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The Battle against GMOs in the Philippines: Confronting the WTO's Attempts to Destabilize Sustainable Agriculture

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The Philippines has become a GMO battlefield, with the small farmers and organic farming advocates on one hand and the Philippine government with pro-GMO scientists on the other hand. The Philippine government is showing its cooptation to the neoliberal agenda of transnational biotechnology corporations and the World Trade Organization which protects TNCs' interests in its approval of the importation of 60 genetically modified plants and plant products for direct use as food and feed or for processing, an additional eight GM plant varieties for propagation, and 21 modified plant varieties for field testing in Philippine soil.

Alarmingly, despite concerns about BT corn's impact on the environment, it now has 750,000 hectares of Philippine land devoted to it. According to Greenpeace Southeast Asia spokesman Daniel Ocampo, no GMO application has ever been rejected, which is very shocking and alarming given the controversy over their use. This makes the Philippines the country in Southeast Asia having the most number of genetically modified (GMO) crops approved by the government for human consumption, animal feed, propagation, and field trial, according to Greenpeace (InterAksyon.com, 2012).

Most of the approved GMOs are genetically altered corn, soybean, potato, sugar beet, canola, and alfalfa. The purpose of the genetic alteration is for these crops to resist pests and herbicide, delay ripening, and enhance their nutritional value. The one that gained the most attention and the greatest resistance was the field testing of golden rice, genetically modified rice artificially inserted with genes from a bacteria and corn to produce beta carotene, a precursor of Vitamin A. In August 2013, around 400 farmers stormed the field testing area of golden rice in Pili, Camarines Sur and uprooted the genetically modified golden rice. The farmers, members of the anti-GMO alliance SIKWAL-GMO, "contended that far from benefitting farmers, Golden Rice will contaminate native rice crops and pose risks to public health and the environment" (Ranada, 2013).

The Real Score behind Golden Rice and other GMOs

Why so much uproar against GMOs? Are GMOs really the solution to hunger and the way to food security? Pro-GMO scientists, of course, would say that GMOs are the way to solve hunger, malnutrition, and food the way to food security. But are GMOs really the way to such or the way to greater health and environmental damage?

Walden Bello (2013) explained cogently the case against GMOs in his article "Manila Opens Doors to GMO Products". **First, genetic engineering disrupts the precise sequence of**

a food's genetic code and disturbs the functions of neighboring genes, which can give rise to potentially toxic or allergenic molecules or even alter the nutritional value of food produced. Bt corn, for instance, the first GMO allowed to be planted in the Philippine, releases its own insecticide as it contains the gene of a bacteria that can resist pests, or Bt toxin. This Bt toxin was recently detected in the blood of pregnant women and their babies, with possibly harmful consequences.

A second objection concerns genetic contamination. Once released in the open, a GMO crop can reproduce via pollination and interact genetically with natural varieties of the same crop, producing what is called genetic contamination. In Oaxaca, Mexcio, Bt (Bacillus thurengiensis) corn has contaminated indigenous varieties of corn as published in *Nature,* one of the world's leading scientific journals.

Third, a GMO may have a toxic or lethal impact on other living things when brought into natural surroundings. One gruesome example of this was the finding that Bt corn destroyed the larvae of the monarch butterfly, causing many to fear, for a good reason, that many other natural plant and animal life may be impacted in the same way.

Fourth, multinational biotechnology corporations like Monsanto and Syngenta, which develop and sell GMO seeds and crops, have oversold the benefits of GMOs without taking into consideration the health and environmental risks and harm posed by such organisms. The fact that most genetically engineered crops are either engineered to produce their own pesticide in the form of Bacillus thurengiensis or are designed to be resistant to herbicides can make people afraid of the harm to health and environment that can come from planting and consuming such pest-resistant and herbicide-resistant crops. Moreover, it has been shown that insects are fast developing resistance to Bt as well as to herbicides, resulting in even more massive infestation by new superbugs. There is also no substantial evidence that exists that GM crops yield more than conventional crops. Rather, genetically engineered crops definitely lead to greater use of pesticide, which is harmful both to humans and the environment.

