FARMERS’ RIGHTS AND FOOD SECURITY IN INDIA:
A CRITIQUE OF THE PROTECTION OF PLANT VARIETIES AND

(A SUMMARY)

In the present era of liberalization, globalization and fast paced information and technology, intellectual property rights have emerged as a global phenomenon. IPRs are economic institutions designed to address inherent market failures that disincentives investment in innovative activity. An efficient and effective IPR regime is one which balances individual incentives and benefits with the wider needs of the society. Whereas, IPRs are a well established institution in the manufacturing sector, their application to agriculture is still evolving. The key issue in the agricultural sector is, quite simply, that some agricultural innovations are imperfectly appropriable. This imperfect appropriability may reduce innovators’ incentive to invest in the improvement of such crops. Several forms of IPRs employed in the sector of agriculture attempts to address this issue. Here mention may be made of legal mechanisms including patents, plant variety protection, trademarks, trade secrecy rights and plant breeders’ rights.

Plant Variety Protection (PVP) is a patent like system that allows the owner/innovator to prohibit specific unauthorized uses of his or her invention. European nations were the first countries to leverage PVPs as an incentive mechanism for agricultural innovation under the auspices of the International Convention for the Protection of New Varieties of Plants UPOV, (established in 1961 and revised in 1972, 1978 and 1991).

As a signatory to WTO, India adopted its own sui generis system in the form of Protection of Plant Varieties and Farmers’ Rights Act, 2001. The present work makes a modest attempt to analyze the food situation in India through times and also the various provisions of the sui generis legislation, PPVFR Act, 2001 and as to how this Act can help maintain an intelligent balance between the rights of the farmers and the breeders. Ensuring of farmers’ rights through this law can guarantee livelihood opportunities to the farmers and in turn help in attaining food security for a country like India which is dependent on an agrarian economy.
In the first chapter, *Food Situation in India – An Introduction*, attempt has been made to study the food situation in India. While reflecting on the past initiatives and incentives provided by the state to usher in Green Revolution in the country, an effort has been made to identify issues and challenges pitted before Indian economy in the context of food security. Achieving sustainable food security in India is a daunting task and there is a long way ahead if India wants to achieve the same. The recently passed Food Security Bill, 2011, has brought inherent challenges in its train. As sustainable food security depends on a productive, competitive and sustainable agricultural sector, appropriate approach and strategies need to be adopted to give impetus to farming sector to enhance productivity and strengthen farmers’ rights in India through effective legislative measures. The chapter also opens debate on the sui generis legislation in India while highlighting global perspective and Indian concerns.

While reflecting on the increasing role of private sector in agriculture, private investment in biotechnology and research, an attempt has been made in the second chapter, *Union for the Protection of New Plant Varieties (UPOV): Farmers’ Rights in Jeopardy*, to analyze the salient features of the international platform for protection of plant varieties, namely, UPOV which is primarily formed to extend protection to the plant breeders’ rights. However, this platform seems inappropriate to the agricultural requirements of developing countries like India. Concern has been expressed over India’s dual ended shaky approach in adopting a pro-farmer sui generis legislation in the form of PPVFR Act, 2001 and on the other hand insidiously trying to join UPOV, a pro-breeder organization. The third chapter, *The Protection of Plant Varieties and Farmers’ Rights Act: An Appraisal*, makes a critical appraisal of the PPVFR Act, 2001, its main provisions, its unique and farmer friendly aspects, correctives needed in this Act and its implementation bottlenecks. It emphasizes on the need to keep ‘seed’ free from absolute corporate control and private monopoly. In the fourth chapter, *Efficacy of Protection of Plant Varieties and Farmers’ Rights Act: an Evaluation of the Post Implementation Period*, a humble attempt is made to evaluate the efficacy of the Act in its post-implementation period, thereby discussing the barriers in the path of its effective implementation and suggesting measures for its effective implementation. While the fifth chapter, *Protection of Plant Varieties and Farmers’ Rights Act: Issues*
and Challenges touches upon many issues emerging in the area of agricultural biotechnology and talks of inherent contradictions arising on account of overlapping claims, for instance, between Patent (Amendment) Act, 2005, Seed Bill, 2004 and 2010 and the PPVFR Act, 2001. This piece of research work basically harps upon the sensitive issue of food security and farmers’ rights in India while making a critical appraisal of PPVFR Act, 2001.

India is a poignant example of how food sufficiency at the aggregate level has not translated into food security at the household level. A staggering large number of undernourished, about 214 million people, are chronically food insecure. Agriculture, a core sector of the Indian economy, accounts for 30 percent of the country’s GDP, 20 percent of total export earnings, two third of country’s workforce and livelihood for 70 percent of the total population.

The food situation in the country on the eve of World War-II was disquieting replete with famine, draught and food shortages. Domestic production was being augmented by annual imports of 2 million tonnes of food grains. Therefore, agricultural development was given top most priority to attain self sufficiency in food grains so as to feed the teeming millions. In 1950-51, the net production of food grains was 48.1 million tonnes and the country had to import 4.8 million tonnes of food grains to meet its domestic need. Agricultural production got a boost with the inception of First Five Year Plan. The Plan provided for Rs. 350 crores for agriculture and community development.

Since the Second Five Year Plan gave more importance to the industrial sector, India had to import an average of 3.7 million tonnes per year. During the Third Five Year Plan, the average annual import was 6.4 million tonnes. It was in 1966-67, the critical year of draught when India imported 11 million tons of food grains. Even then, per capita availability of food grains was at the lowest level of 408 grams per day since 1953 which was the consequence of high population growth rate at two percent.

