

The Indian Seed Act And Patent Act: Sowing The Seeds Of Dictatorship

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Since the beginning of farming, farmers have sown seeds, harvested crops, saved part of the harvest for seeds, exchanged seeds with neighbours. Every ritual in India involves seeds, the very symbol of life's renewal.

In 2004 two laws have been proposed - a seed Act and a Patent Ordinance which could forever destroy the biodiversity of our seeds and crops, and rob farmers of all freedoms, establishing a seed dictatorship.

Eighty per cent of all seed in India is still saved by farmers. Farmers indigenous varieties are the basis of our ecological and food security. Coastal farmers have evolved salt resistant varieties. Bihar and Bengal farmers have evolved flood resistant varieties, farmers of Rajasthan and the semi-arid Deccan have evolved drought resistant varieties, Himalayan farmers have evolved frost resistant varieties. Pulses, millets, oilseeds, rices, wheats, vegetables provide the diverse basis of our health and nutrition security. This is the sector being targeted by the Seed Act. These seeds are indigenous farmers varieties of diverse crops - thousands of rices, hundreds of wheats, oilseeds such as linseed, sesame, groundnut, coconut, pulses including gahat, narrangi, rajma, urad, moong, masur, tur, vegetables and fruits. The Seed Act is designed to "enclose" the free economy of farmers seed varieties. Once farmers seed supply is destroyed through compulsory registration by making it illegal to plant unlicensed varieties, farmers are pushed into dependency on corporate monopoly of patented seed. The Seed Act is therefore the handmaiden of the Patent Amendment Acts which have introduced patents on seed.

New IPR laws are creating monopolies over seeds and plant genetic resources. Seed saving and seed exchange, basic freedoms of farmers, are being redefined. There are many examples of how Seed Acts in various countries and the introduction of IPRs prevent farmers from engaging in their own seed production. Josef Albrecht, an organic farmer in Germany, was not satisfied with the commercially available seed. He worked and developed his own ecological varieties of wheat. Ten other organic farmers from neighbouring villages took his wheat seeds. Albrecht was fined by his government because he traded in uncertified seed. He has challenged the penalty and the Seed Act because he feels restricted in freely exercising his occupation as an organic farmer by this law.

In Scotland, there are a large number of farmers who grow seed potato and sell seed potato to other farmers. They could, until the early 1990s, freely sell the reproductive material to other seed potato growers, to merchants, or to farmers. In the 1990s, holders of plant breeders' rights started to issue notices to potato growers through the British Society of Plant Breeders and made selling of seed potato by farmers to other farmers illegal. Seed potato growers had to grow varieties under contract

to the seed industry, which specified the price at which the contracting company would take back the crop and barred growers from selling the crop to anyone. Soon, the companies started to reduce the acreage and prices. In 1994, seed potato bought from Scottish farmers for £140 was sold for more than double that price to English farmers, whilst the two sets of farmers were prevented from dealing directly with each other. Seed potato growers signed a petition complaining about the stranglehold of a few companies acting as a 'cartel'. They also started to sell non-certified seed directly to English farmers. The seed industry claimed they were losing £4 million in seed sales through the direct sale of uncertified seed potato between farmers. In February 1995, the British Society for Plant Breeders decided to proceed with a high profile court case against a farmer from Aberdeenshire. The farmer was forced to pay £30,000 as compensation to cover royalties lost to the seed industry by direct farmer-to-farmer exchange. Existing United Kingdom and European Union laws thus prevent farmers from exchanging uncertified seed as well as protected varieties.

In the US as well, farmer-to-farmer exchange has been made illegal. Dennis and Becky Winterboer were farmers owning a 500-acre farm in Iowa. Since 1987, the Winterboers have derived a sizeable portion of their income from 'brown bagging' sales of their crops to other farmers to use as seed. A 'brown bag' sale occurs when a farmer plants seeds in his own field and then sells the harvest as seed to other farmers. Asgrow (a commercial company which has plant variety protection for its soybean seeds) filed suit against the Winterboers on the grounds that its property rights were being violated. The Winterboers argued that they had acted within the law since according to the Plant Variety Act farmers had the right to sell seed, provided both the farmer and seller were farmers. Subsequently, in 1994, the Plant Variety Act was amended, and the farmers' privilege to save and exchange seed was amended, establishing absolute monopoly of the seed industry by making farmer-to-farmer exchange and sales illegal.

