

Farmers' Rights and Plant Variety Protection in India: A Legislative Overview



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Abstract

Agriculture has been and continue to be the mainstay of Indian Economy.¹ Agriculture sector is considered to be backbone of the Country's economic fabric. Agriculture is a social sector where non-trading concerns like food and nutritional security, employment and income generation, poverty alleviation, gender equity, ecology and environment play a significant role.²

In the Indian sub-continent agriculture is a major source of livelihood. Millions of people depend on agriculture for their subsistence. Agriculture also boosts the economic growth of the country. Plant variety protection and protection of farmers' rights assume special significance in India as our country is basically an agrarian economy. The rights of the farmers have to be protected to ensure better agricultural produce which will in turn boost the economic growth of the country. There is no denying the fact that breeding new varieties of plants requires a good amount of skill, labour, money and time. Therefore, the possibility to obtain certain exclusive rights in respect of new varieties of plants gives an incentive to the farmer or the breeder to evolve new plant varieties. In the absence of these rights there can be multiplying of the breeders seeds and plant varieties and selling the variety on a commercial scale, without providing recompense to the breeder.³ Thus, the legal mechanism to protect and promote the farmers' rights and agriculture are of utmost importance. By protecting and promoting the farmers' rights, the country can not only become self-sufficient in its own food grain requirement but can also earn valuable foreign exchange by exporting its agriculture output. The agriculture has slowly shifted from subsistence to semi-commercial and the traditional systems have been replaced by improved production systems, which are technology-driven.⁴

By Judging the importance of this topic an effort has been made in this research paper to study and analyse legal framework dealing with farmers' rights and plant variety protection in India.

Keywords: Farmers' Rights, Plant Variety Protection, Plant Genetic Resources, International Union for the protection of new varieties of plants (UPOV Convention), World Trade Organisation (WTO), Trade related aspects of Intellectual Property Rights (TRIPS Agreement), *Sui-generis* System, Plant Breeders' Rights (PBR).

Introduction

In view of the ever increasing population all over the world, the necessity for increasing agricultural production has become very important. This can be made possible only by creating new varieties of plants which will produce qualitatively and quantitatively higher yields of food grains, pulses, seeds and fruits of all varieties. Creation of such varieties has become possible by scientific research which involves expenditure of money, labour and intellectual effort. To encourage the persons or organizations which produce such varieties should be rewarded. The creation of new plant varieties and their use for agricultural production is a matter of great public interest.⁵

Right to food is closely knit with food security of the nation. Farmers have a pivotal role in ensuring this food security. They preserve, conserve and maintain the crop or plant genetic resources (The grand totality of all genetic diversity among all cultivated crop plants is called Plant Genetic Resources⁶ and help in their further development, which are crucial for sustaining the agro-biodiversity.⁷ Food security is only possible if

we allow farmers to freely grow crops and enhance productivity. Modern varieties that give a higher yield are important to meet the rising needs of an exploding population.⁸

So long as the plants were grown and developed through conventional methods there was hardly any need for their protection. From the time immemorial, when the man learnt to grow plants in order to have their produce for his own consumption, the practice has gone on increasing with the passage of time. So, it would seem that the subject is one as old as can possibly be thought of. However, with the advent of era of science and technology in the field of agriculture too could not remain isolated and uninfluenced by the technological onslaught which had taken the entire world of trade and commerce to its grip. Hence, begin the concept of giving legal protection to the persons who either came out with something new that could be applied to plants and their varieties for getting the quantum of produce which was far higher in comparison to that got from conventional methods, or applied such advanced technology to get the higher produce stipulated under the scientific and technological methods.⁹

Scientific advancement in the field of biotechnology and tissue culture has ushered in an agriculture revolution. Development of new plant varieties and better quality of seeds has accelerated the growth of agriculture development.¹⁰ Therefore, it is important to provide an effective legal mechanism for plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of the society at large. Legal protection to farmers for evolving new plant varieties is also important to prevent exploitation of farmers varieties, for establishing intellectual property rights, for establishing ownership rights on farmers' varieties, for safeguarding farmers' varieties from piracy, to give incentive to develop new varieties of plants.

