Shraddha Sriram, 2026, 14:5
ISSN (Online): 2348-4098
ISSN (Print): 2395-4752

International Journal of Science, Engineering and Technology
An Open Access Journal

"Beyond Seed Sovereignty : A Critical Analysis of Farmer's Rights and Plant Breeder's Rights under the Protection of Plant Varieties and Farmers Rights Act, 2001"

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ABSTRACT - The Protection Of Plant Varieties Presents A Continuing Challenge For Intellectual Property Law, Particularly Where The Interests Of Commercial Plant Breeders Intersect With The Customary Practices And Livelihood Concerns Of Farmers. In India, The Protection Of Plant Varieties And Farmers Rights Act 2001 (Ppfvr Act) Which Establishes A Distinctive Statutory Framework That Recognises Both Breeder'S Exclusive Rights And Farmer'S Rights. However, The Coexistence Of These Protection Raises Questions Concerning The Practical Scope Of Farmer'S Seed – Related Privileges, The Enforcement Of Plant Variety Rights, The Recognition Of Farmer'S Contributions To Genetic Resources And The Effectiveness Of Benefit Sharing Mechanisms. This paper critically examines whether the existing statutory framework achieves a substantive balance between commercial innovation and farmer's autonomy. Adopting a doctrinal and analytical methodology, it examines relevant provisions of the PPVFR Act, its relationship with applicable international intellectual property standards and judicial developments concerning plant variety registration and farmer's rights. The paper argues that the effectiveness of the Indian Framework must be assessed not merely by the recognition of competing rights in legislation but also by the accessibility, enforceability and practical operation of those rights. It proposes measures to improve legal clarity, procedural accessibility, benefit sharing and protection of farmers exercising statutory privileges. This study contributes to the debate on developing a plant variety protection framework that encourages agricultural innovation while preserving farmer's livelihoods and the Public interest. In this research paper we are navigating on 6 chapters which are :

Chapter 1 – The Legal and Conceptual foundations ; Chapter 2 – The Statutory Framework : India's Perspective ; Chapter 3 – Limitations of Farmer's & Breeder's Rights ; Chapter 4 – Judicial Interpretations with Case Law ;; Chapter 5 – Conclusion

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Key words : Farmer's Rights, Plant Breeders Rights, Plant Variety Protection, PPVFR ACT, 2001, Seed Sovereignty , Benefit sharing and Agricultural Intellectual Property.

I.INTRODUCTION

Agriculture plays a fundamental role in India's economic, social and environmental development. Seeds are not merely agricultural inputs; they are also essential resources connected with food security, farmers' livelihoods, biodiversity and the continuity of traditional agricultural knowledge. The development of improved plant varieties can contribute to agricultural productivity, climate resilience and food production. At the same time, farmers have historically contributed to the selection, preservation, adaptation and exchange of plant varieties across generations. The legal protection of plant varieties must therefore

account for both scientific innovation and the contributions of farming communities.

The expansion of intellectual property protection in agriculture has raised important questions concerning the ownership, use and commercial exploitation of plant genetic resources. Plant breeders require adequate legal protection to encourage investment in research and the development of improved varieties.

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However, excessively restrictive interpretations of exclusive rights may create difficulties for farmers whose agricultural practices involve saving, re-sowing, exchanging or selling farm produce containing seeds. The central legal challenge is consequently to determine how the law can protect innovation without unnecessarily restricting legitimate farming practices.

India addressed this challenge through the Protection of Plant Varieties and Farmers' Rights Act, 2001 (hereinafter, the PPVFR Act). The legislation establishes a sui generis system for the protection of plant varieties while recognising the interests of plant breeders and farmers. Section 28 provides registered breeders with specified exclusive rights, whereas Section 39 recognises farmers' rights, including defined privileges concerning the saving, using, sowing, re-sowing, exchanging, sharing and selling of farm produce, subject to statutory conditions. The Act also provides mechanisms relating to benefit-sharing, community rights and compensation in specified circumstances. These provisions demonstrate an attempt to develop a framework that combines agricultural innovation with the protection of farmers' interests.

