**Alliance for a Green Revolution in Africa (AGRA):**

**Advancing the Theft of African Genetic Wealth**

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 Debates around the Alliance for a Green Revolution in Africa (AGRA) of the Bill and Melinda Gates Foundation address its three strategic interventions in African food systems: expansion through research and marketing of seed technologies; opening up of African food markets and integrating the most prosperous smallholders into the singular global market; and coordination of food policies within regions of Africa. Each one of these interventions attempts to link African food production and consumption into the global food chain, controlled by a cartel of very few corporations. Those opposing AGRA delineate well the hazards of foreign control over African production and consumption of food.[[1]](#endnote-1)

 Not attracting sufficient international attention, however, for it is not mentioned in any AGRA promotional materials, is the core goal of AGRA: accessing African genetic wealth—without benefit-sharing nor recognition back to those who developed the cultivars for centuries.[[2]](#endnote-2) AGRA facilitates private ownership, and as important, corporate control over these genetic treasures.

 Private ownership of seed rejects the International Treaty for Plant Genetic Resources for Food and Agriculture (IT) protecting farmers’ rights to save, breed, and exchange seeds, a law that honours farmers as the innovators and providers of food biodiversity over millennia. This international treaty recognizes farmers’ role as seed breeders to sustain genetic resilience of the human food supply through centuries of climate changes. Freely sharing seed and experimenting with germplasm across hundreds, if not millions of farmers (maize, rice and other grains circumnavigated the globe many times before airplanes), sustain human food sources.

 In contrast, AGRA finances research and production of private corporate seeds (many genetically modified-GM) and expands their market delivery, along with their necessary components of fertilizers and pesticides. AGRA’s technological approach to food production differs from the 1960s ‘green revolution’ in only one way: hybrid seeds developed for increased yields during that era remained in the public domain, to be freely exchanged among all farmers; today, AGRA-sponsored seeds are most often privatized by the corporate seed breeder. The farmers must buy the expensive seeds and cannot replant the next generation, nor save or exchange the seeds among themselves for further experimentation in different soils or climes. Every year the farmer must return to the ‘owner’ of a living organism to access the key input for production.

 That same proprietor, often chemical companies such as Monsanto, DuPont (Pioneer Seed), or Dow Chemical, also sell the accompanying chemical fertilizer and pesticides required for the seed to meet its advertised potential. Only if all three inputs are bought as a package, in correct quantities for application at prescribed times (with the vital addition of adequate, timely watering) will the seed meet expected yields. The farmer cultivator becomes a consumer, quite like urban shoppers who must buy several items ‘shrink-wrapped’ together, in order to obtain one item. The chemical companies could not convince the majority of Africa’s farmers that the high prices of fertilizers and pesticides were worth the environmental degradation they caused, and therefore, taking proprietary control over the seed is their way to link all three.

 In order to sell their fertilizers and pesticides, the chemical companies have spent over a decade buying up seed companies. Now fourcorporations control 58% of the global seed market (Monsanto-USA 27%; DuPont/Pioneer Seed-USA 17%; Syngenta-Switzerland 9%; Groupe Limagrain-France 5%).[[3]](#endnote-3) Only vigilant, organized civic action[[4]](#endnote-4) has prevented DuPont (Pioneer Seed) from buying the largest seed company in the Southern African region, Pannar Seed of South Africa.

 Removing seed from the public sector and privatizing it are the coercive innovations that AGRA finances. But that is not all. Without genetic diversity, all the privatization in the world by a few corporations cannot provide adequate food supplies, not for Africa nor for the globe. The first agenda of AGRA is to facilitate corporate access to the genetic wealth on the African continent, while transforming a long history of reciprocal sharing among farmers into market transactions.

 Any seed breeder requires a source of genetic diversity to sustain the viability of a crop, which explains the efficacy behind the free-sharing of seeds. The ancient gene pool revitalizes what might be too closely bred to sustain vitality and vigour. First cousins among humans rarely marry first cousins, for any culture that permits this practice can then encounter problems with mental and physical disabilities. Corporate seed breeders precipitously narrow the gene pool to develop the exact characteristics they seek.[[5]](#endnote-5) Yet they too must return to the diverse gene pool to revitalize strains by cross-breeding with ‘wild’ or ‘distant’ relatives. This biological necessity is why so much money is dedicated to ‘cloning’ to try to overcome the problems with Dolly; once the ‘perfect’ sheep (or seed) is found, the breeders obviously prefer to clone it.

 One alternative to faulty cloning is to access for *free* the rich genetic diversity of the African continent while privatizing any offspring for corporate *profit.* If the input is free and the minimally altered output can be given high monopoly prices via patenting, then profits soar.[[6]](#endnote-6)

 The core of AGRA is **biopiracy**—the taking of Africa’s genetic wealth without benefit-sharing, or even recognition to previous breeders of the seed taken. For the continent, for example, thousands of varieties of sorghum and millet are freely shared by African farmers. AGRA receiving that gift is not considered theft.

