

FARMERS' RIGHTS AND INTELLECTUAL PROPERTY RIGHTS PROTECTION OF PLANT VARIETIES IN INDIA

Nandita S. Patil

Assistant Professor

Department of Law

Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, India

Abstract

Innovative breeding techniques in agriculture resulting in new varieties are rewarded through Intellectual Property Rights (IPRs). The aim of this paper is to provide an overview of international influence and Indian regime for protection of plant varieties' and farmers' rights. The paper analyses the important features of the Protection of Plant Varieties and Farmer's Rights Act 2001. More importantly the provisions beneficial to the farmers are highlighted including the significance of the rewards and recognitions introduced by the Indian government.

Keywords: India, intellectual property, Farmers' rights, plant varieties, breeders

Introduction

Farmers' are an important part of the economic, social, and political fabric of the society in developing countries.¹ In India the contribution of Agriculture in terms of livelihood and as a source of employment is significant. Rural areas in India are inhabited by people who are dependant for their livelihoods on agriculture. In India agriculture is carried out mostly in the rural areas where small farmers dominate food production by using traditional agricultural practices. The rural communities are contributors of land races and farmer's varieties and in breeding of new varieties. Innovative breeding techniques in agriculture resulting in new varieties are rewarded through Intellectual Property Rights (IPRs). IPR in the context of agriculture could be provided either through a patent or a sui generis system for plant

¹Anshu Pratap Singh, Padmavati Machikanti, Sui-Generis IPR laws vis-à-vis Farmers' Rights in some Asian Countries: Implications under the WTO, JIPR, Vol.16, March 2011, pp.107-116

varieties protection. The United States was the first country to institute Intellectual Property protection for plant varieties.² In European countries as well as India there are separate plant varieties protection laws instead of patent law.

National policy developments in the field of Intellectual Property Rights are taken over by international policy developments. Hence an overview of international instruments is needed before discussing the domestic legislation which is a result of international obligations.

International Regime for Protection of Plant Varieties

- **TRIPS Agreement**

Article 27 of TRIPS Agreement requires patent protection to be made available for both process and products, in all fields of technology. Article 27.3(b) of TRIPS obliged the member countries to provide either patent protection or an alternative effective sue generis system or a combination of both for protection of plant varieties. Thus, TRIPS gives discretion to the member countries to determine the kind of protection for plant varieties.

- **UPOV (*Union pour la Protection des Obtentions Vegetales* (Union for Protection of New Varieties of Plant))**

The UPOV Convention (1961, 1978, 1991) have recognised the protection of the plant breeders' rights. UPOV 1961 is the first international treaty regarding intellectual property protection to plants. UPOV 1961 provides that breeder may be granted only one type of protection either through a special title of protection or a patent. Thus it bans dual protection for one and the same botanical genus or species. In Europe the Enlarged Board in G01/98(2002) EPOR held that EPC Article 53(b) should be read as an effort to accommodate the dual protection ban provided in UPOV 1961, without necessarily prohibiting patents for plants altogether.³ However, UPOV 1991 authorizes patent protection to plants in addition to plant variety protection. UPOV provides for four criteria for the protection of plant varieties i.e. novelty, distinctiveness, stability and uniformity. Article 5 of the UPOV Act, 1961 provide for the protection of the interest of farmers to save seeds for the next crop season which was retained in the UPOV 1978, however, UPOV 1991 made farmers' privilege optional to member countries. UPOV 1991 revision prevents farmers from saving seed for the next sowing without paying royalties to the plant breeders. It also disregards the traditional rights of the farmers⁴.

