

## THE FUNDAMENTAL ISSUES RELATED TO THE LEGAL CONTROL MECHANISM OF PROTECTION OF PLANT VARIETIES AND FARMERS' RIGHTS IN INDIA

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### *Abstract*

This research article discusses the fundamental issues related to the legal control mechanism of Protection of Plant Varieties and Farmers' Rights Act which was passed by the Indian Government in 2001. After India advanced toward becoming signatory to the Trade Related Aspects of Intellectual Property Rights Agreement (TRIPs) in 1994, legislation was required to be detailed. Article 27.3 (b) of this agreement requires the part countries to provide for protection of plant varieties either by a patent or by an effective sui generis framework or by any blend thereof. Therefore, the part countries had the decision to outline legislations that suit their own framework and India practiced this alternative. The current Indian Patent Act, 1970 avoided agriculture and plant strategies for production from patentability. The sui generis framework for protection of plant varieties was developed integrating the privileges of breeders, farmers and village communities, and taking care of the concerns for impartial sharing of advantages. The provisions of legislations for their effective implementations[1].

### **1. OVERVIEW: IN INDIA**

India, an emerging giant in the global economy, continues to rely upon the agricultural sector for food security and employment. Research and development in the agricultural sector, improved production technologies and the availability of high-yield varieties (including during the Green Revolution) energized a 350% or more development in agricultural production between 1950 and 2008. Even along these lines, plant varieties and farmers' rights in India have not received as much attention as industrial property rights. The Seeds Act 1966 merely laid down standards and procedures for the regulation of seed quality and did not envisage grant of proprietary rights. Further, the Patents Act 1970 does not provide patent protection for:

1. Discoveries; methods of agriculture or horticulture;
2. Plants and animals in entire or to a limited extent, including seeds, varieties and species; and essentially biological processes for the production or propagation of plants.

However, awareness of plant varieties has increased in developed countries. The Agreement on Trade-Related Aspects of Intellectual Property Rights, marked by India in 1994, requires protection of plant varieties through patents, an effective sui generis system or any combination thereof. Consequently, an effective system in India for the protection of plant varieties and the rights of farmers and plant breeders was considered necessary – specifically, in order to:

1. Encourage the development of new plant varieties;
2. Accelerate agricultural development; and
3. Facilitate the availability of high-quality seeds and planting material for farmers of India.

To meet these objectives, the Protection of Plant Varieties and Farmers' Rights Act was introduced, providing integrated protection to both plant varieties and farmers' rights. Although the legislation was enacted in 2001, its provisions came into force in 2005 and 2006. To implement the act, the Protection of Plant Varieties and Farmers' Rights Rules 2003 were enacted.

### **1.1 UPOV: AN INTERNATIONAL [2]**

The International Union for the Protection of New Varieties of Plants (UPOV) Convention was adopted in Paris in 1961. It was subsequently revised in 1972, 1978 and 1991. Although India has not acceded to UPOV, Indian legislation to a great extent takes after the framework of the 1978 revision and borrows certain elements from the 1991 revision. UPOV makes breeders' rights a priority of policy making and does not provide for the concept of farmers' rights[2].

UPOV aims to provide a sui generis form of intellectual property protection system specifically intended to reflect the particularities of breeding, cultivation and use of new varieties of plants. To be eligible for protection, plant varieties, must be novel, distinct, stable and uniform[3]. UPOV recently conducted an examination on the impact of the introduction of plant variety protection systems in selected UPOV member states to be specific Argentina, China, Kenya, Poland and the Republic of Korea. After the introduction of a plant variety protection system, the following were observed in the respective countries:

1. An overall increase in the numbers of varieties being developed
2. Such protected varieties displayed increased performance
3. More foreign varieties were introduced (i.e. application by foreign plant breeders)

In addition to the UPOV Convention, other international instruments also relate to intellectual property rights on genetic resources including: the Agreement on Trade Related aspects of Intellectual Property Rights (TRIPs), the Convention on Biological Diversity (CBD) and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). This complexity presents a significant challenge for some developing countries to engage in these for in a coherent manner.

## 2 OBJECTIVES OF THE STUDY [4]

- To explain the plant varieties in India along with it farmers' issues.
- To elaborate legal mechanism for the farmers' act and plant protection.
- To provide for the establishment of an effective system for protection of plant varieties.
- To explores proprietary claims to plant genetic resources (PGRs).
- To provide for the rights of farmers, plant breeders' right and researcher rights.
- To stimulate investment for research and development and to facilitate development of the seed industry.
- To guarantee availability of high quality seeds and planting materials of enhanced varieties of plants to farmers.

## 3 CHALLENGES

The Protection of Plant Varieties and Farmers' Rights Act is progressive in that it endeavors to distribute rights equitably between several sectors. However, certain provisions require serious reconsideration in order to achieve the underlying legislative intent.

