

The Gates Foundation and Cargill push Soya onto Africa

By Haidee Swanby



The African Centre for Biosafety (ACB) is a non-profit organisation, based in Johannesburg, South Africa. It provides authoritative, credible, relevant and current information, research and policy analysis on genetic engineering, biosafety, biopiracy, agrofuels and the Green Revolution push in Africa.

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The SOYA MODEL implies a war against the population, the emptying of the countryside, and the elimination of our collective memory in order to shoehorn people into towns and convert them into faithful consumers of whatever the market provides. The impacts of this model go beyond the borders of the new Soya Republics. The dehumanisation of agriculture and the depopulation of rural areas for the benefit of the corporations is increasing in the North and in the South.

Javiera Ruli in United Soya Republics. The Truth about Soya Production in Latin America'

STRUCTURE OF PAPER

This paper is an alert about a Bill and Melinda Gates Foundation project to introduce soya onto the African continent in partnership with the world's biggest privately owned grain company, Cargill. It gives a brief background of soya bean - an important source of protein in the human diet in Asia, its current role as a sought after animal feed on the global market and the devastation caused in Latin America from growing soya crops. The paper also provides information of current soya bean production in Africa. Against this background, we discuss the Gates Foundation/Cargill soya value chain project for Africa and its likely consequences and provide a profile of the Cargill company.

EXECUTIVE SUMMARY

The Bill and Melinda Gates Foundation has announced a new project to develop the soya value chain in Africa in partnership with American NGO, TechnoServe and agricultural commodity trading giant Cargill. The US\$8 million project will be implemented as a four year pilot in Mozambique and Zambia with the intention of spreading the model to other regions in the future.

The Gates Foundation continues to back agricultural strategies that open new markets for strong corporate interests while assisting in the creation of policy environments to support foreign agribusiness' interests. The programme will yoke African farmers into the soya value chain and open the door for major agribusiness players such as Cargill, while displacing African agricultural practices and traditional crops. In addition, there is a very real threat that this project could be a foot in the door for the introduction of genetically modified soya onto the Continent.

Since the green revolution of the 1960's, soya bean has become the number one forage crop on the international market. About 85% of the world's soybeans are processed into soya bean meal and oil, about 98% of that meal is further processed into animal feed, the balance is used to

make soya flour and proteins. Approximately 95% of the oil is consumed as edible oil with the rest being used for industrial products such as fatty acids, soaps and agrofuel. In the last 40 years, production of soya bean has increased by over 500%, driven by the growing affluence of Chinese consumers, who are now eating more meat than ever before, as well as a significant increase in demand for soya beans as feedstock for biodiesel. In addition, soya beans fix nitrogen in the soil, thereby improving soil fertility and making it an excellent rotation crop.

The United States, Argentina and Brazil are the three major producers of soya in the world. The aggressive expansion of soya monocrops in Latin America has wreaked socio-economic and environmental disaster - in 2008 over 30 million hectares of soya was grown in Brazil and Argentina, where soya monocrops are notorious for displacing rural populations and causing mass deforestation. In April 2006, Greenpeace announced that in the 2004/2005 growing season, 1.2 million hectares of the Amazon rainforest was deforested as a consequence of soya expansion.

The vast majority of global soya crops are genetically modified to withstand applications of herbicides. (Approximately 93% of soya production in the USA is GM, 98.9% in Argentina and 70.7% in Brazil). The introduction of herbicide tolerant soya has created a sharp increase in the use of highly toxic herbicides – in the USA the use of herbicides has increased by 382.6 million pounds over the past 13 years, with herbicide tolerant soya beans accounting for 92% of that increase.

No multinational on the planet has greater interests in soya production and trade than the American corporation Cargill. Cargill's business operations include purchasing, processing and distributing grain and agricultural commodities, the manufacture and sale of livestock feed and ingredients for processed foods and pharmaceuticals. Their assets and business operations in Latin America are staggering; it is responsible for over 75% of Argentina's grain and oilseed production. It also has great interest in fertiliser production, having a two-thirds stake in one of the world's leading fertiliser companies, Mosaic. Their business interests in Africa are scant in contrast. It has now partnered with the Gates Foundation to introduce a soya value chain in Africa.

