

Africa: Genetic Manipulation is not the answer by Bob Phelps

The Alliance for a Green Revolution in Africa (AGRA) <http://www.agra-alliance.org/> claims it will “feed the world” with a Gene Revolution - industrial monocultures of Genetically Manipulated (GM) crops, animals and microbes. The Ford, Rockefeller and Gates Foundations, the World Bank, USAID, Monsanto and first world governments (including Australia) back AGRA. These are the same vested interests that conceived, funded and deployed the Green Revolution in the 1950s and 60s, to maintain Western influence over newly independent Asian nations.

A billion people suffer chronic starvation and malnutrition while another billion are obese. Western institutions will intervene now as civil unrest over food shortages and price hikes threaten the national stability of some countries. The main causes of hunger are, unfair terms of trade, poverty and debt, environmental degradation, US and EU farm subsidies and social upheaval. Yet first world interests will prescribe more of their own technology and chemical inputs as the radical cure for third world hunger - particularly GM crops, animals and microbes.

The Gates Foundation, for instance, is funding the Donald Danforth Plant Science Centre to: “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.” Danforth says it will give the results of its research free to farmers. But fairground spruikers and pokies venues also target vulnerable people with freebies to get them hooked. Danforth's Paul Anderson says: "We need to start making plans for how these product developments are going to be carried out in our countries of interest and how these products are going to meet the regulatory requirements of those countries." (The St. Louis Post Dispatch, January 7, 2009)

Remaking African farms, cultures and practices into an industrial, GM, chemical-dependent system producing commodities for export is also backed by the science magazine Nature which editorialised that: “Another protracted fight over genetically modified crops in Africa will be costly and wasteful. The global food crisis ... is one reason why many governments and philanthropic foundations are now looking to agricultural biotechnology to improve future food production. ... in many of the poorest countries. Africa's nations cannot afford to do without new technologies in agriculture.” (Nature 456, 421-422, 27 November 2008)

But which technologies, managed, owned and controlled by whom?

The Green Revolution foisted industrial, oil and chemical-dependent crop monocultures onto Asia, also with promises to “feed the world”. That revolution sowed the seeds of present food scarcity and inequity with unsustainable farming systems dependent on free trade in commodities and constant inputs of limited, non-renewable, oil-based resources from the West. Yet this system had already turned large tracts of prime US croplands into a dustbowl in the 1920s and the rest into factory farms. Vandana Shiva says: “The Green Revolution was based on the assumption that technology is a superior substitute for nature, and hence a means of producing limitless growth, unconstrained by nature's limits. ... It was based not on the intensification of nature's processes, but on the intensification of credit and purchased inputs like chemical fertilisers and pesticides. ... not on self-reliance but dependence ... not on diversity but uniformity.” ‘The Violence of The Green Revolution’ (TWN, Penang, 1993 Pp. 24-29)

In contrast, The United Nations' International Assessment of Agricultural Science and Technology for Development (IAASTD) published a very different vision for the future of farming in 2008. The report recommended fundamental changes in agricultural practices and systems to deal with soaring food prices, hunger, social inequities and environmental catastrophe. The 400 scientists involved in the three-year project recommended a global shift from industrial agribusiness to sustainable farming systems, with targeted research and development augmenting local traditional knowledge to help farmers optimise their use of soil and water resources. IAASTD also concluded that GM crops could not play a useful role in solving climate change, biodiversity loss, hunger or poverty. GM companies that helped set up the review rejected the IAASTD findings, while Australia, the USA and Canada refused to sign the report.

GM crops would dismantle Africa's integrated, biodiverse farming systems and cultural practices, alienate more land from local communities and send ever more people to city slums. But first world economies would gain more access to cheaper cash crops, animal feed and biomass for biofuel production, further reducing the capacity of African communities to feed their people a diverse, balanced and nutritious diet of fresh local foods necessary for good health.