It was in the mid sixties that India witnessed ‘Green Revolution’ with introduction of new technology in agricultural sector. It resulted in doubling of food grain production from 120 million tonnes in 1960 to 210 million tonnes today. It was the combined effort of high yielding seeds, extensive use of fertilizers, land reforms
and irrigation schemes that resulted in this remarkable achievement. During this period, the government procurement of food grains increased from 4.5 million tonnes in 1966-67 to 24 million tonnes in 1989-90; as a percentage of net production of food grains the increase was 6.9 percent to 16.0 percent. As the year 1995 dawned, India was a net food exporter. In 1995, 850 million souls had 190 million tonnes of food grains to share.

India’s domestic production of food grains has averaged 211.4 million tonnes and has become stagnant over the last 5 years (2003-04 to 2007-08). It has been estimated that in the current financial year, India’s food production could fall by 20 million tonnes from the targeted 220 million tonnes. Short supply of food grains in the domestic market has led to substantial enhancement of Indian demand for food grains in the international market and exerted tremendous pressure on export prices of food grains. But a recent spiral increase in the domestic and international prices of food articles have raised a question on food security in the country when 25 percent of the country’s citizens are living below the poverty line and half a billion people live on agriculture and allied sectors for their livelihood.

India at present finds itself in the midst of a ‘paradoxical situation’: endemic mass hunger co-existing with mounting food grain stocks. The food grain stocks available with the Food Corporation of India (FCI) stands at an all time high of 62 million tonnes against an annual requirement of around 20 million tonnes for ensuring food security. Still, an estimated 200 million people are underfed and 50 million are on the brink of starvation, resulting in starvation deaths. The paradox lies in the inherent flaws in the existing policy and implementation bottlenecks.

As truly remarked by Gian Pietro Bordignon (WFP Representative, UN Information Centre, New Delhi) that, “today on the threshold of 60 momentous years of independence, the nation is justifiably proud of its myriad achievements of eliminating widespread famines and the impressive increases in food production. Nonetheless, there is, a long road to be traveled before the vision of a truly food secure India is achieved”.

The economic reforms oriented towards liberalization and globalization of Indian economy was initiated in 1991 under the Prime Ministership of Dr. P.V.
Narsimha Rao as a consequence of establishment of a New Economic Order (NEO) in the world. The then, Finance Minister, Dr. Manmohan Singh, anticipated that opening up of the agricultural sector to foreign trade and market determined exchange rate and reduction of protection for an industry which would benefit agriculture sector.

WTO: TRIPS AGREEMENT

The World Conference held in Havana in 1947 established the General Agreement on Tariffs and Trade (GATT) as a temporary body for Multilateral Trade Negotiations (MTNs). GATT continued to be a forum for MTN’s till the end of 1994. It completed eight rounds of negotiations during its existence.

The 1986 GATT Round, popularity known as the Uruguay Round (UR) provided a forum for formation of different coalitions to advance their interests, bringing new elements into trade discussion, especially relating to agriculture. One of the most important agreements of UR is relating to the granting of Intellectual Property Rights (IPR) on biological materials embodied in the Trade Related Intellectual Property Rights (TRIPS) Chapter. TRIPS was an attempt to narrow the gaps in the way the intellectual property rights were protected around the world and to bring them under common international rules. It specifically requires member nations to grant patents on microorganisms, non/biological and microbiological processes as well as effective IPR protection for plant varieties.

Art 27.3(b) of TRIPS, which deals with the protection of new plant varieties, offers three options. Protection will have to be granted by a patent or an effective ‘sui generis’ system or by a combination of the two. To comply with the TRIPS provision India decided to go for a sui generis system (translating roughly into its own kind) of protection for plant varieties.

PROTECTION OF PLANT VARIETIES AND FARMERS’ RIGHTS ACT, 2001: AN ANALYSIS

On Dec 14, 1999, the Government of India introduced the Protection of Plant Varieties and Farmer’s Right Bill, 1999 in the Parliament. The Parliament decided to have the Bill examined by Joint Committee of members of Parliament chaired by
The Draft Bill was deeply flawed not only because it ignored the interests of the farmers but also because it was modeled on UPOV (Union for the Protection of New Plant Varieties), the forum regulating breeders’ rights in the industrialized nations. The UPOV has no notion of farmers’ rights, food security, livelihood and related concepts so crucial not just to the Indian conditions but to all developing countries. The Indian Plant Varieties Act in its first version also neglected to address the issues fundamental to Indian agriculture and farming communities.

Taking into consideration the recommendations of the Committee, the Indian Parliament passed the Protection of Plant Varieties and Farmers Rights Act (PPVFR Act) in November, 2001. The passing of the Act had put an end to the seven year long struggle of the Farmer’s Organizations and Non-Governmental Organizations (NGO’s) for establishment of a sui-generis legislation protecting the plant varieties.

The Indian law which has been hailed as progressive, pro-developing country legislation has some notable features. It is the first in the world to grant formal rights to farmers in a way that their self-reliance is not jeopardized. Another significant feature is that this legislation charts its own course, deviating from the norms set by UPOV.

The PPVFR Act 2001 came into existence to provide for the establishment of an effective system for the protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new varieties of plants. It has been considered necessary to recognize and protect the right of the farmers in respect of their contribution made at any time in conserving, improving and making available plant genetic resources for the development of new plant varieties. Moreover, to accelerate agricultural development, it was felt necessary to protect plant breeders’ rights to stimulate investment for research and development of new plant varieties. Such protection is likely to facilitate the growth of seed industry which will ensure the availability of high quality seeds and planting material to the farmers. The Innovative Indian legislation has opened up interesting possibilities for developing a ‘developing country platform’ for regulating breeders’ and farmers’ rights so that both are acknowledged and protected simultaneously.
PPVFR deals with the protection of IPR for plant varieties by the process of registration. The various varieties which are covered under this Act are – new varieties, extant varieties, farmer’s varieties and breeder’s varieties. The Act provides for the registration of new varieties of plants by their breeders, provided they fulfill the criteria of novelty, distinctiveness, uniformity and stability. The breeders’ rights Protection would include the exclusive right to produce, sell, market, distribute, import or export the variety or its propagating material and to license other persons to do the same. It is also necessary to keep in mind that all IPR systems must strike a balance between the monopoly granted to the IP holder (in this case the plant breeder) and benefit to the society (in this case the farmers and the consumers).