Objective of the Study

The main objective of this research paper is to study and analyse the legal framework dealing with farmers' rights and plant variety protection in India. The current research paper also contains the study of the right of farmers in context with the creation of new seeds and plant varieties. An endeavour has been made to study of the National as well as International regime on this subject.

Research Design

At present work requires theoretical research in this area. The secondary sources are used for this study. The material is collected from secondary sources. The material is collected from various Books, Acts, Reports, Journals, Pratiyogita Darpan, Manual.

Review of Literature

It starts with (Mangla, 2013) discussing the importance of agriculture in India. (Raju, 2005), gives detailed account on the need of new plant varieties and need for legal protection of farmers' rights and plant variety protection in India. (Narayanan, 2012), explained the how food security is related to farmers' rights and plant variety protection (Bhandari, 2008 and Mishra, 2009), has also explained the how with the advent of science and technology, legal protection

of farmers' varieties and plant variety protection becomes necessary and also discussed about UPOV Convention and its implementation. (Swaminathan, 2010), describes the law on protection of plant varieties in foreign countries USA, UK which lead to the establishment on the UPOV Convention. (Dhar, 2016), incorporates about the broad contents of the UPOV Convention 1978. (Ravi, Bala, 2004), discussed about the WTO and TRIPS Agreement in detail and also about plant breeders' rights. (Nair, 1994. Alagh, 2003) and (Chadha, 2001). gives detailed account on *Sui generis* system. At the end, conclusion is drawn from the study with some suggestions.

Farmers' Rights and Plant Variety Protection- International Perspective

A system of recognition and reward of the work of plant breeders has been in existence in several European Countries and the United States for over 50 years. The US created in 1930 a special form of protection termed "plant patent" for asexually reproduced varieties like potato and several fruit trees and ornamental plants. An ordinance issued in the Netherlands in 1941 granted to breeders an exclusive right to market the first generation of certified seeds of agriculturally important species. Several other European Countries took similar steps during the fifties.¹¹

Globally, the protection of plant varieties is entrusted with the International Convention for the Protection of New Varieties of Plants in French language it is known as Union Internationale Pour la Protection des Obtentions Vegetales (herein after referred to as UPOV). The Convention was signed in Paris in 1961 and enforced in 1968. It was revised in 1972, 1978 and 1991. The protection is available to new varieties of plants, to safeguard the interest of plant breeders, to give incentives for the development of improved plant varieties for agriculture, horticulture and forestry. Improved varieties are necessary and very cost-effective in the improvement of the performance and quality of plants of all types.¹²

UPOV Convention, 1961

Plant Breeders' Rights (herein after referred to as PBRs) system to save, use and exchange seeds are declared in UPOV Convention of December 2, 1961. The purpose of the International Convention is to recognize and to ensure to the breeder of a new plant variety or to his successor in title a right. The state parties to this Convention constitute a Union for the protection of new varieties of plants. The seat of the Union and its permanent organs is at Geneva.¹³

Implementation of the Convention

Each Contracting Party shall adopt all measures necessary for the implementation of this Convention; in particular, it shall-

1. provide for appropriate legal remedies for the effective enforcement of breeders' rights;
2. maintain an authority entrusted with the task of granting breeders' rights or entrust the said task to an authority maintained by another contracting party; and
3. ensure that the public is informed through the regular publication of information concerning

applications for the grant of breeder's rights, and proposed and approved denominations.

It shall be understood that, on depositing its instrument of ratification, acceptance, approval or accession, as the case may be, each State or inter governmental organization must be in a position, under its laws to give effect to the provisions of this Convention.¹⁴

UPOV Convention, 1978

The 1978 text of 'UPOV' Convention has the following broad contents:

1. As regards the scope, it has been provided that only five genera or species would be protected initially and would be increased to 24 genera or species in eight years.
2. The term of protection is 15 to 18 years.
3. The right include production for the purposes of commercial marketing, offering for sale and marketing etc.
4. It is provided that the PBR may be abridged to permit acts generally for experimental purposes on his holding of harvested material obtained by planting protected varieties in his own holding.¹⁵

