

BENEFITS AND SHORTCOMINGS OF INTELLECTUAL PROPERTY RIGHTS FOR SMALL SCALE FARMERS IN DEVELOPING COUNTRIES

By Rafael V. Mariano¹

for the International Symposium Organized by infoagrar

*Protect Knowledge to Feed the World? Application of intellectual property rights in international agriculture today and tomorrow
Muri-bei-Bern, Switzerland, 26 September 2002*

Monopoly capitalism has succeeded in conscripting science and technology to creating new processes and products and process to gain super profits. It has used science and technology to intensify the exploitation of the toiling masses of the world.² It has allowed exploitative classes to claim unto themselves control over ownership, utilization and appropriation of natural resources on a worldwide scale through technology.

Third World science and technology is generally stunted, backward and underdeveloped as neocolonial trade relations have kept their societies largely agrarian. Under the regime of monopoly capitalism, science and technology has turned its sites on the next frontier: biotechnology and the life sciences.

Added to the fact that Filipino farmers have remained landless and exploited by big landlords and bourgeois compradors. Under the framework of imperialist globalization, the WORLD TRADE ORGANIZATION (WTO) – dictated policies of LIBERALIZATION, DEREGULATION AND PRIVATIZATION, continue to drive the peasantry into the pits of ever-worsening LANDLESSNESS, HUNGER AND POVERTY.

Aptly put in the PAN AP book, *Empty Promises...Empty Stomachs*, “...the WTO is another arena of political-economic conflict in the incessant efforts to develop new rules to govern competition as well as create new opportunities for monopoly protection and expansion.”

Imperialist countries, primarily the US, have tactically used the WTO to open up restricted markets through the introduction of the Trade Related Intellectual Property Rights (TRIPs) and the transfer and widespread use of seeds.

Under pressure of the US, recent scientific developments are complemented with attacks on farmers’ freedoms 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.

¹ MR. RAFAEL V. MARIANO is the National Chairperson of the Kilusang Magbubukid ng Pilipinas (KMP-Peasant Movement of the Philippines) and Co -Coordinator of the International Alliance Against Agrochemical TNCs (IAAATNCs)

² Dare to Struggle for a New World. International League of People’s Struggle, 2001.

For example, 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 1989 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 a year industry in the United States.”³

Seed companies and agro-corporations intensively fund agricultural biotechnology research and development.

In 1994, for example, the US’ Rockefeller Foundation, the same one which established the International Rice Research Institute (IRRI), spent US\$49 million on its rice biotechnology program. Globally, western countries have infused some US\$6 billion annually to aid research and development and over US\$7.5 billion a year is spent on in-house biotechnology programs.

PATENTS AND THE TRIPS

Why the big interest in seed? Seed, the basic unit in food genesis, is worth US\$30 billion in market potential and US\$ 614 billion for genetically-engineered seeds. The profit involved with seeds is so huge that each year, more than two million tons of GMOs are sent directly by US foreign assistance to developing countries, while the World Food Program distributes another 1.5 million tons of transgenic crops donated by the US government.⁴

The Top 10 seed firms now control 30% of the US\$24.4 billion commercial seed market and the top 10 agrochemical corporations control 84% of the US\$30 billion agrochemical market.⁵ After two decades of mergers and acquisitions, only five major Gene Giants or agricultural biotechnology firms dominate the market: Pharmacia (Monsanto), DuPont, Syngenta, Aventis and Dow. Earnings from US agrochemical sales meanwhile registered a 4.3% increase in 2000 amounting to about US\$7.9 billion.

Patenting seed and patenting life form give ultimate economic and political power and control to industrialized countries, TNCs. Biodiversity-rich countries are coming under intense pressure to adopt US-style intellectual property laws through “harmonization of world trade rules.”⁶

³ “Resurrecting the Ugly American,” Rachel’s Environment And health Weekly #655, 17 June 1999.

⁴ “Seedling.” Quarterly Newsletter of the Genetic Resources Action International (GRAIN). Barcelona, Spain: June 2001.

⁵ Global Campaigner. “Handful of Corporations Dominates Agriculture.” Volume 11, Number 3. California: Pesticide Action Network North America. 2001 December: 28.

⁶ “Of Patents and Pirates.” GRAIN

In Asia, patents were never allowed on life forms. All over the world, patents are kept as national documents granted under national rules and procedures.

A) TRIPs – sets enforceable global rules on patents, copyrights and trademarks.

