

A Critical Analysis of Farmers Rights in India

M.Sowmiya

Assistant Professor,
Saveetha School of Law,
Saveetha School Of Medical and Technical Science [SIMATS],
Saveetha University,
Chennai-77

Abstract

This research focuses on Protection of Plant Varieties and Farmers' Rights Act, 2001 (PPVFRA) which is the sui generis (separate system) system of protection exclusively brought under IP regime to safeguard the interest of farmers over plant varieties that they produce. India's initiative in bringing this system has been highly appreciated among the countries across the world since India is the first country which took an initiative to protect the interest of farmers. This research would come up with interpretation of various provisions of PPVFRA along with detailed analysis of shortcomings under the act. And concludes by providing suggestions and recommendations to legislators to bring necessary changes for better functioning of the act to ensure security to farmers and sustainability of bio resources of the country.

Key Words: PPVFRA, Plant breeding, farmers' rights, sui generis system of protection, shortcomings of the act.

1. INTRODUCTION

The concept of Intellectual Property (IP) has been evolved with an intention to protect the interests of creative minds. And humans are the beings who would always be fascinated about acquiring properties or assets. To satisfy that sort of human urge and also with a view to promote research and development, legislators have initiated recognising the creation of minds through a term called Intellectual Property Rights in which a creator would acquire his creation as property and he can enjoy right over that property to an extent of excluding others from using the same.

In India, since time immemorial, the habit of worshipping certain trees, (neem, banyan, etc..) animals (cow, elephant), birds, other reptiles and often associating these to gods and praying to them has been in practice. From the jurisprudential natural law theory, one cannot deny the relationship of nature with human beings. Now this habit of humans that has been inherited from generation to generation can be related to conservation of resources and preserving biological diversity of the country. But in the long run and in the process of evolution, the country started to lose its natural wealth for the sake of coping up with a fast-developing world.

A research shows that India has, over 42,000 different folk landraces, 95% of them became endangered now. The biodiversity of India has been getting spoiled since 1960's, the advent of international and national seed industries, their hybrid varieties, put Indian species at stake and became a threat to ecological balance created by nature. Though the legislatures were made by the government for the protection of interest of farmers and the preservation of plant varieties, several other lacunae left unaddressed in the laws made, whereby the farmers continued to suffer. Thus, this study envisages hurdles faced by the farming community due to insufficient provisions of the act and envisions sustainable development in agriculture.

2. INTERNATIONAL TREATIES ON PROTECTION OF FARMERS RIGHTS

The intellectual property protection would be provided to promote invention, innovation, research, reward the work done by hard earned labour, to appreciate creativity, promote economic growth and development, these are the basic needs for the protection and promotion of intellectual property rights. In that sense, in the present era, IP owned more reputation because of the nation's move towards economic growth. In different countries, IP evolved in different ways. So, to avoid uncertainty with regard to grant of IP right and have uniform procedure across countries, the international conventions and treaties have evolved. In the way the legislation protects performers, creators, inventors, innovators, manufacturers through copyright, patent and trademark under IP system, demanded the need to protect plant breeders and farmers at later part of 19th century.

The key agreements established at international level that paved way for the rigid base to sui generis system of protection for farmers' rights in India include-

- International Union for Protection of New Varieties of Plants (UPOV)
- International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGFRA)
- Trade Related Aspects of Intellectual Property Rights (TRIPS)

(i) International Union for Protection of New Varieties of Plants (UPOV)

The International Union for Protection of New Varieties of Plants or UPOV (French: Union Internationale pour la protection des obtentions végétales) has been enacted for the purpose of protecting new plant varieties and rights arising therefrom for the farmers through IP system, initially adopted in the year 1961 and further revised in the years 1972, 1978 and 1991. The agreement focuses on need and essence for protecting new varieties and conserving the existing varieties of plants. For benefiting the society, plant breeding rights has also been included in IP system through codification.

Features of UPOV Convention 1991 Act

It is predominant to know the key changes made to the convention after 1991 that was reflected in legislation of many countries to extend the conservation given to plant varieties and to the recognition of farmers. The main improvements made to the convention are shortly provided as follows-

- Much clarified definition to breeders and varieties (Article 1)
- Amendments with regard to general conditions that should be satisfied by the members of union (Chapter 2)
- Strengthened conditions for granting the rights to breeders of new plant varieties (Chapter 3)
- Extended scope to the duration and rights given to breeders (Chapter 5)

(ii) International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGFRA) and its impact

It is important to know the role of International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGFRA). This international treaty is the result of FAO conference in

November, 2001 and the same came to force in the year 2004. The ultimate objective of this treaty is to acknowledge the farmers who serve as food basket to the nations' hunger. It is immense to interpret Article 9 of the treaty to know the essence behind this enactment which states-

- The necessity of having sustainable diversity in the crop cultivation and
- The recognition of input made by farmers in conserving the traditional varieties

This international treaty was enacted with a view to promote and protect the interest of unrecognised farmers mostly in developing countries or countries that basically depend on agriculture for their economic growth. The target of this agreement includes-

- To conserve and improve traditional varieties,
- Recognise the rights of farmers over plant genetic resources,
- Provide farmers the share of benefits/ profit accrued from the usage of farmers' variety,
- Provide enormous and exclusive right to farmers in saving, exchanging, sharing or using the seeds from their farm production and
- To encourage the participation of farmers in conserving and promoting plant genetic resources.