The 1978 text provided for a system for the protection of a new plant variety and requires that member states adopt the three criteria of distinctness, uniformity and stability as the technical basis for the plant variety protection and adds the further two requirements of commercial novelty and submission of an acceptable denomination for the variety. The Act talks of minimum rights that the members must grant to the plant breeders within their territory. Thus, under the Act, a breeders' right is limited to the exclusive production and sale of productive or vegetative propagating material of his variety. The parties to the Convention have, however, been permitted to grant to breeders of a particular genera or species, rights which are wider in their scope than the said prescribed minimum.¹⁶

UPOV Convention, 1991

The UPOV Convention 1991, made the global obligations of the parties on protection of breeders' rights. For protection under the UPOV Convention, a variety should be new, distinct, uniform, stable and have a satisfactory denomination. The novelty requirement is applicable to both patents and protection of plant varieties. It serves to ensure that the variety has not already been exploited commercially. The variety should be designated by a denomination, which will be a generic name. The technical assessments are: distinctness, uniformity and stability.¹⁷

Farmers' Rights- National Legislative Perspective the Protection of Plant Varieties and Farmers' Act 2001: An Analysis

In India the idea that a plant protection system should be introduced at least for ornamental crops and fruit trees was first proposed in the mid sixties by the late Dr. B.P.Pal, then Director-General of the Indian Council of Agricultural Research. However, there was no great pressure from the breeders for a varietal protection system since research was carried out for public funds. This situation change when the Government of India

became a party to the World Trade Agreement signed by the ministers of member countries at Marrakesh, Morocco in April 1994. An important component of this Agreement is the Trade Related Aspects of Intellectual Property Rights (here in after referred to as TRIPS).¹⁸

The Uruguay Round culminated with the Ministerial Conference at Marrakesh in 1994, which favoured the surge of the World Trade Organisation (herein after referred to as WTO). The umbrella organization, WTO, was established in 1995. This was perhaps the most significant development that changed the world focus on agriculture, primarily from the angle of trade, IP and services. The WTO, established on 1st January 1995, is the custodian and implementing authority of many Agreements that have bearing on agriculture.¹⁹

WTO was established with the set of agreements, negotiated and finalized by the member countries. One of these Agreements is the TRIPS Agreement.²⁰ The Plant variety Protection by means of Intellectual Property Rights has been a subject of increasing importance in the aftermath of the adoption of the Agreement on TRIPS.²¹ TRIPS require patent to be granted to all processes and products developed in all fields of science and technology but TRIPS exempts plants and animals and essential biological processes from patentable subjects. Article 27(3)(b) of the TRIPS Agreement provided for protection of plant varieties either by patent or by an effective *Sui generis* system or by any combination of both.²² Thus, the choice of the system of plant varieties is left to each country. If patent protection is not given it is obligatory to provide an effective *Sui generis* (i.e., system of its own).

Sui generis means a form of intellectual property right which is derived from itself or, in other words, which is not a part of the patent system. It implies the system of plant breeder rights.²³ (Ownership right is established on the basis of evidence that the person has contributed to the development and conservation of a variety. This right is called the PBR. PBR holder alone has the exclusive right to produce, sell, market or distribute the seeds of planting material to that variety).²⁴ The main aim of this Indian *sui generis* system is to put significant thrust on agricultural growth by establishing an effective system for plant variety protection for this we have to establish a new PBR system under which the farmers are completely free to use the farm saved seeds of the protected variety for growing subsequent crops.²⁵

Sui generis system is a special form of protection for new varieties in the form of PBR. The special form of *Sui generis* system gives exclusive rights to the holders of PBRs to produce seed of the protected variety for seed trade and to control its marketing.²⁶

India is a founder member and key player of the United Nation system and General Agreement on Tariffs and Trade (GATT). India is also a member of the WTO and signatory to the TRIPS Agreement. In the WTO, India is one among 147 countries. According to the Government of India, one of the

reason to legislate PPVFR Act, 2001 and to allow protection of plant breeder rights and plant varieties is the TRIPS Agreement signed under the WTO.²⁷ India has been a signatory to the TRIPs Agreement, mechanisms to protect plant varieties must be established.

