

p-ISSN : 2708-2458 | e-ISSN : 2708-2466

DOI(Journal): 10.31703/glsr

DOI(Volume): 10.31703/glsr/.2024(IX)

DOI(Issue): 10.31703/glsr.2024(IX.I)



GLSR

GLOBAL LEGAL STUDIES REVIEW

HEC-RECOGNIZED CATEGORY-Y

VOL. IX, ISSUE II, SPRING (JUNE-2024)



Double-blind Peer-review Research Journal

www.glsrjournal.com

© Global Legal Studies Review

Article Title

Towards Sustainable Agriculture: Assessing Plant Variety Protection and Farmers' Rights in Pakistan

Global Legal Studies Review

p-ISSN: 2708-2458 **e-ISSN:** 2708-2466

DOI(journal): 10.31703/glsr

Volume: IX (2024)

DOI (volume): 10.31703/glsr.2024(IX)

Issue: II Spring (June-2024)

DOI(Issue): 10.31703/glsr.2024(IX-II)

Home Page

www.glsrjournal.com

Volume: IX (2024)

<https://www.glsrjournal.com/Current-issues>

Issue: II-Spring (June-2024)

<https://www.glsrjournal.com/Current-issues/9/2/2024>

Scope

<https://www.glsrjournal.com/about-us/scope>

Submission

<https://humaglobe.com/index.php/glsr/submissions>

Google Scholar



Visit Us



Abstract

Pakistan's regulatory framework regarding Plant varieties presents a multifaceted challenge in the preservation of farmers' rights within the spheres of agricultural policy, intellectual property rights (IPRs), and the socio-economic landscape. This inquiry aims to analyze the current state of plant-related legislation in Pakistan, with a particular highlighting on the strategies employed to protect farmers' rights in the background of the rapidly changing global environment of intellectual property and agricultural methodologies. With the dawn of international accords such as the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), Pakistan faces the imperative of aligning its domestic legal framework with global standards while ensuring the safeguarding of farmers' rights. The study concludes by recommending reforms at both institutional and policy levels that could strengthen Pakistan's legal framework in the protection of farmers' rights, particularly regarding the safeguarding of plant varieties.

Key Words: Plant Varieties, Legislation, Farmers' Rights, Innovations, Intellectual Property Rights

Authors:

Muhammad Mubeen: (Corresponding Author)

Visiting Faculty, School of Law, Quaid-i-Azam University, Islamabad, Pakistan.

Visiting Faculty Member, Department of Law, International Islamic University, Islamabad, Pakistan.

(Email: m.mubeen@iiu.edu.pk)

Hafiz Aziz ur Rehman: Professor, School of Law, Quaid-i-Azam University, Islamabad, Pakistan.

Pages: 38-50

DOI: 10.31703/glsr.2024(IX-II).05

DOI link: [https://dx.doi.org/10.31703/glsr.2024\(IX-II\).05](https://dx.doi.org/10.31703/glsr.2024(IX-II).05)

Article link: <http://www.glsrjournal.com/article/A-b-c>

Full-text Link: <https://glsrjournal.com/fulltext/>

PDF link: <https://www.glsrjournal.com/jadmin/Author/31rvIolA2.pdf>

Citing this Article

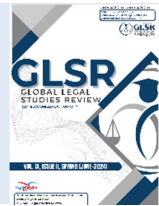
05	Towards Sustainable Agriculture: Assessing Plant Variety Protection and Farmers' Rights in Pakistan						
	Author	Muhammad Mubeen Hafiz Aziz ur Rehman	DOI	10.31703/glsr.2024(IX-II).05			
Pages	38-50	Year	2024	Volume	IX	Issue	II
Referencing & Citing Styles	APA	Mubeen, M., & Rehman, H. A. u. (2024). Towards Sustainable Agriculture: Assessing Plant Variety Protection and Farmers' Rights in Pakistan. <i>Global Legal Studies Review</i> , IX(II), 38-50. https://doi.org/10.31703/glsr.2024(IX-II).05					
	CHICAGO	Mubeen, Muhammad, and Hafiz Aziz ur Rehman. 2024. "Towards Sustainable Agriculture: Assessing Plant Variety Protection and Farmers' Rights in Pakistan." <i>Global Legal Studies Review</i> IX (II): 38-50. doi: 10.31703/glsr.2024(IX-II).05.					
	HARVARD	MUBEEN, M. & REHMAN, H. A. U. 2024. Towards Sustainable Agriculture: Assessing Plant Variety Protection and Farmers' Rights in Pakistan. <i>Global Legal Studies Review</i> , IX, 30-42.					
	MHRA	Mubeen, Muhammad, and Hafiz Aziz ur Rehman. 2024. 'Towards Sustainable Agriculture: Assessing Plant Variety Protection and Farmers' Rights in Pakistan', <i>Global Legal Studies Review</i> , IX: 38-50.					
	MLA	Mubeen, Muhammad, and Hafiz Aziz ur Rehman. "Towards Sustainable Agriculture: Assessing Plant Variety Protection and Farmers' Rights in Pakistan." <i>Global Legal Studies Review</i> IX.II (2024): 38-50. Print.					
	OXFORD	Mubeen, Muhammad and Rehman, Hafiz Aziz ur (2024), 'Towards Sustainable Agriculture: Assessing Plant Variety Protection and Farmers' Rights in Pakistan', <i>Global Legal Studies Review</i> , IX (II), 38-50.					
TURABIAN	Mubeen, Muhammad and Hafiz Aziz ur Rehman. "Towards Sustainable Agriculture: Assessing Plant Variety Protection and Farmers' Rights in Pakistan." <i>Global Legal Studies Review</i> IX, no. II (2024): 38-50. https://dx.doi.org/10.31703/glsr.2024(IX-II).05 .						