PPVFR Act is unique, as it provides ‘clear and explicit rights’ to the farmers. This Act is proactive and farmer friendly. It recognizes the farmer not just as a cultivator but also as a conserver of the agricultural gene pool and as a breeder who has bred several successful varieties. The Act makes provisions for such farmer’s varieties to be registered with the help of NGO’s so that they are protected against being scavenged by formal sector breeders. Section 39 (iv) of PPVFR confers various rights on the farmers such as right to sow, re sow, exchange, share or sell his farm produce including seed of a variety protected under this Act. But the farmers are prohibited from selling seed that is branded by being packaged and labeled in a way indicating that the seed is protected under PPVFR. In this way both the farmers’ and breeders’ rights are protected. Further, the farmers are protected from the terminator technology (GURT) which means that the breeder is prohibited from marketing a variety that prohibits a plant from germinating a second time. In addition to this, the breeders are required to disclose to the farmers the expected performance of their variety under given conditions. Furthermore, whenever the breeder uses the farmer’s variety to breed a new variety, they are required to pay a royalty into the National Gene Fund (benefit sharing) which in turn rewards the farmers for contributing to the creation of new varieties for agriculture. Moreover, the Act extends the farmers the protection against the innocent infringement of rights specified in the Act; if it can be proved that he was unaware of the existence of such a right.
It is important to strengthen farmers’ rights through legislation in India which will help in keeping the ‘farming community’ alive and in turn viable competitor and effective deterrent to the take over of the seed market by the ‘corporate sector’. The provisions of this Act permit the scientists and breeders to have free access to the registered varieties as an initial source for the purpose of creating a new variety.

PPVFR Act also includes within its ambit public interest clauses such as exclusion of certain varieties from protection and the grant of ‘compulsory license’. To secure public interest, certain varieties may not be registered if it is felt that prevention of commercial exploitation of such variety is necessary to “protect order or public morality or human, animal and plant life and health or to avoid serious prejudice to environment”. Compulsory license can be granted to the party other than the holder of the breeder’s certificate if it is shown that the reasonable requirements of the public for seeds have not been satisfied or that the seed of the variety is not available to the public at a reasonable price.

INHERENT FLAWS IN PPVFR ACT AND CORRECTIVES NEEDED

PPVFR is a unique legislation due to varied reasons. It has tried to draw a fine balance between farmers’ rights and breeders’ rights. Re-use of ‘farm saved seeds’ is provided as farmers’ rights rather than as an exemption or a privilege. Community rights are honoured by the provision of ‘benefit sharing’. Whenever the breeder uses the farmers’ variety to breed a new variety they are required to pay a royalty into the National Gene Fund (benefit sharing) which in turn rewards the farmers for contributing to the creation of new varieties of agriculture. The farmers are protected from terminator technology (GURT) which means that the breeder is prohibited from marketing a variety that prohibits a plant from germinating a second time. ‘Transgenics’ are included in the definition of ‘variety’. Extant varieties are protected till 15 years after their notification under the said Act. Moreover, the Act extends the farmers the protection against innocent infringement of rights specified in the Act, if it can be proved that the farmer was unaware of the existence of such a right of the breeder. Furthermore, the Act at the very onset prohibits the protection of varieties hazardous to human and animal health and environment.
Although this law has such noteworthy features, it is not free from inherent flaws and thus needs correctives. Firstly, the inequities that were originally drafted into the Bill, continue to exist. The philosophy and language of the draft legislation is not Indian. It is anchored in the WTO and UPOV. The text of the Act needs a language overhaul. In some places it is ambiguous and could lead to legal disputes. It is important to frame appropriate rules that are clearly articulated and designed to enable the implementation of specific goals of the Act.

Further, the clause of benefit sharing (National Gene Fund) also needs improvement. Despite its good intentions of protecting the interests of the farming community, the new Act is likely to create problems in implementation because the description of the National Gene Fund is unclear and confusing. The Gene Fund should be the recipient of all the revenue payable to the farming community under various heads. This money should be collectively, rather than individually accessed by the farming community. The use of money should not be restricted to conservation or for maintaining ex situ collection. That would mean that the revenue generated from the use of farmers’ varieties would partly be used to maintain National Gene Bank in Delhi. This would be blatantly unfair. The money earned by the farming community should be spend in accordance with their wishes and not frittered away to meet the expenses incurred by communities to maintain national facilities which are the Nation’s responsibility.

Moreover, the method proposed for fixing and releasing benefit sharing is at present a messy and confusing exercise. The share of benefits payable to farmers will be calculated on the basis of commercial utility of the variety and be recoverable as an arrears of land revenue by the District Magistrate within whose local limits of jurisdiction the breeder liable for such benefit sharing resides. This irrational condition needs serious revision. Possibly, the least problematic approach to fixing benefit sharing would be a system of ‘lump sum’ payments, based for example on volume of seed sale.

PPVFR provides a liability clause in the section of farmers’ rights where the farmer in principle is protected against the supply of spurious and bad quality seeds. The clause is framed in a weak language leaving too much to the discretion of the
Authorities. Companies selling poor quality seeds with tall claims have been the cause of several crop failures leading to irrecoverable losses to the farmers with the tragic consequence of farmers committing suicide. The Act states that if the seed supplied does not perform as has been promised by the breeder or the company, the farmers’ shall have the right of compensation. It would be more appropriate if the compensation is specified and large enough to be a deterrent. If the breeder repeats the offence of selling bad quality seeds, he should be subjected to a punitive sanction is form of jail term.