To comply with the TRIPS provisions, India decided to go for a *Sui generis* system of protection for plant varieties. It was in compliance with this that the Government of India, established The Protection of Plant Varieties and Farmers' Rights Act, 2001²⁸ (herein after referred to as PPVFR Act, 2001) as an effective *Sui generis* system of plant variety protection with an objective to provide for the establishment of an effective system for protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new varieties of plants. The enactment of the Act is a step towards the enforcement of the recommendations of the UPOV Convention.

India is among the first countries in the world to have passed a specific legislation in this regard. The Indian law is unique. It recognizes the role of the farmers as cultivators and conservers of traditional varieties of plants and contribution of traditional, rural and tribal communities in the country's agrobiodiversity by making provisions for benefit sharing and compensation and also protecting the traditional rights of the farmers under section 39 of the Act.

The main objects behind the enactment of this law were:

- 1 To protect the intellectual property associated with the development of plant varieties in fulfillment of an agreement under WTO.
- 2 To recognize the rights of farmers arising from their contribution in conserving, improving and making available plant genetic resources to develop new plant varieties.
- 3 To stimulate public and private investment in plant breeding to accelerate agricultural development.
- 4 To ensure high quality seed and planting material to farmers by promoting the seed industry.

Scheme of the Act

The PPVFR Act was enacted in 2001, it extends to the whole of India. The Act has 11 chapters, 97 Sections, the Rules came in 2003, as amended by (Amendment) Rules, 2013 notifications are issued from time to time. The Central Government established the "Protection of Plant Varieties and Farmers' Rights Authority" for the purpose of implementation of the Act. The regulations related to registration of plant varieties came in 7th December, 2006 as amended by (Amendment) Regulations, 2013.

Objectives of the Act

- 1 To provide for the establishment of an effective system for protection of plant varieties.
- 2 To recognize and protect rights of the farmers for their contribution made in conserving, improving and making plant genetic resources available for development of new varieties.
- 3 To protect plant breeders' rights to stimulate investment for research and development both in

public and private sectors for the development of new plant varieties.

- 4 To facilitate growth of the seed industry in the country so as to ensure availability of high quality seeds and Planting materials to farmers.

Important Features of the Act

Establishment of Protection of Plant Varieties and Farmers' Rights Authority and Registry

The Central Government shall, by notification in the Official Gazette, establish an Authority known as the Protection of Plant Varieties and Farmers' Rights Authority (hereinafter referred to as PPVFR Authority).²⁹ It shall consist of a chairperson and fifteen members as representatives of different concerned ministers and departments, seed industry, farmers' organizations and state level women's organization etc.³⁰

The PPVFR Authority proposed to be established under the Act has a crucial role to play for effective implementation of the Act. The Authority has to promote the encouragement for the development of the new varieties of plants and to protect the rights of the farmers and breeders.

Registry

The Central Government has been empowered to establish the registration of plant varieties. The authority has been empowered a Registrar-General of plant varieties and such number of registrars as it thinks necessary for registration of plant varieties under the superintendence and directions of the Registrar- General.³¹

Essential Requirement for Registration

For the registration of a new variety it shall conform to the criteria of novelty,³² distinctiveness,³³ uniformity,³⁴ and stability.³⁵

An apply for Registration of Plant Variety

Any person may make an application to the Registrar for registration of any variety,³⁶ which is an extant variety,³⁷ farmers' variety,³⁸ or variety of such genera and species specified by Central Government in Official Gazette. Application for registration can be made by (i) any person claiming to be the breeder of the variety or (ii) successor of the breeder of the variety; or (iii) any person being assignee or the breeder of the variety in respect of the right to take such application; or (iv) any farmer,³⁹ or group of farmers' or community of farmers claiming to be breeder of the variety ;or(v) any person authorized by a person specified under (i) to (v) application on his behalf (vi) any university or publicly funded agricultural institution claiming to be the breeder of the variety.

Procedure for Registration of New Variety

The breeders must assign a single and distinct denomination,⁴⁰ to his variety. Application for registration will have to be accompanied with the same information as stated under section 18 of the Act.

