AN OVERVIEW OF THE PLANT VARIETY PROTECTION SYSTEM IN INDIA

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ABSTRACT

Plant Variety Protection (PVP) is essential to incentivize plant breeding, ensuring new, high-yielding, and resilient crop varieties are developed to meet food security, climate change, and agricultural needs. It grants breeders exclusive commercial rights to their inventions, allowing them to recover research costs and fostering, investment, innovation, and international trade. PVP is implemented internationally by the UPOV system. The UPOV Convention 1991 heavily favours breeders, restricting farmers' seed practices and failing to protect traditional, farmer-developed varieties. That's why India adopted the Protection of Plant Varieties and Farmers' Rights Act, 2001 (PPVFR Act) instead of the UPOV Convention to balance breeder rights with crucial farmers' rights.

This paper primarily focuses on analysing the Indian and international legal frameworks for protecting plant varieties and finding out the key problems with the PPVFR Act.

Keywords: Plant variety, breeder, farmer, convention, etc.

Introduction

The contemporary world now faces a number of complex challenges as a result of population growth. One of them is hunger. There are still 811 million people that are hungry. In the context of population increase and climate change, new, enhanced plant varieties are a vital and sustainable means of ensuring food security. New varieties that are suited to the environment in which they are grown expand the range of healthy, flavourful, and nutritious foods available to consumers while also providing farmers with a viable source of revenue. The agricultural progress has been expedited by the introduction of new plant kinds and improved seed quality. The advent of science in the fields of biotechnology and tissue culture has ushered in a new era in agriculture. Modern plant biotechnology methods, such as tissue culture and genetic engineering, have led to the development of novel plant varieties that would not have been possible using traditional breeding methods.[1]At the same time, advances in recombinant genetics and biotechnology are creating plant and animal species that, via breeding in traits like improved product quality, resistance to pests, illnesses, and stress factors, etc., provide consistent high yields at the same or lower prices.[2]

Plant variety rights (PVRs) are intellectual property rights granted to the breeder of a new variety of plant. Such varieties may be valuable for a number of reasons: increased yields, improved resistance to pests and diseases, or simply because they add to the range available. Breeding a new variety is skilled work, which is time consuming and costly. But once disclosed to the public, a new variety may be easily reproduced. As a result, it is widely acknowledged that plant breeders' rights must be adequately maintained on a global scale. In 1961, the International Convention for the Protection of New Varieties of Plants was signed.[3] The convention, on the other hand, did not recognise the rights of the farming community.[4] In 1994, India became a signatory to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement). TRIPS Agreement Article 27(3)(b) allows members to remove

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1 T. I. K. Munaweera, N. U. Jayawardana, Rathiverni Rajaratnam and Nipunika Dissanayake, "Modern Plant Biotechnology as a Strategy in Addressing Climate Change and Attaining Food Security," 11 *Agriculture and Food Security*, 1-28 (2022).

2 Nicholas Ozor, "Challenges and Impacts of Agricultural Biotechnology on Developing Societies," 7(4) *African Journal of Biotechnology*, 322-330 (2008).

3 The Convention was adopted in Paris in 1961 and it was revised in 1972, 1978 and 1991. The mission of the Convention is to provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society.

4 For detailed explanation see Heinrich Reda, "The International Convention for the Protection of New Varieties of Plants of 1961 and the International Code of Nomenclature of Cultivated Plants: Attempt at a Confrontation with Regard to the Variety Denomination,"21(1) *Taxon*, 51-55 (1973).

themselves from patentability. Plants and animals that aren't microorganisms, as well as essentially biological processes for the development of plants and animals those are not non-biological or micro-biological. Article 27.3 (b) of the agreement also mandates that member countries safeguard plant varieties through patents, effective sui generis systems, or a combination of the two.[5]

As a result, India had to choose between enacting a law that protects farmers' interests and recognising the freedoms granted to plant breeders under the 1961 International Convention for the Protection of New Varieties of Plants. Agriculture is still the primary source of subsistence for around 60% of India's people in a developing country like India. It contributes for roughly 18% of India's GDP,[6] with 70% of rural households still relying on agriculture as their primary source of income. [7]