- it has gone beyond the scope of protecting original inventions or cultural products and now permits the practice of patenting plants and animal forms as well as seeds
- it promotes the private rights of corporations over local communities and their genetic heritage and traditional medicines.
- It allows transnational corporations to keep drug prices high
- Recently, TRIPs has been invoked to stop developing countries from providing generic, cheaper drugs to AIDS patients in the Third World

B) The UPOV. Lately, the WTO has teamed up with the Union for the Protection of New Varieties of Plants (UPOV). The UPOV was created to give plant breeders legal monopoly over seeds and allow them to collect bigger profits. UPOV membership never went beyond industrialized countries. But because of the WTO's TRIPs which requires countries to provide patent protection for all fields of technology and its Article 27 requires all member countries to implement intellectual property laws on micro-organisms and plant varieties.

→ There are nearly 100,000 distinct rice accessions in IRRI's genebank. The bulk of which were developed by farmers

→ 40 years of the UPOV has resulted to 100,000 new plant varieties

Impacts of the UPOV: (1) ON PRODUCERS: Farmers' livelihoods will be greatly affected, driving them to deeper poverty. Genetic resources will be restricted under UPOV and will shift seeds and other genetic resources to private control under the plant variety rights. (2) ON GENETIC EROSION: because it is geared toward the specific needs of industrial agriculture, there will be a corporate take-over of plant breeding. (3) Adverse impacts on research and development.

C) The Plant Variety Protection (PVP). The PVP is supposedly constructed as an "alternative" to patenting that would work towards the needs of agriculture.

Impacts: PVP and Patents : (1) undermine farmers' rights because they restrict the rights of farmers to share, use and save seeds from their harvests. The two also violate farmers and farm communities' rights to conserve, develop, use, control, and benefit not only from local diversity but also rural peoples' knowledge system and technology.⁷ (2) It has also tightened dependence on foreign corporations. [97% of all patents are held by nations of industrialized countries and 90% of all technology and product patents are held by global corporations]

⁷ GRAIN.

A very good example of contractual agreements between seed companies and farmers would be Monsanto's Round-Up Ready Technology Agreement.

The 1990's have not been a good decade for agricultural biodiversity in Europe. Lack of helpful reform in the Common Agricultural Policy (CAP), new legislative restrictions on seed and a persistent move towards private industry controlling the seed markets has led to further intensification of agriculture and the disempowerment of farmers.⁸

Gene Banks – How free is access?

When farmers point out that their ability to save seed and develop their own seed resources is constantly being eroded, critics often cite gene banks as a ready source of freely available and freely modifiable genetic material. But farmer's access to gene banks is not always guaranteed. It will often depend on the goodwill of those responsible for the banks, rather than on the recognition of farmer's rights. (like in IRRI, farmers have to enter first into a Material Transfer Agreement, MTA)

Patenting of seeds & other genetic materials/resources increasingly restricting farmers's access to them. Patenting means privatization and commercialization of seeds for profits.

Few proposals to consider in support of agricultural biodiversity:

- Gene banks should implement Material Transfer Agreements that prevent claims of ownership or any form of intellectual property right over genetic material.
- Guarantee meaningful participation in the development of regulations related to registration and production of local & industrial varieties.
- Monitor and assess the impact of intellectual property the concentration of power in agriculture and genetic engineering on biodiversity.
- Promote food sovereignty and biodiversity-rich farming under the control of local communities.

The most successful experience of the management of biodiversity lie in the hands of rural communities, as well as in newly established networks between farmers and consumers. It is essential to bring agricultural biodiversity, its conservation and continued development back to the farmers and the community.

GE Pollution in Mexico: Native Corn Contaminated⁹

On September 19, 2001, Mexico's Secretary for the Environment and Natural Resources confirmed reports that genetically engineered material has contaminated native corn varieties in Mexico. Out of 22 communities tested by government agencies in the State of Oaxaca, contamination of corn by transgenics was found in 15. It is the first proven case

⁸ "Seedling," the quarterly newsletter of Genetic Resources Action International (GRAIN) March, 2002, Vol. 19. No.1 page 10.

⁹ Philip Cryan, Global Pesticide Campaigner, December 2001, Volume 11 Number 3, page 16

of transgenic contamination affecting a crop at its center of origin – in the region where it evolved, where numerous landrace varieties and wild ancestors still exist.

US EPA Approves Bt Corn Despite Lack of Testing¹⁰

On October 15, 2001, the US Environmental Protection Agency (EPA) announced the approval of genetically engineered Bt corn for seven more years, despite serious questions about the dangers the crops pose to human health or the environment. PAN North America criticized the EPA for rushing to approve Bt corn without conducting necessary tests on human health effects and failing to investigate new concerns about environmental impacts.