Similar laws are being introduced in India. The entire country is being taken for a ride with the introduction of the Seed Act 2004 on grounds that the Act is needed to guarantee seed quality. However, the Seed Act 1966 already performs the function of seed testing and seed certification. Twenty labs have been declared as seed testing labs under the 1966 Act in different States. Nine seed corporations have been identified as certification agencies.

Under pressure from World Bank the Seed Policy of 1988 started to dismantle our robust public sector seed supply system, which accounted for 20% of the seeds farmers grow. Eighty per cent of the seed prior to globalisation is the farmers' own varieties, which have been saved, exchanged and reproduced freely and have guaranteed our food security.

A License Inspector Raj for Seeds

The introduction of 2004 Seed Act needs to be assessed in the context of the simultaneous introduction of the 3rd Patent (Amendment) Act. Our 1970 Patent Law has been changed under the coercive pressure of WTO in spite of the overdue mandatory TRIPS review. Patents will now be granted for seeds, plants, micro-organisms, cells and even GMO's and animals.

Quite clearly a monopolistic patent regime cannot be established as long as farmers have the alternative of their own zero cost, reliable, time tested high value seeds of their traditional varieties of indigenous agro-biodiversity.

The Seed Act 2004 has one and only one objective of stopping farmers from seed saving, seed exchange and seed reproduction.

In the objective the 2004 Act clearly states that it is aimed at replacing farmers saved seeds with

seeds from private seed industries.

The repeated reference to 'barter' in the Seed Act will prevent farmer's exchange, a necessary aspect of maintaining high quality seed supply at the community level.

Further the compulsory registration of seed combined with the power of seed inspectors to enter and search premises (which now mean farmers' huts and fields), the power to break open any container and any door is tantamount to creating a 'Seed Police' to terrorize farmers who are conserving biodiversity and practicing a sovereign self-reliant agriculture. The fine for seed exchange and barter of unregistered seed (thousands of farmers varieties has a fine of up to Rs. 25000). While criminalizing farmers who conserve biodiversity and traditional varieties, the Seed Act fails to do one thing it should have done, which is to regulate and hold liable private seed industry for seed failure and genetic contamination from GMO's. For Example the failure of maize seeds in Bihar last year cost more than 1000 crores to Bihar farmers and the constant failure of Bt. cotton annually is costing more than a billion dollars to Indian farmers.

In the new Seed Act farmers can only claim compensation under the Consumer Protection Act. This option is in any way is available to the farmers presently and the brutal power of the Central Authority, which acts to prevent farmers from growing own seeds, provides no safety and remedy to our farmers from untested and hazardous seeds MNCs are selling in the Indian market.

The Seed Act has also undermined the role of the State governments. The Central Seed Committee in 1966 Act has representatives nominated by the government of each State. Now only 5 State will be represented in the Central Seed Committee and even these will be nominated not by the State governments but by the Centre.

The 2004 Seed Act has nothing positive to offer to farmers of India but offer a promise of a monopoly to private seed industries, which has already pushed thousands of our farmers to suicide through dependency and debt caused by unreliable, high dependency and non-renewable seeds.

The 1966 Act has served the country well and should continue to provide the framework for seed testing and seed certification.

Farmer varieties and indigenous agro-biodiversity is already been registered by Local Biodiversity Committee through Community Biodiversity Registers (CBRs). We do not need a Centralized Seed Authority with police power which uses compulsory registration to prevent farmers from growing, saving and exchanging their own seeds.

It is the MNC seed industry that need regulation and not the small farmers of our country without whose seed freedom the country will have no food sovereignty and food security.

