“Genetic Imperialism” And “Bio-Serfdom”

The Implications Of Genetic Engineering For Farmers And Agriculture

Keynote of the “Citizens Protecting Health and the Environment Regional Workshop on Genetic Engineering” 30 March – 1 April 2000, Penang, Malaysia by Rafael V. Mariano, chairperson of the Peasant Movement of the Philippines (KMP)

In the debate about genetic engineering, we were struck by an unusual yet encouraging phenomenon. Scientists and activists who are otherwise known to mince their words have enriched their vocabulary with expressions like “genetic imperialism” and “bio-serfdom”.

We welcome this development as we think that there is ample reason for more radical language and this terminology is quite appropriate. Moreover, as a matter of course it involves the farmers in the debate as they know from first hand experience what imperialism and serfdom mean.

The majority of the world population still relies on small-scale farming for its livelihood. They are the millions of farming families in the Third World who are hardly able to make both ends meet because they and their ancestors have been ravaged for centuries by imperialism and feudalism. Sadly, they will also suffer most from the intensification of imperialist and feudal exploitation that biotechnology is expected to bring about.

It is therefore absolutely justified to scrutinize genetic engineering from the viewpoint of the small farmers in the Third World. Although biotechnology also has other applications in agriculture, as well in pharmaceuticals, the recent developments in the seed business are threatening them most. Let us therefore have a look first at the interests at stake in the corporate world and especially in the seed business.

1 The Biotechnology Business: Tale Of The Giants

The business of genetically engineered agricultural products is closely interwoven with the so-called “life sciences” business, which I associate more with death than with life. After several decades of mergers and acquisitions, the top five “Gene Giants” (Astra-Zeneca, DuPont, Monsanto, Novartis, and Aventis) have built their strategic monopolies incorporating dominant positions in the seed, agrochemicals, pharmaceuticals and related markets. They account for nearly two-thirds of the global pesticide market, almost one-quarter of the commercial seed market, and virtually 100 percent of the transgenic seed market.[1]

Monsanto, whose genetically engineered seeds accounted for 88 percent of the total transgenic crop area in the US in 1998,[2] is an outstanding example of this oligopoly. This company banked heavily on the rise of the biotechnology business in the second half of the 1990s to build an impressive business empire. In1998, Monsanto swallowed DeKalb Plant Genetics and the international seed business of Cargill, two of the world's top ten seed companies. In the same year, Monsanto also acquired the world's largest cotton-seed company, Delta & Pine Land, owner of the “Terminator” technology patent and Plant Breeding International of Cambridge, UK. In a span of eight weeks, Monsanto catapulted itself to become the world's second largest seed company in the world.[3]

Monsanto’s $33 billion merger with American Home Products in June 1998 consolidated its monopoly position in the so-called “life sciences” industry. Monsanto/AHP became

the world's biggest agrochemical firm, the world's second largest seed company, the number four pharmaceutical firm, and among the top five veterinary medicine firms. In the US, Monsanto held almost 90 percent of the cotton seed market, one third of the market in soybeans, and 15 percent of the maize seed business.[4]

Through cooperative agreements with other companies, Monsanto is stretching its control far beyond the confines of its own business empire. It has convinced California-based Seminis Vegetable Seeds, for example, a company that controls approximately 19 percent of the worldwide fruit and vegetable seed market and 40 percent of the vegetables in the US, to develop Roundup Ready lettuce and tomatoes.[5]

The explosive expansion of transgenic crops is almost completely confined to North America. Together with Argentina, the US and Canada account for 99 percent of the global transgenic acreage. In these three nations, over half the acreage for major commodities like soybeans, corn, and canola are planted in transgenics. The total area planted to genetically engineered crops jumped more than twenty-fold in the last four seasons, from 2 million hectares in 1996 to nearly 40 million hectares in 1999. [6]

New developments in genetic engineering will give rise to further monopolization of the business. A second wave of bioengineered seeds will focus increasingly on "output" traits like Vitamin A enhanced rice. With the development of so-called "functional foods" and "nutraceuticals" the lines between food and pharmaceuticals are blurring further. These evolutions are expected to bring about more multibillion-dollar mergers bringing the biotechnology companies under the control of a few giant companies that span the whole food chain as well as the market for pharmaceuticals.