According to the Economic Survey, agricultural and allied sectors' contribution of the country's Gross Value Added (GVA) has decreased from 18.2 percent in 2014-15 to 16.5 percent in 2019-20 at current prices. Despite being the world's largest producer of pulses, India is a major importer of pulses and vegetable oils, importing 1140.76 million US dollars in pulses and 9890.32 million US dollars in vegetable oils in 2018-19.[8] Plant variety protection is required to strengthen the agriculture sector. The rights of plant breeders must be safeguarded in order to achieve this. Farmers, on the other hand, are regarded the backbone of India's agricultural economy, and their rights should be equally protected. So, under the sui generis intellectual property right framework, India chose the first alternative and established the Protection of Plant Varieties and Farmers' Rights Act, 2001 (PPVFR Act).

The PPVFR Act protects these farmers by allowing them to use, conserve, exchange, share, sell, sow, or re-sow farm produce, which includes, among other things, seeds protected under the Act. A breeder's sale of any registered material must be reported to the farmer. This is done so that the farmer can forecast his or her performance and seek recompense if he or she fails to

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5 Christoph Antons, "Sui Generis Protection of Plant Varieties and Traditional Knowledge in Biodiversity and Agriculture: The International Framework and National Approaches in the Phillipines and India", 6 *The Indian Journal of Law and Technology* 89-139 (2010).

6 Kekane Maruti Arjun, "Indian Agriculture- Status, Importance and Role in Indian Economy", 4(4) *International Journal of Agriculture and Food Science Technology*, 343-346 (2013).

7 Catherine Seville, *EU Intellectual Property Law and Policy* 170 (Edward Elgar Publishing Limited, Cheltenham, UK, 2009).

8 Suvita Rani, Shubham Singh and Sujit Bhattacharya "Impact of India's Plant Variety Protection Act: Analytical Examination Based on Registrations under the Act", 25 *Journal of Intellectual Property Rights,* 131-139 (2020).

deliver. However, the new Seed Bill of 2019 recommends seed registration as a requirement, whereas the PPVFR Act only requires voluntary registration. As a result, seeds may be registered under the Seeds Act rather than the PPVFR Act in many cases. Because benefit-sharing is possible in the PPVFR Act, under which the seed is not registered, if a seed variety generated by a breeder but derived from a traditional variety, the breeder will acquire exclusive marketing rights, depriving farmers of their rights. The aforementioned examples demonstrate the Act's ambiguities, which have resulted in substantial lawsuits demonstrating the conflict between farmers' and breeders' rights. Farmers' rights must be protected in order for the country to be self-sufficient in agriculture.

History of Plant Breeding and Plant Breeders Rights

Today, plant breeders developing new plant varieties can apply for different types of intellectual property rights. However this became possible due to the result of a complex historical process that only recently resulted in the consideration of plants as suitable for intellectual property protection at a global scale.[9] Plant varieties were developed over centuries through the exchange of seeds and the sharing of knowledge among farmers.[10]It originated with the invention of agriculture through domestication of wild species and plant breeding which completely changed the course of human civilization. The first husbandmen discovered the method of processing grains from wild grasses more than 12,000 years ago.[11]Plant breeding is an age-old human practice that has played an important role in the evolution of human civilizations. Individuals needed to find and improve plants that matched their needs as they transitioned from nomadic to sedentary lifestyles. The availability of plant resources for human and cattle use was critical to this transformation. Plant breeding practices are thought to have begun some 10,000 years ago, with the goal of selecting the most productive and useful plant varieties to fulfil human and animal requirements.[12]

Early plant breeding methods were simple, but modern methods have evolved significantly. Farmers were the only plant-breeders until commercial seed production began. Scientific advancements and industrial evolution transformed the agricultural sector, as the world

[9] Mercedes Campi, "The Co-Evolution of Science and Law in Plant Breeding: Incentives to Innovate and Access to Biological Resources", 23 *Journal of Intellectual Property Rights*, 198-210, 198 (2018).