- **The International Treaty on Plant Genetic Resources for Food and Agriculture (PGRFA) Treaty**

² Watal Jayashree, Intellectual Property Rights in India –The WTO and Developing Countries, New Delhi, Oxford University Press, 2001 (Fifth Impression 2012) p.136

³ Neil Wilkof, Shammad Basheer, Overlapping IP Rights, Oxford University Press, New Delhi, 2013, p.99

⁴ Sumit Chakravarty et al., Farmers Rights in conserving plant biotechnology with special reference to North East India, p.229, Journal of Intellectual Property Rights, Vol.13, May 2008, Pp.225-233

PGRFA Treaty adopted in 2001 provides for recognition of farmers' rights without providing any property rights for farmers over their knowledge. The recognition is on the basis of farmers' contribution for the conservation and development of plant genetic resources thereby constituting the basis of global food and agriculture production. The Treaty obligates the member states to protect and promote farmer's rights. It also provides that traditional knowledge relating to agriculture and benefit sharing. Presently there is no Intellectual Property protection for traditional knowledge. Traditional knowledge is already in public domain; however, Intellectual Property Rights over Traditional Knowledge related products create issues of bio piracy.

- **Convention on Biological Diversity (CBD)**

The aim of CBD is to promote biodiversity and to implement mechanism for benefit sharing. The Convention on Biodiversity 1993 provides that access to genetic resources must give rise to benefit sharing mechanism. Article 15 (5) of the Convention of Biodiversity provides for access to genetic resources subject however to prior informed consent of the contracting party providing such resources unless otherwise determined by that party. India implemented the provisions of CBD through the Biological Diversity Act 2002. The Biological Diversity Act regulates access to biological resources and related traditional knowledge, and thereby ensures equitable benefit sharing. The Act defines 'biological resource' to mean plants, animals' micro-organisms, their genetic material and by-products having actual/ potential use or value. Even changes were made in Patent Act in Section 10 to include the provision for deposition of the biological material. Provision is also made for providing reference of such deposition in the application for patent if the invention is having relation with a biological material which cannot be sufficiently described in the specification.

To give effect to the international obligation imposed on the Government of India by being a signatory to the WTO-TRIPS agreement "act of transformation" is required to achieve partial or full implementation. The parliamentary act can be the act of transformation, and its requirement as part of the domestic law-making system can substitute in part for the direct participation in treaty-making of parliament.⁵ The government took the following legislative measure to give effect to such obligations.

Legal Framework for the Protection of Plant Varieties in India

India did not provide for any Intellectual Property protection for plants prior to TRIPS Agreement. The Indian Patent Act excludes plants and animals in whole or any part thereof, seeds, varieties, and essentially biological processes except microorganisms from patentability. This provision is as per the TRIPS obligation under Article 27.3(b). While providing protection for plant varieties India attempted to harmonise the TRIPS provisions with those of CBD. India therefore adopted a *sue generis* system by enacting Protection of Plant Varieties and Farmers' Rights Act, 2001.

The objectives of the Protection of Plant Varieties and Farmers' Rights Act, 2001 (herein after referred to as PPVFR) aims at providing – an effective system for promotion of plant

⁵ Jackson John H., *The Jurisprudence of the GATT and the WTO, Insights of Treaty Law and Economic Relations*, Cambridge University Press, Cambridge, 2007 (paperback version 2007), p. 335

varieties, protection of traditional rights of farmers and rights of plant breeder; accelerate investment for research and development of new plant varieties; in growth of the seed industry thereby ensuring the availability of high quality seeds and planting material of improved varieties to farmers and recognize the farmers as cultivators and conservers and also the contribution of rural and tribal communities to the agro-biodiversity of the country .

More importantly this act provides safeguards to farmers by giving farmers' rights while providing for an effective system of protection of plant breeders' rights. The Act seeks to safeguard researchers' rights as well. It also contains provisions for safeguarding the larger public interest. Under the PPVFR new variety, extant variety and essentially derived variety and farmers' variety are registrable. The genera and species are eligible to be registrable as a new variety if it fulfils the following conditions of novelty, distinctiveness, uniformity and stability.