On receipt of an application the Registrar shall make an enquiry and then can accept it absolutely or subject to conditions. The Registrar may amend or reject applications if it does not comply with the requirements of the Act, Rules, after giving reasonable opportunity for hearing.⁴¹ An application

when accepted shall advertised by the Registrar calling the objections.⁴²

Protection of Public Interest

No variety of any genera or species which involves any technology which is injurious to the life or health of human beings, animals or plants shall be registered. No registration of a variety shall be made in cases where prevention of commercial such variety is necessary to protect public order or public morality or human, animal and plant life and health or to avoid serious prejudice to the environment.⁴³

Duration of Protection

The certificate of registration shall be valid for nine years in the case of trees and vines and six years in the case of other crops and may be reviewed and renewed for the remaining period on payment of fees subject to the condition that the total period of validity shall not exceed (a) in the case of trees and vines, eighteen years from the date of registration of the variety (b) in the case of extant varieties, fifteen years from the date of notification of that variety by the Central Government under section 5 of the Seeds Act 1966; and (c) In other cases, fifteen years from the date of registration of the variety under section 24 of the Act.⁴⁴

Surrender and Revocation of Certificate and Rectification and Correction of Register

A breeder of a variety registered under this Act may, at any time by giving notice in the prescribed manner to the Registrar, offer to surrender his certificate of registration. There is revocation of protection on certain grounds by the authority.⁴⁵

Farmers' Rights

An analysis of the Act shows that under the Act the following rights have been recognized (i) A farmer who has bred or developed a new variety shall be entitled for registration, (ii) A farmer variety is also eligible for registration, (iii) The Act perceives the farmers' not only as cultivators but also as conservers, preservers and improvers of genetic resources, landraces and wild relative of economic plants, (iv) A farmer entitled to save, use, sow, resow, exchange share and sell not only his farms produce from the protected variety but also, the non branded seeds of the protected variety.(v) A farmer is entitled to be protected against the spurious or poor quality seeds, leading to crop failure and (vi) A farmer or a group of farmers, and a village community are exempted from payment of any fee in proceedings before the authority, registrar, tribunal and High Courts under the Act.⁴⁶

Breeders' Rights

A certificate of registration for a variety shall confer an exclusive right on the breeder⁴⁷ or his successor, his agent or licensee. to produce, sell, market, distribute, import or export the variety subject to the other provisions of the Act.⁴⁸

Researchers' Rights

The use of any variety registered under the Act by any person using such variety for conducting experiment or research ; and the use of a variety by any person as an initial source of variety or the purpose of creating other varieties is not prevented, but the authorization of the breeder of a registered

variety is required where the repeated use of such variety as a parental line is necessary for commercial production of such other newly developed variety.⁴⁹

Rights of Communities

Any person/organization may stake a claim on behalf of a village or local community in regard to the contribution of that village or local community in the evolution of variety. The PVP authority for their contribution in evolution of new variety may grant compensation. The Authority will determine the quantum of compensation.⁵⁰

Benefit Sharing

Benefit sharing by owners of earlier protected varieties is an important provision under this Act.⁵¹ It is new concept in the field of intellectual property rights. It provides for an obligation on registered breeder to pay to the conserver of a plant variety for the genetic material used by him for evolving a new plant variety.⁵²

National Gene Fund

The National Gene Fund,⁵³ is to be constituted by the Central Government which shall be applied for meeting any amount to be paid by way of benefit sharing the compensation payable, the expenditure for supporting the conservation and sustainable use of genetic resources including *in situ* (*In situ* on farm conservation means when a variety or wild species is conserved in its habitat at region).⁵⁴ and *ex situ* (*Ex Situ on farm conservation means when the conservation is done away from this region*).⁵⁵ collections for strengthening the capability of the panchayat in carrying out conservation and sustainable use, and the expenditure of the scheme relating to benefit sharing The seeds or propagating material or parental line seeds shall be deposited to the National Gene Bank specified by the Authority.⁵⁶