(iii) Trade Related Aspects of Intellectual Property Rights (TRIPS)

The TRIPS agreement under WTO can be basically understood as the most significant for harmonisation of intellectual property system and it can be referred as the comprehensive multilateral agreement on IP, came to effect on Jan 1, 1995. In TRIPS, the scope of farmers' rights has been emphasised under Article 27. Under Article 27.3(b) of TRIPS, the agreement on Trade Related Aspects of Intellectual Property Rights has recommended the member countries to protect the rights of farmers and plant breeders by either adopting sui generis system or through patent system of protection by having separate provision for protection of farmers and for plant varieties propagation. The sui generis system of protection (in the context of PPVFRA) can be defined as a separate system of protection by providing or establishing a new system of law under IP for protection of plant varieties and farmers' rights and not adopting protection through other regimes of IP. Thus, India chose to have the sui generis system for protecting rights of farmers and led to the study of farmers' rights and plant varieties protection under a separate system called Protection of Plant Varieties and Farmers Rights Act, 2001 (PPVFR Act).

TRIPS is the multilateral agreement concentrated more on the harmonisation of IP laws. The agreement encompasses all the forms of IP. With regard to farmers rights, TRIPS suggested separate system of protection to breeders of plant varieties and also promoted the means of agricultural trade. TRIPS is one of the main reasons to development of agricultural trade in developing countries like India. With reference to improvements in trade and India's GDP growth, it is necessary to provide incentives and tax reductions to the agricultural products. TRIPS played significant role in it. When comes to providing protection to plant varieties and promoting rights of farmers Article 27 is suffice to substantiate that claim.

From the above analysis of international agreement and conventions with regard to farmers' rights and protection of plant varieties, the UPOV is the model law that can be adopted by the member countries when they are opting for providing sui generis system of protection to farmers. And TRIPS is an agreement that suggests to have a sui generis system of protection, considering the farmers' interest. India, by complying with the above discussed conventions adopted PPVFRA. This research is to understand the significance of India's adoption of sui generis system for protection of plant varieties and farmers' rights and further to analyse the lacunae that lie as a constraint to the objective of achieving or restoring the plant diversity thereby recognising the importance of conservers of those resources and ensuring protection and promotion to both the plant varieties along with its conservers.

3. THE SCOPE OF FARMERS RIGHTS IN INDIA UNDER PPVFRA, 2001

This research gives more insight into the legislative framework of Protection of Plant Varieties and Farmers' Rights Act (PPVFRA) with respect to protection of farmers. The analysis of PPVFRA would provide the difference in provisions between the international agreement UPOV and PPVFRA. In that process of analysing the PPVFRA, the efforts made by legislators to give more protection to farmers can be seen evidential. Indian legislation with respect to this particular (protection of farmers and plant varieties), enacted an act having farmers and their protection as the central theme. Indeed, the PPVFRA is one of the best legislations drafted by the legislators of our country that was widely spoken by the countries across the world which is because of the importance given to farmers which has been lacking even in the international convention. UPOV being an international legislation taking account of all the countries, laid down provisions that favours the breeders in common. But developing countries like India, that too countries which are dependent on agriculture and farmers cannot directly apply the UPOV provision since those provisions would not provide sufficient emphasis over giving protection to farmers.

Another important aspect of this research is to analyse the recognition provided to farmers under this act. Farming community is one of the reasons for maintaining ecological balance. Though agriculture plays an important role in revenue generation of Indian economy and farmers being the donors of germplasm and producers of commercial varieties, there was no particular legal system that protects and ensures the rights of farmers and breeders for several years. Thus, the PPVFRA is an achievement of the Indian legislators. The sui generis legislation for protection of farmers and plant varieties was made possible in India because the two conventions signed and India was being a part to it. Those are-

- International Union for Protection of New Varieties of Plants (UPOV) and
- The Trade Related aspects of Intellectual Property Rights (TRIPs)

The UPOV, one of the notable international instruments that emphasised protection of plant genetic resources and also paved the way for protecting farmers rights. Whereas the TRIPS is an international agreement that assisted in harmonising the IP laws thereby insisted member countries to adopt separate legislation for the protection of farmers and plant varieties since those are excluded under the patents act. In concurrence with international legislation UPOV, India adopted a separate system of protection to farmers called PPVFRA in which it guarantees rights over various varieties of plant breeding. To know more about the plant variety technicalities, it is essential to understand certain definitions provided under the act which has been discussed as follows:

- The term plant variety has been defined under sec.2(z) which explains variety as grouping of plants in a given genotype. And that variety includes propagating material of such variety, extant variety, transgenic variety, farmers' variety and essentially derived variety.
- Farmers variety is the traditional variety cultivated by farmers or it is a variety of landrace in which farmers possess the common knowledge.
- Extant variety -it includes other such varieties like farmers' variety, varieties under common knowledge, varieties in public domain and varieties mentioned under sec.5 of seeds act.
- The varieties that are significantly derived from initial plant varieties are called essentially derived varieties, though the derived varieties are distinguishable from initial varieties, it would exhibit the essential characteristics.