Nevertheless, the existence of statutory recognition does not, by itself, resolve every question concerning the practical relationship between farmers' rights and breeders' rights. Disputes may arise regarding the registration of plant varieties, compliance with statutory requirements, the scope of farmers' privileges and the circumstances in which registered rights may be enforced. The litigation concerning PepsiCo India Holdings Pvt. Ltd. and Kavitha Kuruganti illustrates these questions. In its judgment dated 9 January 2024, the Delhi High Court considered issues relating to the registration of the FL 2027 potato variety, the grounds for revocation under Section 34, and the interpretation of Section 39(1)(iv). The judgment provides an important basis for examining how statutory safeguards operate within the broader plant variety protection framework.

The relationship between farmers' rights and breeders' rights must also be understood in the context of international legal developments. The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) establishes requirements concerning plant variety protection, while the International Treaty on Plant Genetic Resources for Food and Agriculture addresses Farmers' Rights in relation to plant genetic resources for food and agriculture. The Convention on Biological Diversity is also relevant to the conservation of biodiversity, access to genetic resources and traditional knowledge. These instruments provide a wider legal context for assessing India's approach, although their respective obligations and scope must be distinguished carefully.

Against this background, the present study critically examines whether the PPVFR Act, 2001, achieves an effective balance between the commercial interests of plant breeders and the statutory rights of farmers. It analyses the relevant legislative provisions, judicial interpretation and applicable international frameworks to identify areas of legal clarity as well as potential gaps in implementation. The study argues that an effective system of plant variety protection should not be evaluated solely by the rights it formally recognises, but also by the accessibility of those rights, the availability of appropriate remedies and the fairness of its benefit-sharing mechanisms.

The paper seeks to contribute to the development of a balanced legal framework that encourages plant-breeding innovation while respecting farmers' autonomy, agricultural biodiversity and the public interest. It concludes by considering legal and institutional measures that could improve clarity, accessibility and accountability in the administration of farmers' rights and breeders' rights in India.

II. LITERATURE REVIEW

1 - The relationship between farmer's rights and plant breeder's rights has received considerable attention in discussions on agricultural intellectual property, plant variety protection and food security. Existing literature examines the evolution of plant variety protection in India, the interests of commercial breeders, the role of traditional agricultural practices and the need to recognise farmer's contribution to plant genetic resources. A review of these discussions provides of Plant Varieties and Farmer's Rights Act, 2001.

2 - K. Anandhi , in the article *Protection of Plant Varieties and Farmer's Rights (PPVFR) Act : A Review (2015) , which* examines the background and its development of India's under the Plant Variety Protection legislative framework. The study basically discusses on the evolution of agricultural under intellectual property protection and the efficient of the PPVFR Act is recognizing the rights and interests of the farmers as well as the plant breeders rights.

This work provides a useful starting point for understanding the legislative and policy context in which the Indian System as been developed. However, a further legal inquiry is being required to monitor how statutory rights and safeguards operates under the judicial disputes and whether is there any implementation achieves the balance contemplated under the legislation.

3 - The Supreme Court's Decision on Monsanto Technology LLC vs Nuziveedu Seed Ltd. (2019) offers a related perspective on Intellectual property dispute under the technology of agriculture. This Court basically examined the litigation which involves the concerns of patent rights which is associated with BT Cotton Technology , licensing arrangements and interaction between patented law and plant – related subject matter. Although this dispute is not entirely constructing the full scope of farmer's rights as per the PPVFR Act. It rather illustrates the complexity of IP protection in the agricultural innovations. This Decision must therefore be used carefully , which helps to distinguish the patent protection for technology from its statutory protection of plant varieties.