Global Legal Studies Review

www.glsrjournal.com

DOI: <http://dx.doi.org/10.31703/glsr>



Pages: 38-50

URL: [https://doi.org/10.31703/glsr.2024\(IX-II\).05](https://doi.org/10.31703/glsr.2024(IX-II).05)

Doi: 10.31703/glsr.2024(IX-II).05



Cite Us



Title

Towards Sustainable Agriculture: Assessing Plant Variety Protection and Farmers' Rights in Pakistan

Authors:

Muhammad Mubeen: (Corresponding Author)

Visiting Faculty, School of Law, Quaid-i-Azam University, Islamabad, Pakistan.

Visiting Faculty Member, Department of Law, International Islamic University, Islamabad, Pakistan.

(Email: m.mubeen@iiu.edu.pk)

Hafiz Aziz ur Rehman: Professor, School of Law, Quaid-i-Azam University, Islamabad, Pakistan.

Abstract

Pakistan's regulatory framework regarding Plant varieties presents a multifaceted challenge in the preservation of farmers' rights within the spheres of agricultural policy, intellectual property rights (IPRs), and the socio-economic landscape. This inquiry aims to analyze the current state of plant-related legislation in Pakistan, with a particular highlighting on the strategies employed to protect farmers' rights in the background of the rapidly changing global environment of intellectual property and agricultural methodologies. With the dawn of international accords such as the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), Pakistan faces the imperative of aligning its domestic legal framework with global standards while ensuring the safeguarding of farmers' rights. The study concludes by recommending reforms at both institutional and policy levels that could strengthen Pakistan's legal framework in the protection of farmers' rights, particularly regarding the safeguarding of plant varieties.

Contents

- [Introduction](#)
- [Background History of Legislation](#)
- [Tug of War Between the Federal and Provincial Levels](#)
- [Rights of Farmers to Receive Free Services.](#)
- [Criticism of the PBR Act](#)
- [Protection of Traditional Knowledge](#)
- [Policy Implications and Recommendations:](#)
- [Conclusion](#)
- [References](#)

Keywords: [Plant Varieties](#), [Legislation](#), [Farmers' Rights](#), [Innovations](#), [Intellectual Property Rights](#)

Introduction

Agriculture constitutes the cornerstone of the economic framework in Pakistan, involving a considerable part of the population and employing a significant influence on the nation's Gross Domestic Product (GDP). A pivotal element of sustainable agricultural practices pertains to the

conservation and enhancement of plant genetic resources, which are indispensable for agricultural diversity, food security, and ecological resilience. The concepts of Plant Variety Protection (PVP) and farmers' rights are of paramount significance within this background. PVP regulations confer intellectual property rights upon the creators of innovative



plant varieties, thus developing creativity and financial investment within the agricultural sector. These regulations seek to recompense developers for their contributions and facilitate the cultivation of superior plant varieties that may yield greater productivity. In contrast, farmers' rights acknowledge the critical contributions of traditional farmers in the conservation and advancement of plant genetic resources over the following generations. These rights are vital for the maintenance of agricultural diversity and for confirming that farmers retain the ability to save, utilize, exchange, and trade seeds. Achieving an equilibrium between PVP and farmers' rights is essential for promoting the coexistence of innovative methodologies and traditional agricultural practices, thereby fostering the establishment of a sustainable and resilient agricultural system.

This paper commences a comprehensive examination of the legal framework that supports the conservation of plant varieties and the rights afforded to agriculturalists. The legislative framework primarily articulated within the Plant Breeders' Rights (PBR) Act, amalgamates elements of intellectual property, agricultural sustainability, and socio-economic equity. By analyzing the configuration of this legal framework, the inquiry seeks to elucidate its complexities, assess its effectiveness, and determine its impact on agricultural practices, innovation, and the welfare of the agrarian community. In addition, the current investigation examines the legal landscape in Pakistan concerning the conservation of plant biodiversity and the acknowledgment of farmers' rights. The intensifying global dialogue surrounding these issues highlights the imperative to accurately examine the national legal statutes regulating these areas. The PBR Act of [2016](#) was approved by the federal government of Pakistan after a protracted duration exceeding 15 years. Before this endorsement, the Act experienced numerous iterations during the drafting phase, accompanied by amendments. Nevertheless, the Act is commonly viewed as contentious between the Provincial and Federal authorities. According to the Eighteenth Amendment (Act of [2010](#)) Article 141 of the Constitution, the provinces argue that the PBR Act's legislation is illegal since it pertains to a provincial matter that the Parliament cannot legislate on.

The Eighteenth Amendment states that the Parliament may enact legislation for the entire nation of Pakistan or only a portion of it. Provinces also possess the authority to enact laws for their entire province or any portion of it. Article 142 states that Parliament has the exclusive authority to enact legislation about any subject on the federal legislative list. That being said, the Parliament lacks the jurisdiction to enact any laws that are not included in the Federal Legislative list. The Act was opposed by NGOs, indigenous farming groups, and civil society activists. They contend that the proposed law excludes farmers and indigenous populations' traditional knowledge from the legal protection system and solely safeguards the rights of breeders. The businesses are entitled to royalties on each variation for which they hold PBRs for at least 20 years (Section 24 of Plant Breeders' Rights Act 2016), with the ultimate goal being to grant breeders a monopoly over the seed market.