The act has recognised wide varieties of plants and provided for its registration. Further the following are key points with regard to PPVFRA's initiation towards protecting rights of farmers and plant varieties. The following points would help to understand more about the enhanced protection under the act.

- Recognition to Farmers as Custodians, Users or Breeders of Particular Variety
- Access to the seed
- Right to have sharing of benefit
- Getting compensation
- Getting seeds at reasonable price
- Right to recognition and getting reward for the contribution made to conservation of biodiversity
- Registration of farmers' varieties
- Right to commercialise the essentially derived variety
- Registration fee exemption to farmers
- Right to have protection to farmers for making accidental infringement (being an innocent infringer)

The extensive inclusion of plant varieties and granting recognition to farmers under wide categories are evidential to understand the quintessential need of this act in our country. There is no doubt that the act (PPVFRA) has provided greater access to different varieties of plants and the same encouraged the breeders to develop new varieties. Though the act is envisioned to improvise research and development in both public and private sector, its main objective is to protect the farmers rights with regard to their contribution towards preserving the plant genetic resources and in developing new varieties. But as mentioned earlier, though the legislation was made with due diligence to ensure the farmers interests, the execution lags which in turn is demanding clarity over certain provisions of the act which has been analysed in greater detail as follows in this research. And this paper examines the objectives and functioning of PPV&FR Act in the light of the history and current state of Indian agriculture. The analysis first studies the problems faced by farmers that the law seeks to resolve, then provides a statistical analysis of plant variety application trends under the Act to determine whether it is 'effective' in terms of PPVFRA's objective.

4. LACUNAE UNDER THE ACT AND ITS ADVERSE EFFECT OVER FARMERS

Though the act (PPVFRA) has been renowned for providing wide scope in recognising the farmers interests than the international legislation (UPOV), behind every fair provision in favour of granting rights to farmers, there lies a loophole in form of obscurity in interpreting the provisions which makes the wider scope of the act as tapered. To achieve the objectives of this act, it is immense for the legislators to provide clarity over certain provisions. So, this research aims to bring those obscurities that exist under the act which has been discussed as follows.

(i) Varieties Protected Under the Act- In Dispute

There are different varieties that got recognition under the act. But the disparity in registration process between extant farmers' variety and farmers' variety are still obscure. Further lack of clarity in the definition clause of certain terms remains as the greatest discrepancy in achieving the objective of this legislation. To analyse the lags in this act, the following chart has been made to understand the registration of different varieties between 2015 and 2018 and its impact over farmers recognition.

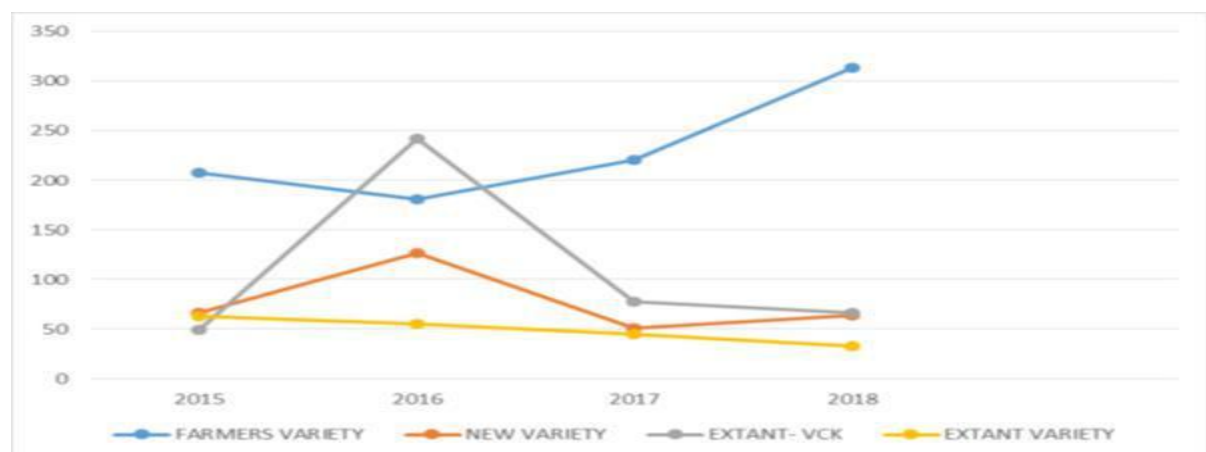


FIGURE 1. Year wise trends in the registration growth of various varieties under the act.