The four year project will introduce soya production to 37 000 small-scale farmers in Mozambique and Zambia and aims to spread the model to other regions in the future. The project will target smallholder farmers and facilitate their access to agricultural inputs and new technology, facilitate market access, assist in infrastructure development and in developing enabling policies for investment. The cultivation of soya in Africa is negligible, with Africa contributing to less than 1% of global soya bean production. African countries that produced over 100 000 tons of soya bean in 2008 are Nigeria, South Africa, Uganda and Zimbabwe. Nigeria is the biggest producer of soya beans on the continent, harvesting a relatively modest 591 000 tons in 2008, mostly for domestic consumption. Egypt is the 13th biggest importer of soya bean in the world, importing 1.2 million tons in 2008 and producing 219 800 tons of soya bean oil. Morocco also imports soya for the production of oil and was the 19th largest importer of soya bean in 2008. Demand for soya outstrips production in Africa, creating the need to look outside of the region for commodities, predominantly soya bean cake for animal feed, but also for oil, meal and soya-derived products.

As demand for soya feed for the growing global livestock sector increases, along with a growing interest in the crop for biofuel production, soya is gaining influence as an attractive crop that is worthy of investment. Global prices for vegetable oil are good and this too, is attracting investment. There have been recent major private investments in oil processing plants in Uganda

and Mozambique and investors are keen to contract local farmers to supply raw materials. This model threatens to bring farmers into a high-risk global market and shift agricultural practices from using local inputs to reliance on agribusiness products.

A further threat is the introduction of genetically modified soya into Africa. South Africa is the only country on the continent that is growing genetically modified soya and has been doing so since 2001. In 2006, about 75% of the area planted to soya was genetically modified and in 2008, approximately 88% of soya seed purchased was GM². In 2010, South Africa has begun exporting genetically modified commodities to the rest of Africa for the first time. This is as a result of the finalization of African biosafety legislation that allows for the cultivation and import of GE crops and commodities. In early 2010, the Mozambican government allowed for the commodity import of 35,000 MT of GM soybeans³. This is the first such permit authorised by the Executive Council in South Africa.

As the major global producers of soya have almost completely adopted GM in their production, it is likely that there will be great pressure for African farmers to adopt these seeds. The acceptance by the Mozambican government of the first GE shipment of soya from South Africa shows that their door is now open for African trade in GM soya, although the road to environmental releases of crops will be a longer and more arduous process. Zambia has traditionally been one of the strongest forces against genetically modified seed on the continent, taking an extremely cautious approach in its biosafety legislation. In 2002, the Zambian government rejected the import of GM food aid for almost 3 million starving people⁴. It was an extremely controversial decision, but after despatching a group of scientists to investigate the safety of the crop, President Levy Mwanawasa held to his convictions in the face of massive international pressure. Could this support for the introduction of soya into the country be the beginning of the erosion of that caution?

INTRODUCTION

The Bill and Melinda Gates Foundation is set to launch a new project designed to introduce soya to African smallholder farmers, in partnership with an American non-profit organisation, TechnoServe, and agricultural commodity giant, Cargill⁵. The announcement was made at the Soy Innovation Africa Conference in Cape Town, South Africa on the 26th and 27th of August 2010.

The Soy Innovation Africa Conference was principally an initiative of the two charitable offshoots of the American Soybean Association – World Initiative for Soy in Human Health (WISHH) and the World Soy Foundation. It gathered players of the world's soya industry to promote soya production and processing to “entrepreneurs and industry leaders in emerging economies⁶”. Africans were introduced to the markets associated with soya foods, agrofuels and animal feed. In the true spirit of “philanthropic entrepreneurship”, the WISHH website candidly states that in addition to their humanitarian drive, “WISHH also understands that developing nations of today are tomorrow's customers for U.S. soy”⁷.

It is within this context that The Gates Foundation is set on launching an US\$8 million four-year pilot project to develop a soya value chain, commencing in Mozambique and Zambia. The project aims to introduce modern technology and increase farmer productivity and market

access. The Gates foundation will draw on their already well-established partnership with the Alliance for a Green Revolution in Africa (AGRA) to assist in creating an enabling framework for private investment. It is envisaged that in time the Soya project will be promoted in other African regions. The proposed project provides a fertile opportunity for the world's largest agricultural commodity trading multinational, Cargill, to establish its presence on the African continent. Evidently, Cargill's rapacious appetite has not been satiated by its already thriving business operations in Latin America, where soya production has resulted in widespread environmental and socio-economic destruction.