[10] S. Thippeswamy, "Plant Variety Protection: An Historical Perspective", 7(11) *International Journal of Development Research,* 16839-16843, 16839 (2017).

[11] Rolf H. J. Schlegel, *History of Plant Breeding* 1(CRC Press Taylor and Francis, Boca Raton, Florida, 2017).

[12] Arnel R. Hallauer, "Evolution of Plant Breeding" 11 *Crop Breeding and Applied Biotechnology*, 197-206, 197 (2011).

population grew rapidly. Scientific research and development accelerated, leading to the creation of private seed companies and the shift from farmers to breeders. New plant innovations require significant research and development expenses. Each year, private companies invest hundreds of millions of dollars in biotechnology and plant breeding research. Effective protection of these new plant products is necessary to provide an incentive to make this large research investment. [13]

In 1865 publication of the experiments of Mendel on the principles of heridity and, by almost 70 years, the rediscovery of his works by Corren, Von Teschermark and de Vries in 1900[14] paved the way for legislative protection of plant breeders' rights. The significance of the publication of Mendels theories is that made possible the establishment of a plant breeding industry. A significant food security aspect of this industry is that agricultural innovation shifted away from farmers to corporations. Although patent laws are of ancient origin plant patents are a recent development.[15]The first intellectual property rights law in the United States to cover biological materials explicitly was the Plant Patent Act of 1930. This Act provided patent protection for asexually reproduced varieties of domesticated plants.[16]

The US Congress created the world's first modern patent system in 1836, but excluded biological organisms: new plant cultivars and breeds of livestock were ineligible for patent protection. US biological innovations in agriculture would not have a form of IPRs for nearly a century, until the 1930 Plant Patent Act for asexually reproduced plants, and later still for sexually reproduced plants, with the 1970 Plant Variety Protection Act. The latter followed the lead of a group of European countries, who had defined comparable plant breeders' rights (PBRs) in 1961. Stronger protections followed a 1980 landmark US Supreme Court decision in *Diamond* v. *Chakrabarty*, [17] that extended the admissible subject matter for utility patents to encompass biological products and processes.

The International Union for the Protection of New Varieties of Plants (UPOV)

The UPOV is the first international intellectual property system recognized plant breeders

[13] Robert J. Jondle, "Legal Protection for Plant Intellectual Property" 3 *HortTechnology* 301-307, 301 (1993).
[14] M. Simunek, U. Hobfeld and V. Wissemann, "Rediscovery' Revised – the Cooperation of Erich and Armin von Tschermak Seysenegg in the Context of the 'Rediscovery' of Mendel's Laws in 1899–1901", 6 *Plant Biology,* 1-7, 1 (2011).
[15] Donald G. Daus, "Plant Patents: A Potentially Extinct Variety", 21 *Economic Botany,* 388–394, 388 (1967).
[16] Cary Fowler, "The Plant Patent Act of 1930: A Sociological History of its Creation", 82 *Journal of the Patent and Trademark Office Society,* 621-644, 621 (2000).
[17] 447 US 303 (1980).

rights a form of intellectual property rights, which is revised in 1972, 1978 and 1991. The major difference between the two Acts of UPOV 1991 and 1978 Act are UPOV Act, 1991 is adopted for the purpose of strengthening the plant breeder's rights and its adverse effect may restrict the farmer's privilege. The UPOV 1978 allowed farmers to reuse propagating material from the previous year's harvest and to freely exchange seeds of protected varieties with other farmers. However, the UPOV 1991 made this option optional for member countries, limiting the "farmers' privilege" of saving seeds. The eligibility standard for protection under the UPOV 1978 is lower than utility patents, but the granted rights are weaker. The convention also differentiates between farmer's privilege and breeders' exemption, focusing on farmers' rights to save seeds for replanting and breeders' exemption. UPOV 1991 expanded to include more species, a 20-year protection period, and some restrictions on the farmer's privilege which is now an option for member states subject to measures being taken to protect the legitimate interest of breeders. [18] There is a development in UPOV 1991 over UPOV 1978 which is shown in the Table 1 as follows:

Table-1

Comparison and Key Differences between UPOV 1978 and UPOV 1991

Criteria	UPOV 1978	UPOV 1991
Scope of protection	Varieties or species listed by the country	Varieties of all genera and species (within 10 years of joining)
Duration of protection	Minimum 15–20 years (depending on crop)	Minimum 20–25 years (depending on crop)
Disclosure	Description of variety (DUS)	Description of variety (DUS)
Rights	Prevent others from commercializing the propagating materials	Prevent others from commercializing the propagating materials and, under certain conditions, using harvested material
Breeder's Exemption	Use in breeding allowed	Use in breeding allowed, but shared rights for EDVs
Farmer's Privilege	Indirectly allowed under the	Famer's privilege is allowable

[18] Matthew S. Clancy and Gian Carlo Moschini, "Intellectual Propert Rights and Ascent of Proprietary Innovation in Agriculture," 9 (1) *Annual Review of Resource Economics,* 53-74, 58 (2017).

	definition of minimum exclusive rights	within reasonable limits and subject to safeguarding the legitimate interests of the rights holder
Seed saving	Allowed on own holding	Only allowed for listed crops
Seed exchange	Allowed if non commercial	Not allowed

The above table clearly shows there are two different international intellectual property rights systems relating to plant variety protection.[19] The issue of Farmers' Rights was addressed during the negotiations leading to the Convention on Biological Diversity[20] as well as in the Agenda 21, both adopted in 1992. These were important points of reference for later negotiations towards the International Treaty. The International Treaty on Plant Genetic Resources for Food and Agriculture[21]includes provisions on farmers' rights, and explicitly states that the responsibility for implementing these provisions rests with the national governments.

Origin and Development of Plant Variety Protection in India

In India plant domestication started in the ancient era. Specimens excavated from the Harappa ruins proves that they domesticated different wild species for multipurpose use including food.[22]Ancient Indian farmers divided spice plants like ginger and turmeric to obtain more plant specimens. This method greatly increased spice production.[23]

Modern plant breeding began in the early 1900. The earlier research work was done by British scientist like Barber in sugarcane and Howards in wheat crop.[24] The first research institute

[19] John H. Barton, "The International Breeder's Rights System and Crop Plant Innovation," 216 (4550) *Science*, 1071- 1075, 1072 (1982).

[20] The United Nations Convention on Biological Diversity, informally known as the Biodiversity Convention, is a multilateral treaty opened for signature at the Earth Summit in Rio De Janeiro in 1992. For the issue of Farmers' Rights in this Convention see, Jeffrey A. McNeely, Martha Rojas and Caroline Martinet, "The Convention on Biological Diversity: Promise and Frustration," 4(2) *The Journal of Environment and Development*, 33-53, 45 (1995).

[21] The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) is a legally binding agreement that promotes the sustainable use and conservation of plant genetic resources for food and agriculture. The treaty was signed in November 2001 during the 31st session of the United Nations Food and Agriculture Organization (FAO) in Rome and has been in effect since June 29, 2004. The ITPGRFA has 149 Contracting Parties, including India. See: Laurence R. Helfer, "Intellectual Property Rights and the International Treaty on Plant Genetic Resources for Food and Agriculture," 97 *Proceedings of the Annual Meeting,* 33-35 (2003).

[22] R. B. Mohantya and T. Panda, "Plant Domestication in Indus Valley Civilisation", 55(4) *Indian Journal of History of Science*, 349-353 (2020).

[23] Jim Fang, "Brief History of Plant Breeding (II): From Transplantation, Division, Cutting, Grafting to Primitive Domestication" 14(12) *Molecular Plant Breeding*, 1-5, 2 (2023).

[24] Vinay Kumar, Mukul Kumar, and Awaneet Kumar, "Plant Breeders: The Major Contributor of Agricultural Research" 1 *Krishi Science, 10-13,* 12 (2020).