Compulsory Licensing

The PVPFR Authority is empowered to issue compulsory license after three years of registration, if the breeder fails to satisfy the reasonable requirements of the public for the seed or other propagating material has not been made available to the public at a reasonable price.⁵⁷

Plant Varieties Protection Appellate Tribunal

An appeal against the order or decision of the Authority or Registrar can be made to the Plant Varieties Protection Appellate Tribunal constituted by the Central Government by notification in Official Gazette.⁵⁸ The Tribunal shall consist of a Chairman and such number of judicial members and technical members as the Central Government may deem fit to appoint.⁵⁹ The Tribunal may here and decide such appeal within a period of one year from the date of filling the appeal. Every proceeding before the Tribunal shall be deemed to be a judicial proceeding the orders of the Tribunal under this Act shall be executable as a decree of a Civil Court.⁶⁰

Finance, Accounts and Audit

The Central Government may, after due appropriation made by Parliament by law in this behalf, make to the Authority grants and loans of such sums of money as the Central Government thinks fit for being utilized for the purposes of this Act.⁶¹ The

Authority shall prepare a budget, maintain proper accounts and other relevant records and prepare an annual statements of the account in such form as may be prescribed by the Central Government in consultation with the Comptroller and Auditor-General of India and the audit report there on shall be forwarded annually to the Central Government and that Government shall cause the same to be laid before each house of parliament.⁶²

Infringement of Rights Conferred on Registration

Any person who not being the breeder of a variety registered under this Act or a registered agent or a registered licensee without taking permission from the registered licensee or registered agent uses, sells, exports, imports or produces any other variety any such variety, the denomination identical with or deceptively similar to the denomination of a variety registered under the Act in such manner as to cause confusion in the mind of general public in identifying such variety so registered, infringes the right established under the Act.⁶³ Suit for infringement of the established right shall be instituted in the District Courts only.⁶⁴

Relief in Suit for Infringement

The relief which a court may grant in any suit for infringement by way of injunction, damages or share of the profits.⁶⁵

Penalties for Infringing Breeders' Rights

The Act provides for the following penalties:

Penalty for Applying False Denomination

Any person who applies any false denomination to a variety or indicates the false name of a country or place or false name and address of the breeder of a variety registered under the Act in the course of trading such variety shall be punishable with a imprisonment of not less than three months which may extend to two years or with fine of not less than fifty thousand rupees which may extend to five lakh rupees.⁶⁶

Penalty for Selling Varieties to which False Denomination is Applied

Any person who sells, exposes for sale or in has possession for sale or for any purpose of trade or production of any variety with than six months which may extends up to two years or with fine of not less than fifty thousand rupees which may extend to five lakh rupees.⁶⁷

Penalty for Falsely Representing a Variety as Registered

It is imprisonment for six months to three years, or fine rupees one lakh to five lakh, or both a prison term and a fine.⁶⁸

Penalty for Subsequent Offence

A person who has been convicted for an offence under the Act faces heavy punishment for a second and every subsequent such offence imprisonment for one to three years or a fine of two to twenty lakh rupees or both.⁶⁹

Conclusion

Agriculture plays a very crucial role in the economy of any country. Thus due protection to the rights of farmers is very important. Keeping in mind the importance of agriculture for the Indian Sub-continent, the legislature have aptly made significant

legal mechanisms for the protection and promotion of farmers' rights and plant varieties.

Before the PPVFR Act, 2001, certain legislations for the protection of farmers' rights existed, but they did not completely cater to the needs of protecting the farmers' rights in context of new Plant varieties. Therefore, the Parliament enacted the PPVFR Act, 2001. The Act has comprehensively dealt with different aspects relating to protection of plant varieties, development of new plant varieties, and protect the rights of 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. The Act endeavours to facilitate the growth of the seed industry in the country which will ensure the availability of high quality seeds and planting material to the farmers. The ultimate rationale for plant variety protection is the enhancement of food security through the provision of new improved varieties and improved availability of seeds.⁷⁰

The Indian law is unique as it simultaneously aims to protect both farmers and breeders. The PPVFR Act is relevant and first of its own kind in the world. It attempts to optimize and balance claims for protection by both plant breeders and the farmers. The Act recognizes the phenomenal contribution of the farmer family in conserving biodiversity and developing the new plant varieties.

