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## PLANT BREEDERS RIGHTS THROUGH THE TRIPS AGREEMENT AND THE INTERNATIONAL CONVENTION FOR THE PROTECTION OF PLANT VARIETIES

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### ABSTRACT

Agriculture and the plant varieties have been specified as a demanding endeavor for the ability to sustainably feed an increasing global population. The plant breeder's rights are granted to those who has the absolute over the, materials of a new variety of a plant for number of years. Contrary to this, most believe that more diverse approach than the imposition of intellectual property rights laws upon the new plant varieties are required. Protecting these breeder's rights with the TRIPS Agreement, exclusive rights are guaranteed to the right holders for the specific period of time. For the eligibility of protection, novelty, stability, distinctiveness and the uniformity must be briefly explained or demonstrated. Article 27 (3)(b) of the TRIPS Agreement, compulsorily mandates that every member-state of the WTO must introduce such protection through domestic legislation by certain set time frames. Once the rights are protected, the user without the permission of the owner, cannot produce, sell, import, export the variety or the products made from the variety. Industrial patents on biodiversity or an effective *sui generis* system or a combination of these both have become crucial. From the Indian legal perspective in 2001, the Protection of Plant Varieties and Farmers' Rights Act was adopted in compliance with the TRIPS Agreement. Once in when the intention and the format of the narrow and specific system is understood, it becomes clear that the plant breeder's rights are less puzzling. Nonetheless the developing countries have made surprisingly little use of the freedom to design their own systems in this field. The majority of the developing countries can more creatively use the freedom to develop *sui generis* systems rather than struggling to introduce TRIPS conform

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'limited exceptions' to patent protection for plant varieties. This also includes the latest UPOV Act which does not address farmer seed savings which is the choice left to individual countries, with virtually all countries choosing to allow seed saving. This paper tends to explain what plant breeders' rights are by describing the organization and function of the plant breeders' rights system in TRIPS Agreement and the International Convention for the Protection of Plant Varieties (UPOV).

Key words: International Convention for the Protection of Plant Varieties (UPOV), developing nations, TRIPS Agreement, sui generis, WTO.

## INTRODUCTION

Looking from the traditional past, the plants are surviving as the long established methods to engender the new and unique plant varieties. A breeder is the person firstly, a person who breeds a plant variety, or discovers and develops a variety, secondly, the person who is the employer of the aforementioned person, or thirdly, the successor in title of the first or second aforementioned person. The term "person" held here accepts both the physical and the legal persons and also refers to one or more persons<sup>2</sup>. Restriction on who can become a breeder is not mentioned under the UPOV Convention. From this, a breeder can be, an amateur gardener, a scientist, an enterprise specialized in plant breeding, or a plant breeding institute. A breeder can also be called as a person who breeds a plant and comes upon and develops a new plant variety and can seek protection for new plant varieties by applying for a Granting Protection for a Plant Variety<sup>3</sup>. The lowest rank of a botanical taxon which is of a plant group is a plant variety. In comparison with industrialized countries, a substantial sector of small-holders and traditional agriculturalists is involved in developing countries which have led to the substantial share of GDP. Even though Convention on Biological Diversity and the Trade Related Aspects of Intellectual Property Rights had brought two streams into the field of agriculture in respect of agro biodiversity, our great traditionalists have identified what were the first persons who were the reason for the birth of patents. A new plant variety was not granted with the patent as in accordance with the intellectual property, nonetheless it was an improvement of the prior plant which was the result

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<sup>2</sup>Article 1(iv) of the 1991 Act of the UPOV Convention 1961.

<sup>3</sup>Kloppenborg, Jack (2014-11-02). "Re-purposing the master's tools: the open source seed initiative and the struggle for seed sovereignty.

of the nature than as an invention which was scientific in nature<sup>4</sup>. The International Convention for the Protection of New Varieties of Plants (UPOV), an international treaty was given birth for the plant breeders. The French acronym of the UPOV is 'Union internationale pour la protection des obtentions végétales'. This international treaty was first adopted in 1961. The plant breeders right (PBR) was one of the forms of the intellectual property brought by the UPOV. Nonetheless the plant breeder's rights were recognized in the TRIPS Agreement. The circumstances have changed, on introducing the plant breeders rights to the TRIPS Agreement since it was considered as one of the methods to satisfy the same<sup>5</sup>. The TRIPS Agreement was ratified in India in January 1<sup>st</sup> 2005. With the effect of the TRIPS Agreement being ratified by India, the Protection of Plant Varieties and Farmers Rights Act, 2001 was enacted, through which the grant as given for the farmers for a term or period of 25 years. There are three ways of granting protection to the plant varieties, which is being followed by at most all over the world, by different countries. The three ways are as follows<sup>6</sup>:

1. By granting patents
2. By providing
3. Effective sui generis system
4. By any combination of patents and sui generis system

### **NEED FOR PROTECTION OF PLANT BREEDER'S RIGHTS**

The improvement in the agricultural industry leads to the betterment of the nation. Subsequently, the immense growth and the progress of the improved varieties or the new plant varieties from the origin plants have been significantly seen in the various parts of the world. From this it is evident, that an effective apparatus or structure has to be brought for the protection for the new plant varieties. These improvements in plant varieties not only benefit the breeders but also the society as a whole. The life term of a plant breeding is long and expensive too. But reproducing the plant into a new variety is quite fast and easier than the former. But the thinking process over the new variety of the plant changes greatly at the time with the most transient in nature. The

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<sup>4</sup> Shiva, V., 1994. Farmers Rights and the Convention of Biological Diversity. In: Bio Diplomacy-Genetic Resources and International Relations. Sanchez, V. and C. Juma (Eds.). African Centre for Technology Studies, Nairobi, Kenya, pp: 107

<sup>5</sup> Rangnekar, D., 2000. Intellectual Property Rights and Agriculture: An Analysis of the Economic Impact of Plant Breeder's Rights. London, Action aid UK., pp: 58

<sup>6</sup> Dr. Chidananda Reddy S. Patil, (2005), "Plant Breeders Rights" in Kare Law Journal, November.p.53

contributors and the partisans have said that this form of diversity must be taken along with the intellectual property rights laws. They took this perspective for the effective protection of the plant breeder's rights<sup>7</sup>. A breeder can get exclusive rights from right to produce for sale, right to sell propagating material and the right to prevent others from using plant variety without permission through registering his new plant variety.

These are the classification of varieties in plants:

1. **New Variety:** A variety can be called as a new variety, if it confirms to the criteria for novelty, distinctiveness, uniformity and stability.
2. **Extant variety:** A variety is called as an extant variety if it confirms to the criteria for distinctiveness, uniformity and stability. From this it is evident that, novelty cannot be considered for the protection of plant varieties. Under Section 2 (j) (iii) and (iv) of the Farmer's Right Act in India defines extant variety as any variety "which is in public domain or about which there is a common knowledge".
3. **Farmers' Variety:** Under section 2 (l) of the Farmer's Right Act in India, farmers variety means a variety "which has been traditionally cultivated and evolved by the farmers in their fields".

## **TRADE RELATED ASPECTS OF INTELLECTUAL PROPERTY RIGHTS (TRIPS)- THE BACKGROUND OF PLANT BREEDER'S RIGHTS**

The TRIPS Agreement acknowledges the trademarks, patent, copyright, industrial designs as intellectual properties on a condition that they are new which also involves an inventive step and capable of industrial application<sup>8</sup>. The objective of this TRIPS Agreement is to protect and enforce the Intellectual Property Rights and to contribute the same to balance the rights and obligations and for the promotion of technological innovation for the social and economic welfare. Plant Breeders Rights (PBR) is not one among the various rights mentioned in the TRIPS Agreement. Nonetheless the Plant Breeders Rights have been discussed as an Intellectual Property Right under the TRIPS Agreement. As a matter of fact, TRIPS Agreement has given large space for the Plant Breeders Rights when dealing the Patent right.

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<sup>7</sup>Smith, Stephen; Lence, Sergio; Hayes, Dermot; Alston, Julian; Corona, Eloy (2016-07-08). "Elements of Intellectual Property Protection in Plant Breeding and Biotechnology: Interactions and Outcomes".

<sup>8</sup> Article 27 of TRIPS Agreement.