4 - Therefore , this current study constructs over the present legal and policy discussions which examines the interaction between statutory provisions, judicial interpretations and its practical accessibility of its legal safeguards. Rather than focusing on farmers and breeders rights, it evaluates the extensiveness on the current legal frameworks which reconciles their respective interests. Its proposed contributions are an integrated assessment of legal clarity , registration procedures , statutory privileges , benefit – sharing and accessing to its remedies with a view to identify its reforms that could strengthen the effectiveness of India's plant variety protection system.

III. THE LEGAL AND CONCEPTUAL FOUNDATIOTIONS

1. Meaning and Concept of Farmer's Rights – Farmers Rights refers to the legal and moral entitlements of farmer's arising from their contribution to the conservation development , improvement and sustainable use of plant genetic resources. Farmers have historically played an important role in agriculture by preserving indigenous seeds, selecting suitable crop varieties , exchanging planting materials and adapting crops to changing environmental conditions. These activities have contributed significantly to agricultural biodiversity and the development of plant varieties used under the modern agriculture.

In India, farmer's rights received specific statutory recognition under the PPVFR Act 2001(PPVFR ACT). The legislation recognises that farmers are not merely consumer of agricultural technology but also contributors to the development and preservation of plant genetic resources. Section 39 provides important protections, including the right of a Farmer to save , use, sow, resow, exchange, share or sell farm produce also including the seeds of protected varieties which subject to its registration against selling branded seed. It basically recognises the farmers who have developed innovative varieties and provides for recognition with rewards certain conservation activities.

1. – Meaning And Concept Of Plant Breeder'S Rights –

Plant Breeder's rights are concerned as the Intellectual Property Rights which gives approval and grant to the natural persons or the institutions which develops a new innovative plant varieties satisfying the conditions of the legal requirements. It enhances the scientific research, experimentation , selection and its improvement of the plant characteristics to produce varieties with desirable qualities such as higher productivity , resistance to pests and diseases which are improved nutritional value and adaptability to environmental conditions.

The PPVFR Act establishes a sui generis system in India, meaning a specialized system which creates a special protection of plant varieties and the recognition of farmer's rights. This legislation seeks to have an

encouragement in its development of its innovative varieties while recognising the contribution of farmers to agricultural biodiversity.

2. – Meaning And Significance Of Seed Sovereignty

Seed sovereignty refers to the ability of farmers and farming communities to exercise meaningful control over the selection , preservation , use and exchange of seeds. It is closely related and associated with agricultural independence , traditional knowledge, biodiversity conservation and the protection of Farmer's livelihoods.

For generations , Indian farming communities has maintained diverse seed varieties which suited to local soil conditions, climatic patterns and agricultural requirements. The ability to preserve and exchange seed which has helped farmers reduce dependence on external seed suppliers and maintain locally adapted agricultural practices.

IV. THE STAUTORY FRAMEWORK : INDIAN PERSPECTIVE

1 Legislative Background of the PPVFR Act 2001:

PPVFR Act , 2001 was enacted to establish a specialized legal framework for the protection of plant varieties, breeders rights and farmers rights. It came into force on 11th November 2005. The legislation was introduced in the context of India's International obligations under the Agreement on Trade – Related Aspects of Intellectual Property Rights (TRIPS) , particularly Article 27.3 (b) , which requires WTO member to provide protection for plant varieties through patterns, an effective sui generis system or a combination of both.

1. Registration Of Plant Varieties : Sections 14 – 20

- Section 14 : Application for Registration : Provides for applications for registration of eligible plant varieties.
- Section 15 : Registrable Varieties : Establishes the requirements for registration, including novelty, distinctiveness, uniformity and stability for new varieties. The provision also deals with extent varieties and farmer's varieties.
- Section 16 : Person who may make applications :Identifies persons entitled to apply, including breeders, successors , assignees and other specified applicants.
- Section 17 : Compulsory variety denomination : Requires the proposal variety to have appropriate denomination in accordance with statutory requirements.
- Section 18 : Form of Application : Prescribes the information and particulars required in an application, including relevant declarations.
- Section 19 : Tests to be conducted : Provides for examination and testing of varieties to determine whether they satisfy the prescribed requirements.
- Section 20 : Acceptance of application or amendment thereof : Deals with the Registrar's consideration of an application and the acceptance or amendment of the application in accordance with the Act.