From the chart, it is evident that the farmers' variety got more registration in all the years. But to whom that registration was given, the farmers or the private seed industries? there arises the issue. The different varieties were introduced by the act to benefit the interests of farmers whereas in reality, private breeders and seed industries are enjoying the immunity provided to farmers by using the obscurities left unaddressed under the act.

A survey report shows, among the varieties mentioned under sec.2(z) of the act, a greater number of applications are filed for three varieties that include:

- Farmers variety
- Extant variety and
- New variety

Further the report provides another information that in the last two years (2018 and 2019), it has been recorded that there are 3074 certificates issued till 28th feb, 2018 among which 1290 are issued for those varieties notified under section 5 of the Seeds Act and varieties of common knowledge (VCK) under the category of extant variety under section 2 (j) of

PPVFRA, 2001. Though it is satisfying to know that more varieties of plants getting recognised, most of that are registered by private seed industries like-

- Monsanto India Limited has registered 6 varieties,
- Nuziveedu Seed Limited has highest record of registration to 86 varieties and
- Kaveri Seed Company has 27 varieties registered under VCK.

By this, the usage of those registered varieties got restricted. Apart from the above-mentioned private seed manufacturers, most of the varieties under VCK are completely taken by the private companies. The varieties that come under extant variety are registered either by private seed industries or by public funded institutions like ICAR, but not by the farmers. Since the categorisation and registration process for farmers' variety remains obscure, even the authorities under the act are neglecting to recognise and register certain varieties. The difference between the normal farmers variety and the farmers variety categorised under extant variety of the act along with their registration process demands clarification, the technicalities to differentiate those two varieties has not been mentioned anywhere in the act.

From the following chart, it can be seen that no registration has been made by farmers in the year 2018 for the shown variety in the chart. Most of the new variety and extant variety has been registered by private seed industries, none of the farmers (community, group or individual) have registered. Although the act aims to benefit all the breeders and promotes research and development in plant breeding, the farmers who are the central theme of the act remain unconcerned.

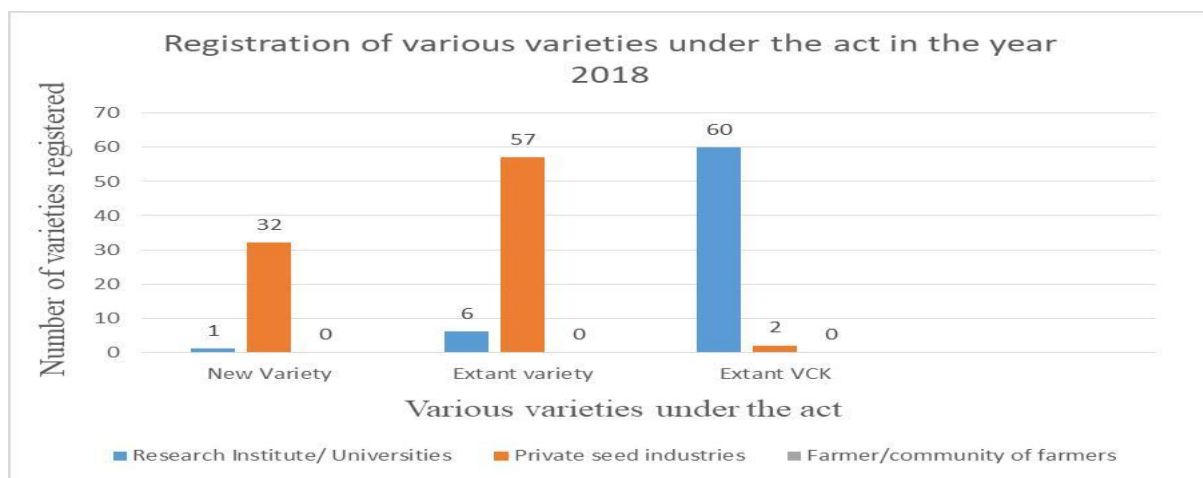


FIGURE 2. Registration of various varieties under the act in the year 2018

(ii) Technicalities in Registration

The private seed manufacturers are making use of the fact that the farmers are not well versed with the registration process and other legal technicalities involved in it. Even the authorities under this act have no clarity about the differences among the various varieties and their registration process, one can understand the situation of farmers and their struggle to get their registration done.

