

# Potential genetic, environmental and economic impacts of the Alliance for a Green Revolution for Africa (AGRA)

By [Global Research](#)

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AN OPEN LETTER FROM SCIENTISTS

TO THE GATES AND ROCKEFELLER FOUNDATIONS

A GREEN REVOLUTION FOR AFRICA?

We have been prompted to send you this letter regarding the scientific fallacies and myths underpinning the plans of the Alliance for a Green Revolution for Africa (AGRA), because we are concerned about its potential genetic, environmental, and economic impacts.

THE GOAL

By its own accounts, AGRA is investing heavily in training “the next generation of African crop scientists” to accept an agriculture based on bioengineered crops and the economic structures associated with them. It is already evident that Africa’s political leaders are under pressure to tacitly accept AGRA’s initiatives and to cooperate with them. Yet this agricultural development scheme, in many ways, follows the same failed logic that flawed the Green Revolution of the 1960s.

Before AGRA begins full implementation of its potentially disruptive agricultural initiative, the following actions must occur.

- A broad spectrum of scientists and science educators need to fully review and challenge assumptions in AGRA’ planned goals, motives and methodologies.
- Universities need to commit to conducting applied research on alternative methodologies that may offer Africa more environmentally and economically sustainable agricultural systems.
- Public debate needs to offer a broader view of African hunger and food security, while committing AGRA to greater transparency and accountability.

BACKGROUND

The agricultural development schemes proposed by AGRA follow much of the same failed logic that flawed the Green Revolution in the 1960s, but now the stakes are higher. Simply put, the AGRA initiative proposes to rapidly develop, and immediately employ, an entire “arsenal” of new seed varieties in order to attack the roots of hunger and to guarantee

greater food security to future Africans. Although few scientists today believe that techno-scientific solutions alone can save the world from hunger, the AGRA initiative reads as if the solutions will come mainly from outside funds and technology.

The rush to “feed Africa” should in no way excuse crop geneticists and agricultural development agencies from exercising the precautionary principle in evaluating their experiments; neither the Africans themselves nor the diverse African landscapes deserve to be recklessly experimented upon.

The AGRA arsenal of “new” seeds, including genetically modified (GM) seeds,

- will be placed out into farmers’ fields so quickly that they will likely contaminate locally bred varieties and introgress with weeds and wild relatives in the centers of origin of cultivated plants such as sorghum;
- will be monitored haphazardly, given the industry’s current record, and with Africa’s high levels of wild and domesticated biodiversity, much more is at stake if contamination occurs;
- will set up conditions ripe for the rapid development of resistance among pests and diseases to the chemicals genetically-engineered into the crops, potentially increasing virulence and diminishing the African potential for food security;
- will likely increase, not decrease, the use of pesticides and herbicides, including those which disrupt relationships with pollinators, soil microbes, soil quality and water quality.

The naiveté of the AGRA initiative with regard to such potential biological and ecological perils suggests that its managers have never considered the numerous carefully documented case studies compiled over the last five decades that both social and agricultural scientists from around the world accept as valid critiques of such naïve strategies.

As ominous is AGRA’s reliance on a “silver bullet approach” which assumes that technological fixes alone will solve hunger problems. If it continues on its present path, AGRA will sidestep social, ethical and economic issues regarding the need for greater equity in land, water and food distribution. As Nobel Prize winner, Amartya Sen, has well documented, malnourishment is not a function of the absolute amount of food available, but rather, of the inability of the poor to access food. Further, African research institutions will be more tightly linked to private global seed corporations in ways that challenge current international treaties protecting farmers’ rights and benefit-sharing.

Africa’s farmers have been developing their own locally adapted and socially appropriate crops varieties, technologies and management strategies for centuries. Unless their local knowledge is seen as a critical resource (wealth) useful in resolving these problems, AGRA will rely on a top-down outside-expert approach that is bound to fail. The African Union also has model legislation for genetic resources, which proposes farmers’ rights, prior-informed consent, and benefit sharing, all of which the AGRA initiative ignores.

## INVITATION TO AGRA

We as scientists and members of the world community propose that the Gates and Rockefeller teams delay their “big build-up” long enough to listen to both agricultural and social scientists who have had at least a quarter century of experience in documenting the perils of this approach and in finding suitable alternatives based on social and environmental justice and food sovereignty. We urge the financiers and staff of AGRA to accept an invitation to an open forum , to be held in 2008, that addresses these issues head-on, rather than relegating them to the margins.

## QUESTIONS FOR AGRA

A few examples of many questions, which need urgent public attention and debate, are as follows:

1.) As scientists, we know that public sector plant and genetic research is increasingly funded by biotech companies, and public research agendas follow private imperatives. This growing private dominance in the direction of research and in control of the world’s seeds is matched by increasingly stringent intellectual property regimes.

- Will new seed varieties developed by AGRA for Africa be patented or will the industry’s seed breeders honor farmers’ rights?
- As farmers’ varieties are used for parent material in breeding, will you honor benefit sharing of profits back to the earlier breeders of the parent materials? How will AGRA do this?

2.) Companies in the USA introducing herbicide-tolerant crops must obtain special permission from the Environmental Protection Agency (EPA) to leave higher levels of herbicide residue on the crop, thus increasing consumer exposure to agrochemicals (e.g., glyphosate, glufosinate). Yet herbicide-tolerance remains the chief focus of agricultural biotech research. The latest twist is dual herbicide-tolerant crops (Pioneer soybeans tolerant to both glyphosate and ALS inhibitors). What measures will be taken to protect consumers from this increased agrochemical exposure?

3.) Genetic engineering has provided only four commercialized biotech crops (soybeans, corn, cotton and canola) that feature one or both of the following two traits: herbicide-tolerance (68% of world acreage); insect-resistance (19%); and corn and cotton “stacked” with both traits (13%). Innumerable field trials have been conducted to develop biotech crops with other traits, from enhanced nutrition to drought-resistance, with little or no success. Given this track record of great expense with high failure, why offer high finance to this particular technology, while under-funding alternatives?

4.) Research has demonstrated that genetically-modified pollen of some crops can drift up to 24 kilometers from its source to contaminate other varieties. What are the ways you propose to reduce genetic contamination of local varieties, bred over centuries, from GM varieties?

We encourage scientists to direct other questions such as these to AGRA’s leaders, and request that AGRA formally respond to them on its website and at open forums.

For Reference:

Alliance for a Green Revolution for Africa (AGRA): [www.agra.com](http://www.agra.com)

Recommendations for a “rainbow evolution” respecting Africa’s diverse ecology:

<http://www.interacademycouncil.net/CMS/Reports/AfricanAgriculture.aspx>

African farmers’ rights, priori-informed consent (PIC) and benefit-sharing:

African Union. 2000. “AU Model Law on Rights of Local Communities, Farmers, Breeders and Access.” Available at <http://www.grain.org/brl/?docid=798&lawid=2132>

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