1) What may be considered theft by the farmer breeders is the privatization of sorghum/millet, or any genes into a ‘new’ variety, without sharing the benefits back to the generations of farmers who cultivated that gift.

 The rest of the world has rejected the American approach to patenting seed, to the extent that the Doha Round of the World Trade Organization (WTO) has made no progress over the last decade because South countries refuse to accept agricultural trade and patenting policies. Yet AGRA-financed projects act as if patenting of seed is international law.[[7]](#endnote-7) The newly bred seed becomes private property, requiring royalties to use it. What AGRA does not reveal is that its seed partners never reciprocate by paying royalties or a percentage of profits to the farmers who bred the original seeds and freely shared them. While demanding payment for breeding one strain, they refuse to acknowledge their total dependence on African farmers for the genetic material and indigenous knowledge about the specie. Given the trumpeting of the ‘drought-resistant maize’ (Mon 87460) as a success and the Gates Foundation’s promotion of ‘bio-cassava’ as more nutritious to prove the potential of biotechnology[[8]](#endnote-8), why is the Gates Foundation not transparent about the source of the germplasms? Given that AGRA says it assists farmers, why is there no benefit-sharing to them?

2) Theft could also refer to accessing the genetic wealth through *public* seed banks and then *privatizing* the genetically modified offspring, without recognition nor benefit-sharing, even though that is now required by international law.

 The USA refuses to sign the IT that protects 64 food/fodder seeds from patenting. The treaty also calls for sharing commercial profits from any germplasm taken from the public seed banks (International Agricultural Research Centres-IARCs), setting up Standard Material Transfer Agreements (SMTAs) to trace the seeds from the international depositories to new strains sold for commercial profit. While the seed banks (IARCs) provide over 694,000 seeds for *free* access, the SMTAs are not operative for lack of funding and enforcement.[[9]](#endnote-9) If the Gates Foundation were serious about the perils of climate change to the African food supply, then its millions would be financing experts and lawyers to enact the material transfer agreements and to enforce the sharing of corporate profits, as required by international law.

 Instead, what Gates funding has been doing is diminishing the public service of these public seed banks. Since 2007, the Gates Foundation has financed many different projects of the IARCs: both ICRISAT (International Crop Research Institute for the Semi-Tropics, including sorghum, millet) and CIMMYT (International Centre for Maize and Wheat Improvement), for example, receive 45-55 percent of their annual funding from Gates and their allies.[[10]](#endnote-10)

 One of the results, discovered in Zimbabwe, is that the ICRISAT/Matopos research station no longer freely shares its foundation seed with smallholder farmers, who originally supplied the station with the genetic wealth of their sorghums and millets. The farmers for several years had successfully grown out foundation seed, according to strict quality controls for certification, to produce commercial seed for small seed companies. From 2010, ICRISAT has instead sold the foundation seed to the commercial seed companies, transforming collective benefit-sharing into a market transaction. Instead of increasing benefit-sharing, the Gates Foundation funds policies to eradicate it.

3) Theft may also occur through financing seed research, via CAADP (Comprehensive Africa Agriculture Development Programme) and other programmes, to gain corporate control over seed bred from African cultivars.

 CAADP, a project of the African Union, but promoted by AGRA, conducts programs to increase research collaboration across the continent. One of AGRA’s premier programs is PASS (Program for Africa’s Seeds Systems) to develop ‘improved’ varieties and to increase storage and marketing capacities. Similar to the WTO, both CAADP and PASS prioritize the global market as the central mechanism to provide African ‘food security.’ CAADP projects assume African farmers will only profit if they produce for the global market and also assume that food consumed by urban Africans will arrive via that same market.

 CAADP expresses the Davos’ World Economic Forum goal of linking the ‘bottom of the pyramid’ (BOP – their term) to the global ‘food value chain.’[[11]](#endnote-11) This global market engages, however, only the most wealthy smallholder farmers and certainly only the urban consumers who have disposable income enough to shop in food chain stores. CAADP privileges the global seed and food ‘value chains,’ linked by corporate cartels (seed, pesticides, fertilizers, and food manufacturing), as the quick way to provision food. However, those global markets can easily destroy local food production for local consumption. Although CAADP refers to smallholder farmers, its proposals ignore indigenous knowledge and farming practices for biodiverse food production.

4) Theft may also be encouraged through the act of making seed laws uniform across many African countries so once a GM seed is patented and marketed, it is easy to enforce royalty payments across a region. Uniform seed laws, as currently discussed in the Southern African Development Community (SADC) for example, facilitate global corporate access to farmers’ seeds while diminishing to platitudes any idea of benefit-sharing back to farmers whose talent and innovation are the source of the genetic wealth.