The law directs revenue into the National Gene Fund, but the issue remains of how those funds can best be used. It has been advocated that farming communities should collectively access the revenue deposited in the National Gene Fund and determine suitable avenues of expenditure, except where an identifiable farmer's variety has been used. Further, a clear procedure for determining and realizing benefit sharing must be laid down. Although the act acknowledges and provides for the registration of farmers' rights, farmers depend on the Protection of Plant Varieties and Farmers' Rights Authority for benefit sharing and compensation claims.

In cases where the propagating material is not in line with the disclosed information, the determination of compensation should not be left to the sole discretion of the authority; it should be based on actual loss, factoring in the projected harvest value of the crop. Further, a review of

the trends in plant variety applications reveals that the private sector has largely focused on hybrid crops and there is a need to incentivize investment in other crops. In terms of infrastructure, the Plant Varieties Protection Appellate Tribunal envisaged under the act is yet to be constituted – indeed, the transitional provision empowering the IP Appellate Board to exercise the jurisdiction of the tribunal (with the appointment of a technical member) has not yet taken shape.

#### **4 PLANT VARIETIES [5]**

A variety is a plant grouping inside a single botanical taxon of the lowest known rank, defined by the expression of the characteristics coming about because of a given genotype or combination of genotypes.

##### **4.1 Registerable Plant Varieties in India**

1. **New Varieties:** A Variety which isn't in public domain in India earlier than one year before the date of filing or outside India, for the situation of trees or vines earlier than six years or in some other case earlier than four years.
2. **Extant Variety:** A Variety which is advised under Seed Act, 1966 or a variety about which there is common knowledge or a farmer's variety or whatever other variety which is in public domain is considers as an Extant Variety.
3. **Farmer's Variety:** A Variety which has been traditionally cultivated and developed by the farmers in their fields or a variety which is a wild relative or land race of a variety about which farmers have common knowledge.

##### **4.2 Essentially Derived Variety (EDV)**

1. Predominantly derived from such initial variety, or from a variety that itself is predominantly derived from such initial variety, while retaining the statement of the fundamental characteristics that result from the genotype or combination of genotypes of such initial variety.
2. Is plainly distinguishable from such initial variety; and
3. Conforms to such initial variety in the expression of the basic characteristics.

##### **4.3 Non-Registerable Plant Varieties in India**

All plant varieties can't get legal protection in India. Certain Plant varieties are rejected from the protection under PPVFR Act 2001. Any variety where aversion of commercial exploitation of

such variety is necessary to secure public order or public morality or human, animal and plant life and health or to keep away from serious prejudice to the environment or any varieties which has terminator technology or any variety belonging to the species or genera which isn't recorded in the notification issued by the Central Government can't be registered for the protection under the Act.

## **5 ELIGIBILITY CRITERIA FOR PROTECTING A PLANT VARIETY [5]**

The plant variety must be:

**Distinct:** A variety should be clearly distinguishable by no less than one basic characteristic from existing

**Uniform:** A Variety must be sufficiently uniform in its fundamental characteristics.

**Stable:** Essential characteristics of a variety must be steady after repeated propagation or for the situation of a specific cycle of propagation toward the finish of each cycle.

## **6 MECHANISM FOR APPLY THE REGISTRATION OF A PLANT VARIETY [5]**

1. To any person claiming to be the breeder of the variety;
2. To any person being the Assignee or the breeder of the variety in respect of the right to make such application;
3. To any farmer or group of farmers or community of farmers claiming to the breeder of the variety;
4. To any person authorized to make application on behalf of farmers; and
5. To any university or publicly supported horticultural institution claiming to the breeder of the variety.

## **7 CURRENT STATUS OF APPLICATIONS IN INDIA**

The plant variety registration procedure was initiated in 2007. Out of 10,998 applications filed for protection from 21 May 2007 to 10 February 2017, the majority were filed by farmers (6,322), followed by private entities (3,204). While 1,470 applications were filed by public organizations, only two were filed by individual breeders.

Regarding categories of application, typical varieties constituted the majority (8,102 applications). Some 1,428 applications were filed in respect of hybrid varieties, of which the private sector contributed the most. Regarding types of variety, more than half (6,315) were filed for farmers' varieties. The applications filed for extant varieties totaled 2,401, a little ahead of

applications filed for new varieties (2,103). The fewest applications were filed for essentially derived varieties (179).

A study of crop groups reveals that most applications (6,459) were filed for cereal crops, of which 4,913 pertained to rice. Other major cereal crops for which applications were filed include maize, sorghum and wheat. The fewest applications were filed for trees (two). Commercial interest in developing flowers and plantation crops appears to be negligible, with 26 and 23 applications, respectively. Tetraploid cotton has drawn the maximum private investment, with 962 applications filed by private entities.