Product Patent on Seeds

Methods of agriculture and plants were excluded from patentability in the Indian Patent Act 1970 to ensure that the seed, the first link in the food chain, was held as a common property resource in the public domain. In this manner, it guaranteed farmers the inalienable right to save, exchange and improve upon the seed was not violated.

But recently, two amendments have been made in the 1970 Patent Act. The 2nd Amendment makes changes in the definition of what is NOT an invention. This has opened the flood gates for the patenting of genetically engineered seeds.

According to Section 3(j) of the Indian Patent Act, the following is not an invention:

Any process for the medical, surgical, creative, prophylactic or other treatment of human beings or any process for a similar treatment of animals or plants or render them free of disease or to increase their economic value or that of their products.

In the 2nd Amendment however, the mention of “plants” have been deleted from this section. This deletion implies that a method or process modification of a plant can now be counted as an invention and therefore can be patented. Thus the method of producing Bt. cotton by introducing genes of a bacterium *thurengeris* in cotton to produce toxins to kill the bollworm can now be covered by the exclusive rights associated with patents. In other words, Monsanto can now have Bt. cotton patents in India.

The Second Amendment has also added a new section (3j). This section allows for the production or propagation of genetically engineered plants to count as an invention. Its status as an invention thus deems it. But this section excludes as inventions “plants and animals including seeds, varieties and species and essentially biological processes for production or propagation of plants and animals”. Since plants produced through the use of new biotechnologies are not technically considered “essentially biological,” section 3j has found another way to create room for Monsanto. This loophole, couched in the guise of scientific advancement, thus allows patents on GMOs and hence opens the flood gate for patenting transgenic plants.

What is most concerning is how the language of section 3j is a verbatim translation into India law of Article 27.3 (b) of TRIPS Agreement. Article 27.3 (b) of TRIPS states:

Parties may exclude from patentability plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, parties shall provide for the protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof. This provision shall be reviewed four years after the entry into force of the Agreement establishing the W.T.O.

As Monsanto had a hand in drafting the TRIPS agreement, it is not surprising that the Monsanto Amendments have also made their way into India’s patent laws.

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However, Article 27.3(b) is under review. The Government should have insisted on the completion of the review, a commitment of the Doha Round, instead of changing India’s Patent Law. As a result of sustained public pressure, after the agreement came into force in 1995, many Third World countries made recommendations for changes in Article 27.3 (b) to prevent biopiracy. India, in its discussion paper submitted to the TRIPS Council stated:

“Patenting of life forms may have at least two dimensions. Firstly, there is the ethical question of the extent of private ownership that could be extended to life forms. The second dimension relates to the use of IPRs’ concept as understood in the industrialized world and its appropriateness in the face of the larger dimension of rights on knowledge, their ownership, use, transfer and dissemination

Informal system, e.g. the shrutis and in the Indian tradition and grandmother’s portions all over the world get scant recognition. To create systems that fail to address this issue can have severe adverse consequences on mankind, some say even leading to extinction.

Clearly, we must re-examine the need to grant patents on life forms anywhere in the world. As we

continue to assess this situation, in the meantime it may be advisable to:

1. Exclude patents on all life forms.
2. If (1) is not possible, then we must exclude patents based on traditional/indigenous knowledge and essentially derived products and processes from such knowledge.
3. At the very least, we must insist on the country of origin to disclose the biological source and associated knowledge, and obtain the consent of the country providing the resource and knowledge, to ensure an equitable sharing of benefits.”

To prevent competitors from selling seeds and to prevent farmers from saving seeds, Monsanto has now turned to the patent laws to get monopoly rights. The Monsanto Amendments of India's patent laws are a logical consequence of the clearance for the commercial planting of GMOs in Indian agriculture, as we saw earlier with the March 26th decision of the Indian government to allow Bt. cotton.

Patents on seeds are a necessary aspect of the corporate deployment of GM seeds and crops. When combined with the ecological risks of genetically engineered seeds like Bt. cotton, seed patents create a context of total control over the seed sector, and hence over our food and agricultural security.

Looking with closer analysis, there are three ways that the 2nd Amendment and 3rd Amendment of the Indian Patent laws have jeopardized our seed and food security, and hence our national security.