Another notable flaw relating to the rights of the researchers under this Act needs attention. According to section 30 of PPVFR Act, 2001 the researchers are permitted to use a registered variety as an initial source for the purpose of creating a new variety provided when the registered variety needs to be used repeatedly as a parental line, the authorization of the breeder is required. But practically the scientists get limited rights because of acknowledgement of Essentially Derived Varieties (EDVs). Therefore, under the Indian Act, the breeders’ authorization is required for making EDVs and the process of making EDVs by the researchers has been made so wide under UPOV that all known forms of creating new varieties would be covered. Thus researchers’ space of work has been restricted.

IMPLEMENTATION OF PPVFR ACT, 2001

The scheme for implementation of legislation on Plant Varieties and Farmer’s Right Protection was launched during the Ninth Year Plan. The implementation of this legislation involves the setting up of a PPVFR Authority which will give effect to the provisions of the Act.

In India, M.S. Swaminathan Research Foundation (MSSRF), had initiated with assistance of the government a programme for capacity building among farmers, grass root democratic institutions, non-government and community organizations in order to enhance the implementation of farmers’ rights as provided for in PPVFR Act, 2001. To help frame the rules and to discuss the efficient utilization of plant generic resources in the Asia Pacific Region, MSSRF and FAO collaborated to organize a three day international consultation from January 20, 2002 at MSSRF in Chennai.
There were 85 participants from 10 countries, including farmers, plant breeders, environmental lawyers, gender experts, politicians, policy makers, representatives from private and public company and experts from FAO and international agricultural research centres of the Consultative Group on International Agricultural Research (CGIAR). They discussed the rights of farmers, breeders, researchers and issues related to public interest. The expert group came up with number of recommendations for implementation of this Act.

Though this PPVFR Act was enacted in 2001, but its rules were notified in 2003. The Cabinet in its meeting held on 2nd September, 2004, while considering the Cabinet nod on PPVFR Authority, approved the proposal for creation of the post of Chairperson of the Authority in the rank of Secretary General of India. The Chairperson shall be appointed by the Central Government on the basis of a panel of names recommended by Search Committee. This Act was notified by the Indian Government partly in 2005, by bringing sections 2-13 (both inclusive) and sections 95-97 (both inclusive) in force. In exercise of the powers conferred under sub section (1) of section 3 of PPVFR Act, 2001, the Central Government vide Gazette Notification No: S.O. 1589 (E) dated 11th November, 2005, established the “Protection of Plant Varieties’ and Farmers’ Rights Authority” for the purpose of implementation of the Act. Further, the Protection of Plant Varieties and Farmers’ Rights Authority of India laid down the regulations related to the registration of plant varieties on 7th December, 2006. The actual process of plant variety registration was launched on 20th February, 2007 and the Plant Varieties Registry of India established under the Protection of Plant Varieties and Farmers Rights (PPVFR) Act, 2001 started receiving applications from 21st May, 2007.

The Act provides that the Authority would consist of 15 members. The Chairman would be chosen from among the persons having long practical experience in plant varietal research or agricultural development. The Chairman would be virtually the Chief Executive of the Authority and have far reaching powers to ensure its smooth functioning. Of the 15 members, eight would be ex-officio members from agriculture and other concerned ministries. The Chairperson who is of the rank of Secretary to the GOI is the Chief Executive and the Registrar General who is the rank
of Additional Secretary to the GOI is the ex-officio Member Secretary of the Authority. Presently Dr. S. Nagarajan is the Chairperson and Dr. A.K. Malhotra (IFS) is the Secretary General). The PPVFR Authority has also constituted Scientific Advisory Committee; Project Appraisal Committee, Planning and Policy Committee with the objective to assist the Authority on various technical, administrative and legal aspects. An Extant Variety Recommendation Committee (EVRC) with seven members has also been constituted.

It is suggested that the Committee should not be overburdened by bureaucrats. It would be appropriate to have more independent experts, stakeholders, NGO’s on the panel. Now that India does have its sui generis legislation it is important to frame appropriate rules that are clearly articulated and designed to enable the implementation of the specific goals. It is a task, which requires specific knowledge, and would be most successfully undertaken in consultation with independent and experienced experts in this field.

It is significant to note that for proper implementation of PPVFR Act, 2001, the NGOs, small seed companies, state machinery, agricultural universities and Krishi Vigyan Kendras (KVKs) with the financial support of the PPVFR Authority should assist the farmers in identification, documentation and filing of the applications of their premium varieties of food crops within the stipulated span of time. Mere discovery of an individual or group of extant premium farmers’ varieties of commercial potential does not suffice as intensive endeavour has to be made for its commercialization after their due registration and IPR protection. Entrepreneurial skills, sufficient capital investment and material resources are a few essential pre-requisites for enterprising upon the registered farmers’ varieties. As such PPVFR Authority needs to consider suitable scheme(s)/initiatives which would promote the farmers’ rights by facilitating the commercialization of the registered farmers’ varieties through active assistance.

RELATED CONTROVERSIES AND ISSUES

Many controversies and issues were raised before and after the passing of this Act in 2001. Among the simmering controversies mention may be made of:
**Right to Sell Seed**

The farmer having the ‘right to sell seed’ is an essential component of our food security and simply cannot be trifled with. The consequences of denying the farmer the right to sell seed will lead to impoverishment and dependence for farming community on multinational seed companies for seed supply, with all the implications that this would have. While the Bill was being considered in the Parliament, it was generally articulated that farmer’s rights should constitute the rights to save seed form the harvest to sow the next crop (Plant Back Rights – PBRs). Gene Campaign maintained that PBRs were no rights but only exemptions and it insisted that Indian law has to grant rights and not provide exemptions to its farmers.

