments to put in place mechanism to monitor commercial imports of food to ensure that they are not contaminated by GMOs;

All African governments must initiate proactive programs to promote local rice varieties, reduce import dependency, and promote food sovereignty.

African governments must make adequate provision for the development of personnel and infrastructure for bio-safety regulation and control.

*This communiqué was issued at the Regional Conference on Biosafety, organized by the Environmental Rights Action/Friends of the Earth, Nigeria (ERA/FOEN), in Abuja, Nigeria, from November 27 to 29, 2006. The conference was attended by NGO representatives from Nigeria, Ghana, Sierra Leone, Togo, and Cameroon, as well as international scientists, academics, officials of Nigerian government agencies and ministries, farmers' organizations, lawyers, journalists, and students, who deliberated biosafety challenges facing the continent.*

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## RESOURCES

### **African Centre for Biosafety, South Africa**

[www.biosafetyafrica.net](http://www.biosafetyafrica.net)

Suite 3, 12 Clamart Road, Richmond, South Africa, 2092

Tel/Fax: 27 (0) 11-482-8915

### **BioWatch, South Africa**

[www.biowatch.org.za](http://www.biowatch.org.za)

PO Box 13477, Mowbray, 7705

Tel: 27 (0) 21-447-5939

Fax: 27 (0) 21-447-5974

### **Coordination Nationale des Organisations**

#### **Paysannes du Mali (CNOP), Mali**

[www.cnop-mali.org](http://www.cnop-mali.org)

Kalaban coura, Rue 200, Porte 727, BP.E:2169,

Bamako, Mali

Tel: (223) 20-28-68-00

### **Environmental Rights Action/Friends of the Earth Nigeria**

[www.eraction.org](http://www.eraction.org)

214 Uselo Lagos Road, Benin City, Nigeria

Tel: 234-52-880619

### **Katleho Moho Association (KMA), Lesotho**

PO Box 246, Semonkong 120, Maseru 100, Lesotho,

Southern Africa

Tel: 266-2231-1241

Mobile: 266-5803-3683

Fax: 266-2231-1241

### **Participatory Ecological Land Use Management (PELUM), Country Coordinator, Kenya**

[www.pelumrd.org](http://www.pelumrd.org)

Independence Avenue, Lusaka, Zambia, 10101

Tel: 260211257115

Fax: 260211257116

### **SAFeAGE, South Africa**

[www.safeage.org](http://www.safeage.org)

PO Box 358, Woodstock, 7915, South Africa

Tel: 27 (0) 21-447-8445

Fax: 27 (0) 866-899902

### **Support for Women in Agriculture and Environment (SWAGEN), Uganda**

PO Box 12223, Kampala, Uganda, E. Africa

Tel: 000-25677-685332

Fax: 000-25641-220117

### **União Nacional de Camponeses (UNAC), Mozambique**

[www.unac.org.mz](http://www.unac.org.mz)

Rua Valentim Siti Nffl 39 R/C, Caixa Postal Nffl 1.016,

Maputo, Moçambique

Tel: 258 (21) 30-67-37

Mobile: (82) 30-01-875

Fax: 258 (21) 30-67-38



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