- **Novelty** – Plant variety is novel if at the date of filing of the application for registration for protection, the propagating or harvested material of such variety has not been sold or otherwise disposed of by or with the consent of breeder or his successor for the purpose of exploitation of such variety-
 - (i) In India earlier than one year or
 - (ii) Outside India, in the case of trees or vines earlier than six years or in any other case, earlier than four years, before the date of filing such application: however a trial of a new variety which has not been sold or otherwise disposed of shall not affect the right to protection. Further if on the date of filing the application for registration, propagating or harvested material of such variety has become a matter of common knowledge other than through the sale or disposal shall not affect the criteria of novelty for such variety.
- **Distinctiveness** – At the time of filing of the application the new variety should be distinct. It will be considered distinct if it possesses at least one essential characteristic which distinguish it from any other variety whose existence is a matter of common knowledge in any country at that time.
- **Uniformity** – New plant variety will be considered uniform if it remains sufficiently uniform in its essential characteristics on reproduction.
- **Stability** – New plant variety will be considered stable if -
 - i) Its essential characteristics do not change after repeated propagation or,
 - ii) In the case of a particular cycle of propagation its essential characteristics remain unchanged even at the end of each such cycle.

Compulsory Plant Variety denomination: After satisfying the above four essential criteria every applicant is required to assign a single and distinct denomination to a variety with respect to which he or she is seeking registration.

Extant variety is a variety available in India which is notified under Section 5 of the Seeds Act,1966 or farmers ' variety or a variety about which there is common knowledge or any other variety which is in public domain. Essentially derived variety is essentially derived from another variety i.e. initial variety when it is predominantly derived from the initial

variety, or from a variety that is itself predominantly derived from the initial variety, while retaining the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety but clearly distinguishable from the initial variety. However, excepting the differences caused by the act of derivation, it conforms to the initial variety in the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety. Farmers' variety includes a variety which has been traditionally cultivated and evolved by the farmers in their fields or a variety which is a relative or land race or a variety about which the farmers possess the common knowledge. The Act provides for National Gene Fund in which the fund will accrue out of the credits from the benefit sharing received from the breeder of a registered variety or an essentially derived variety, the annual fee payable to the authority as royalty, the compensation deposited in the gene fund and contribution from any national and international organisation and other sources. The fund is to be applied for paying any amount towards benefit sharing, for making compensation and for meeting certain specified expenditure. The most important benefit conferred by the Act is on the farmer.

The Protection of Plant Varieties and Farmers' Rights Authority (PPV&FRA) has been established by the Central Government under the Protection of Plant Varieties and Farmers' Rights Act, 2001. The Authority grants exclusive rights to the breeders and farmers who have bred, evolved or developed any variety.

S.26 of the Act provides for benefit sharing for a registered variety. The person or a group of persons who are citizens of India, governmental or non-governmental organisation established in India are eligible to submit the claim when the authority invites such claim.

Beneficial Provisions for Farmers

Sections 40 to 46 of the PPVFR Act deals with the rights of the farmers'. The farmer's rights include his traditional rights to save, use, share or sell his farm produce of a variety protected under this Act provided the sale is not for the purpose of reproduction under a commercial marketing arrangement. In the case of *Monsanto v. David* (516F. 3d at 1014), Monsanto filed a patent infringement suit against David, a farmer who had harvested previous year's farm seed in contravention of a license agreement he had with Monsanto when he purchased Roundup ready seed several years earlier. The Federal Circuit held that planting a seed containing the gene sequence constitute infringement because the seed contained the gene which is used in planting amounts to an infringement act. The US Plant Varieties Protection rights provide 'save seed' exemption under which farmers are allowed to grow protected varieties to save the resulting seed for the use on the farm for subsequent farm⁶ and also to sale such seeds for purposes other than reproductive purposes without paying any licensing fees. The European Union (EU) Community plant variety Regulation provides for seed-saving exemption to only a limited range of crops⁷, the Indian Protection of Plant Varieties and Farmers' Rights Act (PPVFRA) also provides for the seed saving exemption.