Background History of Legislation

Pakistan's economy is based primarily on agriculture because a sizable portion of the population depends on it for a living (Hayat, Umar, Shahid Ali, Abdul Mateen, and Hazrat Bilal, [2019](#)). At the heart of this sector lies the cultivation of diverse plant varieties, each representing a unique blend of traits essential for food security, economic prosperity, and environmental resilience (Bhutto, Abdul Waheed, and Aqeel Ahmed Bazmi, [2007](#)). The lawful structure governing the PPV and farmers' rights emerges as a critical component in navigating the delicate balance between innovation in agriculture and the preservation of farmers' traditional practices and livelihoods. Pakistan's agricultural and precarious economy depends heavily on the seed industry (Hussain, Abid, Waqar Akhtar, and Abdul Jabbar, [2022](#)). To control the seed industry, the country has created a variety of laws and regulations covering topics such as granting permits to seed producers, variety discharge methods, quality control, access to open germplasm, IPRs, compulsory licensing, and import and export concerns. Pakistan has enacted different laws that govern the seed industry from the country's independence in 1947 (Rana, Muhammad Ahsan, [2014](#)) until the adoption of the PBR Act in 2016. The Seed Act of 1976, along with subsequent regulations, established the foundation for overseeing the seed sector within the nation. It

regulates and oversees the legal concerns involved as well as the quality of diverse crop varieties. Another major element of the regulatory framework governing the seed industry is the Bio-safety Rules and Guidelines. Other important instruments are the 2005 National Bio-safety Guidelines and Biosafety Rules. Compliance with the Pakistan Environment Protection Act, of 1997, was achieved through these legal documents (Hakim, Shazia Tabassum, Sayyada Ghufrana Nadeem, Syed Muhammad Humair Tayyab, and Shahana Urooj Kazmi, [2012](#)). The laws permit the production, testing, import, export, and marketing of GMOs. The control of seed is covered by international organizations, agreements, and treaties. By regulating the interests of producers, plant breeders, and consumers, they offer a global regulatory framework (Kshetri, B. Thapa, [2013](#)). Since Pakistan is an adherent of the international community and a party to the TRIPS and WTO, any laws it makes must adhere to the international legal system. Pakistan has also passed The PBR Act, of 2016, following the aforementioned Agreement. The new law is the consequence of international pressure on the government to offer PBR to recognize business plant reproducers' dedication to the creation of new kinds, which was strengthened by Pakistan's expanding commercial seed sector (Aziz-ur-Rehman, Hafiz, and Muhammad Mubeen, [2018](#)). The law's objectives include encouraging healthy competition for variety creation, supporting seed organizations and plant breeders, protecting foreign varieties and innovative technologies, and encouraging the production of improved field varieties. The current legal system needs to be improved significantly, and it is especially insufficient for meeting the demands of farmers.

It is suggested that from 1960 to 1970, industrialized nations commenced to endow patent privileges on seed variations and plant breeders' rights (Howard, Philip H, [2015](#)). The PBR Act, 2016,'s background is closely related to the global legal and regulatory system. The WTO, WIPO, [n.d.](#), and TRIPS have all been ratified by Pakistan. Offering plant varieties, a minimal level of protection is mandated under TRIPS agreement 27(3b). This safeguard can be offered through patents, a successful sui generis mechanism, or a blend of the two. To abide by the WTO and TRIPS Agreements, the Government of Pakistan has previously passed several laws about intellectual

property, including those regarding patents, trademarks, industrial designs, etc.

Following international trade agreements, Pakistan welcomed foreign investors into its agriculture sector. Moreover, the legislative body enacted the PBR Act in acknowledgment of requests from global entities and to comply with its responsibilities under the TRIPS agreement. (FSCRD [2002](#)). The underlying rationale of this legislation, as established by the government, aimed to bolster the public breeding program to guarantee the availability of superior varieties and high-quality seeds for the advancement of agricultural interests. The initial draft of the PBR Act was crafted by the FSC&RD in the year 1999. (Rana, Muhammad Ahsan, [2014](#)) Subsequently, the bill was prepared in multiple forms at various times in 2000, 2007, 2010, 2014, and 2016, until finalized in 2016.

Tug of War Between the Federal and Provincial Levels

There was disagreement about the PBR Act of 2016 between the Federating Unites and the Federation. The provinces contend that the Parliament lacks the authority to enact laws about the plant breeders' rights and that this is a matter for them to determine. It is proposed in this regard:

The laws of a province, or any portion thereof, may be made.

Article 142 of the Constitution stipulates that: in accordance with Article 141 of the Constitution of the Islamic Republic of Pakistan, as modified by the Constitution 18th Amendment Act 2010, commonly known as the Eighteenth Amendment, it is stipulated the Parliament is empowered to enact legislation that pertains to the entirety of the nation or a particular geographic area.