2. – Researcher'S Rights Section 30

Section 30 provides protection for research activities involving registered plant varieties. It permits the usage of a registered variety for conducting experiments or research. It also permits the usage of a registered variety as an initial source for creating other varieties, subject to the statutory restriction concerning repeated use of a protected variety as a parental line for commercial production.

This provision recognised that intellectual property protection should not unnecessarily restrict scientific research and agricultural development. Researchers and breeders must be able to study existing varieties and develop improved plant varieties. At the same point of time, the provision protects legitimate commercial interests where repeated use of a protected variety is involved.

3. Farmer'S Rights : Section 39

Section 39 is one of the most significant provisions of the PPVFR Act because it expressly recognises farmers' rights.

Under Section 39(1)(i) : A farmer who has bereded or developed a new variety is entitled to registration and protection in the same manner as a breeder. This ensures that farmers are not excluded from the plant variety protection system merely because their

innovations arise from traditional or community-based agricultural practices.

Section 39(1)(ii) : recognises the eligibilities of farmers' varieties for registration, subject to the applicable statutory requirements.

Section 39(1)(iii): provides for recognition and rewards from the Gene Fund for farmers engaged in conserving genetic resources of landraces and wild relatives of economic plants and improving them through selection and preservation, where the statutory condition concerning their use as gene donors is satisfied.

Section 39(1)(iv) : It basically permits farmers to save, use, sow, resow, exchange, share or sell their farm produce, including seeds of protected varieties, subject to the restriction that they cannot sell branded seed of a protected variety.

Section 39(2) further provides for compensation where propagating material sold to a farmer fails to perform as disclosed under the specified conditions. This provision is significant because it protects farmers against certain forms of misleading or inadequate information concerning the expected performance of purchased planting material.

V. LIMITATIONS OF FARMER'S RIGHTS AND BREEDERS RIGHTS

1. Coexistence Of Farmer'S Rights And Breeder'S Rights : T

he PPVFR Act, 2001, recognises farmers' rights and breeders' rights as important but distinct interests within the agricultural intellectual property framework. While Section 28 provides exclusive rights to registered breeders, Section 39 protects specified farming practices and recognises the contributions of farmers to plant genetic resources.

The coexistence of these rights creates an important legal question concerning the extent to which commercial protection can operate without restricting farmers' legitimate agricultural activities. Breeders require protection against unauthorised commercial exploitation of their registered varieties, whereas farmers require sufficient freedom to continue their traditional seed-related practices.

The Act attempts to resolve this relationship through statutory exceptions and safeguards. However, the existence of competing interests may still result in disputes concerning the scope of exclusive rights, the nature of permissible seed transactions and the enforcement of registration certificates.

2. Limitations On Farmers' Seed-Related Practices

Section 39(1)(iv) provides farmers with the right to save, use, sow, resow, exchange, share or sell farm produce, including seeds of protected varieties. However, the provision contains an important restriction: farmers cannot sell branded seeds of a protected variety.

This distinction is essential to understanding the scope of farmers' rights. The legislation protects specified agricultural practices while preserving the breeder's commercial interest in the registered variety. The explanation to Section 39(1)(iv) defines branded seed as seed placed in a package or other container and labelled in a manner indicating that it belongs to a protected variety.

Consequently, the provision should not be interpreted as granting an unrestricted commercial licence to manufacture and market branded seeds belonging to registered breeders. Instead, it seeks to preserve farmers' traditional seed-related practices while maintaining protection against unauthorised commercial exploitation.

Nevertheless, questions may arise regarding the interpretation of farm produce, the circumstances in which seed transactions qualify for statutory protection and the distinction between customary agricultural exchanges and organised commercial seed marketing.