## **8 STATES OF RIGHTS**

**Breeders' Rights:** The certificate of registration for a variety issued under this Act should give an exclusive right on the breeder or his successor or his agent or licensee, to produce, sell, market, distribute, import or export of the variety [Section 28 (1)].

**Farmers' Rights:** The farmers' rights of the Act define the privilege of farmers and their right to ensure varieties developed or conserved by them [Chapter V]. Farmers can spare, utilize, sow, resow, exchange, offer and sell cultivate produce of an ensured variety aside from deal under a commercial marketing arrangement (branded seeds) [Section 39 (1), (i)– (iv)].

**Researchers' Right:** The researchers have been provided access to secured varieties for bonafide research purposes [Section 30].

### **Protection of Plant Varieties and Farmers' Rights Authority**

The Protection of Plant Varieties and Farmers' Rights Act establishes the Protection of Plant Varieties and Farmers' Rights Authority, responsible for:

1. Registering varieties;
2. Providing measures for the development of new varieties;
3. Considering applications for compulsory licensing; and
4. Protecting the rights of farmers and breeders.

### **Duration of Protection for a Registered Plant Variety**

**Trees and Vines:** 18 Years Other crops: 15 Years.

**Extant Varieties:** 15 Years from the date of notification of that variety by the Central Government under Seed Act, 1966.

### **Exemptions Provided Under the Act**

**Farmers Exemption:** Farmer might be entitled to produce, save, use, sow, resow, exchange, offer or sell his farm produce including seed of a variety secured under this Act.

**Researchers Exemption:** Researchers are allowed to (I) use the registered variety for conducting test (ii) use the variety as an initial source of variety for the purpose of creating different varieties.

### **Plants That Are Covered Under the PPVFR Act**

As of now following 18 plant species can be registered under the Act.

1. **Cereals:** Rice, Wheat, Maize, Sorghum, Pearl Millet.
2. **Legumes:** Chickpea, Mungbean, Urdhean, Field Pea, Rajmash, Lentil, Pigeon Pea.
3. **Fibre Crop:** Four species of cotton namely *Gossypium Arboreum* L. and *G. Herbaceum* L. (Diploid Cotton) and *G. Barbadosense* L. and *G. Hirsutum* L. (Tertaploid Cotton) Two species of Jute (*Corchorus Olitorius* L. and *C. Capsularis* L.)

### **Infringement and Penalties**

A right established under the Protection of Plant Varieties and Farmers' Rights Act is infringed when an unauthorized party:

1. Sells, exports, imports or produces a registered variety; or
2. Uses, sells, exports, imports or produces any other variety while giving it a denomination that is identical or deceptively similar to that of a registered variety, so as to cause confusion among the general public.

Further, penalties have been prescribed for:

1. Falsely applying the denomination of a registered variety;
2. Selling varieties to which false denominations have been applied; and
3. Falsely representing a variety as registered.

The act prohibits an innocent farmer from being held liable for infringement.

### **Compulsory Licenses**

A holder of a PBR has a limited period within which to exercise a sole right. A sole right means that the holder may undertake any activity in respect of the variety without issuing any licenses to a third party. Upon expiration of the sole right period he may issue licensing. If the holder unreasonably refuses or imposes unreasonable conditions for the issuance of such a license, the Registrar may issue a compulsory license. Such a compulsory license would only be issued when

the Registrar is satisfied that the holder of the right is imposing unreasonable conditions on the issuance of a license, that the reasonable requirements of the public in terms of access to the variety is not being satisfied or will not be satisfied.

Currently, there is no guidance to the Registrar as to what would constitute “unreasonable refusal”, “unreasonable conditions” as well as “reasonable requirements of the public”.

## **8 CONCLUSION AND SUGGESTIONS**

In line with its obligations under the act, the authority has established the Plant Varieties Registry, the National Gene Bank, a network for DUS testing and a database of varieties in common knowledge. It has also established a ‘farmers’ cell’ to provide assistance to farmers in connection with registration of their varieties and undertake training and awareness programmes. The charge for registration and different processes as well as yearly expense should be reasonably decided keeping in see the possible business estimation of the crop, the national interests, and the desirability of generating enough re-sources for money related independence of the Authority. Section 19 of the Act requires a breeder to submit an amount of seeds alongside 'parental lines' according to the standards specified by the regulations. Also, the seeds deposited are to be conserved and regenerated if necessary for DUS testing for maintenance. A separate expense might be assigned for conservation and regeneration, besides a testing charge.

There is a requirement for the effective and coordinated implementation of various new acts/bills concerning biodiversity, condition and seed, which have some interphases because of the common item that is the 'seed'. These are in the territory of benefit-sharing mechanisms for conservers of agro-biodiversity and the establishment of a store for claims of benefit sharing.

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