1. The exclusive jurisdiction to enact laws about any subject delineated in the Federal Legislative List is vested in the Parliament;
2. Parliament and the Provincial Assemblies shall have the authority to enact law on matters of criminal law, criminal procedure, and evidence; (Sub Section, Constitution (Eighteenth Amendment) Act, [2010](#))
3. As per paragraph (ii), the Provincial Assembly is empowered to legislate on

subjects that are not included in the Federal Legislative List, while Parliament shall not have this authority;

4. The only body with the authority to enact legislation for regions within the Federation that are not part of a province is the Parliament. (Section 143, the Constitution of the Islamic Republic of Pakistan)

The Federal list does not address the expansion of novel plant varieties or plant breeders' rights and the protection of breeders' rights. Therefore, it is argued that Parliament lacked the jurisdiction to pass the contested legislation and that doing so represents an effort to defeat the 18th Amendment's goals. The contested legislation was not passed in conformity with the Constitution's guidelines without limiting those above. The Constitution's Article 144 outlines Parliament's authority to pass laws with the permission of the provinces as follows:

Parliament is authorized to enact legislation to govern subjects not enumerated in the Federal legislative list in the 4th schedule, provided that one or more Provincial Assemblies adopt resolutions to that end. Nevertheless, any such legislation may be altered or annulled with regard to any specific Province it pertains to by an enactment of the Assembly of said province. (Section 144, the Constitution of the Islamic Republic of Pakistan.)

The preamble of the disputed legislation affirms its enactment in alignment with the stipulations outlined in Article 144, yet it fails to identify any specific resolution put forth by a provincial assembly urging parliamentary oversight and legislation formulation concerning the entitlements of plant breeders and related topics. Even if it can be claimed that the contested law was approved by Article 144 of the Constitution, it nevertheless fails to follow the process outlined in the Federal Government Rules of Business (FGROB), which was last modified on December 18, 2015. The federal government is given the authority to establish rules for how to allocate and conduct its business according to Articles 90 and 99 of the Constitution, which are the basis for the FGROB. Rule 15 of the FGROB states that no order may be made without the Prime Minister's approval in situations where the Federal Government intends to implement an

international agreement about a topic in the province region.

Seed and Plant Breeders' Rights fall within the exclusive jurisdiction of the Provincial Assemblies. Nevertheless, the preamble of the PBR Act stipulates that the enforcement of subparagraph (b) of paragraph 3 of Article 27 of Part II of the TRIPS, endorsed by the Pakistani Government, is mandatory. (Preamble of Plant Breeders' Rights Act 2016).

The PBR Act's preamble and the pertinent TRIPS sections permit Member States to forbid patenting plants and animals, but they also mandate the preservation of plant varieties. Since the preservation of plant variations and the study of plants and animals are regional topics. The application of TRIPS could simply be approved by Parliament under Article 144 of the Constitution and Rule 15 (1) (c) of the FGROB, as it is not listed in the legislative of the Federal of the fourth schedule to the Constitution. It is argued that the contested legislation should be overturned because it violates the Constitution and does not comply with Article 144's criteria or the FGROB's guidelines. The Federation's legislative and executive powers, as well as those of Parliament and the Provincial Assemblies, are all subject to restrictions by the Constitution:

Scope of executive authority

Article 97 of the Constitution specifies that the executive power of the Federation is authorized within the limits established by the Constitution. This authority encompasses areas for which Parliament is empowered to legislate, encompassing rights, authority, and jurisdiction within and about regions beyond Pakistan. (Article 97 of the Constitution of the Islamic Republic of Pakistan).

The jurisdiction of the Federation's administrative authority should not surpass the limits outlined in the Constitution or legislation enacted by Parliament, except where explicitly outlined. This restriction applies specifically to issues within a province over the clause found in Article 97.

Article 137 of the Constitution stipulates that the executive jurisdiction of a Province shall cover matters within the Constitutional boundaries, which fall under the authority of the Provincial Assembly to legislate. However, the exception articulated in

Article 137 clarifies that situations may arise where both Parliament and the Provincial Assembly of a Province are bound by and limited to the executive authority specifically granted by the Constitution or by-laws passed by Parliament relating to the Federal Government or its entities. (Article 137 Constitution of Pakistan).

Parameters of Legislative Power

The Constitution (Eighteenth Amendment) Act of 2010 amended Article 141 in order to specify that the Parliament is authorized to enact legislation pertaining to either the entirety or a specific region of Pakistan. Provinces also have the legal authority to adopt laws that apply to all or a portion of the province. The content encompassed by Federal and Provincial Laws can be found in Article 142. Therefore, it is contended that the executive power of the Federation is limited to the specific subjects delineated in the Federal Legislative List or encompassed by Article 142(b) of the Constitution, on which it holds the jurisdiction to promulgate legislation. On the other hand, it is argued that, in light of the 18th Amendment, only Provincial Assemblies will be permitted to exercise executive authority and enact laws about topics that are not included in the Federal Legislative List.

There is no law about "Plant Breeders' Rights," breeders' rights protection, or the development of new plant types on the Federal Legislative List. It has previously been argued that Parliament lacked the authority to enact the contested law, that doing so would be an attempt to undermine the goals and objectives of the 18th Amendment, and that the contested legislation's attempt to grant the Federal Government executive authority is unconstitutional.

The numerous provisions within the legislation under dispute, which outline the necessity of implementing procedures through regulations, highlight the extensive executive authority that the Federation seeks to acquire from the constitution units. These provisions are currently being challenged based on the aforementioned reasons.