Further, to make sure that the farmer does not get displaced by the new companies, it was important to ensure that the farmers retained the ‘right to sell seed to other farmers, even if the variety was under the breeders’ right. This right has been seen in the context of seed production in India. Today, India plants over 60 lakh tonnes of seeds every year into its fields. The National Seeds Corporation and the various state seed corporations together produce less than 15 percent of this requirement. Over 85 percent of the seeds amounting to roughly 52 lakh tonnes that are planted in Indian fields every year are supplied by the ‘farming community’. This clause, ‘right to sell seed’, now in the Act was the most fiercely resisted and is till now the major bone of contention.

**India’s Decision to Join UPOV: Vehemently Criticized**

In today’s era of globalization, increasing role of private sector has come to fore with agriculture becoming more technology and research oriented. Research in plant technology has revolutionized agriculture. TRIPS Agreement has come as a package deal for developing countries requiring them to initiate IPR rights in almost all realms of knowledge and innovation, including plant varieties, in exchange for increased access to market of developed countries. They also had an option of joining UPOV, an international platform to protect plant breeders’ rights. However, such a platform is inappropriate to the agrarian requirements of developing countries. Intellectual property rights on plant genetic resources are not appropriate for farmers in developing countries to protect diverse and heterogeneous biological materials.
Patents on plant discriminate against traditional and community methods of breeding recognizing only individual breeding as innovation.

India, by enacting the PPVFR Act has broken new ground and deviated from the UPOV model of sui generis legislation. The Convention was adopted in Paris in 1961 and it was revised in 1972, 1982 and 1991. The objective of the Convention is the protection of new varieties of plants by intellectual property rights. UPOV which is an international organization of plant breeders was established by the large seed industries in 1961 to protect their market interests. UPOV member states are predominantly wealthy developed countries with huge industrialized economies that are not dependent on agriculture.

Developing countries with predominant agrarian economies like India must oppose UPOV since it goes against their kind of agriculture; their vulnerability in food sector and their farmers’ interest. UPOV denies farmers’ rights and propagates strong rights in favour of plant breeders. Surprisingly, in May 2002, without the approval of the Parliament, the Cabinet decided to reject the developments of the last few years and the Indian legislation and decided to join UPOV. The Indian Government’s dual and shaky approach came to the fore with this shocking decision. This step on the part of the Cabinet stunned the national and international experts and many questions had been raised on this act of the Cabinet.

Therefore, this decision of the Union Government has invited sharp criticism from seasoned politicians, economists as well as members of the civil society. UPOV and PPVFR cannot co-exist as they represent two irreconcilable view points. Accession to UPOV would mean that India should have a pro-breeder and pro-patent plant variety protection scheme.

The latest communication by the UPOV Secretariat reveals that UPOV’s Consultative Committee is still considering India’s membership issue which in turn makes it clear that India is still interested in the membership of UPOV but is maintaining a studied silence over the said issue. In a document of 2007 on the website of UPOV (www.upov.int) that provides the names of countries that are members of UPOV, India’s name figures in the list of countries that are not yet members of UPOV but have initiated the procedure and submitted the application to
the UPOV Council to become member of the Union. The present pro-farmer PPVFR Act will not be acceptable to UPOV. The farmers’ rights are once again in jeopardy.

Enactment of Parallel Legislations

In 2004-2005 two laws, one which was enacted i.e, The Patent (Amendment) Act, 2005 and the other, on its way to be enacted by the Indian Parliament i.e, The Seed Bill 2004, (which could forever destroy the biodiversity of our seed and crops and rob farmers of all freedom) could establish a ‘seed dictatorship’ and could have an adverse impact on farmer’s rights as provided under PPVFR Act, 2001.

The Seed Bill 2004

Eighty percent of all ‘seed’ in India is still saved by the farmers. Farmer’s indigenous varieties are the basis of our ecological and food security. New IPR laws are creating monopolies over seeds and plant genetic resources. Seed sowing and seed exchange – basic freedoms of farmers, are being redefined.

During 1960’s, India adopted its first seed law in the shape of Seed Act 1966 after the arrival of new high yielding varieties in food grain crops like sorghum (CSHI), pearl millet (HBI) and Maize (Ganga1) and varieties of high yielding rice (TNI, ADT27, IR8, etc) as well as vegetables (notably Pusa Swami of Bhindi). The Seed Act, 1966 came into operation in 1968 and was amended in 1972, 1973, 1974 and 1981. The Seeds (control) Order 1983 issued under the Essential Commodities Act, 1955, established a regulatory framework for controlling the distribution and supply of seeds in the market.

To encourage export of seeds and to make the best planting material from all over the world, available to the farmers, a New Policy on Seed Development was developed in 1988. In 2001, a National Seed Policy was announced in India. However due to the inherent weaknesses in the Seed Act, 1966 pertaining to its provisions, enforcement and penalty, the Indian Government with a view to repeal and replace the Seed Act, 1966, introduced the Seed Bill, 2004 in the winter session of the Parliament with the objective of doing away with all the inherent flaws of this Seed Act and for
effectively regulating the quality of seeds for sale, import and export and to facilitate the production and supply of seeds.

Having been aware of the fact that the Seed Bill will invite wrath of the farmers, NGO’s and farmer’s organizations, it is still being reconsidered by the Indian Parliament. The glaring fact is that the basic objective of the Seed Bill 2004 is clearly aimed at replacing farmers saved seeds with seeds from the private seed industries.