3. Scope And Limitations Of Breeders' Exclusive Rights

Section 28 grants registered breeders exclusive rights over the protected plant variety. These rights are important for encouraging scientific research and commercial investment in plant breeding. However, breeders' rights are subject to statutory limitations. Section 30 permits specified research activities, while Section 39 protects farmers' statutory privileges. Section 42 further provides protection against certain consequences of innocent infringement. Therefore, registration does not give a breeder unrestricted

control over every use of the protected variety. The rights granted under the Act must be interpreted together with the exceptions and protections established by Parliament. A major challenge is ensuring that the enforcement of breeders' rights does not unnecessarily discourage farmers from exercising their statutory entitlements. Equally, farmers' privileges should not be interpreted in a manner that eliminates legitimate commercial protection granted to registered breeders.

VI. JUDICIAL INTERPRETATION AND CASE LAW : -

1. Importance Of Judicial Interpretation In Plant Variety Protection

Judicial interpretation plays an important role in determining how the provisions of the PPVFR Act, 2001, operate in practice. Although the Act recognises both farmers' rights and breeders' rights, conflicts may arise concerning the validity of registration, the scope of its exclusive rights, statutory exceptions and the protection available to farmers.

The judiciary is therefore required to interpret the legislation in a way that respects its objectives while ensuring that statutory provisions are applied consistently. Two important disputes that provide insight into the relationship between agricultural intellectual property and farmers' interests are PepsiCo India Holdings Pvt. Ltd. v. Kavitha Kuruganti and Monsanto Technology LLC v. Nuziveedu Seeds Ltd.

These cases are the biggest concern different legal issues and should be analysed separately. The primary concerns plant variety registration under the PPVFR Act, whereas the second primarily concerns patent protection for agricultural biotechnology.

2. Pepsico India Holdings Pvt. Ltd. V. Kavitha Kuruganti (2024)

Court: Delhi High Court, Division Bench

3. Case: Lpa 590/2023 And Lpa 644/2023

4. Date Of Judgment: 9 January 2024

Facts : The dispute concerned PepsiCo's registration of the FL 2027 potato variety, which was used in connection with its potato chip production. PepsiCo obtained registration for the variety in 2016 under the PPVFR Act. In 2019, PepsiCo initiated infringement proceedings against certain farmers in Gujarat, alleging unauthorised cultivation of the protected potato variety. The litigation attracted considerable attention concerning the relationship between commercial plant variety protection and farmers' rights under Section 39(1)(iv). Kavitha Kuruganti challenged the registration before the relevant Authority, arguing that the registration was liable to be revoked on statutory grounds, including issues relating to disclosure and farmers' rights. The Authority revoked the registration in December 2021. PepsiCo challenged that decision before the Delhi High Court.

5. Issues

- Whether the registration of FL 2027 was liable to be revoked because of incorrect information concerning the date of first commercial sale.
- Whether the requirements concerning eligibility and supporting documentation had been properly satisfied.
- Whether the proceedings initiated against farmers violated the protections recognised under Section 39(1)(iv).
- Whether the alleged conduct justified revocation on public-interest grounds under Section 34(h).

6. Judgement

On 9 January 2024, the Division Bench allowed PepsiCo's appeal and set aside the revocation of registration. It held that the errors relied upon in relation to the registration did not establish the fundamental invalidity required to justify revocation under Section 34.

The Court also considered the argument that the infringement proceedings initiated against farmers demonstrated conduct contrary to public interest. It held that the mere filing of infringement suits was insufficient to establish that PepsiCo had acted in a vexatious or predatory manner. Such allegations required supporting material and proof.

Importantly, the Court examined Section 39(1)(iv) and recognised the statutory entitlement of farmers to

undertake specified activities involving farm produce, including seeds of protected varieties, subject to the restriction against selling branded seed.

