

Farmers' rights and its justification under Indian circumstance

B. ROY

Department of Genetics and Plant Breeding
Uttar Banga Krishi Viswavidyalaya
Pundibari-736165, Coochbehar, West Bengal

Received: 30-9-2012, Revised: 25-3-2013, Accepted: 30-4-2013

ABSTRACT

There is a certain level of acknowledgement worldwide that farmers are an important part of the economic, social and political fabric of society and require support. Article 7 of TRIPs agreement clearly emphasizes that the 'protection and enforcement of Intellectual Property Rights should be contribute to the promotion of technological innovation and dissemination of technology, to the mutual advantage of producers and users of the technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations. Considering the importance of farmers in the domestication, conservation, improvement and development of crops and its varieties the Government of India enacted the IPR on crop varieties- Protection of Plant Varieties and Farmers' Rights Act, 2001. The Section 39 (1), (i)-(iv) of Chapter IV of PPV&FR Act defines the farmers' rights.

Keywords: Agricultural IPR, farmers' rights, PPV&FR Act

Plant genetic resources (PGRs) are the foundation for the development of a food and nutritionally secured society. Food is the foremost important to sustain life and livelihood followed by shelter and cloth. Thus, the slogan of 3Fs may be modified as, "Food, Frame (shelter) and Fibre (cloth)". All these 3Fs we can get from PGRs. There must be balance between demands and resources. PGRs were freely shared among the different nations before Intellectual Property Rights came into force in various countries. There was no system of protection of plant related intellectual property right in India. It was felt that the natural biological resources should be protected legally and Government of India implemented a number of IPR Acts on plant and animal genetic resources in India. Convention of Biological Diversity (CBD, 1993) regulates the conservation, sustainable utilization and access to the biological diversity in India, whereas PPV&FR Act (2001) regulates the Researchers Rights, Breeder Rights and Community Interests on cultivated crops.

Farmers' Rights

Farmers' Right is the unique feature, when compared to similar legislations and India is the first country in the world to have passed legislation granting Farmers' Right under PPV&FR Act, 2001. It simultaneously aims to protects both breeders and farmers rights. It attempts to establish rights for farmers to register their innovation and protects Farmers' Varieties. Few countries implemented farmers' privilege in the plant variety protection. Farmers' privilege limits the farmers' rights of those countries to only use the seed produced by farmers for sowing in his own field. Under this right, farmers cannot exchange or sell the seed to other farmers.

Different kinds of farmers' rights under PPV&FR Act Right to seed

The Section 39(i)-(iv) of PPV&FR Act aims to give farmers the right to save, use, exchange, sell of seed in the same manner they were entitled to before the Act. However, farmers are not allowed to sell the branded seed of a variety protected under this Act. Branded seed means any seed put in a package or any other container and labeled in a manner indicating that such seed is of a variety protected under this PPV&FR Act.

National gene fund

The Central government shall constitute a Fund to be called the National Gene Fund. The breeder who wants to use FV for creating Essentially Derived Varieties (EDVs) has to take the permission of the farmers of farm-community. A share of the royalty earned from these EDVs should go to Gene Fund. The other sources of the National Gene Fund as stated in Section 45(1) are the annual fee payable to the Authority by way of royalty, the compensation deposit in the Gene Fund and the contribution from any national and international organization.

The National Gene Fund is proposed to be utilized for paying any amount as benefit sharing under sub section 5 of section 26, for paying compensation under sub section 3 of section 41 and for supporting conservation and sustainable use of genetic resources, including *in situ* and *ex situ* collection.

Protection of innocent infringement

About 2/3rd of Indian population involves in agriculture. The literacy percentage of rural population is very low (Table 4). Considering the educational status of the farmers, the Section 42 of the Act provides safeguard against innocent infringement. The Farmer who unknowingly violets the breeders'

rights shall not be punished if he/she can prove that he/she is innocent about the Act. This type of protection is applicable for the first offence. The farmer is punishable for the subsequent infringements.

Exemption from fees

According to the section 44 of PPV&FR Act, 2001, any farmer or group of farmers or village community shall not be liable to pay any fee in any proceeding before the Authority or Registrar of the Tribunal or the High Court under this Act or the rules made there under. These fees include registration of variety, for conducting test on varieties, for renewal of registration, for opposition, fee payable for inspection of document or obtaining a copy of any decision or order or document under this Act and fees of all legal proceedings under PPV&FR Act.

Compensation claim/ community of communities

At the time of sale of seed/planting materials, the breeder has to disclose the expected performance of a variety under a given conditions. If such seed/propagating material fails to provide such performance under such given conditions, the farmer or group of farmers or organization of farmers may claim compensation under Section 41 of PPV &FR Act in prescribed manner before the Protection of Plant Variety and Farmers' Right Authority. The Authority will direct the breeder of the variety to pay the compensation to the concerned party.