(Imperial Agriculture Research Institute) was established in Bihar in 1905. In 1929, the Imperial Council of Agriculture Research (ICAR) was established and later its name was also changed as Indian Council of Agricultural Research. First agricultural university was established in 1960 in Pantnagar for research**.** Post-independence plant breeding research responsibility was taken by the state through establishment of specialised institutions and agricultural universities. This began in the late 1950s with the adoption of high responsive varieties developed by international agricultural research centres. Private industry did not play much of a role in plant breeding until the mid-1980s.[25]Hence till then there was no need of plant variety protection or protection of farmers' rights. That's why India did not join the UPOV system initially. But the WTO aimed to promote free trade by establishing global rules of trade through negotiations. It harmonised intellectual property rules through the Agreement on Trade-Related Intellectual Property Rights (TRIPS). However, negotiations were often contested due to the varying political and economic power of its 160 members. The TRIPS' provision on plant variety protection was particularly significant for developing countries.[26]India became a signatory to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement). As per commitment of the TRIPS India introduced its sui generis legislation i.e., The Protection of Plant Varieties and Farmers' Rights Act (PPVFR Act) of 2001.

The Protection of Plant Varieties and Farmers' Rights Act, 2001

The Act has 11 chapters and is divided in 97 Sections. The first chapter has title, and the definitions used in context of the Act. The last chapter is on miscellaneous clauses. The other nine chapters deal with PPVFR authority, registration of plant varieties, duration and effect of registration and benefit sharing, surrender and revocation of certificate, farmer's rights, compulsory licence, plant varieties protection appellate tribunal, finance, accounts, audit, infringement, offences and penalties, etc.[27]The Act does not define a plant variety, but defines variety to mean a plant grouping except micro-organism within a single botanical taxon of the lowest known rank. The PPVFR Act 2001 for the purposes of protection distinguishes 4 types of registerable plant varieties under section 14 i.e., new varieties, extant varieties, farmers'

[25] C. N. Rao, "Indian Seed System and Plant Variety Protection" 39(8) *Economic and Political Weekly,* 845-852, 845 (2004).

[26] Rashmi Venkatesan, "TRIPs and Plant Variety Protection in India: Complicating the Globalisation Debate" 9 *Indian Journal of International Economic Law*, 44-61, 44 (2017).

[27] For the commentaries of the Act see Pratibha Brahmi, Sanjeev Saxena and B. S. Dhillon, "The Protection of Plant Varieties and Farmers' Rights Act of India" 86 (3) *Current Science*, 392- 398 (2004).

varieties and essentially derived varieties. Section 28 stipulates that he Certificate of Registration for a variety grants exclusive rights to the breeder or their successor, agent, or licensee for 15-18 years, depending on the crop species. Infringement of these rights is considered if a person sells, exports, imports, or produces a variety without the breeder's permission or within the scope of a registered license or agency without their permission. Using a variety with a denomination identical or deceptively similar to the registered variety can cause confusion in identifying the registered variety. If a person applies false denomination or falsely represents a variety as a registered variety, they may face imprisonment, fines, or both. These acts are punishable under sections 70 and 72 of the PPVFR Act. The total duration of protection of registered varieties is different for different plant varieties. For trees and vines it is18 years from the date of registration, for extant varieties,15 years from the date of notification of that variety under Seeds Act, 1966 and for other varieties, 15 years from the date of registration. Section 2(k)of the Act gives the term farmer a specific meaning. A farmer is any person who cultivates crops either by cultivating the land himself, or by directly supervising the cultivation of land through any other persons. A farmer can also mean any person who conserves and preserves any wild species or traditional varieties, or adds values to them through selection and identification of their useful properties. A farmer who has bred or developed a new variety will be entitled for registration and other protection in the like manner as a breeder of a variety. A farmers' variety shall also be entitled for registration. 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 will be entitled for recognition and reward from the National Gene Fund. The National Gene Fund is to be constituted by the Central Government under the Act. The Corpus of the Gene Fund will be made up from the benefit sharing with the breeders, the loyalty of annual fee received by the Authority from the breeders, any compensation payable by the breeder under the Rights of Communities, and any contributions to the fund made by different sources. The farmer shall be deemed to be entitled to save, use, sow, re-sow, exchange, share or sell his farm produce including seed of a protected variety. However, he shall not be entitled to sell branded seed of a variety protected under this Act. Although the Act grants farmers progressive rights and legal equality with breeders, a deeper inspection reveals an unspoken bias towards commercial breeders.[28] For example, breeders and farmers have to satisfy the same three tests: uniqueness, uniformity, and stability