BACKGROUND

Soya has been a staple in the Asian diet for three thousand years, where tofu is a treasured source of protein. Soya is one of few plants that provide all eight amino acids essential for optimum human health. Despite soya's reputation as a middle class health food, globally, it is predominantly used as livestock feed. About 85% of the world's soya beans are processed into soya bean meal and oil, about 98% of that meal is further processed into animal feed, the balance is used to make soya flour and proteins. Approximately 95% of the oil is consumed as edible oil with the rest being used for industrial products such as fatty acids, soaps and agrofuel⁸. In addition, soya beans fix nitrogen in the soil, thereby improving soil fertility and making it an excellent rotation crop.

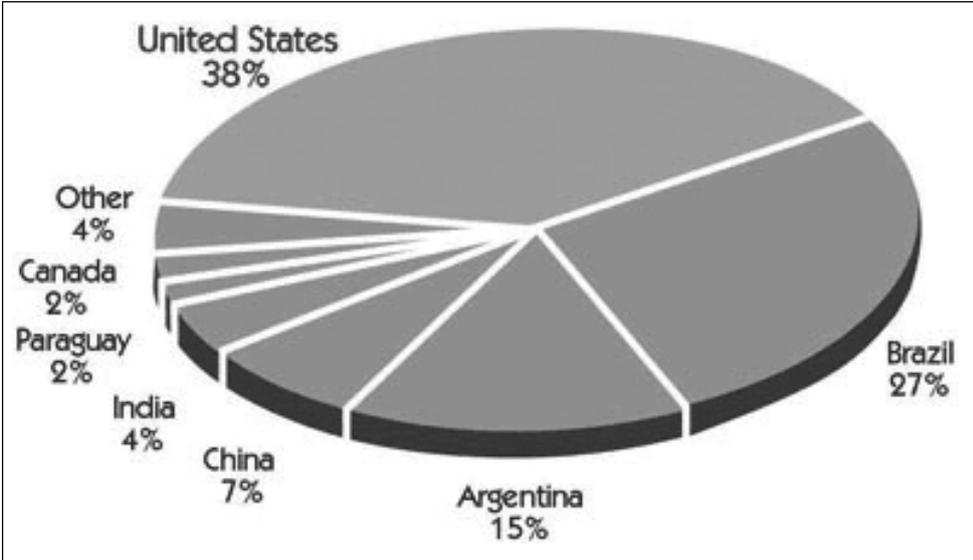
The crop was introduced to the west in the 1800's when Asians began emigrating to Europe and the United States. During the Green Revolution of the 1960's, soya became a key forage crop and the United States began exporting large quantities of soya beans, meal and oil to Europe and Asia. Today, the USA is the largest global producer and exporter of soya beans. In 2009, the USA produced 80 million metric tonnes of soya beans⁹, much of it destined for China, which imported a total 3 3150 449 tonnes in 2009¹⁰. Soya is now the United States' second largest crop in cash sales and the number one value crop export. In the last 40 years, production of soya bean has increased by over 500%¹¹, driven by the growing affluence of Chinese consumers, who are now eating more meat than ever before, as well as a significant increase in demand for soya beans as feedstock for biodiesel.

During the 1980's and '90's the pressures of globalisation pushed Argentina into a leading producer and exporter of genetically modified (GM) forage crops. Argentina began to satisfy the growing demand in the north for animal feed. In time, Latin America replaced the USA as the main provider of forage¹². In 2006/07, Argentina harvested a record volume of 47,5 million tonnes of soya, with its cultivation area covering 15,92 million hectares, representing over 50% of the nation's agricultural area¹³. The aggressive spread of monocultures of industrial soya has left massive destruction in its wake; between 2002 and 2004 a million hectares of forest was cut down for soya production. Land pooling and contract farming concentrated land ownership to such an extent that less than 2000 companies owned 20 million of the 25 million hectares of land sown to soya¹⁴. Consequently, rural life and the peasantry were completely displaced, leading to mass migration to the cities. Those that stayed to try and eke out a living in the small pockets of smallholder land embedded in the vast industrial wastelands, have to withstand routine overhead toxic spraying and forced removals from their land. Their health is further compromised from a reduction in agrobiodiversity, as traditional crops such as potato, sweet potato, lentils, peas, various types of maize and vegetables fell away¹⁵.