Some of the provisions of the Bill were viewed as direct assault on the traditional rights of the farmers who have been growing, exchanging, saving receiving and selling their own seeds for centuries. Section 13(1) of Seed Bill prevents anyone from buying and selling any variety of seed if it is not registered. While section 21(i) prevents a farmer from growing or organizing “the production of seeds unless he is registered as such by the State Government”. In stark contradiction the same Bill claims under section 43, “nothing in this Act shall restrict the right of the farmer to save, use, exchange, share, or sell his farm seeds and planting material, except that he shall not sell such seed or planting material under a brand name or which does not conform to the minimum limits of germination, physical purity, generic purity prescribed under clause (a) and (b) of Sec. 6 of the said Bill. Further, the Seed Bill also gives wide powers to the ‘seed inspectors’. Section 35(2) gives the inspector the power to break open containers and need be to force entry into the farmer’s house.

The key differences between the Seed Bill 2004 and PPVFR Act relate to declaring the origin (parentage) of the variety, the conditions for multi location testing and by whom these tests have to be conducted, level of transparency maintained on grant of registration, price control and the treatment of farmers’ varieties. Provisions like long periods of marketing, secrecy of marketing, absence of deposition of voucher seed samples, absence of provisions of benefit sharing and compulsory licensing, offer a monopoly to the private seed industry and have negative impact on the rights of the farmers as provided under the Seed Bill.

The PPVFR Act accords recognition to the contribution of the farming community in many ways. It recognizes farmers as cultivators, conservers and breeders. Therefore, farmers’ rights recognized by the said Act are: Right to seed, i.e. right to save, use, sow, re-sow exchange share or sell farm produced seed; right to fair
and equitable benefit sharing; right to register farmer’s varieties; right to recognition and reward from National Gene Fund for their contribution in the conservation and improvement of and making available PGRs; unregistered access to registered seed at reasonable prices; right to compensation for non-performance or under performance of the registered variety; protection against innocent infringement; and exemption of fees related to the administration of the Act and related judicial proceedings.

While the rights of the farmers to exchange, barter, share or sell seeds are strongly recognized under PPVFR Act, the Seed Bill does not provide for such strong farmers’ rights, rather, renders such seed transactions conditional. The Seed Bill requires that seeds or planting materials sold by the farmers have to conform to the minimum standards of germination, physical purity and genetic purity. This above said rider may adversely affect the traditional farmers’ seed system, making the conventional practices of the farmers followed since times immoral as punishable offences. This in turn may divert the demand of the seeds from the traditional to formal system and benefit the seed industry, adversely affecting the rights of the farming fraternity.

With the provisions of ‘compulsory registration’ and ‘wide powers to seed inspectors’, the Seed Bill, 2004 has barely anything positive to offer to the farmers of India, rather it promises of monopoly over seed to private seed industries. Thousands of farmers are being pushed to the brink of committing suicide. Intertwined factors of ‘dependency’ and ‘debt’ aggravated by unreliable high dependency and non renewable seeds among other factors have led to fanning of the agrarian crises in the country.

Therefore, the Seed Bill has been designed to curtail the farmer’s age old rights over the ‘seed’ by preventing them from using the native seed. It is the MNC Seed Industry that needs regulation and not the small farmers of our country without whose seed freedom the country will have no ‘food sovereignty’ and ‘food security’.

In 2008, a second edition of the Seed Bill was introduced in the Parliament which tried to incorporate most of the recommendations of the PSCA, but the Bill lapsed with the prorogation of 14th Lok Sabha. A third edition of the Bill was recently introduced in the Parliament in 2010. However, the third edition of the Bill clearly
reveals that the government is reluctant in accepting some of the suggestions or recommendations which were given by the PSCA, which were important in making the Seed Bill, a farmer friendly legislation and to break the absolute monopoly of the private seed sector over seed trade which is detrimental to the interest of the farming community of India.

Some of the recommendations of PSCA were incorporated in the latest edition of the Seed Bill and hence few important rights of the farmers’ have been conserved. But, on a close observation of the various provisions of this Bill, one finds that most of the recommendations of PSCA and National Commission on Farmers (NCF) pertaining to the farmers’ interests have not been accepted and incorporated in this latest Seed Bill. Rather, a few of the recommendations which had been incorporated in the 2008 edition of the Seed Bill have not been retained in the 2010 edition of the Bill, which adversely affects the rights of the farmers. To mention a few contentious provisions:

The 2010 version of the Seed Bill does not require the declaration of the origin and ownership of varieties submitted for registration and thus does not promote a transparent registration process. The latest edition of the Seed Bill is silent on the issue of ‘benefit sharing’ which is a part of farmers’ rights agreed by India under the International Treaty on Plant Genetic Resources for Food and Agriculture. Further, the 2010 Seed Bill lacks a regulatory provision to control unreasonably high prices and malpractices like black marketing of seeds and monopolistic trade practices which are the unwanted consequences of the monopoly of the private companies over the seed trade created by the loopholes in the Seed Bill which in turn mars the interest of the agricultural sector of India. The duration for the commercialization or marketing of the registered variety is quite long under the Seed Bill, 2010. It is 20 years for annuals or biennials and 24 for perennial crops.

In 2006, the PSCA had recommended that for the purpose of awarding registration certificate, the agronomic performance of the variety to be registered must be conducted at multi location trials by accredited government and semi government organizations unlike as it was allowed by the accredited private institutions under the 2004 version of the Bill. But, the 2010 edition of the Seed Bill has backtracked from
their recommendation and has allowed the accredited private sector organizations to conduct such trials. The provision providing for compensation to the farmers due to the failure to realize the expected performance of the seed under specified conditions has not been incorporated according to the important recommendations of PSCA.

In order to push the Indian Industry on the path of ethical values, healthy and social responsibility, we need to have strong, ethical and sound seed laws and proper system for the implementation including deterrent punishment for the violators. But, despite the recommendations of PSCA, the Seed Bill 2010, follows the same path as of the earlier versions of Seed Bill and imposes week, soft or token punishments for the violations of its provisions and thereby can seriously damage the interests and livelihood of millions of farmers in India. Hence, the 2010 Seed Bill also does not help much the cause of the farming community of the country.