Firstly, it allows patents on seeds and plants through sections 3(i) and 3(j), as we saw above. Patents are monopolies and exclusive rights which prevent farmers from saving seeds; and seed companies from producing seeds. Patents on seeds transform seed saving into an “intellectual property crime”.

Secondly, genetic pollution is inevitable. Monsanto will use the patents and pollution to claim ownership of crops on farmers' fields where the Bt. gene has reached it through wind or pollinators. This has been established as precedence in the case of a Canadian farmer, Percy Schmeiser, whose canola field was contaminated by Monsanto's “Round up Ready Canola,” but instead of Monsanto paying Percy on the basis of the pollute principle, Monsanto demanded \$200,000 fine for “theft” of Monsanto's “intellectual property”. Thousands of U.S. farmers also have been sued. Will Indian farmers be blamed for theft when Monsanto's GM cotton contaminates their crops? Or will the government wake up and enforce strict monitoring and liability?

When combined with the 3rd product patents amendment, these changes can mean absolute monopoly. A decision on a plant patent infringement suit has set a new precedent for interpreting plant patent coverage. In the case of *Imagio Nursery vs. Daina Greenhouse*, Judge Spence Williams, for the U.S. District Court for the Northern District of California, ruled that a plant patent can be infringed by a plant that merely has similar characteristics to the patented plant. When combined with the reversal of burden of proof clauses, this kind of precedence based on product patents can be disastrous for countries from where the biodiversity that gave rise to those properties was first taken, more so, if the original donors of the biodiversity are accused of ‘piracy’ through such legal precedence in the absence of the prior existence of laws on traditional knowledge that prevent the misuse of such legal precedence.

In countries, where plant patents are not allowed, patenting genes is available as an opening for patenting properties and characteristics of the plant, and hence having exclusive rights to those properties and characteristics. This is how Monsanto was able to establish monopolies on seeds

through patents on genes in Canada, even though Canada does not allow patents on life forms.

Patent protection implies the exclusion of farmers' right over the resources having these genes and characteristics. This will undermine the very foundations of agriculture. For example, a patent has been granted in the U.S. to a biotechnology company, Sungene, for a sunflower variety with very high oleic acid content. The claim was for the characteristic (i.e., high oleic acid) and not just for the genes producing the characteristic. Sungene has notified others involved in sunflower breeding that the development of any variety high in oleic acid will be considered an infringement of its patent.

Corporate Rights Vs Farmers Rights

The State is under siege. New Intellectual Property Rights (IPR) legislation is being introduced in the area of plant genetic resources (PGR) under pressure of the U.S. government as well as the requirements of the TRIPS agreement of the W.T.O. while W.T.O. gives a five year transition period to introduce PGR legislation, the U.S. pressure was to introduce such legislation immediately. Further, the U.S. has been demanding monopoly protection for Transnational Corporations (TNCs) which control the seed industry. On the other hand people's organisations are fighting to protect farmers' rights to their biodiversity and their right to survival as well as the freedom of scientists to work for the removal of hunger rather than corporate profits. Farmers organizations, biodiversity conservation groups, sustainable agriculture networks and public interest oriented scientists are trying to ensure that farmers' rights are protected, and through the protection of farmers' rights, sovereign control over our biological wealth and its sustainable use in agricultural production is ensured. The conflict over PGR legislation is a conflict between farmers and the seed industry and between the public domain and private profits, between an agriculture that produces and reproduces diversity and one that consumes diversity and produces uniformity.

On January 29, 1996 at an address at the Indian Institute of Agricultural Research, the United States Secretary of Agriculture, Mr. Daniel Glickman directly addressed the issue of the protection of seed Multinationals (MNCs). He said, "I hope our new legislation will provide a responsible and reasonable protection to private seed companies, which will encourage them to provide the best seeds available for your farmers. There would be very few inventions of anything, particularly in agriculture, without patent protection because it is the fundamental fact of nature that people will not go through the expense of development of new ideas just for the altruistic benefit of the human race.