“the extended and intricate network of contractors of agricultural machinery, the local distributors of goods, the cultural and social life which was part of the small livestock farming communities and the rural villages have all disappeared, leaving behind immense tracts of empty land”⁶.

The same model of massive soya monocultures spread throughout the Southern Cone of Latin America and today Brazil is the major soya producer in South America. In 2005, Brazil produced 57million metric tonnes of soya¹⁷. In April 2006, Greenpeace announced that in the 2004/2005 growing season, 1.2 million hectares of the Amazon rainforest was deforested as a consequence of soya expansion¹⁸. In 2008, Brazil produced a record harvest of 61 million metric tonnes¹⁹.

World Soybean Production 2009

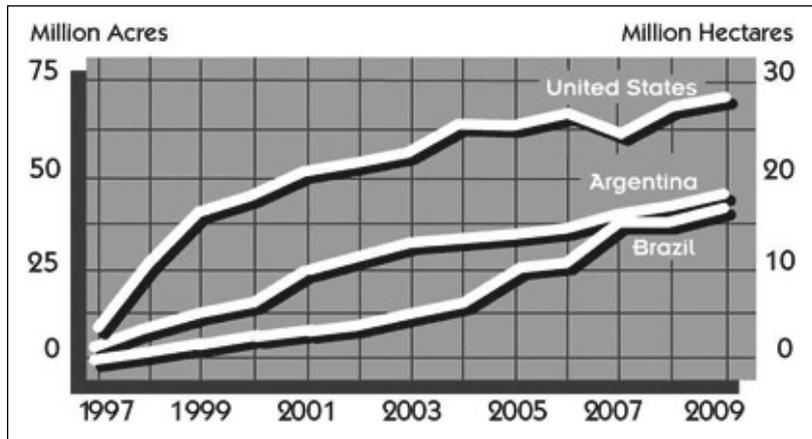


Source: www.soystats.com

GENETICALLY ENGINEERED SOYA

To make matters worse, world soya bean production is predominantly genetically engineered (GE) to be tolerant to herbicides. GE crops were introduced in the United States in 1996, and have since been rapidly adopted in several countries including Argentina, Brazil, Paraguay, India, China and South Africa. According to United States Department of Agriculture survey data, acreage of herbicide tolerant soya beans (most commonly known as “Roundup Ready”) increased from 17% in 1997 to 68% in 2001 and 93% in 2010²⁰. The uptake of GE soya has been rapid in Argentina and Brazil – in 2009, 98.9% of Argentina’s soya crop and 70.7% of the Brazilian crop was genetically engineered²¹. The graph below illustrates the alarming rise in GE hectareage from 1997 to 2009 in the three major soya producing countries.

Adoption of Genetically Engineered Soybean Seedstock 1997-2009 (Major Exporting Countries Only)



Source: USDA in www.soystats.com

Herbicide tolerant crops are genetically engineered to withstand the application of a potent toxin called glyphosate, used as a weed killer. The crops resistance to the herbicide allows farmers to use less discretion in their application of the chemical, resulting in increased use of glyphosate on farms. The use of herbicide tolerant crops has also led to a major problem - the development of herbicide resistant weeds that strangle crop production. Farmers have had to resort to spraying several applications of herbicides to rid their fields of these “superweeds” or to using a variety of different chemicals to control the problem. Consequently, herbicide resistant crops have increased herbicide use in the United States by 382.6 million pounds over the past 13 years, with herbicide tolerant soya beans accounting for 92% of that increase²².

Glyphosate is acutely toxic to humans and in Latin America where peasants live “cheek by jowl”²³ with soya plantations, the effects have been tragic. Latin American activists have even gone as far as describing the relentless indiscriminate overhead spraying of toxic chemicals as a “silent genocide”²⁴.

At the end of 2001, a group of mothers from the crop-sprayed village of Ituzaingo in Cordoba, Argentina, carried out a door-to-door investigation of illnesses in the village. They found abnormally high incidences of illnesses such as Lupus, Purpura, haemolytic anaemia, rheumatoid arthritis, respiratory allergies, skin allergies, neurological and endocrine problems, cases of deformities such as Fryn syndrome, spina bifida, deformed kidneys in the foetuses of pregnant women and osteogenesis. After persistent campaigning, the government carried out their own study in 2006. Consequently, a State of Emergency was declared within the neighbourhood and a minimum area of 2,500 metres spray-free zone was set. Unfortunately, these measures were never enforced²⁵.