The PSCA had recommended wide number of suggestions to be incorporated by the government in the new Seed Bill. If these important recommendations of the PSCA are crafted in the latest version of the Seed Bill, it can help in bringing harmony with the other legislations related to the same domains and help in serving the needs of the agriculture sector of India in a better way rather than creating a adverse situation of conflict claims and counterclaims, pertaining to seed and PVP Laws leading to multifarious disputes. The contradictions between the Seeds Bill and other domain legislation create loopholes for establishing monopoly on seeds, pirating national bio-resources, denying farmers’ rights, and evading public accountability. Public interest demands that its legal incongruities and farmer unfriendly provisions are corrected before the Seeds Bill is passed by Parliament.

It is thus brought forth that a lot of contradictions exist between the provisions of PPVFR Act and 2010 version of the Seed Bill which can lead to overlapping claims of different communities as PPVFR is ‘pro-farmer’ and Seed Bill is weighed in the favour of the ‘seed industry’. Therefore, it will be suitable that the provisions of the two Acts be harmonized so that none of the rights granted to the farmers can be diluted.

The Patent (Amendment) Act, 2005
The Indian Patent Act 1970 intelligently defined intellectual property regime on innovations and excluded patenting of all life forms by defining the term invention in a very skillful manner. Methods of agriculture and plants were excluded from patentability under this Act to ensure that seed, the foundation link in the food chain was held as a common property resource in the public domain and the private sector could not maintain an exclusive monopoly over it. In this way the farmer could be guaranteed their inalienable rights to save exchange and improve upon their rights could not be violated.

Article 27.3 (b) of TRIPS Agreement represents a major development in IPR Law since it blurs the distinction between inventions which are patentable under traditional patent law and discoveries which are not. A majority of developing countries during the TRIPS negotiations objected to the notion of patentability of biological resources. But the TRIPS member states are under an obligation to implement the requirement of the said article (Article 27.3. (b)), either through patents or effective sui generis system or a combination of both. Protection of plant varieties is appropriate for agrarian economies of the developed countries where farmers form a very small percent of their population. Therefore in US there exists a dual system of protection; plants can be protected by a sui generis plant protection act as well as by the patent act.

In order to adopt the TRIPS obligations, India had to amend its patent laws and try to bring them in line with the TRIPS requirements. In response to this, Indian Government has undergone multiple IPR legislative changes in the shape of the first, second and third amendments of its patent act in 1999, 2002 and latest in 2005. The first amendment in 1999 was a serious legislative amendment, as exclusionary clauses of product patents in areas of food, drugs and medicines were removed. In order to be fully recognized by the WTO. The Indian officials altered the IPR legislation to allow for the patenting of life forms, living organisms, derivatives, gene patents and components. National IPR law had also to be changed to allow for the patents to be valid for 20 years.

2005 have posed a threat to the implementation of PPVFR Act and triggered a controversy as it has opened the floodgates for the patenting of genetically engineered seeds as opposed to the farmers’ rights as provided under PPVFR Act 2001. The balanced approach of 1970 patent act has been for ever lost.

The second amendment of 2002 in the Indian Patent Act has brought notable changes in section 3(i). The PAA, 2002 has redefined the term ‘invention’. The deletion of the word ‘plants’ from this section implies that a method or process modification of a plant can be patented. The PAA, 2002 has also inserted a section 3(j) to the Indian Patent Act which allows for the production and propagation of genetically engineered plants to count as an invention. Though section 3(j) was introduced by PAA, 2002 to refuse a case of patenting of a life form. Today sections 3(h), 3(i) and 3(j) together further restrict the scope of patenting in the area of agriculture. Such plants produced through the use of new biotechnology are not technically considered as ‘essentially biological’ and thus section 3(j) has created a loophole couched in the guise of scientific advancement and which allows patents on genetically modified organisms and hence opens the flood gates of patenting transgenic crops.

India has also amended the Patent Act for the third time in December 2004 to allow both process and product patents in all fields of technology. The patent granted under this Act confers upon the patentee exclusive rights to prevent a third party from making, using offering for sale, selling or importing for these purposes that product or the use of the patented process in India. The term of every patent granted shall be 20 years from the date of filling of the patent application. The Act specifies number of inventions which are not patentable and in the field of agriculture these are enlisted as, ‘a method of agriculture and plants and animals in whole or any part thereof other than microorganisms but including seed varieties and species and essentially biological processes for production or propagation of plants and animals.’

However, any process to control plant disease or to increase the economic value of plants or their products can now be patented. This provision coupled with the scope of patenting microorganisms, leaves the Indian Patent Act open for the patenting of DNA sequences and gene products developed after substantial human
intervention and confirming to the general conditions of patentability. It is quite likely that the biotech companies will test the contours of this Act in the court of law and may eventually succeed in their pursuit to protect bio-tech product innovations such as genes. 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 creating exclusive rights to those properties and characteristics. The glaring example is the way the Seed Corporate Giant of America, Monsanto established monopoly on seeds through patents on genes in Canada, despite the fact that Canada does not allow patent on life forms. This will have important implications for the plant breeding industry in general and biotech industry in particular. It is apprehended that broad and strategic patenting by biotech companies may erect formidable entry barriers in biotechnology, promoting monopolistic control over seed industry.

On a closer observation of Article 27.3 (b) of TRIPS Agreement it is felt that section 3 (j) of Indian Patent Act is a verbatim translation of article 27.3(b). As big giants like Monsanto participated actively in drafting the TRIPS Agreement, it is not surprising that the Monsanto amendments have found their way in India’s patent laws. It seems that TRIPS has essentially globalised the American understanding of IPR laws.