An obligation is imposed on a breeder or other person applying for the registration of a variety to disclose the information regarding the use of genetic material conserved by any

⁶ Neil Wilkof, Shammad Basheer, *Overlapping IP Rights*, Oxford University Press, New Delhi, 2013, p.90

⁷ Ibid, p.103

tribal or rural families in breeding or development of such variety. Failure to disclose such information may result in rejection of the application for registration. Further, an obligation is also cast on the breeder who is selling, propagating any registered variety to disclose to a farmer or a group of farmers or any organisation of farmers regarding the expected performance of such variety. In case of failure of such performance, the farmer or group of farmers or an organisation of farmers is entitled to claim compensation before the Authority.

Also, the Act recognises the rights of local communities for their contribution in the evolution of any variety. It provides that any person or group of persons whether actively engaged in farming or not or any governmental or non-governmental organisation is entitled to make a claim relating to the contribution of the people of that village or local community. Moreover, it protects innocent infringement by farmer. In case a farmer is unaware of the existence of such right, he is not liable for any of his acts that may amount to be an infringement under the Act.

For creating essentially derived varieties from farmer's varieties the breeders have to prior permission of farmers who conserved such varieties. Thus the rights of a breeder are limited in the case of essentially derived variety from a farmers' variety. In such case, the breeder may authorise any person, an agent to produce, sell, market or otherwise deal with the registered variety but only with the consent of the farmer or a group of farmers or local community of farmers who have contributed in the preservation and development of such variety.

The farmers and the village community are exempted from paying any fee towards any proceeding before the Authority or registrar or the Tribunal or High Court. Recently, the government has waived the renewal fee for farmers.

Until September 2009 only three farmer's varieties of rice (tilak chandan, hansraj and indrasan) reached the stage of field testing and subsequently registered.⁸ However, the scenario has changed as of March 2016, 770 farmers' varieties are registered in India.

By virtue of section 45 of PPVFR Act, 2001 and Rule 70 (2) (a) of the PPVFR Rules, the PPV&FR Authority has instituted Plant Genome Savior Community Award. Every year the Authority confers the "**Plant Genome Savior Community Award**" on those communities of farmers/farming community based organizations who have a long track record for conserving plant agro-biodiversity by inviting applications from all Indian group of farmers, community of farmers, particularly the tribal and rural communities engaged in conservation, improvement and preservation of genetic resources of economic plants and their wild relatives particularly in the areas identified as agro bio-diversity hotspots. A maximum of five awards of ten lakhs each is given in a year.

Plant Genome Saviour Community Awards are given to following communities

Table 1: Plant Genome Saviour Community Awards

⁸ Sudhir Kochhar, How Effective is Sue Generis Plant Variety Protection in India: Some Initial Feedback, Journal of Intellectual Property Rights, p.277Vol.15, July 2010, pp-273-284

Year	Name of the Community
2009-10	1. Panchabati Gramya Unayana Samiti, Tolla, Koraput, Odisha 2. Kopatgiri Nandiveerimath Seva (KNS) Foundation, Sindrameshwar Nagar, Gadag, Karnataka
2010-11	1. Wayanad District Tribal Development Action Council, Puthoorvayal, Wayanad, Kerala 2. Pokkali Rice Farming Community (Kadamakkudy-Varappuzha Jaiva Pokkali ICS), Kadamakudy, Ernakulam, Kerala 3. Tamil Nadu Hill Banana Growers' Federation, Pattiveeranpatti, Dindigul, Tamil Nadu 4. Shyamsunder Sister Nivedita Sangha, Shyamsundar, Burdwan, West Bengal
2011-12	1. Rice Farming Communities of Palakkad District, Kerala 2. Seed Saver Farmers Group in Jawahar Block, Pune, Maharashtra 3. Sanjeevini Rural Development Society, Vishakapatnam, Andhra Pradesh 4. Deepaoli Women's Self Help Group, Thiruvannamalai, Tamil Nadu
2012-13	1. Society for Conservation of Mango Diversity (SCMD), Uttar Pradesh 2. Kachai Village Community, Manipur 3. Dharohar Samiti Muria/Bhatra Adivasi and Backward Tribal Community, Chattisgarh 4. Community of Kharchi Village, Rajasthan 5. Siddharudha Savayava Krushikara Balaga, Karnataka