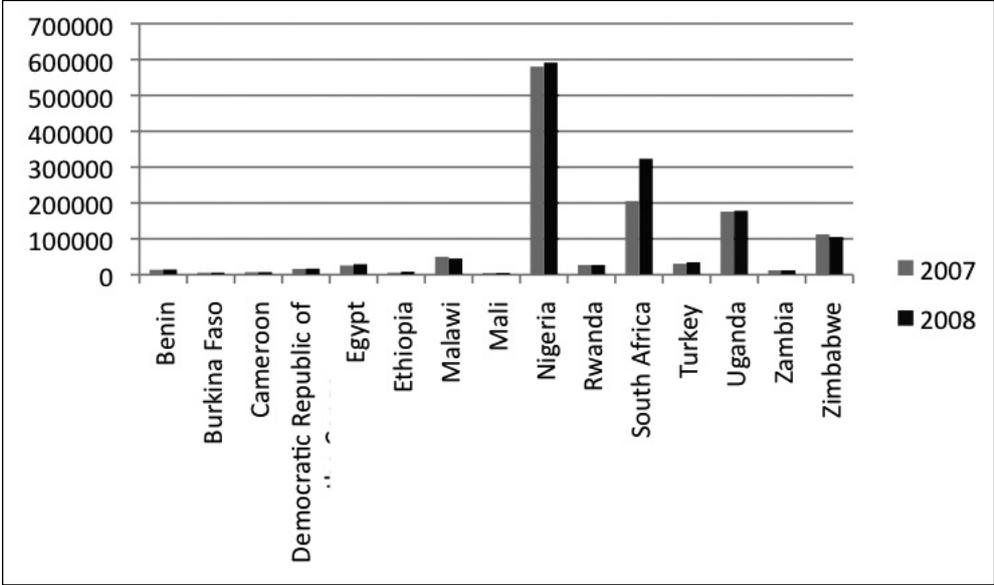
In California, glyphosate has been reported to be the third most commonly reported pesticide related illness amongst agricultural workers. A study on mice fed GM soya bean suggested that soya bean intake effected the nuclear features of liver cells, in both adult and young mice²⁶.

In addition, glyphosate has been found to persist in soil and water, negatively impacting on beneficial soil organisms, pest predators and aquatic systems²⁷.

SOYA IN AFRICA

The cultivation of soya in Africa is negligible, with Africa contributing to less than 1% of global soya bean production²⁸. African countries that produced over 100 000 tons of soya bean in 2008 are Nigeria, South Africa, Uganda and Zimbabwe. Nigeria is the biggest producer of soya beans on the continent, harvesting a relatively modest 591 000 tons in 2008, mostly for domestic consumption. Egypt is the 13th biggest importer of soya bean in the world, importing 1.2 million tons in 2008 and producing 219 800 tons of soya bean oil. Morocco also imports soya for the production of oil and was the 19th largest importer of soya bean in 2008. Demand for soya outstrips production in Africa, creating the need to look outside of the region for commodities, predominantly soya bean cake for animal feed, but also for oil, meal and soya-derived products.

African soya bean production in 2007 and 2008



Source: compiled from www.faostat.org

As demand for soya feed for the growing global livestock sector increases, along with the growing interest in the crop for biofuel production, soya is gaining influence as an attractive crop, worthy of investment. Global prices for vegetable oil are good and this too, is attracting investment. In Uganda, a processing plant nearing completion, will have the capacity to process 15 000 tons of soya per year²⁹. The US\$1.2 million investment comes from Seba Foods, which is a subsidiary of the Dar-es-Salaam based Export Trading Group, the largest East, Central and Southern African agro-processor and warehousing company. As Uganda produces less than 4000 tons of soya per

year, Seba Foods plans on signing contracts with farmers in Eastern Uganda and Western Kenya, providing them with inputs, technical advice and guaranteed markets. The commodities are meant to supply a growing market in Southern Sudan, Democratic Republic of Congo and Kenya where demand for soya bean is on the rise. The processing plant is the first of its kind in East Africa. In the early part of the decade Seba established similar plants in Malawi and Zambia. In Mozambique, a new vegetable oil refinery factory has just been completed in the southern city of Matola, with a capacity to process 150 tons of soya and sunflower oil a day³⁰. The US\$ 22 million investment comes from a French investor, the Maeva group. The refinery is currently using raw materials from South Africa, Singapore and Malaysia. Their commodities are sold domestically, to other African countries including Madagascar, Tanzania and Burkina Faso and abroad. The Maeva group plans to implement a program of incentives for local Mozambican farmers to supply their raw materials in the near future.