A fifth and very strong argument is that patented GMO seeds concentrate power in the hands of a few biotech corporations, which is oppressive and inimical to small farmers. The statement of the 81 members of the World Future Council describes the dire consequence of patented GMO seeds in the following words:

While profitable to the few companies producing them, GMO seeds reinforce a model of farming that undermines sustainability of cash-poor farmers, who make up most of the world's hungry. GMO seeds continue farmers' dependency on purchased seed and chemical inputs. The most dramatic impact of such dependency is in India, where 270,000 farmers, many trapped in debt for buying seeds and chemicals, committed suicide between 1995 and 2012.

Philippine Government's Cooptation to the Agenda of TNCs and WTO and the Revolving Door among Government, Academia, and Corporations

The international environmental group Greenpeace argued that instead of addressing the country's problem on food security, the propagation of GMOs in the Philippines will lead to food crisis because inputs for the crops are dependent on supplies controlled by giant agro-chemical corporations (InterAksyon.com, 2012). Daniel Ocampo, sustainable agriculture and genetic engineering campaigner for Greenpeace, said in a statement released during the

observance of World Food Day in October 16, 2012 the following: “By seeking to control the food system from the crop’s gene—not seed—up to the table, GMO corporations are forcing Filipino farmers into a corner by promoting dependence on industrial chemical inputs such as harmful pesticides and herbicides.” (InterAksyon.com, 2012). He further said that the country’s dependence on supplies from GMO corporations will “tie farmers into a never-ending circle of debt and less choices for what seeds or crops to plant.”

This is echoed by Bert Autor, spokesperson of SIKWAL-GMO (Bikol Initiatives against GMO), when he said that the farmers in Bikol, a province in the northern part of the Philippines, do not want Golden Rice as it will pave the way to more GMOs and tie the farmers towards greater indebtedness. He advocated strongly that Filipino farmers should protect their precious seeds. Autor (as cited in Tickell, 2014) explained that small farmers get into greater debt because of high costs of production and dependency on modern seeds and other production inputs such as irrigation fee, fertilizer, pesticides and machineries, labor, seeds, land rent, etc. For Autor, the introduction of Golden Rice is again a ploy to further control the seeds planted by small farmers in the Philippines and extract profit from farmers. These are their reasons for vehemently going against the introduction of Golden Rice in Bicol.

Bello (2013) identified a key reason for the liberal treatment of GMOs in the Philippines and this is the revolving door among government, academia, and corporations. He cited the example that three of the most recent directors of the prestigious Institute of Plant Breeding of the University of the Philippines at Los Banos have either joined biotech multinationals or gone to work on projects funded by them. Aside from this dabbling with multinational corporations, they also serve as members of or advisers to government bodies that oversee biosafety. Thus, the genuine concern for the plight of small farmers in the Philippines, human health, and environmental integrity are all glossed over in the name of innovative science, professional growth, and blind progress.

This revolving door among government, academia, and multinational corporations harks back to the economic liberalization of the Philippines long before it became a member of the World Trade Organization in 1995 (IBON Databank and Research Center, 2005). Liberalization, colonialism, and neocolonialism unfortunately go hand in hand in the case of the Philippines. Even if it gained its independence in 1946, the country has remained bound by the American colonizers to the US-led global economy. The imposition of structural adjustment programs (SAP) of the International Monetary Fund and the World Bank by the early 1980’s strengthened and expanded liberalization in trade and investments to benefit foreign investors in general. Specific legislations and administrative rules and a number of national laws have been revised in line with the country’s neo-liberal economic framework. These included regulations removing import restrictions on products such as rice, corn, meat, coffee, potatoes, garlic, cabbage, seeds, coal and petroleum products, used trucks and tires, antibiotics, live shrimps and prawns, etc. Since 1981, the Philippine government has implemented trade reforms in line with the neoliberal framework such as tariff reductions, removal of non-tariff barriers and tariffication of quota restrictions.