As farmers are the custodians and developers of crop genetic resources in the field, their rights in this regard are crucial for enabling them to the maintain this vital role for local and global food security and such central means in the fight against poverty. Thus farmers' rights are ensuring the conservation and sustainable use of genetic resources for food and agriculture and consequently for food security-today and in the future. Farmers' rights are also a central means in the fight against rural poverty in developing countries,⁷¹ so their interest and concerns should be taken into account.

The Act should be implemented in its true letter and spirit so that the farmers can get maximum benefits out of it. As previously discussed, that India being an agrarian economy, protection and promotion of farmers rights shall serve multifarious purposes like it will have a very positive impact on ensuring food security for the exploding population, it will enhance the agricultural production, it will promote the interests of small-scale farmers, it will promote genetic diversity (crop diversity or genetic diversity means the totality of differences available among all its various and wild relatives).⁷² and above all it will enhance the economic growth of the country.

References

- 1 Jain, Mahendra (Ed.), (March,2014), *Present Scenario of Research Development, New Directions and Future Strategies in rape seed mustard-sector: Scaling New Heights, Pratiyogita Darpan, Pg. No 101.*
- 2 Rai, Mangla (October 2013), *Handbook of Agriculture, Directorate of Knowledge Management in Agriculture, Indian Council of Agricultural Research, New Delhi, Pg. No.1.*

- 3 Raju, K D (2005), *Intellectual Property Law*, New Era law publications, New Delhi, Pg. No 438-439.
- 4 *Supra* note 2 at 933.
- 5 Narayanan, P (2012), *Intellectual Property Law*, Eastern Law House Private Ltd. New Delhi, Pg. No 384.
- 6 Ravi, Bala(2004), *Manual on Farmers' Rights* M.S. Swaminathan Research Foundation, Chennai, Pg. No.10.
- 7 *Farmers' Rights Project, International Treaty on Plant Genetic Resources for Food and Agriculture*, <<http://www.farmersrights.org>>
- 8 *Supra* note 6 at 12.
- 9 Mishra, J.P. (2009), *An introduction to Intellectual Property Rights*, Central Law Publications, Allahabad, Pg. No 266.
- 10 Bhandari, M.K. (2008), *Law Relating to intellectual Property Rights*, Central Law Publications, Allahabad, Pg.No187.
- 11 Swaminathan, M.S.(2010), *From Green to Evergreen Revolution Indian Agriculture: Performances and Challenges*, Academic Foundation, New Delhi, Pg. No 309.
- 12 *Supra* note 3 at 439.
- 13 Myneni, S.R. (2009), *Law of Intellectual Property*, Asia Law House, Hyderabad, Pg. No 485.
- 14 *Supra* note 10, at 188.
- 15 Dhar, P.K. (2016), *Indian Economy Its Growing Dimensions* Kalyani Publishers, New Delhi Pg. No.393.
- 16 *Supra* note 9 at 267.
- 17 *Supra* note 3 at 439.
- 18 *Supra* note 11 at 309-310.
- 19 *Supra* note 2 at 1462.
- 20 *Supra* note 6 at 39.
- 21 Aggarwal, Kumar Prem, (2011) *Intellectual Property Rights Deep and Deep Publications Pvt. Ltd*, Pg. No 53.
- 22 *Supra* note 20.
- 23 Nair KRG, Kumar Ashok (1994), *Intellectual Property Rights*, Allied Publishers Ltd, New Delhi, Pg. No 177.
- 24 *Supra* note 6 at 10.
- 25 Alagh, Y.K,(2003)*Globalisation and Agricultural Crisis in India*, Deep and Deep Publications Pvt. Ltd. New Delhi, Pg.No 89.
- 26 Chadha, G.K.(2001), *WTO and the Indian Economy* Deep and Deep Publications Pvt. Ltd New Delhi , Pg. No. 175-176.
- 27 *Supra* note 6 at 13.
- 28 Act No 53 of 2001 (30th October, 2001).
- 29 *Id.*, Section 2 (a) "Authority" means the Protection of Plant Varieties and Farmers' Rights Authority established Under sub-section (1) of Section 3.
- 30 *Id.*, Section 3.
- 31 *Id.*,Section12
- 32 *Id.*,Section 15, Novelty, means, the propagating or harvested material of such variety has not been sold or otherwise disposed of by or with the consent of its breeders or his Successor for the purpose of exploitation of such variety in India, earlier than one year or outside India, in the case trees or vines earlier than six years.
- 33 *Id.*,Distinctiveness means the variety is considered distinct if it is clearly distinguishable by at least one essential characteristic from any other variety whose existence is a matter of common knowledge in any country.
- 34 *Id.*, Uniform if subject to the variation that may be expected from the particular features of its propagation it is sufficiently uniform with essential characteristic.
- 35 *Id.*, Stability it is considered stable, if it is essential characteristics remain unchanged after repeated propagation or,in case of a particular cycle of propagation, at the end of each cycle.
- 36 *Id.*, Section 2(Za) "Variety"means a plant grouping except microorganism within a single Botanical taxon of the lowest known rank, which can be –
(i) defined by the expression of the characteristics resulting from a given genotype of that plant grouping;
(ii) distinguished from any other plant grouping by expression of at least one of the characteristic and
(iii)considered as a unit with regard to its suitability for being propagated which remains unchanged after such propagation, and includes propagating material of such variety, extant variety, transgenic variety, farmers' variety and essentially derived variety.
- 37 *Id.*,Section 2 (j) "extant variety" means a variety available in India which is-
i. notified under section 5 of the Seeds Act,1966 (54of 1966);or
ii. farmers' variety ;or
iii. variety about which there is common knowledge ; or
iv. any other variety which is in public domain.
- 38 *Id.*, Section 2(l) "farmer's variety" means a variety which
i. has been traditionally cultivated and evolved by the farmers in their fields; or
ii. is a wild relative or land race of a variety about which the farmers possess the common knowledge.
- 39 *Id.*, Section 2(k) "Farmer" means any person who
i. cultivates crops by cultivating the land himself; or
ii. cultivates crops by directly supervising the cultivation of land through any other person;
- 40 *Id.*,Section 2 (g) "Denomination", in relation to a variety or its propagating material for essentially derived variety or its propagating material, means the denomination of such variety or its propagating material, essentially derived variety or its propagating material , as the case may be, expressed by means o f letters or a combination of letters and figures written in any language
- 41 *Id.*, Section 20.
- 42 *Id.*, Section 21.
- 43 *Id.*, Section 29
- 44 *Id.*, Section 24
- 45 *Id.*, Section 33.