 Individual country laws have curtailed the spread of GM seeds from the commercial South African market into the rest of Southern Africa. Members of SADC have made it clear they do not want to plant GM varieties that can genetically pollute their locally adapted strains of maize or soya. The legal constraints have been so successful that the USA has resorted to shipping GM food aid to Southern Africa, in full kernels of maize from 2002. Southern African research now demonstrates that as much as 20 percent of kernels found along roadsides (falling off lorries) and in storage silos are now GM in several countries[[12]](#endnote-12) The food aid is genetically polluting the region.

 A better way to disseminate undesired seed, however, is to create one seed law for the whole region, for South Africa allows GM seed and products. If the GM seed enters South Africa legally, a uniform seed law, minimizing customs inspections, will facilitate genetic pollution across Southern Africa, diluting national biosafety laws and their enforcement. The corporations with seed patents can then demand payments for ‘use’ of ‘their’ seeds.

 If the Gates Foundation were interested in assisting smallholder farmers, it would spend funds to help them protect the vitality of their cultivars through greater *in situ* conservation. It would honour the food sovereignty choice of many governments and farmers in Southern Africa to reject GM seeds. Instead, the Gates Foundation contributes money (over $23 million in 2010) to Monsanto to breed more GM products[[13]](#endnote-13) and supports the corporate call for uniform regional seed laws.

 AGRA is not about saving starving Africans, but rather, it finances the agenda of acquiring free genetic wealth to turn it into private gain. AGRA and its corporate allies engage in what many would call theft, not simply through promotion of patents over living organisms, but also by refusing to reciprocate with royalties or shared profits back to those who provided the wealth of genetic materials in the first place. AGRA does not recognize nor even refer to traditional ecological knowledge. AGRA finances those who access free genetic materials but refuse to honour the transfer agreements, enshrined in international law. AGRA and other Gates Foundation projects finance the removal of foundation seed from smallholder seed breeders. Through programs like CAADP and regional uniform seed laws, AGRA takes control over regional agricultural policies to advance commercial agriculture based in increasing global corporate profits via seed technology, allied with chemical fertilizers and pesticides.

 Scholars of Africa put this agenda in historical perspective: for three hundred years, the African continent was robbed of its most able-bodied men and women, as slaves to create wealth for others. For two hundred years and continuing (e.g. Democratic Republic of the Congo), Africa has been robbed of its mineral wealth, with neither the costs of labour nor of environmental degradation even counted, let alone paid. The 21st century continues this extraction through the removal of Africa’s cultivated genetic wealth for foreign corporate profit. AGRA organizes this 21st century exploitation.

1. For a glimpse at the extent of critiques:

 Scoones, Ian and John Thompson. 2011. “The Politics of Seed in Africa's Green Revolution: Alternative Narratives and Competing Pathways,” *IDS Bulletin* 42/4 (July): 1-23.

 Snapp, Sieglinde; Blackie, Malcolm *et al.* 2010. “Biodiversity can support a Greener Revolution in Africa,”

*Proceedings of the National Academy of the Sciences*, *USA* 107/48: 20840-45.

[http://www.pnas.org/content/107/48/20840.full.pdf+html?sid=c18a9874-58e8-4e23-90c3-a40c62962cf1](http://www.pnas.org/content/107/48/20840.full.pdf%2Bhtml?sid=c18a9874-58e8-4e23-90c3-a40c62962cf1)

 GRAIN. 2010. “Unravelling the ‘Miracle’ of Malawi’s Green Revolution,” *Seedling* (January).

<http://www.grain.org/article/entries/4075-unravelling-the-miracle-of-malawi-s-green-revolution>

 Holt-Gimenez, Eric. 2008. “Out of AGRA: The Green Revolution returns to Africa,” *Development* 51/4: 464-471.

 Mayet, Miriam. 2007. “The New Green Revolution in Africa: Trojan Horse for GMOs?” in A. Norstad, ed. *Africa Can Feed Itself*. Oslo: The Development Fund. [↑](#endnote-ref-1)
2. Of course, those on the continent sent out the first alarm: World Social Forum. 2007. “[Africa's Wealth of Seed Diversity and Farmer Knowledge--Under Threat from the Gates/ Rockefeller 'Green Revolution' Initiative](http://www.grain.org/article/entries/3804-africa-s-wealth-of-seed-diversity-and-farmer-knowledge-under-threat-from-the-gates-rockefeller-green-revolution-initiative),” Statement by African Civil Society Organizations, Nairobi, Kenya (January 25).