With regard to registration, section 18 of PPVFRA explains about the form of application that requires-

- Every applicant should apply with respect to a variety,
- Have to specify the denomination given to that variety,

- Applicant has to attach an affidavit stating the newly produced variety is not associated with terminator technology,
- Application should be in such a way adhering to the regulations
- Applicant has to give complete specification about the variety he is claiming for protection,
- Applicant has to submit a form stating the variety is in accordance to the DUS requirement,
- Applicant has to pay prescribed fee,
- Has to provide a declaration stating the parent material used for breeding this new variety has been acquired lawfully,

Further the application has to contain other particulars prescribed by the act. Though the farmers are exempted from going through this tedious process, the act prescribes certain other particulars in the farmers' application which is also not flexible for the farmers to be done with their registration process. The farmers cannot think of going through this process of plant variety registration without an expert's advice. The farmers' application requires-

- Botanical name of the variety,
- Family name,
- Denomination,
- Date of first sale of the proposed variety for registration,
- Details of such registration if that is registered in foreign country,
- If the farmers registering their varieties are initial developers, they have to provide an endorsement with regard to the same from the respective Panchayat Biodiversity Management Committee, or District Agricultural Officer, or Director of Research of concerned State Agricultural University or District Tribal Development Officer.

Adhering to all these requirements and providing any further particulars required by the act are not feasible by the farmers themselves, thereby they are mandated to seek the experts' (lawyers, researchers, scientists or people who have knowledge about the registration procedure) assistance by paying them. Farmers already who earn meagre, can afford commissioning the experts? Further the farmers who make registration for wild varieties and varieties developed or bred out of land races, it is arduous for the farmers to come up with the details required by registering authority. These requirements are one of those reasons for less registration rate in the farmers' variety by the farmers.

According to Sec.2 (k) of the act, the term farmers include the community of farmers or any other people jointly or severally working for identifying the traditional varieties or identifying useful properties of plant varieties. So, the act allows the farmers to register in groups. But the authorities under the act are not encouraging the community of farmers for registration since the process is more laborious than the individual registration. This led to the farmers to go for individual registration whereby the varieties found by the group of farmers are left unregistered. The disparity between farmers' variety and the varieties that come under extant variety demands clarity in legislation for non-hostile process of registration. Thus, the technicalities in registration process and certain obscure provisions in the act are used by the private seed manufacturers which is shadowing the farmers' absolute privilege to enjoy their recognition and rights over their varieties.

(iii) The Extant Variety and DUS Standard

Another complexity that farmers face during their registration process is the compliance with DUS standard. This can be seen as one of the reasons for non-registration of new varieties from farmer's communities. The DUS is Distinctness, Uniformity and Stability- it is essential to comply with this standard for the registration of plant varieties. To fulfil this standard, requirements imposed under Sec.15 of the act which have been discussed in detail as follows.

(a) The term novelty has been explained under sub clause a of section 15 (3) which provides- to fulfil the criteria of novelty at the date of application filing for registration, the newly produced variety should not be disposed or sold irrespective of consent from breeder or successor-

- Before one year in India, or
- If outside India, the variety should not be sold or disposed earlier than 6 years before the date of filing application for registration. This time limit is for registration of vines and trees outside India, for any other cases it is four years,
- Disposal of trial of new variety would not affect the right of protection under the act,
- The newly propagated variety has become varieties of common knowledge other than by the above said ways that would not affect protection to that particular variety and also criteria of novelty would not get disqualified.

(b) The term distinctness has been explained under the act as the feature of the newly developed variety that should exhibit one distinguishing feature from that of the existing plant/seed varieties which remain as a substance known to all either as a variety of common knowledge or as a variety in the public domain.

(c) The newly produced variety should have the features of uniformity which implies the variety should establish its parental features of specific characteristics when tested, however that is subject to other requirement standards. Indeed, novelty and variation remain as an essential requirement for getting registration under the act.

(d) Stability is the requirement under the act which tests the newly produced variety's ability to withstand and exhibit the same results at the end of every different test. That test may be a change of season and land conditions, under which the newly propagated material should expose almost the same results with regard to its essential characteristics. If it is not stable for different tests, the newly propagated material would not pass the test and would be held not valid for registration.

The provision of the act lays down DUS standards in compliance with international agreement (UPOV), this stands as a valid test for evaluating the new breeds. But the relationship between DUS standard and registration of extant variety has not been clarified under the act. Research shows that out of 370 VCK- extant varieties, 330 varieties are registered by private seed industries which is evidential to confirm that the farmers are not getting enough access to registration under those varieties. Hence, it is a burgeoning need of the farmers' community to have clarity over those obscure provisions and more feasible registration process to achieve the objectives of the act.

(iv) Disparity among the breeders

The PPVFERA has been established to protect the rights of farmers and breeders wherein the term breeder connotes wide scope through which the significance of farmers' position becomes negligible among the breeders who include giant private seed industries. The term breeder includes-

- Any person or
- Group of persons or
- A farmer or
- Group of farmers or
- Any institution that developed or new variety.

Thus, from the definition, it is obvious that the breeders can be a group or community of farmers too. But as discussed earlier, individual farmers are encouraged better in the process of registration than the group of farmers. Further, knowing the nuances of registration, the term breeder is always dominated by any private seed manufacturers or any other public institutions rather than the farmers. This is evident from the statistical analysis depicted in figure 1 and figure 2.