Like the Green Revolution technologies, GM crops have already failed to deliver on their empty promises. Despite GM industry hype, industry figures (See: <http://www.isaaa.org>) show that GM crops stalled in 1996 when Monsanto first launched commercial GM soy, corn, cotton and canola in the USA with two GM traits - Roundup herbicide tolerance and built in insect killer. Just the same four crops with two GM traits are for sale now.

In 2008, the USA grew 50% of all GM crops, while Argentina, Brazil, Canada and Paraguay grew 80% of the rest - mainly exported for animal feed and biofuel production. The 125 million hectares of GM crops were grown on just 1.5% of the world's productive land area. Twenty-five nations grew some GM crops but most were on a trial scale and another 170 countries (plus 60 occupied territories) remain GM-free. Less than 1% of the world's 1.4 billion farmers grow GM crops as they are designed to fit into broad-acre farming systems that require a levelling of the landscape and the alienation of community lands. GM soy has already destroyed Argentine and Brazilian rural communities and much of their jungle.

Most countries will ban GM crops at least until the Cartagena Biosafety Protocol is fully implemented. This treaty requires the Precautionary Principle to be applied to the international trade in GM organisms, gives regulators the right to say 'no' to living GM products on scientific grounds, and will make GM owners responsible for any damage. Though the Protocol is backed by more than 140 nations, Australia, the USA and Canada have not signed.

GM techniques are crude, unreliable and unstable, and GM plants typically yield less than the best conventional varieties. GM techniques have been used to splice single gene traits such as herbicide tolerance from soil microbes into plant cells. But most traits are controlled by the interaction of multiple genes which cannot be cut and pasted. Thus, the off-promised crops with drought and salt tolerance, nitrogen fixation in grains, longer shelf life, and more nutritional value do not exist. After 25 years of GM research, nothing justifies billions of public dollars still being wasted. Empty promises - like the CSIRO's non-browning fruits and vegetables, weevil resistant field peas and invasive viruses to sterilise

feral animals - were bright ideas that failed on practical, health and environmental grounds.

Despite their technical failings, GM techniques deliver monopoly ownership, control and profits from the seeds of food and fibre producing organisms through the patent and Plant Breeders Rights systems. Thus, the biological property of all humanity, developed by farmers, seed savers and breeders over thousands of years, is being privatised. To exploit this opportunity, Monsanto has been transformed from an agrochemical company into the world's biggest commercial seed corporation. In the past decade it has taken over more than fifty seed companies, including the world's largest fruit and vegetable seed business. Now North American farmers report that little non-GM seed is available.

Monsanto has also sued hundreds of farmers for allegedly stealing and growing patented GM seed. Faced with bankruptcy, most settle out of court. In September 2008, California's Governor Arnold Schwarzenegger agreed that since GM crop contamination is inevitable the powers of GM companies to sue farmers should be restricted and the first law to protect non-GM growers was passed. It established sampling and analysis protocols to determine where there may be a breach of contract or seed patent infringement on GM plants, that farmers are not liable for unintended or minimal infringements. See: info.sen.ca.gov/pub/07-08/bill/asm/ab_0501-0550/ab_541_bill_20080702_amended_sen_v93.pdf and <http://www.centerforfoodsafety.org/Monsantovsusfarmersreport.cfm>

But many other governments and research agencies are the committed partners of GM companies. For instance, the Office of the Premier of Victoria, and the Victorian and Queensland Governments, are full members of the Washington DC-based Biotechnology Industry Organisation (BIO) that promotes GM globally. Numerous state governments, universities and CSIRO also have contracts with GM companies. And the Obama administration has appointed GM advocates associated with Monsanto and other GM giants, including Agriculture Secretary Vilsack. This continues the 'revolving door', where corporate executives are appointed to key government policy-making roles, to shepherd business-friendly policies into law.

The world's human carrying capacity has far surpassed the limits of resources and ecological systems. Societies dependent on constant growth must not continue pillaging the earth's finite resources. For this and future generations, we must invest public resources in creating sustainable systems to feed, house and clothe everyone well, in perpetuity. GM technology is business as usual, not part of the solution.

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