The Fourth Schedule of the Constitution's Federal Legislative Lists does not include provisions for the creation of new plant kinds, breeders' rights protection, or Plant Breeders' Rights. Moreover, Article 144 of the Constitution was not followed in the passing of the contested legislation. Consequently, it is posited that, unless expressly delineated by Article 144 of the Constitution, as elucidated in the jurisprudence of Syed Imran Ali

Shah v. Government of Pakistan (2013 PLC 143) and Ashraf Industries (Pvt) Ltd. v. Federation of Pakistan, neither the Federation nor the Parliament possesses the executive or legislative authority to govern and render determinations concerning the advancement of novel plant varieties or to safeguard the entitlements of breeders and plant breeders' rights. Notwithstanding the aforementioned, the Act violates the public's fundamental rights.

Obstacles Faced by Farmers' Rights

The ITPGRFA's definition of farmers' rights and the CBD's elucidated guiding principles that support it. Pakistan has ratified the ITPGRFA and CBD and is required to implement local laws by their terms. Nevertheless, the PBR Act has entirely disregarded farmers' rights for the first time since joining the ITPGRFA. Thus, it is argued that Farmers' Rights consist of the following distinct rights:

Rights of Farmers Regarding Seeds.

Farmers have traditionally enjoyed rights to their seeds throughout the history of agriculture. This entitlement encompasses a diverse array of elements, including the prerogative to preserve agricultural seeds and employ them for planting, as well as the ability to disseminate, exchange, or vend to fellow cultivators. The entire genetic diversity throughout time and geography, including both conventional and novel kinds, is covered by the conservation technique. Farmers' rights to seeds include all genetic diversity, even kinds that are protected.

Rights of Farmers to Register Traditional Varieties

Under the current agricultural and intellectual property frameworks, farmers have a fundamental right to register traditional crop varieties. This privilege recognizes the vital role that farmers have played in maintaining and expanding traditional plant varieties over many generations. Farmers can obtain legal recognition and protection for their agricultural legacy by offering a system for the registration of traditional varieties. By giving farmers authority over the use and marketing of these ancient varieties, the registration procedure gives them a sense of agency and ownership. Furthermore, it is essential for maintaining

biodiversity because traditional varieties frequently have distinctive qualities that are personalized to certain regional conditions. Additionally, it plays a crucial role in preserving biodiversity, as traditional varieties often possess unique traits adapted to specific local conditions. New plant varieties created by a group of farmers are eligible for registration since traditional varieties of the plant are either preserved or created by them. A traditional variety must be registered with the participation of all organizations concerned in its conservation. (Bala Ravi, [n.d.](#))

Incentives to assist the preservation efforts made by farming communities should be given to farmers in recognition and reward for their achievements.

Sharing of Benefits within the Framework of Farmers' Rights

New variety development originates from farmer varieties or their derivatives. It can be found that one farming community led the variation. There's no denying that growers are starting to favor the new registered variety. Its plant breeding rights holder is the only one permitted to market and "commercially produce its seed" as a result of its registration. Here, a specific marketing entitlement may yield significant seed sales and economic benefits for the rights holder. (Dr Philippe Cullet, Radhika Koluru, [2002](#)).

The overarching regulations should ensure that agricultural or indigenous communities that have "contributed varieties utilized as progenitors" receive a fair and commensurate share of the advantages derived from the newly developed variety.

Farmers' Rights for Compensation

The farmers' rights to receive compensation for detrimental impacts arising from the cultivation of a registered plant variety represent a fundamental dimension of agricultural equity. In recognition of the inherent risks and difficulties linked to the cultivation of such registered varieties, legal regulations frequently afford farmers the opportunity to pursue compensation. This right guarantees that farmers, who dedicate their time, resources, and labor towards the cultivation of a registered variety, are protected against unpredictable negative consequences, including

yield reductions or other financial adversities. By instituting compensation mechanisms, agricultural policies acknowledge the just allocation of advantages and disadvantages inherent in the cultivation of registered varieties, thereby promoting equitable and harmonious relations between farmers and breeders. This method not only strengthens the tenet of agricultural sustainability but also stimulates responsible advancements in plant breeding, as breeders are held accountable for the repercussions of their registered varieties on the economic well-being of farmers.

A plant variety's registration grants the breeder the variety's exclusive commercial rights. Immediately following the plant variety's registration, a breeder can profit commercially. (Dhar, Biswajit, [2002](#)).

The quality of the variety is what drives the commercial desire for better agronomic results. Companies leverage the agronomic efficacy of their cultivars to substantiate and promote their seed products. In the process of cultivating these seeds, agricultural producers may gain insights into this phenomenon. Consequently, such inadequately defined criteria for validating the marketing strategies of seed distributors and breeders ought to be incorporated into the national seed policy framework.

Rights of Farmers Concerning the Seeds of Registered Varieties

Farmers are awarded significant rights concerning the seeds of registered varieties, highlighting the involved equilibrium between the protection of intellectual property and the sustainability of agriculture. These rights usually encompass the capacity to save, exchange, share, and commercialize seeds derived from crops cultivated with registered varieties. This acknowledgment of farmers' rights guarantees the perpetuation of longstanding agricultural methodologies, enabling them to conserve and propagate traditional seed varieties. Furthermore, it promotes the preservation of genetic diversity, which is essential for the resilience and adaptability of agricultural systems. The recognition of farmers' rights about registered varieties signifies a commitment to harmonizing innovation with tradition, thereby fostering an equitable and sustainable agricultural landscape. This multifarious approach endeavors to protect the interests of both cultivators and

farmers, cultivating a collaborative and mutually beneficial alliance within the agricultural arena. Regional seed regulations should incentivize farmers to proficiently utilize high-quality seed and plant resources to advance agricultural development. To realize this objective, local legislation must guarantee that farmers are afforded access to registered varieties at a fair and reasonable price.