Further sec.16 of the act mentions about qualification of making application for registration in which it requires-

- Person who is breeder of particular variety or successor to that breeder or an assignee of that variety can apply for registration [Section 16 (a), (b) and (c)]
- Any farmer or community of farmer or group of farmers being the breeder of newly developed variety or [Section 16(d)]
- Any person authorised by above mentioned person or
- Any research institution or university bred or developed a new variety and claims to be the breeder- to make the application.

Thus, sec.16 provides for sole criteria of making registration under the act in which all the breeders are included. There is no relaxation or exemption provided to farmers, they are treated on par with private breeders. Considering the situation of farmers in our country and the legislation especially being enacted for purposes for protecting farmers' rights should have been considered for providing a separate provision for making registration of farmers' variety or any other varieties brought to registration by farmers or community of farmers. If not for separate provision governing technicalities involved in the registration process of farmers, their rights over plant varieties remain negligible.

(v) Issues in the Grant of Right to Farmers

In comparison to international agreements or conventions like UPOV, ITPGRFA or FAO, the PPVFERA has granted enough recognition and rights to farmers. The act under sec.39 provides for farmers rights. Though the rights are provided, it doesn't reach the farmers' community to promote their interests. Even the rights given to them are used as a tool by the private breeders to exploit them. One such example is the lays potato case (series of cases filed by different farmers against Pepsico), widely spoken across the country. Herein the farmers were made to harvest potatoes under contract farming, later that became as a trap to them. Under Sec.39(1)

(iv) of the act, the farmers are restricted from dealing with branded seeds still they are allowed to save, use or share the farm produce. This being the situation, the innocent farmers mostly get their contracts through local dealers are having the least possibilities of knowing the provisions of the act and the manipulative terms of contract made by the private seed manufacturers. One such circumstances is this case, therein the private breeders taking advantage of farmers situation made farmers to agree for contracts over the varieties unregistered. Later getting registration for those varieties (FL 2027) and making the farmer to fall prey for the corporate play. Further imposing exorbitant fine over poor farmers, is the extreme situation that farmers in our country face. When a farmer produces new variety and seeks protection under the act has to comply with-

- Registration formalities and
- Statutory fee.

Both the requirements prescribed under the act are not farmer friendly. The conditional requirements provided under the act exempts certain mandates for registration of farmers' variety; still farmers suffer due to technicalities in the process that is making them search for expert's assistance. Though section 18 of the act relieves farmers from producing DUS test reports. As provided earlier, the registration form has that lacuna which asks farmers to provide all the technical details. If the farmer produced a new variety by means of traditional/informal method of breeding, the end results of the DUS test would give difficulties to prove the viability of the variety produced. This test, requirement under registration form and the farmers cannot work together in reality. Apart from this, the act prescribes fee exemption for farmers under section 44 of the act. But that protects farmers from paying for any proceedings in the court or tribunal with regard to the disputes arising in grant of registration, not for any other payments. Thus, a farmer or group of farmers whoever is seeking registration under the act has to pay that nominal value of amount prescribed under the statute for processing the registration.

The registration formalities and the requirement of statutory fee to farmers can be reduced. The formal IP protection for informal method of breeding is not found appreciated for many reasons that include-

- Not providing sufficient incentive to farmers,
- Dispute with regard to sharing of benefits,
- Not promoting the means of traditional breeding,
- Not ensuring sustainable development and
- Lack of harmony in conservation.

In the case of Prabhat Agri Biotech Ltd., and another Vs. Registrar of Plant Varieties and others, the main issue is with respect to powers given to the authorities under PPVFRA and whether those powers given are in concurrence with constitutional provisions or not since powers given to them are not guided. That is giving exclusive powers to authorities without limitations might infringe the rights of benefit seekers under the act. Considering the same, the court has allowed the appeal by stating that this provision would be not in concurrence with rule of law principle provided under the Indian Constitution.

To summarise the lacunae that this act suffers from-

- Complications involved in registration procedure,
- The contrary of provisions with regard to classifying varieties under the act,

- The extent of rights and recognition given to farmers and other private breeders under the act and
- Obscurities regarding preserving the extant varieties under the act

5. CONCLUSION AND SUGGESTIONS

There is no doubt that the act facilitated the usage of resources and accessibility of the same to farmers. Our legislation for protection of plant varieties and farmers rights went far ahead to make the resource available in favour of both the private breeders and farmers. The adoption of concept called enclosing the plant varieties has been made for favour of farmers that is in such way, farmers would get easy availability or accessibility to the plant genetic resources or other varieties made by other breeders. Though it seems after the advent of this act, farmers got more recognised in India and they are tremendously benefiting through this act. The analysis of statistics shows that there exists not even the minuscule difference in terms of total availability of plant resources and recognition of significance of farmers in our country.