The Court ultimately allowed LPA 590/2023 and dismissed the connected cross-appeal, LPA 644/2023. It restored PepsiCo's renewal application for consideration by the Registrar in accordance with law. '

VII. CONCLUSION AND ITS SUGGESTIONS

The protection of farmers' rights and plant breeders' rights represents an important aspect of agricultural development, intellectual property protection and food security. In India, the Protection of Plant Varieties and Farmers' Rights Act, 2001, establishes a distinctive legal framework by recognising the interests of plant breeders while safeguarding the contributions and statutory entitlements of farmers. The legislation reflects the understanding that agricultural development cannot depend exclusively on scientific innovation or commercial investment; it must also recognise the traditional knowledge, seed conservation practices and contributions of farming communities.

The analysis of the PPVFR Act demonstrates that the legislature has attempted to establish a balance between these interests. Section 28 provides exclusive rights to registered breeders, while Section 39 recognises farmers' rights, including the right to save, use, sow, resow, exchange, share and sell farm produce, subject to the statutory restriction concerning branded seeds. Similarly, Sections 30 and 41 recognise researchers' rights and community contributions. These provisions establish that plant variety protection in India is not intended to operate solely as a commercial intellectual property regime but also as a mechanism for recognising agricultural contributions and promoting public interest.

However, the existence of statutory recognition does not automatically ensure the effective exercise of farmers' rights. Farmers may encounter difficulties in understanding registration requirements, identifying protected varieties, accessing legal remedies and participating in benefit-sharing procedures. Administrative complexity and limited awareness may further affect the practical implementation of the legislation. Consequently, the effectiveness of the Act must be evaluated not only through its statutory provisions but also through the accessibility and enforcement of the protections it provides.

The judicial decisions examined in this study further demonstrate the importance of legal clarity. The decision in *PepsiCo India Holdings Pvt. Ltd. v. Kavitha Kuruganti* highlights the relationship between plant variety registration, revocation proceedings and farmers' statutory privileges. On the other hand, *Monsanto Technology LLC v. Nuziveedu Seeds Ltd.* illustrates the broader complexities associated with intellectual property protection in agricultural biotechnology. Although the two decisions concern different legal questions, they demonstrate the importance of interpreting intellectual property rights within the relevant statutory framework and recognising the wider consequences of agricultural innovation.

International instruments, including the TRIPS Agreement and the International Treaty on Plant Genetic Resources for Food and Agriculture, also demonstrate the importance of considering farmers' interests, biodiversity conservation and innovation together. India's sui generis approach under the PPVFR Act provides an important model of statutory recognition, although its continued effectiveness requires consistent implementation and institutional support.

1. Suggestions And Recommendations

The following measures could strengthen the existing legal framework:

1. **Improved legal awareness:** Government authorities and agricultural institutions should conduct awareness programmes to educate farmers about their rights under Section 39 and the legal limitations applicable to protected varieties.

2. **Simplification of registration procedures:** Registration and documentation procedures should be made more accessible to individual farmers and farming communities, particularly those seeking recognition of farmers' varieties.

3. **Strengthening benefit-sharing mechanisms:** The implementation of Sections 26 and 41 should be improved through transparent procedures, accessible

claim mechanisms and effective recognition of community contributions.

4. **Accessible dispute resolution:** Appropriate legal assistance and accessible dispute-resolution mechanisms should be made available to farmers involved in plant variety protection disputes.

5. **Protection of agricultural biodiversity:** Greater institutional support should be provided for the conservation of indigenous seeds, traditional varieties and locally adapted genetic resources.

6. **Clarity in statutory interpretation:** Clearer administrative guidance should be developed concerning the distinction between permissible farming practices under Section 39 and unauthorised commercial exploitation of branded protected seeds.

7. **Balanced protection for breeders:** The enforcement of breeders' exclusive rights should remain effective and predictable, ensuring that legitimate investment in agricultural research and the development of improved varieties is encouraged.

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