Rights of Farmers to Receive Free Services

Recognizing the rights of farmers to receive complimentary services plays a crucial role in advancing sustainable agriculture and equitable development. This recognition sheds light on the inherent challenges faced by farmers and aims to alleviate their economic constraints through the provision of essential services free of charge. Such services may encompass vital components such as technical support, extension services, and provision of inputs such as fertilizers and seeds.

The farmers should not be required to pay any fees under local rules. Considering that this economic weakness won't prevent farmers from accessing their rights. This facility ought to serve individual, collective, or neighborhood farmers. Fees for opposition, profit claims, managing tests on them, renewing registration, and other fees related to farmers' variety registration should not apply to them.

Rights of Farmers to Protection Against Unintentional Infringement

The legal doctrine states that breaking the law unintentionally is not acceptable innocence. It is necessary to protect farmers' rights from unintentional violations in a nation like Pakistan where farmers are illiterate and economically disadvantaged. Special provisions should be included in local laws to protect farmers from seed companies from petty legal harassment while also taking into account the legal literacy of traditional farmers.

The above-explained and asserted farmer's rights are not recognized by the legislation specifically by the PBR Act. Despite being a signatory to the ITPGRFA, Pakistan is perceived to have acknowledged the treaty, but the concept of

farmers' rights is not sufficiently articulated in the legislation under dispute.

However, the Farmer's Rights Act that was approved in India makes reference to farmers' rights in the preamble, title, and body of the law. The reason for this failure to recognize and defend Farmers' Rights in Pakistan's latest legislation is that Parliament usurped a provincially relevant legislative issue.

Criticism of the PBR Act

The PBR Act has drawn criticism from numerous NGOs, civil society groups, and indigenous farming communities. Their primary complaint is that the Act is only a reiteration of earlier legislation and does not offer anything new. (Speaker for leaving law-making, [2024](#)).

According to CBD and ITPGRFA, they have requested that the Act's provisions for farmer protection be followed. Due to the aforementioned critique, the PBR Act was not immediately ratified by the legislative body; rather, it required a span of sixteen years for the parliament to approve it following multiple propositions. The suggested legislation embodies characteristics of neo-imperialism, aiming to grant multinational corporations the authority to harness the populations and natural assets of developing nations, expressed Mushtaq Gaddi, an academic staff member within the NIPS program at Quais-i-Azam University in Islamabad. The enactment of legislation that is conducive to the interests of farmers is essential for the progressive establishment of a sui generis system and the protection of plant varieties within the agricultural economy, especially in Pakistan, given that the unrestricted utilization of Traditional (TK) and the efforts of Indigenous communities possess the capacity to propel the growth and advancement of the agricultural economy. Thus, the corporate sector and civil society need to play a proactive and positive role in meeting the needs of the Indigenous farming community.

Furthermore, the law's opponents assert that the subcontinent's agricultural practices would alter Pakistani farmers' centuries-old cultivation and seed harvesting customs. This debate's struggle is causing controversy in Pakistan similar to that of Monsanto and Syngenta, The granting of excessive seed patents has enabled these corporations to uphold a dominant position in the global seed

markets, consequently impacting farmers negatively. As a result, farmers are compelled to purchase proprietary seeds annually and pay royalties to these corporations. A conspicuous case of monopolistic lease looking for one could refer to in Pakistan in the cost of maize seed that Monsanto sells. The Monsanto built up the restraining infrastructure on maize seed the costs went up from 20 rupees to 250 rupees/kg. The imposing business models on seed won't just allow MNCs to benefit, but will likewise have genuine repercussions for the nourishment security of the country.

Hasnaian.T, "TRIPS Agriculture with Special Reference to its Impact on Farmers' Rights, Indigenous Knowledge, Biodiversity and Food Security, '2001, as quoted in Sustainable Development Policy Institute, "Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement: Impacts of Food Security of the People Living in HKH: Policy Brief Series 17,"

<https://www.sdpi.org/publications/files/PB17-Trade-Related%20Aspects%20of%20Intellectual%20Property%20Rights.pdf> Last accessed date February 10, 2024

whose products they want farmers to rely on. The agriculture sector of Pakistan would face devastation due to the implementation of such a privileged plant breeder protection mechanism, given its significant contribution to the national economy and the indispensable nature of its labor force.

The well-known case involving a Canadian farmer named "Percy Schmeiser" serves as a notable illustration, as he faced allegations of unlawfully utilizing Monsanto seeds. Subsequently, in April 2001, the Supreme Court of Canada issued a directive for him to disburse eighty thousand Canadian dollars to Monsanto as a consequence of violations of statutes. It should be noted that the infringement was unintentional, resulting from the inadvertent transportation of pollen from Monsanto's fields to the agricultural lands of the farmers. The subsequent enumerations represent additional criticism and hesitations regarding the PBR Act.

Protection of Breeders' Rights

The PBR Act safeguards the rights of breeders generally but does not include the provisions that protect the farmers' rights specifically and the traditional knowledge of Pakistan's indigenous tribes from legal protection. Under the legislation, breeders will possess complete authority regarding the seed industry, while seed companies will have the privilege to receive payments for every cultivar they have Plant Breeders' Rights (PBRs) for, lasting a minimum of two decades. (Section 24 of PBR Act 2016).