The Mozambican government has shown great enthusiasm for the production of agrofuels, but as long as vegetable oil prices remain more attractive than fuel prices, this is not viable without farmer subsidies. The American NGO, TechnoServe has been leading the way in assessing the agrofuels market in Africa and promoting this model. In 2009, the Mozambican government approved foreign direct investment of \$256 million in the biofuel sector. In 2009, Mozambique and Brazil signed a biofuel exploration agreement valued at \$6 billion. In 2007, Mozambique signed a \$510 million deal with London-listed Central African Mining & Exploration Company (CAMEC) to establish an energy plantation and to build a plant to produce 120 million litres of ethanol per year, as well as fertilizers³¹. TechnoServe is the leading agency in providing information to government on the feasibility of agrofuels and has actively promoted projects and advocated for enabling policy. A current project implemented by TechnoServe in Mozambique focuses on coconut for oil production.³²

South Africa is a tiny global player in soya production, but the second largest producer on the continent. In 2007/8, South Africa produced 282 000 tons of soy, but almost doubled that figure in the next season, producing 506 595 tons. In South Africa, as elsewhere in Africa, domestic production does not meet demand - South Africa imported an average of 822,000 tons of soya products a year between 2000 and 2007, representing more than three times the volume of domestic production.³³

South Africa is the only country on the continent that is growing genetically modified soya and has been doing so since 2001. In 2006, about 75% of the area planted to soya was genetically modified and in 2008, approximately 88% of soya seed purchased was GM³⁴. In 2010, South Africa has begun exporting genetically modified commodities to the rest of Africa for the first time. This is as a result of the finalization of African biosafety legislation that allows for the cultivation and import of GE crops and commodities. In early 2010, the Mozambican government allowed for the commodity import of 35,000 MT of GM soybeans³⁵. This is the first such permit authorised by the Executive Council in South Africa.

As the major global producers of soya have almost completely adopted GM in their production, it is likely that there will be great pressure for African farmers to adopt these seeds. The acceptance by the Mozambican government of the first GE shipment of soya from South Africa shows that their door is now open for African trade in GM soya, although the road to environmental releases of crops will be a longer and more arduous process. Zambia has traditionally been one of the strongest forces against genetically modified seed on the continent, taking an extremely cautious approach in its biosafety legislation. In 2002, the Zambian government rejected the import of GM food aid for almost 3 million starving people³⁶. It was an extremely controversial decision,

but after despatching a group of scientists to investigate the safety of the crop, President Levy Mwanawasa held to his convictions in the face of massive international pressure. Could this support for the introduction of soya into the country be the beginning of the erosion of that caution?

INTRODUCING SOYA TO AFRICA – THE GATES FOUNDATION, TECHNO SERVE AND CARGILL

In 2006, the Gates and Rockefeller Foundations launched the Alliance for the Green Revolution in Africa (AGRA), with the Gates Foundation pledging US\$150 million for the next five years to develop the Program for Africa's Seed System (PASS)³⁷. The program is an "integrated approach" to address the scientific, educational, economic and policy aspects to transform seed systems in Africa. It affords agribusiness access to an as yet uncaptured market of African farmers, transforming their agricultural practice from using farm-saved seed and ecological practices to the use of proprietary seeds and external inputs. AGRA aims to develop small-scale agro-dealers at village level, creating a conduit for seeds, fertilisers and other farm inputs³⁸.

AGRA aside, The Gates Foundation is also investing in a myriad of other private/public partnerships to transform African agriculture. For example, in 2008, the Gates and Howard G. Buffet Foundations committed US\$47 million toward the public/private partnership project - Water Efficient Maize for Africa (WEMA) to develop drought tolerant maize varieties using both marker assisted breeding and genetic engineering techniques³⁹. Another sample grant is the Africa Biofortified Sorghum (ABS) Project, in collaboration with DuPont Crop Genetics Research (Pioneer HiBred International). The GATES foundation has granted \$16.9 million to conduct research on Nutritionally-Enhanced Sorghum for the Arid and Semi-Arid Tropical Areas of Africa⁴⁰. It is particularly problematic when research targets the privatisation of African heritage crops.