- 46 *d., Section 39*
- 47 *Id., Section 2(c)"breeder" means a person of group of persons or a farmer or group of farmers or any institution which has bred, evolved or developed any variety.*
- 48 *Id., Section 28.*
- 49 *Id., Section 30.*
- 50 *Id.,Section 41.*
- 51 *Id.,Section 2(b) "benefit sharing", in relation to a variety, means such proportion of the benefit accruing to a breeder of such variety or such proportion of the benefit accruing to the breeder from an agent or a licensee of such variety as the case may be, for which a claimant shall be entitled as determined by the Authority.*
- 52 *Id., Section 26*
- 53 *Id., Section 2(m)"Gene Fund" means the National Gene Fund Constituted under section 45.*
- 54 *Supra note 6 at 11.*
- 55 *Ibid.*
- 56 *Supra note 28, Section 45.*
- 57 *Id., Section 47.*
- 58 *Id., Section 56.*
- 59 *Id., Section 54.*
- 60 *Id., Section 57.*
- 61 *Id., Section 60*
- 62 *Id., Section 62.*
- 63 *Id., Section 64.*
- 64 *Id.,Section 65.*
- 65 *Id, Section 66.*
- 66 *Id.,Section 70.*
- 67 *Id.,Section 71.*
- 68 *Id.,Section 72.*
- 69 *Id. Section 73.*
- 70 *Supra note 21 at 53.*
- 71 *Supra note 7.*
- 72 *Supra note 24.*