The U.S. IPR orthodoxy is based on a fallacious idea that people do not innovate or generate knowledge unless they can derive private profits. However, greed is not a "fundamental fact of human nature" but a dominant tendency in societies that reward it. In the area of seeds and plant genetic resources, innovation of both the 'formal' and 'informal' systems has so far been guided by the larger human good. Norman Borlaug the scientist behind the Green Revolution and the recipient of the Nobel Peace Prize, made this clear in his statement at a Press Conference at the Indian Agricultural Research Institute, New Delhi on 8th Feb 96. He expressed concern against private companies and TNCs gaining control of plant genetic resources and seeds and patenting plants. Prof. Borlaug said,

We battled against patenting. I and late Glen Anderson (of International Wheat and Maize Research Institute) went on record in India as well as other for against patenting and always stood for free exchange of germplasm.

He saw IPRs in PGRs as a prescription for famine. Commenting on the U.S. demand for patents he said:

God help us if that were to happen, we would all starve.

Besides using a fallacious essentialist argument about human nature, Mr. Glickman also stressed the inevitability of farmers' dependence on MNCs for seeds due to trade liberalization and its impact on agriculture.

According to him,

As income increases throughout Indian society, food needs will change - higher vegetable oil consumption, a shift from rice to wheat in urban areas and some shifting from grain to poultry and livestock products. Also, the needs of the new food processing industries will change the types of crops demanded. Therefore, farmers must have access to new crop varieties in order to meet changing consumer preferences.

In other words, what the U.S. government is coercing the Indian government to do is introduce unhealthy fat and meat rich diets through the expansion of U.S. agribusiness, agroprocessing and fast food industry. The proposal is to replace the small peasant and farmer based agricultural economy of India with agribusiness controlled industrial agriculture. This shift is associated with a transformation of farmers as breeders and reproducers of their own seed supply to farmers as consumers of propriety seed from the seed industry. It is also a shift from a food economy based on million of farmers as autonomous producers to a food system controlled by a handful of TNCs which control both inputs and outputs. This is a recipe for food insecurity, biodiversity erosion and uprooting of farmers from the land.

It is often stated that IPRs will not stop traditional farmers from using native seeds. However, the Seed Act 2004 is designed to do just that. Further when it is recognised that IPRs are an essential part of a package of agribusiness controlled agriculture in which farmers no longer grow native seeds but seeds supplied by the TNC seed industry, IPRs become a means of monopoly that wipe out farmers rights to save and exchange seed. This leads to TNC totalitarianism in agriculture. TNCs will decide what is grown by farmers, what they use as inputs, and when they sell their produce, to whom and at what price. they will also decide what is eaten by consumers, at what price, with what content and how much information is made available to them about the nature of food commodities.

IPRs are a significant instrument for the establishment of this TNC totalitarianism. The protection of the rights of citizens as producers and consumers needs the forging of new concepts and categories, new instruments and mechanism to counter and limit the monopoly power of TNCs in agriculture. Community rights are an important balancing concept for protecting the public interest in the context of IPR protection for corporations. In the field of food and agriculture, farmers' rights are the countervailing force to breeders rights and patents on seed and plant material. Farmers' rights in the context of monopoly control of the food system become relevant not just for farming communities, but also consumers. They are necessary not just for the survival of the people but also for the survival of the country. Without sovereign rights of farming communities to their seed and plant genetic resources, there can be no sovereignty of the country.

Farmers' rights are an ecological, economic, cultural and political imperative. Without community rights, agricultural communities cannot protect agricultural biodiversity. This biodiversity is necessary not just for the ecological insurance of agriculture. Rights to agricultural biodiversity is also an economic imperative because without it our farmers and our country will lose their freedom and options for survival. Since biodiversity and cultural diversity are intimately linked, conservation of agricultural biodiversity is a cultural imperative also. Finally, without farmers' rights, there is no political mechanism to limit monopolies in agriculture and inevitable consequence of displacement, hunger and famine that will follow total monopoly control over food production and consumption

through the monopoly ownership over seed, the first link in the food chain.

P.S.

* Published on ZNet website.