After analyzing the amendments made to the Indian Patent Act in 2002 and 2005, it is felt that the Indian patent laws have paved the way for jeopardizing our seed and food security and hence our national security. The changes brought in the Indian Patent Act by the 2nd and the 3rd product patent amendments can mean an absolute monopoly of these corporate giants on the seed industry. India’s desire to become a member of the WTO and the adoption of the TRIPS specially has tried to compromise the livelihood of the farmers. With the adoption of such neo-liberal policies the sovereignty of rural India has been threatened TRIPS has created a gateway for agro-business conglomerates to engage in biopiracy and GM seed monopolization, effectively marginalizing rural communities. The severity of Basmati Rice and Bt. Cotton controversies harping on loss of sovereignty by farmers over their traditional agricultural practices and thereby destabilization of the rural communities,
bears testimony to this. Through the manipulations of intellectual property rights, conglomerates like Monsanto have put rural farmers on the defensive.

The Centre of Human rights and Global Justice (CHRGJ), in its recently released report observed that over the past two decades economic reforms which included the removal of agricultural subsidies and the opening of the Indian agriculture to an increasingly volatile global market – have increased costs while reducing yields and profits for many farmers creating widespread financial distress. As a result, smallholder farmers are trapped in a cycle of insurmountable debt, leading many to take their lives. This report looks critically at India’s farmers’ suicide epidemic- which has claimed the lives of an estimated 250,000 farmers since 1995 and proposes steps that government should take toward upholding the human rights of this vulnerable population. It also highlights the fact that the Indian government has underestimated the problem and has failed to adequately access the crises and farmers’ suicide statistics. Crucially the government has also failed to regulate the conduct of multinational corporations who have enjoyed free reign to conduct business in the country without proper regulatory oversight or accountability mechanisms. The CHRGJ calls upon the Indian Government to uphold its human rights obligations by implementing effective, preventive and compensation programmes undertaking necessary structural reforms, gathering more information on the suicide crises and agrarian disaster and regulating the activities of the agri-business firms.

Therefore, it becomes imperative for the Indian Government to address this crucial issue in relation to patent options in relation to plant varieties. It is appropriate that the government should make such amendments in the patent laws which effectively and adequately safeguard and protect the individuals and do not exclude the domestic industries, farmers, scientists and market and at the same time are in the interest of the larger section of the society. The amendments of the Patent Act 1070 particularly on patenting of bio-technological inventions should be made more transparent. Involvement of stakeholders such as agricultural and other scientists, farmers groups, private sector seed companies, lawyers, NGO activists in this endeavour would be worthwhile. IPR protection in agriculture should keep in mind the mechanisms for improving enforcement, access to resources and technology,
benefit sharing, equity and justice in order to give effect to the national agricultural policy and the inherent basic principles of the Indian principles of the Indian Constitution.

Whereas, the Indian legislation should not be contradictory to international treaties, at the same time, it should not ignore Indian citizens like the farmers who are the grass root innovators who provide economic growth of the country through agriculture. Farmers should be given their well deserved rights and incentives as well as protection of their developed variety. Therefore, the PPVFR Act, 2001, which ensures farmers their basic rights to save, sow, re-sow, exchange, share or sell farm produce, including seeds of protected varieties; the rights which arise from their role in conserving, improving and making available plant genetic resources for the development of new plant varieties, must be effected by the Indian Parliament in its true spirit without posing any unnecessary legislative impediments in its path of effective implementation.

Thus, it can be humbly deduced that there are many issues emerging in the area of agricultural biotechnology, especially GM crops which have grave significance over agriculture in future that need to be looked into in time. The PPVFR simultaneously protects the rights of the breeders, farmers and researchers and looks into the public interest as well, whereas the Seed Act 2004 and Patent (Amendment) Act, 2005, makes way for product patent on seeds giving way to creating monopolistic rights. Although the multiple rights system aims to equitably distribute rights, it could create problems of overlapping claims and result in complicated bargaining requirement for utilization of varieties.

The relevant questions to be asked today are as to whether the law gives impetus to farmer lead research, supports the small scale seed industry, mandates prior informed consent of farmers’ resources and knowledge, facilitates traditional farming practices and guarantees agro biodiversity. If we believe in agriculture that is farmer friendly and that the people of our country need to retain their food and farming practices, then something as basic as ‘seed’ must remain free from absolute corporate control and private monopoly.
Therefore, recognizing that it is important to establish an IP regime that would provide confidence in and workability for the protection of IPR in relation to agriculture and allied sectors in the country; high priority should be accorded to the process of notification, functioning and strengthening of national institutional mechanism such as Controllers, National Authorities, Tribunals, Registrars etc. Further, realizing that the IPR Acts like PPVFR mainly relate to the techno legal matters, their governance should be controlled by eminent scientists with wide experience in relevant fields.

To suit the hour of the need, it is suggested that instead of enacting parallel Acts addressing the same issue [PPVFR, Seed Act, Patent (Amendment Act)] and thus creating multiple rights system leading to overlapping claims (by the farmers, breeders, MNCs) and thereby leading to confusion and chaos, the government should look into speedier and effective implementation of the legislation which is already in existence (in this case the PPVFR Act, 2001).

Lastly, it is submitted that if the equilibrium of the rights reflected in the Act can be sustained by effective regulatory mechanism, India would become a model for other developing countries in coming years, where the technological innovation and trading-farming co-exists paving way to sustainable development.

Benjamin Franklin had once said that agriculture was the only honest way for a country to acquire wealth, ‘wherein a man receives a real increase of the seed thrown into the ground, in a kind of continual miracle…..’

The magic of this miracle is wearing thin for the Indian farmer with over 250,000 farmers committing suicide over the past few years and Prime Minister, Dr. Manmohan Singh admitting that problems of the agricultural sector extend ‘beyond weather’ and that it is time policy makers did a rethink about ‘agricultural policies’ and ‘related laws’.