Compensation for undisclosed use of Farmers' Variety

If the breeder uses Farmers' Variety as source material to develop new variety, he/she has to share his/her royalty with the community. Or, in case where it is established that the breeder has not disclosed the source of varieties belong to a particular community, compensation can be granted through the national gene fund.

Benefit Sharing

Authority publishes the registered varieties, so that claim may be initiated for benefit sharing. Any farmer or group of farmers or Governmental firm or Non-governmental firm can submit their claim for benefit sharing (Section 26 of Chapter IV). It has to be proved that the farmer or the organization have the enough contribution to develop the base material of the registered variety. The responsible person or the organization will get the share of the benefit through National Gene Fund.

Right to Adequate Availability of Registered Seed or Planting Material

The breeder has to supply adequate quantity of seed/propagating material to the market at a reasonable price. Under the Section 49 of Chapter VII, if the breeder/ organization who registered the

variety, fails to produce and supply the required quantity as per the demand of the farm-community, any person can apply to the Protection of Plant Variety and Farmers' Rights Authority for a compulsory licensing. The Authority can intervene in the interest of the farmers. **Compulsory Licenses** [Section 47(1) of Chapter VII] cancel the exclusive right of the breeder and the third party may get the license for production and sell of the registered variety. Under this Section, the license can be granted to any person interested to take up such activities after the expiry of a period of three years from the date of issue of certificate of registration to undertake production, distribution and sale of the seed or the other propagating materials of the variety. Compulsory License however will not be awarded if the breeder can demonstrate reasonable grounds for his inability to produce the seed.

Registration of farmers' variety

According to the Section 2(1) of the Act farmers' variety (FV) means a variety which has been traditionally cultivated and evolved by the farmers in their fields or a wild relative/land race of a variety about which the farmers possess the common knowledge. The Section 39 of PPV&FR states that farmers who have bred or developed a new variety shall be entitled to PBRs in the same manner as breeders. This provision is a significant departure from the way farmers and 'indigenous local communities' are considered in the IU and CBD. To extent that these agreements recognize farmer innovation, it is within the ambit of the contribution made through the innovation to enhance genetic diversity. The Section of PPV & FR Act is substantially different from either of these agreements, in that it recognizes the plant breeding efforts of farmers in the same manner as those of breeders engaged in formal research.

A FV can be registered by any farmer or group of farmers or community of farmers claiming to be the breeder of the variety [Section 16(1) (d)]. The time frame to be provided for documentation of information relevant for registration of extant varieties under Section 15(2) is restricted to three years. The requirements for registration of a variety as described in Section 15(1-4) of PPV&FR are Novelty, Distinctiveness, Uniformity and Stability (NDUS) also applies for the registration of Farmers' Variety (see section 2.3.1). Documentation, indexing and cataloguing of FVs is very essential as early as possible. Some successful reports of registration of FV under PPV&FR Act are being given in table- 1.

Table 1: Registered farmers' variety under PPV&FR Act

Crop	Species	Denomination	Present status
Rice	<i>Oryza sativa</i>	Tilak Chand	Registration Certificate issued
		Hansaraj	Registration Certificate issued
		HMT	
		Indrasan	Registration Certificate issued
		Mushkan	Under Examination
		Busmati Ravi No.1	Under Examination
		DRK	Under Examination
		Chhohartu	Under Examination
		Kudrat 9	Under Examination
		Wheat ravi No.1	Under Examination
Wheat	<i>Triticum aestivum</i>	Kudrat 7	Under Examination
		Kudrat 11	Under Examination
		Mahavee Kishan Vardan	Under Examination
		MK Kranti	Under Examination
		Sushil Laxmi	Under Examination
		SR-1	Under Examination
		Richa 2000	Under Examination
Chick pea	<i>Cicer arietinum</i>		
Pigeon pea	<i>Cajanas cajan</i>	Kudrat 3	Under Examination
		Richa 2000	Under Examination

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

Requirements for registration of a variety

Novelty

Novelty, as specified in PPV&FR Act (2001), in Chapter III, Section 15(3a) for a variety is considered if a variety has not been commercially exploited for more than one year in India or six years in case of vine and trees and four years for other crops outside India before grant of Plant Breeder Right (PBR) protection. Further the fact that on the date of filling the application for registration, the propagating or harvested material of such variety has become a matter of common knowledge other than through the aforesaid manner shall not affect the criteria of novelty for such variety. Novelty is not applicable for the extant variety. According to the Section 2(j) of PPV&FR, 2001, 'extant variety' means a variety available in India which is notified under Section 5 of the Seed Act, 1966 (54 of 1966) or Farmers' Variety or a variety about which there is common knowledge or any other variety which is in public domain.