The potential market is huge. The International Seed Federation predicted that the world market for genetically engineered seeds would reach $2 billion by the year 2000, and anticipated an explosion of the market $20 billion in the year 2010.[7]

Traditionally, seed companies had a relatively low profit margin of less than 15 percent, compared to the lavish profit margins of 20 to 30 percent in the pesticides and pharmaceutical business.[8] Because of the increasing monopolization and the development of genetically engineered seeds, however, seeds are finally making big money. For the leading 10 companies, sales increased by 25 percent in just two years.[9] In the US, the cost to farmers of seeds, fertilizers and agricultural chemicals shot up 86 percent between 1987 and1997.[10]

2 “Bio-Serfdom” Or Feudalism By Another Name

In the Philippines, as in most of the Third World, peasants are still subject to abject feudal and semi-feudal exploitation. Lands are concentrated into the hands of a few landlord families while most farmers are landless or lack enough land to sustain their families. Small farmers are not only dependent on the landed elite, but also on a whole range of other shady characters including usurers and merchants who take advantage of their monopoly position in the semi-feudal rural economy.

When you would ask small peasants to give the two major characteristics of feudalism, they will surely mention landlessness and dependency on monopolies. For several decades, peasants are waging brave struggles against these restraints on their empowerment and liberation. Yet the problems of landlessness and monopoly control by landlords, usurers, businessmen and TNCs only worsened since the “Green Revolution.” The same is happening again with the present “Gene Revolution.”

Many developments in biotechnology are explicitly aimed at increasing farmers' dependency on seeds and other farm inputs. The first generation of high-tech, proprietary seeds focused on herbicide tolerance and insect resistance. That traps the farmers in a package deal, even more compelling than with "Green Revolution" technology. Farmers have no other choice but to buy the proprietary pesticides from the same company where they bought their seeds.

"Terminator" technology goes one step further in creating dependency. "Terminator" seeds are engineered to lose their germinating capacity thereby disabling farmers to save seeds for replanting and forcing them to purchase new seeds every planting season. With "Traitor" or "Junkie" seeds, the "Gene Giants" want to hook the farmers on their obnoxious products without any choice at all. These seeds are physically dependent on repeated applications of the companies' proprietary chemical junk.

Under pressure of the US, recent scientific developments are complemented with attacks on farmers' freedom on other fronts. For example, the 1991 Act of the International Union for the Protection of New Plant Varieties (UPOV) significantly strengthens the rights of corporate plant breeders, at the expense of farmers' rights.

Genetically altered seeds seriously threaten the livelihoods of 1.4 billion people who depend on farm-saved seeds and who produce almost 20 percent of the world's food. They have to drive the farmers' dependency to the limit. The little freedom that was left after the "Green Revolution" disaster will be taken away by the "Gene Giants." The monopoly position of the giants will ensure that there is no escape. While their crops are hooked on expensive chemicals, farmers will be forced into addiction to credit -- to the expense of their freedom and the survival of their families.

Moreover, ongoing research in genetically engineered food is directed at the needs of corporations, not at the needs of the farmers. Transgenic crops are designed mainly for use within the system of industrial monocultures and will therefore contribute to the further degradation of the environment and the development of super pests. Small farmers will be affected by these side-effects while the corporations will reap the profits.

The poor peasants of the Third World, already hard pressed by competition from heavily subsidized food imports from the EU and the US, will be driven from their lands to make place for corporate farming. Landlessness and poverty will inevitably go on the rise.

3 "Genetic Imperialism" Is Just "Generic Imperialism"

The superiority of the US in the transgenic seed business is appalling. From the viewpoint of US foreign policy, genetically modified seeds offer a key advantage over traditional seeds as they would expand US global economic and political influence considerably. The Clinton administration has been aggressively promoting genetic engineering in agriculture, bypassing US health and safety regulations.[11]

Food has long been a political tool in US foreign policy. Twenty-five years ago USDA Secretary Earl Butz told the 1974 World Food Conference in Rome that food was a weapon, calling it "one of the principal tools in our negotiating kit." As far back as 1957, US Vice-President Hubert Humphrey told a US audience, "if you are looking for a way to get people to lean on you and to be dependent on you in terms of their cooperation with you, it seems to me that food dependence would be terrific."[12]

For the US, biotechnology is indeed just another weapon to strengthen and expand its domination in the world's economy and politics. Hence, nobody should be surprised that

they stubbornly refuse to discuss any well-founded doubt about the soundness of this technology.

