



PROTECTION OF PLANT VARIETIES AND FARMERS' RIGHTS

Dhirendra Kumar¹, Rupal Dhoot² and Meenakshi Dhoot³

¹Department of Genetics and Plant Breeding, N. M. College of Agriculture, Navsari Agricultural University, Navsari -396450, Gujarat, India.

²Department of Genetics and Plant Breeding, B. A. College of Agriculture, Anand Agricultural University, Anand 388110, Gujarat, India.

³Department of Plant Breeding and Genetics, Rajasthan College of Agriculture, Maharana Pratap University of Agriculture and Technology, Udaipur-313001, Rajasthan, India.

Email: dhirendra346@gmail.com

As per the TRIPS Agreement "Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof (Brahmi *et al.*, 2004). In order to fulfill its obligations under the TRIPS Agreement, India has implemented the Protection of Plant Varieties and Farmers' Rights Act, 2001 and its rules for implementing the Act were formulated in Y-2003. PPVFR Act has been passed for the establishment of an effective system for the protection of plant varieties, rights of farmers and plant breeders as well as to encourage the development of new varieties of plants. In India, PPVFR authority was established (as per section 3 of the PPVFR Act) during Y-2005 and it has started to receive applications for registration of varieties of 12 notified crop species from 21st May, 2007. Presently registration of 79 notified crop species are continuing (Anonymous, 2013). The administrative framework of PPVFR Authority consist of a chairman acting as the chief executive officer of the authority and 15 other members of various fields appointed by government of India.

Objectives of the PPVFR Act

- To recognize and protect the rights of farmers for their contribution made at any time in conserving, improving and making available plant genetic resources for development of new plant varieties.
- To encourage the development of new varieties of plants to accelerate agricultural development.
- To protect the plant breeders right and to stimulate investment in research and development both in public and private sector for breeding new plant varieties.
- To facilitate the growth of the seed industry by ensuring the availability of good quality seed and planting materials to the farmers (Anonymous, 2009).

Functions of the PPVFR Authority

Authority has distributed PPVFR acts in 11 chapters and in 97 clauses. As per their guideline following functions has to be performing by the authority.

- Registration of new plant varieties, essentially derived varieties (EDV) and extant varieties.
- Developing DUS (Distinctiveness, Uniformity and Stability) test guidelines for new plant species.
- Developing characterization and documentation of registered varieties.

- Compulsory cataloging facilities for all variety of plants.
- Documentation, indexing and cataloguing of farmers' varieties.
- Recognizing and rewarding farmers or community of farmers.
- Maintenance of the national register of plant varieties and national gene bank.

Salient features of the PPVFR Act

- **Registration of all the plant varieties:** Registration of a plant variety under the PPVFR Act is a legal process and as per the Act it is compulsory. This process gives the Plant Breeders Rights (PBR) on the plant variety in favour of the applicants. The legal ownership on PBR is not permanent but it is for a specific period of time and it can be inheritable by succession, transferable and saleable.
- **Registrable crop varieties:** PPVFR Act does not define the names of the crops whose varieties are eligible for registration but the GOI is empowered to decide and notify in the government gazette as to which crops are to be brought under the purview of this Act. At present the Act covers all plants except microbes for registration.
- **Types of registrable varieties:** Under the PPVFR Act, crop variety can be registered as new variety, extent variety, farmer variety and essentially derived variety (EDV) depending upon its development.
- **Exclusion of varieties from registration :** Prevention of commercial exploitation of varieties which are directly related with public morality and human, animal and plant life as well as health or to avoid serious prejudice to the environment. Plant variety involving any sort of Genetic Use Restriction Technology (GURT) is also excluded from varietal registration.
- **Eligibility for registration:** Breeder, successor of the breeder, assignee of the breeder, farmer, farming community, university or publicly funded institution claiming to be the breeder of variety are eligible for the varietal registration.
- **Plant variety registry :** A national register of varieties shall be maintained including all details and breeder rights assign for a particular variety in the head office of the plant variety registry authority (Anonymous, 2013).

Procedure of registration under PPVFR

Rights holders can apply for the registration of a new variety either directly or through their agents in the office of the Registrar, Protection of Plant Varieties and Farmers' Rights Authority is the appropriate office for filing of the application in India. Registration procedure includes the steps like (1) Completing the application and its filing (2) DUS testing (3) Reviewing by the Registrar (4) Publications and opposition (5) Registration.

Provisions of Rights under PPVFR

- **Breeders Right:** It included rights to produce, sell, market, distribute, import or export the protected variety.

- **Researchers' Right:** This right gives the provision to use any of the registered variety for conducting experiments or use it as a initial source of the variety for the purpose of creating the new variety but the repeated use of such registered variety is restricted.
- **Farmers Right:** A farmer who has breed new variety shall be eligible to register his variety under the Protection of PPVFR Act, 2001 in the same manner as a breeder of a variety. A farmer who is engaged in the conservation of genetic resources of land races and wild relatives of economic plants and their improvement through selection and preservation shall be eligible to register his variety for recognition and reward. This selected and preserved material has been used to donate genes of varieties registered under the Act. A farmer shall also be entitled to save, use, sow, re-sow, exchange and share or sell his farm produce including seed of a variety protected under the Act except to sell branded seed of a variety protected under the Act. Farmers' shall get the compensation if a variety is not performing according the prescriptions given by the PBR holder. Farmers also have rights for revocation of compulsory license during non-availability of quality seeds or its high price, three years after the registration (Bala, 2004).

Case Study of Jeevani: the Miracle Drug

Kani tribe held the knowledge on an anti-fatigue property of an endemic wild herb locally known as 'arogyapancha' (Pushpangadan *et al.*, 1988). Kani tribes have shared this traditional knowledge with scientists and eventually detected the anti-fatigue molecules. Commercialization of this product, called 'Jeevani', led to sharing of the benefit with the Kani tribe. At that time, there was no legislation in India entitling the tribal community to receive such benefit share. The benefit sharing was given to involved scientists on principles of ethics, equity and professional morality (Swaminathan, 2005).

Conclusion

In an era of globalization and intellectual property regime where the conventional as well as biotech industries playing a greater role in development of plant varieties. Gene trade across and within the boundary is likely to go up in coming days, so there is tremendous scope for gene rich players to derive benefit out of gene trade. Therefore whole hearted efforts need to be made to register all our plant varieties including farmers' varieties within stipulated time frame set by authority to acquire legal ownership over plant varieties and to derive economic benefit out of their commercialization. Our country has rich biodiversity and huge potential for plant varietal research and development, its full advantage is possible through provisions of the PPVFR Act 2001.

References

- Anonymous (2009).** Registration of plant varieties. Annual Report of PPVFR Authority (2008-09), New Delhi, India, p.1-2.
- Anonymous (2013).** <http://www.plantauthority.gov.in>.

- Bala, R. S. (2004).** Manual on Farmers' Rights. M. S. Swaminathan Research Foundation, Chennai, p.80.
- Brahmi, P., Saxena, S. and Dhillon, B. S. (2004).** The Protection of Plant Varieties and Farmers' Rights Act of India. *Curr. Sci* **86**(3): 392-398.
- Pushpangadan, P., Rajasekharan, S., Kumar, R., Jawahar, P. K., Velayudhan Nair, C. R., Lakshmi, V. and Saradamma, L. (1988).** Biodiscovery and Intellectual Property Rights: A Dynamic Approach to Economic Efficiency *Ancient Sciences of Life*. **7**: 13-16.
- Swaminathan, M. S. (2005).** Draft Plant varieties recognition and protection act: Rationale and structure. p.244-286.