<http://www.grain.org/article/entries/3804-africa-s-wealth-of-seed-diversity-and-farmer-knowledge-under-threat-from-the-gates-rockefeller-green-revolution-initiative> [↑](#endnote-ref-2)
3. ETCGroup. 2011. *Who will control the Green Economy?* (December): 22. [↑](#endnote-ref-3)
4. *ibid.,* p.23. [↑](#endnote-ref-4)
5. In 1996, the FAO concluded: “The chief cause of loss of genetic diversity- referred to as genetic erosion - has been the spread of modern, commercial agriculture. The introduction of new, highly uniform varieties has resulted in the loss of traditional farmers' varieties**.** Unfortunately, genetic erosion is almost always associated with - or even preceded by loss of the knowledge regarding varieties and their uses.” In 2010, the findings were the same: “The introduction of modern varieties of staple crops appears to have resulted in an overall decrease in genetic

diversity….” FAO. 1996. *Report on the State of the World’s Plant Genetic Resources for Food and Agriculture,* p.13. FAO. 2010. *The Second Report on the State of the World’s Plant Genetic Resources for Food and Agriculture*, p. xix. [↑](#endnote-ref-5)
6. This private appropriation of a freely shared resource, seed, is a prime example of ‘accumulation by dispossession’, introduced by David Harvey, 2003. *The New Imperialism*. Oxford: Oxford University Press, Chapter 4.

 See also Glassman, Jim. 2006. “Primitive Accumulation, Accumulation by Dispossession, Accumulation by 'Extra-Economic' Means,” *Progress in Human Geography*, 30/5 (October): 608-625.

 Thompson, Carol. 2009. “The Scramble for Genetic Resources,” in Henning Melber and Roger Southall, eds. *A New Scramble? Imperialism, Investment and Development in Africa*, Durban: U. of Kwazulu Natal Press. [↑](#endnote-ref-6)
7. The USA has spent almost two decades imposing its patent laws over living organisms on other economies, via ‘free trade’ agreements (FTAs), starting with NAFTA in 1994, but also promulgated in Iraq, Afghanistan and the in recent agreements signed by the Obama Administration in Colombia, Korea, and Panama. [↑](#endnote-ref-7)
8. Reuters. 2011. “U.S. approves Monsanto Drought-tolerant GM Corn,” 27 December.

<http://www.reuters.com/article/2011/12/27/us-usa-biotech-idUSTRE7BL19A20111227>

Monsanto. 2012. “DroughtGard Hybrids-Currently in Phase IV of Monsanto's R&D Pipeline.”

<http://www.monsanto.com/products/Pages/droughtgard-hybrids.aspx?WT.mc_id=1_droughtgard>

Bill and Melinda Gates Foundation. 2012. “Improving Health through More Nutritious Crops.”

<http://www.gatesfoundation.org/agriculturaldevelopment/Pages/more-nutritious-crops.aspx> [↑](#endnote-ref-8)
9. By the end of 2011, eight countries had pledged $10 million for the treaty’s Benefit-Sharing Fund, but the agreed goal of raising $116 million by 2014 seems remote. ITGRFA. 2011. Implementation of the Funding Strategy of the Treaty Funding, Resolution 3/2011, *Strategy for The Implementation of the International Treaty On Plant Genetic Resources for Food and Agriculture.* ftp://ftp.fao.org/ag/agp/planttreaty/publi/funding\_strategy\_compilation\_en.pdf [↑](#endnote-ref-9)
10. Community Technology Development Trust. 2010. *A Public Trust Betrayed? Policy Changes by CGIAR Centres giving New Meaning to ‘Foundation Seed.’* Unpublished report, October .

AGRA allies include the USA *Feed the Future* initiative, promoted both by the State Department and the Department of Agriculture; the World Bank’s *Global Agriculture and Food Security Program* (GAFSP) which is implementing the G-8 pledge from the L'Aquila Summit in July 2009; the Davos World Economic Forum’s *New Vision for Agriculture*, among others. [↑](#endnote-ref-10)
11. Carol Thompson. 2011. “Corporations Chaining the Global Food Agenda,” *Pambazuka*, Issue 550 (28 September). <http://www.pambazuka.org/en/category/features/76694/print> [↑](#endnote-ref-11)
12. Andrew Mushita. 2009. “GMOs and Food Aid in Southern Africa,” in Evangelischer Entwicklungsdienst, ed. *Genetic Engineering and Food Sovereignty – Sustainable Agriculture is the Only Option to Feed the World.* Bonn: EED, pp. 30-39. [↑](#endnote-ref-12)
13. Filed in its Security Exchange Commission Report – See <http://www.seattleglobaljustice.org/wp-content/uploads/For-Immediate-Release-8.25.10.pdf>. By late 2011, Monsanto received permission from the USDA to sell its transgenic drought-tolerant maize MON 87460, even though it received almost 45,000 public comments opposed to MON 87460, with only 23 comments in favour. See <http://www.digitaljournal.com/article/317358>

 [↑](#endnote-ref-13)