The enclosure movement ensures more accessibility of different plant varieties among farmers. But issue is with the private seed sectors which are making most of the perquisite offered by the act. Since farmers are not aware of most the legislative mechanisms, private breeders through the assistance of authorities under the act are invading the recognition or advantages put forth in the act in favour of farming community. Through the graph figured above, certain varieties like extant VCK, essentially derived, hardly applications have been filed under those categories by the farmers, that too are getting rejected by authorities for reasons of informal breeding and failing to pass the DUS standards. Because of which most of the varieties of common knowledge has been registered by private breeders whereby farmers lack the opportunity when they go for registration along with their community.

To resolve this issue, farmers should be given more awareness and also the act should further amend its provisions in a way flexible for farmers. The provisions of the act (PPVFRA) could explicitly provide the following whereby to ensure clarity over the same for the benefit of farming community-

- The legislators should include a provision in the act through which a committee can be appointed and they can make more awareness to farmers about PPVFRA and the benefits provided by the act to them. Further the committee can provide technical assistance to farmers at the time of filing application for registration since the farmers suffer difficulties when they deal with those technicalities while registering. Instead of searching for professionals and paying for them, farmers would get assistance of this committee (without paying exorbitant for process of registration) if established under the act. Further these authorities can also create awareness among the farming community to develop more new varieties whereby encourage them to conserve existing genetic resources as well as to evolve new resources.
- Authorities who would be established under the act can provide ideas to farmers and educate them in a way to conserve diversity of the nation through conducting awareness

programme whereby the method of hybrid variety cultivation, usage and yield of different varieties of seeds at different seasons, all these can be educated. So that the farmers can confidently take part in the process of cultivation and could come up with creating new varieties of seeds/plants.

- The act has more obscurities in terms of differentiating the farmers' variety under the category of extant variety and process or procedure of registration with regard to the same. This lack of clarity should be identified by legislators and the coherence would be made.
- The time limit fixed for protection of plant varieties and farmers' rights has been of no purpose. However, the farmers would be sharing their seeds or new variety for cultivation with other farmers or to their community members. So, the general time limit fixed in grant of intellectual property rights to curtail monopoly would not be needed when we seek protection to farmer' variety since there is no monopoly happening.
- Apart from exempting proceeding fee with regard to farmer's variety, the registration fee and testing fee should also be made nominal or could be completely exempted with regard to registration of farmers' variety under the categories of extant and new variety that is the exemption of fee provision can be made available to all farmers irrespective of the variety they are seeking for registration.

To conclude, there exists insistence for legislators to look upon the provisions that demand clarity and also to provide more enhanced provisions for protection of plant varieties and farmers along with maintaining sustainability in development of agriculture by bringing back the traditional methods for preserving various plant varieties in concurrence with the modern breeding techniques.

REFERENCE

1. "An overview of the principle of free, prior and informed consent and Indigenous People in International and Domestic Law Practices" Workshop on Free, Prior and Informed Consent by the Department of Economic and Social Affairs of the United Nations, PFII/2004/WS.2/8 116
2. Butler, L.J. "Conflicts in Intellectual Property Rights of Genetic Resources: Implications for Agricultural Biotechnology", in R.E. Evenson, V. Santaniello and D.Zilberman (Eds.), Economic and Social Issues in Agricultural Biotechnology, CABI Publishing, UK, 2002.
3. Daniel Alker and Franz Heidhues, "Farmers' Rights and Intellectual Property Rights-Reconciling Conflicting Concepts" in R.E. Evenson, V. Santaniello and D.Zilberman (Eds.), Economic and Social Issues in Agricultural Biotechnology, CABI Publishing, UK, 2002
4. Gopalakrishnan N.S., "An "Effective" Sui Generis Law to Protect Plant Varieties and Farmers' Rights in India" A Critique," 4 J.W.I.P.