As per TRIP Agreement, the member states shall provide for patent rights for all disclosed inventions, whether products or processes<sup>9</sup> and in all fields of technology with the exclusions<sup>10</sup>, subject to the conditions that they are new, non-obvious and useful. Article 27(3) allows parties to exclude from patentability the following:

1. Diagnostic, therapeutic and surgical methods for treatment of humans or animals, and
2. Plants and animals other than microorganisms, and essentially biological processes for the production of plants or animals other than non-biological and micro-biological processes. So, an examination of the various dimensions of patent right as given in TRIPS is necessary to find out that space. Thus, the provisions of TRIPS can have adverse effects on the farmers' rights. However, an analysis of the entire WTO agreements in general and TRIPS will prove otherwise at least theoretically. PBR under the TRIPS Agreement is a component of the World Trade Organization (WTO). Signatories of WTO are committed to comply with the TRIPS requirements of a harmonized minimum level of IP rights protection. However, members are also required to provide protection to plant varieties either by patents or an effective sui generis system or any combination thereof. Nevertheless, the TRIPs do not elaborate sui generis system for the protection of plant varieties. It is obvious that such protection should meet de minimum requirements essential for an IP protection

## **ELIGIBILITY CRITERIA FOR PLANT VARIETIES PROTECTION**

### **1. Novelty:**

It is a criterion where the plant varieties have not been disposed of earlier with or without the consent of the plant breeder. But if the propagating material or the harvested material of such variety has not been disposed of nor sold inside or outside India earlier to one year, in the case of trees or vines earlier to six years, in case earlier than four years before the date of filing such application, then it can be considered as novel<sup>11</sup>.

### **2. Distinctness:**

It is a criterion where the plant variety must be distinguishable clearly under the common knowledge from the other plant varieties at the time of filing of the application. A variety which

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<sup>9</sup> Article 27(1) of TRIPS Agreement.

<sup>10</sup> Article 27(3) of TRIPS Agreement

<sup>11</sup> Verkey, E., 2007. Law of Plant Varieties Protection. Allahabad, Eastern Book Company, 13.

does not distinguish it from the other variety then it does not deem to pass the criteria of distinctiveness<sup>12</sup>.

### 3. **Uniformity:**

It is a criterion where the plant variety is abundantly uniform in its own essential characteristics. The variety to pass the test of uniformity, it must have been subject to the variation that may be expected from particular features of its own propagation.

### 4. **Stability:**

It is a criterion where the relevant characteristics of the plant variety remain uninterrupted even after repeated and several propagations or during a particular cycle of propagation or at the end of each of such cycle.

### 5. **Denomination:**

A distinguishing name or identification for the plant variety is called as denomination. It is a criterion where the breeder of the new variety should propose a suitable and appropriate denomination as its generic designation for its approval.

## **INTERNATIONAL CONVENTION FOR THE PROTECTION OF PLANT VARIETIES**

Prior to the birth of the TRIPs Agreement, a sui generis system for protection of new plant varieties were available under UPOV (The International Convention for the Protection of New Varieties of Plants). As discussed earlier the UPOV Convention, 1961 was entered into force during 1968 and was subsequently revised during the years 1972, 1978 and 1991. At present, the International Convention for the Protection of New Varieties of Plants (UPOV) has 47 countries as its members. The concept of the Plant Breeder's Right (PBR) was introduced for the first time and the intellectual property was granted for that new variety. These provide a wide framework for the plant variety protection, often deviating from the UPOV model in some respect or the other. Another aspect of the UPOV system is the recognition of farmers' privilege espoused as 'Farmers' Rights'. If PBR is based on national law, question arises on the role does UPOV, an international convention. Essentially, UPOV installs a framework of law that can be adopted as own national laws by their countries. A country can become an UPOV signatory nation if the country submits its national law to administering body of UPOV, where the said national law has the critical elements as similar to the UPOV. Subsequently, Informal assessment prior to final

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<sup>12</sup> R. K. Raina, "Commercial Transfer Agreements of New Plant Varieties and Materials Thereof", Vol. 8, Journal of Intellectual Property Rights, 2003. p., 124

diplomatic submission is conducted by the UPOV. Mechanism for providing standardized definitions or interpretations of terms by harmonizing the national laws is provided under the UPOV. It also requires non-discrimination against the foreign applicants of the other Union members. Apart from these, UPOV also provided the farmers' privilege, thereby allowing the farmers to use their own harvested material on their own farms of that protected varieties for the next production cycle and subject to exemptions it also to undertake limited exchange of seed on non-commercial scale.

The three components of the Plant Breeders Rights are as follows:

1. Rights of variety owner.
2. Definition or identification of the protectable subject matter
3. All requirements that must be met to get the protection

### **PROTECTION FROM CLUTCHES**

#### **1. Exemption from fees:**

The breeders are exempted from new set of provisions in place; accordingly the farmers are exempt from paying any fees for breeders or a farmer who wishes to receive copies of rules to examine documents and papers or the decisions made by the several authorities.