The reduction of tariffs was highly injurious to domestic industry and agricultures and jeopardized local jobs as it opened the floodgates to imported goods. With the agricultural trade liberalization implemented by the Philippine government as dictated by international financial institutions and the WTO, Philippine agriculture has remained extremely weak and uncompetitive and puts small producers at a disadvantage. The Philippine government foolishly thought that acceding to the WTO in 1995 would cause the agricultural sector to

benefit from increased access to foreign markets and the expansion of global trade in agriculture. Acceding to the WTO's global trade policies rather resulted to the flooding of the domestic market with agricultural imports while the Filipino farmers' produce were still unable to penetrate the markets of developed countries. Import growth outstripped exports, resulting to a chronic trade deficit. IBON Databank and Research Center reported in 2005 that the decrease in agricultural productivity and upsurge of imports resulted in devastation of farmers' livelihood and the rural economy, the hardest hit being the small farmers of rice, vegetable and livestock who produce for the domestic market, thus putting the country's food security in peril (p. 157). All along, WTO with the international financial institutions such as the IMF and the World Bank promote a market-oriented land reform program that re-concentrates agricultural lands in the hands of comprador-landlords and their transnational corporation partners.

Furthermore, the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement endangers precarious global food distribution problems by exacerbating limited access to food and seed, as well as distribution problems (IBON Databank and Research Center, 2005). WTO protects agribusiness ownership over plant varieties, including seeds, consolidating the power of large seed and biotechnology TNCs to own and control seed stocks away from farmers. To earn the right to patent the plant, companies must merely claim that they have altered them, even if the alteration does not change the plant in any significant way. With the sole aim of expanding profits, biotechnology TNCs are in a race to develop, disseminate, plant and entrench an array of genetically engineered crops with the Third World or the developing countries as their main target. The evil of the TRIPS agreement that covers agribusiness ownership of patents of seeds is shown in the fact that local farmers must pay annual fees to use the seed type, even if the seed was the product of breeding conducted over generations by the ancestors of the farmers.

To further expand profits, TNCs like Monsanto have developed 'Genetic Use Restriction Technologies' such as 'Terminator Technology' and 'Traitor Technology' whereby sterile seeds, dubbed "terminator seeds", can be activated to grow only by use of a chemical, and the seeds that all the crop produces will never germinate. Thus, local farmers are trapped to continually buy the seeds for planting and the chemicals to make these seeds grow. Such an agricultural practice severely damages the soil and the environment, exposes farmers to deadly chemicals, kills animal farms due to the use of pesticides and herbicides, is not designed to be climate change adaptive, and is thus unsustainable in the end.

Mainstreaming Sustainable Agriculture in the Philippines

The foregoing sections showed that the use of genetically modified organisms with its concomitant use of deadly chemical pesticides and herbicides poses dangers to human health, the environment, the livelihood of small farmers, and ultimately, to food security. In other words, the use of GMOs makes for unsustainable agriculture.

The current call is to go for sustainable agriculture which is defined by the Philippine Sustainable Agriculture Coalition (PhilSAC) as agriculture that is ecologically sound, economically viable, socially just, culturally appropriate, based on holistic science, founded on appropriate technology, and supportive of the development of the full potential of human beings (Perlas, 2013, p. 58).

Sustainable agriculture is about "breaking the systemic, multi-faceted chains of poverty that have been oppressing farmers for decades, if not centuries….; it is about inclusive

development, with farmers playing a key role in their own liberation and embarking on a self-determined path towards the attainment of their full human potential" (Perlas, 2013, p. 58). Perlas plotted out the implementation flow by which small farmers can exit from poverty towards abundance and sustainability. First, the farmers have to undergo training on sustainable agriculture, adopt appropriate agricultural technology, become social agri-entrepreneurs, join a network of social economic entrepreneurs, gain good income, and the resulting outcome would be abundance for the farmers and sustainability of agricultural practices. This sustainable agriculture incorporates the use of organic farming, appropriate technologies that are culturally appropriate, use of indigenous knowledge systems, rely on social and cooperative enterprises as well on social partnerships of civil society, government, and businesses. Genetically modified organisms definitely have no place in sustainable agriculture which empowers local farmers at the same time that it ensures the health of consumers and the preservation of the environment.

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