Distinctiveness

The new variety should be clearly distinguishable by at least one essential characteristic from any other variety whose existence is a matter of common knowledge in any country at the time of filling the application. This means the new variety that is a candidate for protection should be distinct from all other known varieties including those landraces and traditional varieties, as well as commercialized or protected varieties. Establishing the distinctiveness of a variety requires that it be sufficiently uniform in its relevant characteristics to enable a variety description may be prepared which will distinguish the variety from other varieties of the

same species. Thus, to assess Distinctiveness, the characteristics and their states as given in the *Table of Characteristics* in the "Guidelines for Conduct of Test for Distinctiveness, Uniformity and Stability" published by PPV & FRA, Government of India for individual crop can be referred.

Uniformity

The new variety must be sufficiently uniform in appearance in its essential characteristics under the specified environment of its adaptation. The uniformity referred to the phenotypic expression of all the individuals of a population must be very similar.

Stability

Condition is that the essential characteristics of new register-able variety remains unchanged after repeated propagation or a particular cycle of propagation under the specified agro-climate is termed as stable. If it's physical characteristics change whenever it is produced, it will have no fixed identity to which legal right can be attached. Thus, uniformity and stability are the criteria which are essential to identify the subject matter of protection and to enable its effective enforcement.

In order to grant and enforce plant variety protection, the physical identity of the variety must be fixed in such a way that material of the variety can be identified in the field or in the seed processing unit. Thus, a variety must be distinct from the other known varieties in order to be protected. Establishing the distinctness of a variety requires that it be sufficiently uniform in its relevant characteristics to enable a description to be prepared which will distinguish the variety from other varieties of the same species. It seems obvious that once this description is

established, the variety must, when reproduced, continue to exhibit these characteristics, that is to say, it must be stable.

Disclosure

Clear and detail disclosure in the passport data about the percentage of the new variety is required. Application forms for registration of plant variety under this Act is available with the Authority. It should be clearly and completely filled up and submitted to the Authority. If concealment is detected in the passport data, the breeder certificate stands to be cancelled.

General guidelines for the examination of distinctiveness, uniformity and stability and the development of harmonized descriptions of plant varieties also available with the Authority, which will help the plant breeder to judge his variety from other released or registered varieties. Breeders are also suggested to refer the *Table of Characteristics* in the "Guidelines for Conduct of Test for Distinctiveness, Uniformity and Stability" published by PPV & FRA, Government of India for individual crops.

Farmers' Rights under Indian circumstance- a justification

Farmers' contribution in plant breeding

Agriculture is the age-old practice. Evidences are also available in support of simultaneous existence of hunting and agriculture during ancient human civilizations. During the process of domestication of wild species the genetic resources have been selected, developed, improved, used and conserved by the farmers and farming communities. The importance of farmers role in modern agriculture is also justified in the words of father of Indian green revolution, Dr. M.S. Swaminathan (1994), "Farmers' Rights stem from the contributions of farm women and men and rural tribal families to the creation, conservation, exchange and knowledge of genetic and species diversity of value in plant breeding"

By the course of modernization of agriculture, the genetic resources have been collected, conserved and utilized by the scientists as raw materials in development of new high yielding varieties. It has been emphasized that the Farmers' Rights should be obligatory and should not be relegated as farmers' privileges. Thus, the farmers should get the share of royalty. A share of the royalty earned from the EDVs goes to Gene Fund. The royalty earned through the EDVs and other sources may be used for the community development purpose.

Farmers Contribution in Seed Production

The farmers of the earlier days used to save a portion of their produce as seed for sowing in the next

season. They also used to share, distribute or sell the seeds among them or exchange the seeds with other farmers. This right to sell seed was crucial to maintain the livelihood of the farming community. The pivotal importance of the farmer having the right to sell seed has to be seen in the contest of seed production in India where the farming community is the largest seed producer. According to the Breeders' Rights as implemented in other countries, farmers cannot save their produce as seed for the next crop. They cannot also sell or exchange the same. Farmers can produce seeds of some crop (e.g. rice, mustard, potato etc.) at their own farm for 2-3 generation, provided they are trained the package of practices to maintain genetic purity. Therefore, Farmers' Rights is very important component of PVP for country like India, where about 50-90% (Table 2) of the total cropped area is sown by seeds produced by the farmers themselves. Denying the farmer the right to sell seed would displace the farming community as the country's major seed provider.

Considerable Small Operational Holding

India is characterized by predominance of small and tiny holding (Table 3) that are economically non-viable (Chadha *et al.*, 2004). Not only the small holding, but also fragmented holdings are very common which make the farmers difficult to use farm machineries for farm activities (Thimmaiah and Raja, 2004). Thus the cost of cultivation is comparatively high under non-mechanical farming practices leading to very low net gain from agriculture. PVP without Farmers' Rights will increment the economic burden to buy seeds of registered varieties or to pay the royalty of the produced seed at farmers' field. Thus, Farmers' Rights is very justified under Indian Farmers' and Farm conditions.