On Genetic Engineering and Biosafety

Biosafety Protocol¹¹

Although the Protocol is crucial in regulating GE, particularly so since there are many questions surrounding the technology, its text was compromised due to the intense pressure of GMO (genetically modified organism) producing and exporting countries, and the biotech industry.

Countries still have to build on the minimum standards set by the Protocol through national regulation to ensure adequate biosafety.

> On issues relating to access and benefit sharing, intellectual property rights (IPRs), and the relationship between Convention on Biodiversity (CBD) and the World Trade Organization's (WTO) Trade-related Aspects of Intellectual Property Rights (TRIPS) agreement.

The TRIPS agreement is undermining CBD provisions. This is because Article 27.3 (b) of TRIPS makes it mandatory for national legislation to allow for the patenting of life forms. Combined with biopiracy problems, whereby genetic resources are misappropriated by companies, institutions, individuals, and thus usurped from local communities, the TRIPS agreement is, in effect, facilitating theft via patents.¹²

Article 27.3 (b) stipulates that member countries may allow for the patenting of plants and animals and must allow for patenting of microorganisms. Member countries must also allow patenting of non-biological and microbiological processes and need not allow patenting of essentially biological processes. This essentially makes an artificial distinction between plants, animals and microorganisms, for the benefit of commercial interests to exercise monopoly control over life forms and life itself.

¹⁰ Ellen Hickey, Global Pesticide Campaigner, December 2001, Volume 11, Number 3, page 17.

¹¹ Third World Resurgence, Issue No 141-142, May-June 2002

¹² Third World Resurgence Issue No 141 -142, May-June 2002

While inventors who produce for common good should be granted some protection to recoup their investment, life forms are discoveries, not inventions; hence they should not be patentable.

Genetic resources are misappropriated through biopiracy and the patenting of biological resources facilitated by TRIPS.

UPOV: Protecting Industry, not Agriculture¹³

Rights granted to breeders under UPOV are powerful. The Plant Variety Protection (PVP) afforded under UPOV gives the breeder full commercial control over the reproductive material of his or her variety. This means that farmers growing PVP varieties are prohibited from selling the seeds they harvest from the crop. In addition, they are increasingly being prevented from saving and exchanging seeds on a non-commercial basis. PVP also means that farmers pay royalties on every purchase of seeds. Furthermore, only licensed growers can multiply the variety for sale. Under the terms of the 1978 Act, UPOV makes two exceptions to the commercial monopoly. Farmers are allowed to save seed for their own use and breeder are allowed to freely use PVP varieties to develop newer ones. But these exemptions are restricted in the 1991 Act, which is now the only Act open for accession to countries looking to join UPOV.

TRIPS: Breathing new life into UPOV¹⁴

The WTO's agreement on Trade-Related Intellectual Property Rights (TRIPS) obliges all members to provide intellectual property protection for plant varieties at the national level, either through patents or "an effective sui generis system" or both (Art. 27.3b). Few countries have laws that explicitly provide for patents on plant varieties, while others permit it in practice. As patents block anyone but the patent-holder from not only making and selling but using an invention, the patenting of plant varieties would severely affect plant breeding and agriculture at large.

TRIPS does not define what an "effective sui generis system" for the protection of plant varieties might be. Industrialized countries had the UPOV system in mind when TRIPS was drafted, but UPOV is not mentioned in the agreement. This means that the jury is out on what is to be considered an "effective" system under TRIPS. The UPOV Convention is an international agreement which sets rules for patent-like monopoly rights over crop varieties. It is highly biased toward industrial farming conditions and the bulk of UPOV's members are rich countries of the North.

The 69 developing country members of the WTO were supposed to have implemented Art. 27.3(b) of TRIPS by January 2000. The 30 least-developed country members have until January 2006. And while a mandated review of the provisions of TRIPS Art.27.3(b)

¹³ "Seedling," the quarterly newsletter of Genetic Resources Action International (GRAIN), July 2002, p.4

¹⁴ "Seedling," the quarterly newsletter of Genetic Resources Action International (GRAIN), July 2002, p.5

has been under way since 1999, it has not yet resulted in any concrete actions to change the Agreement, despite very clear proposals from the South on how to improve it.

Despite the flexibility the *sui generis* option in TRIPS seems to offer, UPOV-type PVP is increasingly being pushed as the only *sui generis* option in the South.

Just a quarter of the WTO members from the South have PVP legislation in place. Of these 26 – the vast majority of which only did so in the last few years, because of TRIPS – have also joined UPOV. An additional 25 are currently in the process of joining. And yet another 39 are allegedly seeking UPOV's advice on the conformity of their draft PVP bills with the UPOV provisions.