Consider its behavior during the negotiations about the biosafety protocol. As the US never bothered to ratify the Convention on Biological Diversity, it had no right to vote. Yet it was able to torpedo the Cartagena biosafety talks last February 1999 because – in the words of Deputy Assistant to the Secretary of State Rafe Pomerance – "they were not going to let anyone do anything that might harm a 68 billion dollar a year industry in the United States."[13]

About the biosafety protocol that was finally inked last January in Montreal, US Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs David Sandoval writes jubilantly: "The protocol's preamble includes an extremely important provision, the so-called 'savings clause,' which makes it crystal clear that the treaty fully preserves the rights and obligations of governments under the rules of the World Trade Organization (WTO) or other international agreements. (…) In other words, U.S. exporters still have the right to challenge unfair trade practices in the WTO."[14]

In spite of its impressive growth and the US government's full support, not all is well in the business genetically modified organisms (GMOs). Last year, investors drove down stock prices of agricultural biotechnology companies. On January 7, 2000, the Wall Street Journal wrote: "With the controversy over genetically modified foods spreading across the globe and taking a toll on the stocks of companies with agricultural-biotechnology businesses, it's hard to see those companies as a good investment, even in the long term."[15]

The "Gene Giants" resorted to extraordinary measures that resulted in yet another major restructuring of the industry. Novartis and AstraZeneca have merged and hived off their seed and agrochemical divisions into a new subsidiary called Syngenta. Monsanto announced plans to merge with Pharmacia & Upjohn in December last year.[16] DuPont is considering issuing a new stock that would track its biotechnology division but decided in early 2000 to postpone its release.[17]

Many observers interpret this upheaval as an indication that the biotech companies have lost the public relations battle. This is, however, only part of the truth. To make a comprehensive and accurate analysis of these recent developments we should not forget that "genetic imperialism" is imperialism in the first place. Hence it is afflicted with the same flaws: it is propelled by the global crisis of overproduction and it instigates cut-throat competition between the imperialist powers.

Revolting it is, but our world's food crisis is characterized by **over**production of agricultural products. Still this appalling observation is not surprising. Global capitalism has known cyclical crises of overproduction in all economic sectors since the second half of the 19th century.

In the 1980s, when the global crisis deepened, increasing competition and agricultural overproduction was leading to intensifying trade conflicts among the US and the European Union. Moreover, the high cost of subsidized programs to support their agricultural sectors became a heavy burden on the industrialized countries' budgets. With their backs against the wall, the US and the EU forged a temporary alliance in the Uruguay Round negotiations of GATT that resulted in the Agreement on Agriculture (AoA) and the World Trade Organization (WTO).

The AoA was supposed to solve the chronic problem of agricultural overproduction in the EU and US by expanding their markets while maintaining most of their protectionist bar-

riers intact. The EU and the US agricultural sectors indeed enjoyed temporary relief while agriculture in Third World countries drowned in subsidized imports from the North.

Predictably, the AoA was no permanent solution to the overproduction of agricultural goods. To the contrary, because of the worsening crisis, sweeping the Asian tigers off their feet in 1997, the global food market contracted during 1998 and 1999. The persistent increase in world production while global demand was slacking has led to disastrously low prices for agricultural products, and business failures for many American farmers.[18] The US Department of Agriculture does not have much hope for a rebound in the near future. Prices of wheat, corn and soybeans are expected to remain low while these products are in oversupply.[19]

The US, a country that makes nothing of starving entire peoples to death, is so desperate that it had to exempt food from its unilateral embargoes on Iran, Libya and the Sudan. It will also step up its dumping practices on the Third World that are packaged as "food aid" because, as US Agriculture Secretary Glickman puts it, "Here we sit with an agricultural abundance, much more food than we can possibly consume ourselves... more, in fact, than our farmers can sell to overseas customers through traditional means." [20]

In this context, it is easy to understand why the US is hell-bent on pushing its genetically altered food down the throat of the rest of the world. It simply has to cash in on its lead in the field of genetic engineering for its agricultural sector to survive.

The reluctance of Europe to accept genetically modified crops is a major obstacle for the US. Deputy Treasury Secretary Stuart Eizenstat described it as "the single greatest trade threat that we face."[21] Indeed, the European public's resistance to GMOs is an important factor in the ongoing trade war between the US and the EU.

Although the European citizens' justified and sincere concerns should not be discredited, their governments might be using the issue of GMOs merely as just another weapon in the competition between the most important imperialist blocs. For example, during the negotiations about the biosafety protocol the EU was clearly pursuing its own agenda and offered only halfhearted support to the majority of Third World countries, who were resisting manipulation by the pro-GMO Miami Group of the US, Canada, Australia, Argentina, Chile and Uruguay.[22]

It is significant that in Europe, opposition to GMOs is as big in the corporate world as among the broad public. Deutsche Bank, Europe's largest bank, for example, has issued two influential reports last year advising its large institutional investors to abandon agricultural biotech companies. According to Deutsche Bank, "it appears the food companies, retailers, grain processors, and governments are sending a signal to the seed producers that we are not ready for GMOs."[23]

This statement suggests that European business circles are more concerned about the US' lead in biotechnology than about more fundamental issues like the effects of GMOs on agriculture and people's health. It shouldn't surprise us if Europe is only buying time until its own industry is ready to unleash its biotechnology products on the rest of the world. Remember that three of the five "Gene Giants" are European.