Poor Economic Status of the Indian Farmer

The majority of the Indian farmers are poor. If they are forced to pay royalty on the seed produced and used by them, they will fall in economic burden. The farmers of India need farmers' Rights to protect their livelihoods, secure their access to resources, protect their rights to seeds and above all, lift them out of poverty.

Low Literacy Rate of Rural Population

The literacy percentage of Indian population is 74.04. Literacy percentage of many countries is between 95 and 100. The rural literacy is further very low as compare to the urban literacy (Table 4). Low literacy may make an obstacle in implementation of the Act among the farmers. The Official Languages of Central Government are Hindi and English. The Act is written in these two languages, and more frequently in English.

Table 2: Seed replacement rates of important crops in India

Crop	Seed replacement rate					
	2001	2002	2003	2004	2005	2006
Cereals						
Rice	19.22	19.31	19.16	23.28	24.35	25.10
Wheat	13.04	13.00	13.00	16.48	17.64	18.03
Ragi	17.50	18.00	17.36	19.10	-	-
Maize (variety)	20.98	21.35	24.41	31.35	35.39	36.23
Jowar	18.36	18.78	26.71	20.87	-	-
Bajra	45.92	48.47	51.02	44.90	55.36	56.12
Pulses						
Bengal gram	4.17	4.23	7.09	9.87	9.41	9.54
Black gram	16.55	17.06	20.48	17.24	15.70	16.21
Green gram	13.47	13.48	19.48	12.34	12.50	12.82
Red gram	8.71	8.84	13.60	9.80	10.48	10.88
Oil seeds						
Groundnut	5.20	5.50	11.00	7.11	6.89	7.03
Soybean	12.44	12.45	15.58	27.00	28.88	32.34
Sunflower	13.73	15.69	19.61	60.15	67.67	69.17
Commercial Crops						
Cotton	21.21	21.86	19.84	20.73	21.78	22.27
Jute	28.77	30.14	27.40	26.03	26.03	26.03

Table 3: Distribution of operational holdings of Indian farmers

Category of holdings	Area (ha)	No. of operational holdings	
		1990-'91	1995-'96
Marginal	< 1.0	63389 (59.4%)	71179 (61.6%)
Small	1.0 - 2.0	20092 (18.8%)	21643 (18.7%)
Semi-medium	2.0 - 4.0	13923 (13.1%)	14261 (12.3%)
Medium	4.0 -10.0	7580 (7.1%)	7092 (6.1%)
Large	≥ 10.0	1654 (1.6%)	1404 (1.2%)
All holdings	-	106637 (100.0%)	115580 (100.0%)

Source: Agricultural Statistics at a Glance (2004)

Table 4: Literacy rate of rural and urban population

	Population			Literacy rate		
	Total	Rural	Urban	Total	Rural	Urban
Person	778454120	493020878	285433242	74.04	68.91	84.98
Male	444203762	288047480	156156282	82.14	78.57	89.67
Female	334250358	204973398	129276960	65.46	58.75	79.92

Source: Census of India, 2011

The rural population mainly gets their education in the local language. This makes more difficult to the farmers' to read and understand the Act. Training and awareness programmes in the local language through extension workers, university teachers,

local educated persons etc. are essential to educate the farmers about the Act.

Considering all the above reasons, the Section 42 of PPV&FR Act provides protection of the farmers through against innocent infringement as discussed earlier.

REFERENCES

- Agricultural Statistics at a Glance. 2004. *Agricultural Statistics at a Glance*, Government of India, New Delhi, August 2004. 186.
- Chadha, G. K. *et al.* 2004. Land Resources, State of the Indian farmers: A Millennium Study, Ministry of Agriculture, Department of Agriculture and Cooperation, New Delhi.
- PPV&FR Act. 2001. The Protection of Plant Variety and Farmers' Rights Act, 2001. Universal Law Publishing Co. Pvt. Ltd., C-FF-1A, Dilkhush Industrial Estate, Delhi 110 033.
- Swaminathan, M. S. 1994. Methodologis for Recognizing the Role of International Informal Innovation in the Conservation and Utilization of Plant Genetic Resources: An Interdisciplinary Dialogue. *Proceeding No. 9*. M. S. Swaminathan Research Foundation, Madras, MSSRF, Centre for Research on Sustainable Agricultural and Rural Development.
- Thimmaiah G, Rajan K. 2004. Policy and Organizational Support, State of the Indian Farmer: A Millennium Study, Ministry of Agriculture, Department of Agriculture and Cooperation, New Delhi.