What does all this mean? Country after country, the *sui generis* option in TRIPS is gradually being reduced to UPOV-type legislation. The main reason for this is direct pressure from industrialized countries to harmonized intellectual property laws worldwide – not only through global treaties, but also through regional and bilateral trade and investment agreements. This carries serious implications for sustainable agriculture and farmers' rights, because accepting UPOV is the first step toward accepting full-pledged patent on life.

PVP and the US Agenda¹⁵

The push for the Philippines to adopt a plant variety protection system that is closely similar to the 1991 version of the UPOV is clearly part of a scheme of the United States to achieve uniform market conditions for transnational corporations in developing countries. The UPOV-type PVP system establishes a “conducive” environment for corporations to assure return of investments through an intellectual property rights regime that does not recognize farmers' contributions in plant variety development and unashamedly provides equal treatment to foreign nationals – which are among the key features of the PVP Bill being deliberated in the Philippine Congress. This scheme is hammered on developing countries in various ways, through the Trade-Related Intellectual Property Rights System (TRIPS) under the WTO, through arm-twisting bilateral trade agreements just what the US forged with Bangladesh and Vietnam, and through “harmless” economic policy development programs like the Accelerating Growth, Investment, and Liberalization with Equity (AGILE) of the United State Assistance for International Development in the Philippines.

... In India¹⁶

On 31 May the Indian Cabinet approved the Government's decision to seek accession to UPOV. This means that India will need to submit its recently adopted law – the Protection of Plant Varieties and Farmer's Rights Act, 2001 (PVP&FR) – to the UPOV Council. The Council, which next meets in October, will then assess whether the law is in conformity with the UPOV Convention or requires amendment. Although the current

¹⁵ SEARICE, An Exposé on the Plant Variety Protection Bill

¹⁶ “Seedling,” the quarterly newsletter of Genetic Resources Action International (GRAIN), July 2002, p.15

PVP&FR Law of India is modeled on UPOV 1978, it does contain vague, and much criticized, references to farmers' rights, which go beyond what UPOV would allow under its "farmers privilege." Most observers, including Indian government officials, expect UPOV to ask for changes in the law if India wants to push through with joining the Union which would entail a drastic trimming down of these farmers' provisions. However UPOV's main concern will also be to ensure India does join up, being one of the world's most populous countries. Despite 85% of all planted seed in India grown by farmer's themselves, it would appear that the interests of the farmers have once again been ignored.

...In the Philippines¹⁷

A week later, on 7 June, the Philippines' Government signed into law the Plant Variety Protection Act, based on the 1991 Act of the UPOV Convention. The Government says in its Press Release, that the Act "is aimed at protecting and securing the exclusive rights of plant breeders with respect to their new plant variety, particularly when beneficial to the people, through an effective intellectual property system." MASIPAG, a national organization which encourages farmer-led breeding claimed that "this PVP Act is not about enhancing food security nor agricultural research and development in the country; it is about organizing, marketing and distributing of corporate controlled seeds and technologies for greater corporate profits."

- Philippine Government's Policy of Trade Liberalization – policy pushing for the trouble-free entry of Genetically Modified Organisms (GMOs), Genetically Engineered crops, foods and seeds.
- Philippine Government's Policy of Commercialization of GMOs – a convenient vehicle for unhampered field-testing of transgenic seeds like Bt corn towards its commercialization.
- IRRI and Philippine Rice Research Institute's drive "compelling" the Philippine government for field testing towards the commercialization of BB rice and Golden rice or Vitamin A rice.
- IPR's – tightly linked to the peasantry's main problem of landlessness and feudal bondage.

To cite a few for concerted actions and mass campaigns.

Farmers have the rights to struggle for:

1. Access, control and ownership of the land they till.
2. Access and control over their own farm-saved seeds and planting materials including the right to refuse access to the seeds and knowledge where such access will be detrimental to farmers rights (such as to transnational corporations and international research institutions as appropriate)
3. Appropriate technologies which are simple, practical and inexpensive and do not harm the environment or human health.
4. Conserve and protect biodiversity and genetic resources including on and off-farm biodiversity and watersheds which are an integral part of farming systems.

¹⁷ "Seedling," the quarterly newsletter of Genetic Resources Action International (GRAIN), July 2002, p.15

5. Join, support and form institutions that protect the rights of farmers.
6. Control and use their own traditional knowledge free from the threat of biopiracy.
7. Independent and balanced information about seeds and agriculture in order to make informed choices.
8. Organize and join organizations to protect and promote their rights.
9. Promotion and advocacy for science and technology with the orientation of serving agriculture as the foundation of national economy.
10. Live in a world free of privatized intellectual property rights.

###