While Europe is still resisting the GMO offensive of the US, the Third World has become the main target. Delta & Pine Land Company openly admits that its "Terminator" technology is targeting the South, where patent laws are weak or non-existent. This is echoed by the USDA, that co-owns the "Terminator" patent. USDA spokesman Willard Phelps disclosed that the goal of this technology is "to increase the value of proprietary

seed owned by US seed companies and to open up new markets in Second and Third World countries."[24]

Seed industry giants are making strategic acquisitions in major seed markets in the South. Delta & Pine Land, for example, which is controlling an estimated 71 percent of the North American cottonseed market, is rapidly expanding in Asia.[25] In other countries, "Gene Giants" are entering into strategic alliances with local landlords and comprador firms. A case in point is Cargill's alliance with the Ayala consortium in the Philippines. GMOs have effectively made their entrance in many Third World countries under the guise of "field tests," often in connivance with governments and international agricultural research institutions.

Biotechnology companies are targeting the most vulnerable: the small and landless peasants in the Third World. Undoubtedly, the effects of "bio-serfdom" and "genetic imperialism" will be quite familiar to them for these are nothing else but yet another weapon in the arsenal of imperialist and feudal exploitation.

4 Broad Unity Against Imperialism And Feudalism

The claims of the agricultural biotechnology industry that their products are needed to feed the world are at least as nauseating as the crops they grow. The world today produces more food per inhabitant than ever before. Still, about 800 million people do not have enough to eat.[26]

The real causes of hunger are poverty, inequality and lack of access to food and land. Too many people are too poor to buy the food that is available or lack the land and resources to grow it themselves. Fidel Castro told the 1996 World Food Summit in Rome: "Hunger is the offspring of the unequal distribution of the wealth and the injustices in this world. It is capitalism and neoliberalism that are killing so many people in the world."[27]

Cuba itself drew remarkable lessons from its own experience with "Green Revolution" technology. Throughout the 1990s it restructured its agriculture, parceling out big farms, giving incentives to small farmers and encouraging organic farming practices.[28] Cuban agricultural biotechnology research is well advanced but it is only used for the good of the people and it is currently not applied for public consumption.[29] We can learn from the Cuban experience that in a society that firmly resists imperialism while pursuing socialism, farmers can break free from the shackles of feudalism and imperialism and put their knowledge and skills at the service of the people.

It is therefore that we in the Philippines are waging a national democratic struggle in the interest of the people. Genuine land reform is the main content of our struggle as it will meet the most urgent needs of the farmers, the majority of our people. At the same time, the peasants, through their basic alliance with the working class, are fighting for national industrialization. Under these conditions, the interplay of agriculture and industry can bring about genuine development.

Numerous people are now up in arms against the hazards of agricultural biotechnology for various reasons. Experimental transgenic crops are uprooted in Europe as well as in some Asian countries. Offices of the "Gene Giants" have been besieged by angry farmers and environmentalists. Initiatives in defense of farm-saved seeds are launched all-over the world and experiences are shared over the Internet. An International Alliance Against Agrochemical TNCs will be kicked off later this year.

Last December in Seattle, the International People's Assembly resolved to advance the anti-imperialist and democratic struggle of the people while mentioning the people's right to safe food free from GMOs as one of their particular concerns.

On December 16 to 17, the International League of People's Struggle (ILPS) will be launched in Germany. The ILPS aims to unite all organizations that support the anti-imperialist and democratic struggle of the workers and oppressed peoples. As the ILPS also singled out the people's right to healthy food free from genetic manipulation as one of its major concerns, it provides a unique venue to connect the fight against "genetic imperialism" and "bio-serfdom" with the broad people's struggle.

Now that the crisis of imperialism is exposing its internal contradictions and fundamental flaws so clearly, the conditions are favorable to put this struggle in the broader context of the heroic battle of the basic masses against feudalism and imperialism. Only the victory of the toiling masses over these evil forces of oppression and exploitation can bring about proper nutrition, genuine development and general wellbeing for everybody.

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