The dearth of Protection of Farmer's Rights

The PBR Act, unlike the Indian PPV&FR Act of 2001, lacks specificity in delineating the entitlements of farmers. Act falls short in acknowledging the rights of farmers, a crucial mandate under the CBD and the ITPGRFA, as advocated for by farmers, civil society advocates, and non-governmental organizations(NGOs). The aforementioned rights encompass mechanisms for benefit-sharing, legal safeguards against unintentional infringement, and prior informed consent; nevertheless, the safeguarding of farmers' rights remains crucial for the assurance of food security and the promotion of sustainable agricultural practices.

In the pursuit of the preservation, enhancement, dissemination, cultivation, and sustenance of diverse plant varieties, agrarian practitioners have historically possessed rights since the inception of agricultural practices. These entitlements encompass the right to receive remuneration for their contributions to the collective reservoir of genetic resources and the progression of commercially viable plant varieties, alongside the right to engage in the decision-making processes pertaining to issues that may influence these rights. (Mushita Andrew Mushita Carol, [2008](#)).

Protecting breeders' rights is crucial for the seed industry, but robbing farmers of their basic rights is improper. The cultivating group needs to control plant varieties so they can keep on innovating, enhancing, and adjusting varieties to suit changing necessities and conditions.

The State of Dominance of Plant Breeding Companies

The plant breeding landscape has experienced notable changes, as a small number of companies have emerged to achieve a dominant position in the seed industry. This phenomenon raises important questions about the implications for agricultural diversity, innovation, and global food security because it is characterized by a concentration of power, resources, and influence within a small number of key players.

The concentration of plant intellectual property rights and seed patents is a notable feature of this dominance. (Louwaars, Niels, Hans Dons, [2009](#)).

Large plant breeding companies frequently buy out or combine with smaller businesses, which concentrates genetic resources under their management. The diversity of plant varieties that are currently available may be reduced as a result of this consolidation, which may affect the choices made by farmers and crops' capacity to adapt to a range of environmental circumstances. (Smale, Melinda, Mauricio R. Bellon, and Jose Alfonso Aguirre Gomez, [2001](#)).

The dominance of certain companies in the plant breeding sector also raises concerns about market dynamics and competition. As these entities amass considerable market share, they may exert substantial influence over seed prices, potentially affecting the economic viability of farming for smaller, independent agricultural enterprises. Additionally, the concentration of power may hinder the entry of new, innovative players into the market, limiting diversity in research approaches and stalling broader agricultural advancements. (Tiwari, Aparna, Surinder K, [2023](#)).

A monopolistic control will be established in Pakistan's seed sector, leading to the concentration of all advantages generated from agricultural practices utilizing patented seeds in the hands of multinational corporations (MNCs). Section 22 of PBR Act [2016](#) The Act, which standardizes the sui-generic regime and aims to enhance the private corporate sector, will impose royalties on impoverished farmers, leading to their increased hardship. Farmers' freedom to use, reuse, and exchange seeds would also be restricted by these rights granted to breeders. This situation is particularly dire for delicate and vulnerable regions like the Hindu Kush Himalaya (HKH) region, where

residents must save grain and seeds for future use and rely on local produce for their livelihood (Sustainable Development Policy Institute, [2003](#)).

Addressing the state of dominance in plant breeding requires a multi-faceted approach. Policymakers may need to evaluate and strengthen regulatory frameworks to ensure fair competition, prevent anti-competitive practices, and promote biodiversity. Simultaneously, fostering an environment that encourages innovation from diverse sources, including smaller enterprises and public research institutions, can contribute to a more resilient and sustainable agricultural future.

Damage Deficiency Clause

The absence of a harm provision suggests a governmental inclination towards safeguarding breeders' rights at the expense of farmers. Omissions of a compensation clause for farmers, despite fervent appeals from farmers and civil society, were conspicuous in the legislation; nevertheless, the expeditious approval of the removal of the compensation component, as per the request of major seed corporations, is noteworthy.

Disagreement Between Breeders and Farmers

Conflict has arisen between the nation's farmers and breeders as a result of the Act. Due to their education and familiarity with new technologies, breeders and multinational corporations (MNCs) are able to safeguard a greater variety of plants and genetically modified crops through TK and traditional agricultural practices, making farmers their only source of income. The provision regarding the PIC was critically essential to enable agricultural producers to discern which cultivars possess legal protection and which do not. Furthermore, this clause offers them safeguards against potential infringements.

Lack of Compensation Clause

The PBR Act of 2016 lacks a corrective provision for crop failure and for the financial and future security of farmers, even though the law requires such a provision. One of the primary rights granted to farmers by the Indian government is the PPV&FR Act 2001. (Section 39(2) of PPV &FR Act [2001](#)).

Lack of Rights for Women Farmers

The Act and other legislation do not include the protection of female farmers' rights. Women agriculturalists occupy a critical position within the agricultural sector. In Pakistan's context, agriculture's sustainability is fundamentally contingent upon the participation of female farmers. Specific, yet undefined, provisions aimed at safeguarding the rights of women farmers must be incorporated into the legislative framework.

Protection of Traditional Knowledge

The TK of indigenous people is not specifically recognized or protected under the PBR Act. The TK and genetic resources necessitate thorough documentation for their safeguarding under the legislation. Consequently, the precise recording of TK could potentially mitigate the issue of biopiracy perpetrated by breeders and industrialized nations. The Act must incorporate elements that align with existing laws regarding community rights and access to biological resources (Legislation on Access to Biological Resources and Community Rights, [n.d.](#)).