In the most recently announced project, The Gates Foundation will focus on expanding the livestock industry through the production of soya, which, as mentioned before, is a highly efficient protein crop for animal feed. Logically, a growing livestock and feed sector will increase demand for grains and create a growing export market for emerging small scale farmers.

According to a Gates Foundation spokesperson, "Soy is an emerging value chain in the Market Access portfolio and cuts across all our investment areas (staple foods, cash crops, structured demand). This is primarily because soya bean presents a multidimensional value proposition for smallholder farmers: income from soya produced as a cash crop, substituting imports in evolving local and growing international markets; and increased yields in both cash and food rotation crops, benefitting from soya's nitrogen fixation properties"⁴¹.

The Gates Foundation envisages drawing on three of their strategic partners in this project – ICRISAT Tropical Legumes – to identify and develop high yielding, efficient nitrogen fixing and pest resistant varieties for each region; the Wageningen University - to deal with marketing and processing issues and, of course, AGRA⁴².

The transformation of national policy and institutions is key to supporting the annexation of new territories for capital. The Gates Foundation will rely on their partnership with AGRA to create

national policy environments to support institutional capacity and infrastructure and to stimulate private sector investment in fertilizer distribution and soil fertility management, increasing fertilizer use by “increasing the financial and physical access of smallholder farmers”⁴³.

The official Gates Foundation partner in this project is TechnoServe, an American organisation that promotes entrepreneurial skills and industry development in the third world. Its corporate partners include Cargill, The Coca-Cola Company, General Mills, Goldman Sachs, J.P. Morgan, Nestlé-Nespresso, Olam International, Peet’s Coffee & Tea and Unilever, among others⁴⁴. TechnoServe is also in partnership with the Zambian government (the Zambian Agricultural Research Institute) and Cargill to assist in the implementation of the project.

The project follows the Gates model for their agricultural grants and includes the following components:

- 1) supporting the expansion of smallholder soya production;
- 2) facilitating access to inputs and advancements in science and technology;
- 3) strengthening market access and facilitating investment in soya storage and processing equipment;
- 4) promoting the competitiveness of feed and livestock industries through coordinated development of local and regional soya industries.⁴⁵

This four-year program is envisioned to generate an average annual income contribution of \$200 from soya production and marketing for 37,000 smallholders in Mozambique and Zambia⁴⁶. In Mozambique, the focus will be on strengthening the local soya industry with the participation of 30 000 smallholder farmers, while in Zambia the focus is to assist, with the participation of 7000 smallholder farmers, in soya production. The intention is to then “use this investment” to develop a dialogue on soya markets in southern, eastern and West Africa⁴⁷.

It is not surprising that Cargill would be eager to partner on such a project, as described below, they have massive interests in the global trade and production of soya and soya products, as well as fertiliser. Their presence on the African continent is scant compared to elsewhere on the globe, particularly in the United States and Latin America.

There is, as yet, no indication from the Gates Foundation and TechnoServe about the use of genetically modified soya bean in this new project. To date AGRA has declared that GM would not be a part of their programs due to the lack of biosafety regimes on the continent as well as African doubts about the technology’s impact on African agricultural systems and the environment. It is interesting to note that AGRA has not been included as an official partner in this project, but will be drawn in only as a resource on policy development due to their close relationship with the Gates Foundation.

CARGILL COMING TO AFRICA

There are four multinational corporations who dominate the world trade in soybeans (as well as many other commodities). They are Archer Daniels Midland Company, Bunge Limited, Cargill Incorporated and Louis Dreyfus Group. All of these firms also have significant soya bean processing interests throughout the world, and of these, Cargill is the biggest.

In 2002, Cargill made over \$50 billion in annual sales, twice the amount of its closest rival, Archer Daniels Midland⁴⁸. It is currently the largest privately owned company in the world, declaring revenue of \$116.6 billion in the 2009 fiscal year⁴⁹.

Cargill's business operations include purchasing, processing and distributing grain and agricultural commodities, the manufacture and sale of livestock feed and ingredients for processed foods and pharmaceuticals. It owns two thirds of the Mosaic company, one of the leading producers and suppliers of phosphate and potash crop nutrients in the world⁵⁰. Cargill's quarterly profits were over US\$1 billion for the first time during the quarter ending on February 29, 2008 (\$1.03 billion), representing an 86% percent rise⁵¹ that was credited to global food shortages and the expanding biofuels industry. This in turn, caused a rise in demand for Cargill's core areas of agricultural commodities and technology⁵². In times of crisis, oligopolies such as these, can manipulate prices as they wish and that is exactly what Cargill did. In 2008, Mosaic's offshore investment arm, along with Canada's Potash Corp, increased the price of potash by 40% for buyers from Southeast Asia, by 85% for those from Latin American, India paid 130% more and China 227% more than they did in 2007⁵³.