#### **2. Disclosure:**

The Breeders certificate mounts to be cancelled, if the concealment of the passport data has been detected. The detailed disclosure of the passport data is required for the by the law. From this it is evident that, the breeder enjoys protection for his own variety so that, no one steals the protection of the new variety from the breeder and claims it as theirs. The

#### **3. No terminator technology:**

Gene Use Restricting Technology (GURT) or terminator technology abolishes the improvement in the new plant varieties. The GURT technology establishes the trait variety using the chemical inducers which can be turned on and off. Thus accordingly, to prevent this, the breeders are required to enclose an affidavit that the new variety produced by them does not contain the GURT technology.

#### **4. Protection against innocent infringement and Benefit-sharing:**

The protection for the prosecution for innocent infringement<sup>13</sup> which had been provided by the law, protects the breeders from the farmers who unknowingly or knowingly infringe or restrict the plant breeders rights. On the other hand, a new concept of 'Benefit sharing' establishes the protection of rights to the Breeder of that new plant variety. Benefit sharing means such proportion out of the benefit accruing to the breeder by virtue of monopoly granted to, as may be determined by the Authority in favor of and for payment to the beneficiary, who is the person or persons who conserve the plant varieties<sup>14</sup>.

#### **5. Protection against bad seed:**

The breeders are secured and protected from the bad and fraudulent or trumped up seeds by the authorities. On the occurring of such situation, compensation is granted as to at least two times the value of the crop. Jail term will be provided for such repeated offence<sup>15</sup>. For Breeders who wanted to use the farmers, cannot create the Essentially Derived Varieties (EDVs) without the express permission of the farmers<sup>16</sup>.

#### **6. Protection of Public Interest:**

The public interest clauses, like exclusion of certain varieties from protection and the grant of compulsory licensing has effect on public interest if some of the varieties is felt that prevention of commercial exploitation. Certain varieties may not be registered. Therefore the breeders are provided the grant of compulsory licenses to use the protected variety in case of failure of the breeder to satisfy the reasonable requirements to interested persons of the public by providing seeds at reasonable price or seeds becoming non-available.

The compulsory license is available for sale, production, and distribution of the seed or other propagating material. The compulsory licenses also induce reasonable compensation to the breeder and providing seeds in a timely manner at a reasonable price to the farmers.

#### **CONCLUSION:**

It can be concluded that, striking a balance between economic use and conservation will be difficult to achieve without specific coordination between these Acts at the implementation level. This type of an economy is dependent upon the farmer and the breeder along with the

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<sup>13</sup> Dr.Suman Sahai, "India's Plant Variety Protection And Farmers, Rights Act" Journal of Intellectual Property Rights, 2002 p. 306

<sup>14</sup> N. K. Acharya, "Text Book on Intellectual Property Rights", 2nd Ed., Hyderabad: Asia Law House, 2004. p.178

<sup>15</sup> Shanthi Chandrashekharan And Sujata Vasudev, "The Indian Plant Variety Act Beneficiaries: The Indian Farmer or the Corporate Seed Company?", Vol. 7, Journal of Intellectual Property Rights, 2002. p., 507

<sup>16</sup> Verkey, E., 2007. Law of Plant Varieties Protection. Allahabad, Eastern Book Company, 13.



growing conditions of the small scale farmers and breeders, who produced the seeds of the varieties. Among many of the developing countries, India has a domestic market geared together with the agricultural economy. When considering India, for the field of plant variety protection, the Plant Variety Act is not only the legislative instrument. There are two other Acts to be related to this. The first comes, the Patents Act 1970. There lies a principle of clear distinction since the Patents Act especially prohibits the patentability of the plant varieties. There is also a direct link between the farmer's varieties and the extant varieties. The second Act related is the Biodiversity Act 2002. This Act focuses mainly on access to biological resources, control over these resources and related knowledge and benefit sharing. In order to see that the certificate holders cannot hold the interest of the society to ransom, the Act provides for the grant of compulsory licenses to interested persons at the event of the failure to satisfy the requirements which are reasonable for providing the seed at the reasonable prices to the public. Thus the compulsory license is available for production, distribution of the seed, sale or other propagating material of the variety from the date of issue of certificate of registration, after the expiry of three years. Thus, substantive overlaps exist between the mandates of these Acts which require specific provisions for their coordination.