5. Guy Kastler, "ITPGR: Farmers' rights or a fools bargain?" Available at <http://www.grain.org/es/article/entries/786-itpgrfarmers-rights-or-a-fools-bargain>.
6. "International Union for the Protection of New Varieties of Plants, What it is and what it does", UPOV Publication No.437 (E), October 22, 2009.
7. "Plant Breeders' Rights, DUS criteria", <http://www.ipaustralia.gov.au/pbr/dus.shtml>.
8. N.S. GopalaKrishnan, Problems with the Indian Plant Variety Regime: Old wine in new Enclosed bottle, Spicyip (July 6,2018).
9. Brahmi, Pratibha, R. P. Dua, and B. S. Dhillon., The Biological Diversity Act of India and Agro-biodiversity Management. Current Science 659-64. (5th ed. 2004).
10. Ashish Kothari, Are India's proposed Biodiversity Act and Plant Varieties Act compatible, Grain (BIO IPR), (25th Jan, 1999).
11. Seema,P.S., "Incorporation of International Human Rights Documents into Indian Law-Response of the Supreme Court", [2006] C.U.L.R. 1
12. Shaila Seshia, "Plant Variety Protection and Farmers Rights in India: Law making and cultivation of varietal control". Available at <http://unpan1.un.org/intradoc/groups/public/documents/apcity/unpan021315.pdf>.
13. "The concept of Indigenous Peoples", Background paper prepared by the Secretariat of the Permanent Forum on Indigenous Issues, PFII/2004/WS.1/3.).
14. Verma S.K. "TRIPS and Plant Variety Protection in Developing Countries", 6 EIPR 281. 1995
15. "The Food and Agriculture Organization Of The United Nations And The Platform For Agrobiodiversity Research- Biodiversity for Food and Agriculture".
16. David J. Spielman and Klaus von Grebmer- "publicprivate partnerships in agricultural research: an analysis of challenges facing industry and the consultative group on international agricultural research."
17. Vandana Shiva- "Agricultural Biodiversity, Intellectual Property Rights and Farmers' Rights".
18. Suman Sahai- "Plant Variety Protection and Farmers' Rights Law."
19. Tarun Kabiraj- "Intellectual Property Rights, TRIPs and Technology Transfer". 25. Vikas kumar and Kunal Sinha –"status and challenges of Indian agriculture, innovation India".
20. Max Jarvie- Productivity and Biodiversity in Research and Agriculture: Improving the IPR

Landscape and Food Security.”

21. Sidney B. Williams- “Protection of Plant Varieties and Parts as Intellectual Property”.
22. Mrinalini Kochipillai- “The PPV& FR act-2001 : Historical and Implementation incentives”.
23. Vikas kumar and Kunal Sinha –“status and challenges of Indian agriculture, innovation India”.
24. ICAR Guide lines for Intellectual property Management and Technology Transfer/ commercialization.
25. Srividhya Ragavan & Jamie M. O'Shields, Has India Addressed Its Farmers' Woes? A Story of Plant Protection Issues, *Geo. Int'l Envtl. L.Rev.*20:97 (2007)
26. M S Swaminathan, The Protection of Plant Varieties and Farmers’ Rights Act: From legislation to implementation, 7 *Journal of Intellectual Property Rights*, Rev.324-329(July2002).
27. P S Seema, Protection of farmer’s right in India- challenges for law in the context of plant breeder’s rights, *Shodhganga, SLS-CUSAT*(2012).
28. Anitha Ramanna, Farmers’s rights in India: A case study, FNI report (2006).
29. Elizebeth Verkey, “Law of plant varieties protection”, Eastern Book Company, 8th March,2007
30. Aravind Kumar and Govind Das, Biodiversity, Biotechnology and Traditional Knowledge, Narosa Publications.
31. Barton, John H and Peter Berger, “Patenting Agriculture” Issues in Science and Technology, (4th ed. 2001).
32. Shalini Bhutani, the ‘Farmers’ Rights’ Law Lays the IPR Trap, *Spicyip* (April 21, 2019).
33. Vandana Shiva, *The Violence of Green Revolution, Agriculture, Ecology and Pollution in the South*, Other India Press, Mapusa, Goa, 2001.
34. Jayashree Watal, Intellectual Property Rights in Indian Agriculture, *ICRIER* (July 1998).
35. Talwar Sabanna, “WTO and Intellectual property rights”, Serial publications, first published, 2008.
36. S.P. Bala Ravi, Farmers’ rights, their scope and legal protection in India.
37. Nandita S. Patil, Farmers’ rights and intellectual property rights protection of plant varieties in India, 2 *Rural South Asian Studies Journal* (2016).
38. Pankhuri Agarwal, the ‘Farmers’ Rights’ Law Lays the IPR Trap, *Spicyip* (April 21, 2019).

NOTES

- PepsiCo India Holdings Pvt Ltd versus Bipin Patel – Commercial Trademark Suit Number 23 of 2019, Commercial Court at City Civil Court, Ahmedabad;
- PepsiCo India Holdings Pvt Ltd versus Vinod Patel – Commercial Trademark Suit Number 24 of 2019, Commercial Court at City Civil Court, Ahmedabad;
- PepsiCo India Holdings Pvt Ltd versus Chabilbhai Patel – Commercial Trademark Suit Number 25 of 2019, Commercial Court at City Civil Court, Ahmedabad;
- PepsiCo India Holdings Pvt Ltd versus Haribhai Patel – Commercial Trademark Suit Number 26 of 2019, Commercial Court at City Civil Court, Ahmedabad.
- Prabhat Agri Biotech Ltd. and another. v. Registrar of Plant Varieties and others, W.P. (C) 250/2009.
- Protection of Plant Varieties and Farmers’ Rights Act,2001
- International Union for the Protection of New Varieties of Plants (UPOV)
- PVFRA, <http://www.plantauthority.gov.in>.
- Protection of Plant Varieties and Farmers’ Rights Authority, Annual Report.