In 2006, Cargill's operations in Brazil came under fire from Greenpeace, where its soya plantations were found to be causing unprecedented deforestation of the Amazon Forest. Greenpeace's investigations found that, "Since Cargill's arrival, soya has been the major driver of deforestation in the region. Between 2002 and 2004, annual deforestation rates jumped from 15,000 to 28,000 hectares in Santarém and the neighbouring municipality of Belterra in Pará state"⁵⁴.

In 2003, a Cargill plant was built in the port of Santarém without an environmental impact assessment or by following due process. The port, which replaced a fisherman's beach in Santarém, has twice been ruled illegal by Brazilian judges⁵⁵, but Cargill has appealed to the High Court to continue their trade. The opening of this illegal port has coincided with a five-fold increase in deforestation, with about 2 million tonnes of soya being exported from it between 2003 and 2006⁵⁶.

As soya plantations took over from illegal logging and ranching as the major deforestation force in the Amazon in the early 2000's, Greenpeace campaigned aggressively to stop retailers from buying soya produced from recently deforested land. In 2006, Cargill and other big soya players in Brazil agreed to a 2 year moratorium on crops from newly deforested land⁵⁷.

In Argentina, the world's largest exporter of soya meal, Cargill's business interests are staggering. By annual sales, Cargill Argentina is ranked third after the largest petroleum company and the largest steel maker. Its flagship is carried by grain trading and oilseed processing and its' assets in Argentina include 5 export terminals, 4 oilseed crushing plants, a network of over 50 country elevators and 7 flour mills. In 2005, Cargill acquired one of the country's largest domestic flour millers, Minetti and Co., while Mosaic Argentine owns a large processing plant and a terminal port. Cargill is responsible for over 75% of Argentina's grain and oilseed production⁵⁸.

In contrast, Cargill is yet to mine Africa's potential and the aggressive push for a new green revolution for Africa could provide just the opportunity to spread their operations on the continent. Cargill currently has operations in Cote d'Ivoire, Ghana, Kenya, Malawi, Morocco, Nigeria, South Africa, Tanzania, Zimbabwe, Zambia. Their business operations include processing cocoa, grain and oilseed trading and cotton trade. Their asset investment on the continent remains relatively modest to date⁵⁹.

Country	Year	Activities	Assets
Algeria		supply market on texturising solutions and animal nutrition	
Cote d'Ivoire	2000	cocoa origination, processing, products liquor butter powder	buying station, plant (2000)
Ghana	2007	cocoa and chocolate, powders, butter	processing plant
Kenya	1984	tea handling, storage	
Malawi	2006	cotton trade	acquired Clark's cotton
Morocco	1997	grain, oilseeds, meals, veg oil trading, specialty food ingredients texturisers and flavours	acquired Degussa's Food Ingredients
Nigeria	1984	cocoa origination	
South Africa	1995	grain and oilseed trading, specialty food ingredients, coal trading, commodity price risk management	Acquired International Flavour House, the Duckworth Group (food and beverage flavour distribution and manufacture)
Tanzania	1994 - 2009	trade cotton	operate 2 gins
Zambia	2006	cotton and grain and oilseeds	acquired Clark cotton
Zimbabwe	1996	Process about 25% of Zims cotton	4 gins

Source: compiled from www.cargill.com

CONCLUSION

The Gates Foundation continues to back agricultural strategies that open new markets for strong corporate interests while assisting in the creation of policy environments to support their business interests. There is now rising demand for soya on the world market as demands for the livestock feed sector rise and interest in soya as a feedstock for agrofuels is growing. The programme to yoke African farmers into the soya value chain opens the door for major agribusiness players such as Cargill, while displacing African agricultural practices and traditional crops. In addition, there is a very real threat that this project could be a foot in the door for the introduction of genetically modified soya onto the Continent. The lessons from Latin America could not be starker, they send a clear warning to Africa - adopt the New Green Revolution at your peril.

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