Source: <http://plantaauthority.gov.in/PGSFA.htm>

Additionally, the Central Government has through notification of the PPV&FR (Recognition and Reward from the Gene Fund) Rules, 2012 has instituted rewards and recognition for farmers namely “**Plant Genome Savior “Farmer Reward” & “Farmer Recognition”**”. The Authority invites applications for the “**Plant Genome Savior “Farmer Reward”**” and “**Farmer Recognition”**” from the farmers who conserves genetic resources of landraces and wild relatives of economic plants and improves them through selection and preservation and the material so selected and preserved has been used as donors of gene in registrable varieties. In a year a maximum of 10 rewards each of Rs. One lakh Fifty Thousand and 20 recognitions each of Rs. One lakh is given. Those who wish to apply for this ‘reward’ or ‘recognition’ has to forward their application through Chairperson or Secretary of the Concerned Panchayat Biodiversity Management Committee or Concerned District Agricultural Officer or Director of Research of concerned State Agriculture University or concerned District Tribal Development Office. One more requirement is that the shortlisted Farmers for Reward and Recognition have to deposit specified quantity of seeds or propagating material.

Table 2: Plant Genome Saviour Farmer Reward

Sr.no.	State	2012	2013
1.	Rajasthan	1	Nil
2.	Uttar Pradesh	2	Nil
3.	Manipur	1	1
4.	West Bengal	2	1

5.	Madhya Pradesh	1	Nil
6.	Karnataka	1	1
7.	Kerala	2	4
8.	Uttarakhand	Nil	2
9.	Pondicherry	Nil	1

Source: plantaauthority.gov.in

Table 2: Plant Genome Saviour Farmer Recognition

Sr.no.	State	2012	2013
1.	Himachal Pradesh	1	Nil
2.	Punjab	1	Nil
3.	Chhattisgarh	2	Nil
4.	Gujarat	2	Nil
5.	Maharashtra	2	Nil
6.	Karnataka	2	Nil
7.	Kerala	1	3
8.	West Bengal	1	Nil
9.	Assam	3	Nil

Source: plantaauthority.gov.in

Only 6 multinational companies namely Aventis, Dow, DuPont, Mitsui, Monsanto and Syngenta control around 70% of the patents held on staple food crops.⁹ Farmers in India have witnessed the impact of increased cost in relation to Monsanto's Bt-cotton seeds¹⁰. Hundreds of farmers are being sued in the US and Canada for Intellectual Property infringement.¹¹ In India over 85% of seed requirements are met by the farming communities themselves.

Conclusion

The PPVFR is an effective sui generis system which aims at rehabilitating the traditional rights of the farmers and recognises farmers as 'farmer breeder', which is a significant step. The increase in the number of registered farmers' varieties from 2012 is also a positive sign. The farmers and tribal communities across the remotest corners of India are to be made aware of this legislation and also their rights. Moreover, they are needed to be made aware the Plant Genome Saviour Community Awards, the Plant Genome Savior "Farmer Reward" & "Farmer Recognition". However, the challenge is to reach to those remotest pockets of India which are dominated by tribal communities who live in isolation.

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⁹ http://www.actionaid.org.uk/sites/default/files/doc_lib/53_trips.pdf, p.2, accessed on 3/09/2016

¹⁰ id at p.3

¹¹ id at p.4

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