[28] M. S. Swaminathan, "The Protection of Plant Varieties and Farmers' Rights Act: From legislation to implementation," 82(7) *Current Science,* 778-780 (2002).

(DUS).

To register a new variety, applicants must also demonstrate uniqueness. Farmers' varieties are typically derived from wild races, which are less uniform and stable. Using the same standard for both breeders and farmers creates an inherent bias against farmers.[29]

Application for protection of plant varieties can be made by any person claiming to be the breeder of the variety or his successor or his assignee/agent, any farmer or group of farmers or community of farmers claiming to be breeder of the variety or any person authorized to apply on behalf of farmers; or any university or publicly funded agricultural institution claiming to be breeder of the variety (Section 16).

Problems in the PPVFR Act

There are many practical problems attached to it which have emerged from different cases in Indian courts. The Delhi High Court declared in *Maharashtra Hybrid Seed Co.* v. *Union of India*[30] that if the hybrid falls under the category of "extant variation" about which there is widespread information, its parental lines cannot be considered innovative. The Delhi High Court resolved many difficulties relating the Act's requirements, the first of which is that a hybrid seed does not qualify as 'propagating material' because it is incapable of regenerating any of the parent line kinds. While the Act does not define 'harvested material', it does define 'propagating material', which is defined as a regenerated plant or seed under Section 2(r) of the Act. Furthermore, the court determined that the selling of hybrid variants that can germinate into either parent plant does not conform with Section 15(3)[ii] of the Act, and so amounts to the exploitation of such plants. According to the petitioner's reading of the Act, they would have exclusive rights to the hybrid and parent seeds for 45/54 years, which is much longer than the Act's 15/18-year timeframe.

The Delhi High Court held in *Mahyco Monsanto Biotech Ltd.* v. *Nuziveedu Seeds Ltd.*[31] held that Section 24 (5) of the PPVFR Act is broad and arbitrary, and that without defining "abusive act" can result in a wide range of acts falling under its purview. In comparison to other Intellectual Property laws, the court concluded that the claims of this provision are particularly

[29] S. Nagarajan, S. P. Yadav and A. K. Singh, "Farmers' variety in the context of Protection of Plant Varieties and Farmers' Rights Act, 2001," 94(6) *Current Science*, 709-713 (2008).
[30] (2015) 217 DLT 175.
[31] (2018) SCC Online Del 8326.

inchoate. Finally, the court determined that while the remedy is adequate, it is vulnerable to misuse and therefore violates Article 14 of the Constitution of India and thus Section 24(5) of the PPVFR Act unconstitutional. According to the case of *PepsiCo India Holdings Pvt. Ltd.* v. *Bipin Patel*[32], the firm misrepresented a plant variety as a 'new' variety rather than a 'extant' one. Experts have questioned the latter approach of registration since it allows firms to register known varieties and then sue farmers for using them. Furthermore, the case brought to light the vagueness of the law in this area, and it became a question of perspective after campaigners raised concern that this could infringe farmers' rights. Subsequent to this controversy in 2023 the Delhi High Court dismissed an appeal by PepsiCo India Holdings against an order passed by the Protection of Plant Varieties and Farmers' Rights Authority in 2021, thereby effectively revoking Pepsico's registration of the FL 2027 potato variety. The revocation application was filed by notable farmers' rights activist, Kavitha Kuruganti.[33] But again In *Pepsico India Holdings Pvt.Ltd.* v. *Kavitha Kuruganti*[34]PepsiCo filed an appeal against the order of the single judge which uphold the PPVFR Authorities decision of revoking registration of their potato variety. The Division Bench of the Delhi High Court set aside the order of the Single Bench and concluded:

> "We accordingly come to the conclusion that the learned Single Judge rightly came to the conclusion that the mistake of styling the candidate variety as "new" was remediable and in any case not fatal to the cause especially since the Registrar itself had decided to process the same as relating to the "extant" category. We also affirm the impugned judgment insofar as it negatived the challenge based on Section 34 (h). We, for reasons aforenoted find no merit in the challenge raised by the respondent-appellant to paragraphs 69 and 91 of the impugned judgment. We however find ourselves unable to uphold the view taken by the learned Single Judge insofar as it holds against PepsiCo and pertaining to an incorrect mentioning of the date of first sale as well as the conclusions ultimately rendered in the context of the eligibility of PepsiCo to apply for registration and non-submission of relevant documentation. The appeal of PepsiCo, LPA 590/2023 is allowed. The impugned judgment and order dated 05 July 2023 shall consequently stand set aside to the extent indicated above. We

[32] Commercial Trademark Suit Number 23 of 2019, Commercial Court at City Civil Court, Ahmedabad.
[33] *Pepsico India Holdings Pvt. Ld.* v. *Kavitha Kuruganti,* the judgement pronounced on January 9, 2024 by the Delhi High Court.
[34] MANU/DE/0100/2024.

> consequently also set aside the order of the Authority dated 03 December 2021 and the letter issued by the Authority dated 11 February 2022. The renewal application as made by PepsiCo shall stand restored on the file of the Registrar who shall dispose of the same in accordance with law and in light of the findings recorded hereinabove."[35]

In *Sungro Seeds Ltd* v. *S.K. Tripathi*,[36] the Delhi High Court reiterated the requirement of registration under the Protection of Plant Varieties and Farmers' Rights Act, 2001 for rights to exist in a plant variety. It also reiterated that when the grant of such a right is pending and not yet established, it is not possible to claim common law rights in the same or enforce the same as confidential information.

Furthermore, because the Seed Act of 1966 lacks a suitable structure, the quality of commercially supplied seeds in India is extremely unregulated. Rapid changes in the seed and farming industries, such as the rise of private seed businesses and the gradual introduction of transgenic seeds, indicate the need for new regulations. In the absence of a law, the PPVFR Act plays a significant role in seed regulation. In *Emergent Genetics India (P) Ltd.* v. *Shailendra Shivam*,[37] the Supreme Court concluded that Indian farmers have been growing seeds locally for millennia and that agriculture is the primary source of employment and nourishment for the vast majority of the population. Around 75% of these seeds are grown by farmers themselves.

Conclusion

To achieve global food security, protection of plant variety is a necessity, but at the same time, farmers' rights must also be adequately protected. The reason is that, apart from protecting novel and advanced varieties, traditional varieties also need protection. Without which biological diversity can become extinct. Farmers have traditionally freely exchanged, replanted, preserved, and sold their seeds for ages. This practice is the foundation of agricultural biodiversity, which is essential for food security. From the first plant patent law until the setting up of the UPOV mechanism, farmers' rights were more or less overshadowed by plant breeders' rights. The reason being that economically developed countries were keen

[35] *Id.,* para. 77.
[36] MANU/DE/1055/2020.
[37] 47 PTC 494 (Del).

to establish an international legal framework biased towards their interests. The UPOV Conventions included very little of the provisions in the CBD. Ownership of biological/natural resources was not addressed. Farmers' rights were completely jettisoned. The UPOV Conventions spoke directly to plant breeders' rights. Whereas the breeders obtained breeding materials from farmers, who in fact are the custodians of the genetic materials, farmers' rights were ignored. Whatever revision was being contemplated on the UPOV 1991 Convention did not sufficiently articulate two issues: traditional knowledge and farmers' rights. The Protection of Plant Varieties and Farmers' Rights Act, 2001 was enacted to make Indian law on Plant Varieties and Farmers' Rights at par with the UPOV Convention at the same time securing the rights of farmers. However, there are concerns about the Act's failure to defend the interests of our country's farming community from multinational agro companies.