Danger to Genetic Diversity and Environment

The competitive environment brought forth by intellectual property rights on plant variations has damaged centuries-old traditional farming practices, the biological variety of the planet, and the efforts of breeders and multinational corporations to obtain more protected varieties. It is acknowledged that intellectual property rights (IP) protections such as licenses on genetic assets used in food production and agriculture reduce farmers' access to seeds, discourage publicly funded plant reproduction efforts, increase genetic asset loss, prevent seed sharing, and even put farmers out of business. (Sustainable Development Policy Institute, [2003](#)).

The PBR Act breaches the Principle of Public Trust by establishing a framework where public assets are undervalued in comparison to private seed companies, thus disregarding Pakistan's genetic resources. (Rana, Muhammad Ahsan, [2021](#)).

Pakistan's plant genetic resource is protected by this doctrine. The concept of the environment encompasses various components such as organic

matter, living organisms, ecosystems, and ecological interconnections, as stipulated by both the Pakistan Environment Protection Act of 1997 and the Punjab Environment Protection Act of 1997. Pakistan's genetic richness of plant varieties perfectly fits within the legal definition of environment.

Policy Implications and Recommendations:

Strengthening Farmers-related Provisions in Legislation

Farmers' rights can be protected further by amendments to existing plant or seed legislation in Pakistan to include stronger provisions that explicitly safeguard the rights of farmers, particularly small-scale and marginalized farmers, to exchange, sell, and save seed.

Protection of Seed Sovereignty

Farmers' seed sovereignty is very important because it supports and empowers farmers to conserve, develop, and exchange traditional and locally adapted crop varieties. The best policy measures support the role of farmers as custodians of agricultural biodiversity. Weak farmers' rights create a window of opportunity for seed corporations to establish dominance in the seed market. Conversely, robust farmers' rights are instrumental in sustaining the agricultural community as thriving participants and serve as a potent deterrent against the corporate sector's encroachment on the seed market.

Technology Transfer Facility

The government should promote programs that facilitate the transfer of agricultural technologies, including improved seeds, to small-scale farmers in remote and underserved areas. There is a need to encourage partnerships between public research institutions, private seed companies, and farmers' organizations for equitable access to innovation.

Institutional Capacity Building

There is an urgent need for the building institutional capacity of relevant institutions, such as seed certification departments, agricultural extension services, and farmer cooperatives, to effectively implement plant variety protection laws and

support farmers in accessing quality seeds and technical assistance.

Promotion of Participatory Plant Breeding

The government should promote participatory methodologies in plant breeding which engage farmers in the process of selecting and developing crop varieties customized to suit their particular agroecological circumstances and preferences. Further, there is a need to support collaborative research initiatives that bridge formal and informal seed systems.

Fostering Awareness and Education

In Pakistan, most of the farmers' communities are not well educated and they are unaware of modern sustainable farming practices and seed conservation methods. Training and educational programs aimed at farmers possess the capacity to enhance understanding concerning innovative agricultural methodologies, alongside emphasizing the significance of preserving and protecting emerging seed strains. Additionally, institutional support can enhance agroecological agricultural practices that promote the conservation of biodiversity, resilience to alterations in climatic conditions, and the maintenance of sustainable livelihoods for those engaged in agricultural activities.

Monitoring and Evaluation

Through the implementation of comprehensive monitoring and evaluation strategies, the government can analyze the effects of Plant Variety Protection (PVP) legislation and associated policies on the rights of farmers, agricultural diversity, food security, and the advancement of rural areas.

Provincial Government Role

After the ratification of the 18th constitutional amendment, it is essential for all provinces to collaboratively implement strategies focused on

preserving plant species and the entitlements of agriculturalists. The agricultural sector bears considerable significance in Pakistan due to its pivotal contribution to the nation's economic framework. Upholding and advocating for the rights of farmers at the provincial scale could lead to enhancements in the country's economic landscape

Conclusion

To advance sustainable agriculture in South Asia, it is critical to assess PVP and farmers' rights in Pakistan. The PVP legislative framework, which is essential to the growth of innovation and financial inflow into new plant varieties, needs to be carefully aligned with the rights and needs of regional farmers. Farmers in Pakistan have access to a large variety of seeds, both indigenous and conventional, therefore to advance agriculture and boost the nation's economy, the government needs to protect farmers' rights. The inclusion of clauses in the existing PVP regulations ought to include measures designed to protect farmers' traditional knowledge and methods and to enable them to store, use, sell, and exchange seeds. Reaching this balance requires including industrial stakeholders, researchers, and farmers in a cooperative policy creation process. In addition, it is critical to provide farmers with educational opportunities and support systems so that they can understand and assert their rights within the PVP framework. Improving the PVP system's rights for farmers could lead to more equitable and sustainable farming practices. Pakistan can shift its agricultural path toward one that is more sustainable and meets the needs of both current and future generations by cultivating an atmosphere that values plant breeding innovations and conventional farming practices. According to several international agreements, including the CBD, TRIPS, and ITGRFA, safeguarding breeders' rights is essential to the development of Pakistan's seed sector. It is equally important to protect the rights of indigenous communities.

References

- Aziz-ur-Rehman, H., & Mubeen, M. (2018). Plant breeders legislation in India and Pakistan: A comparative analysis. *FWU Journal of Social Sciences*, 12(1). http://www.sbbwu.edu.pk/journal/FWU_journal_Summer_2018_Part_1_Vol_12_No_1/29.%20Plant%20Breeders%20Legislation%20in%20India%20and%20Pakistan%20A%20Comparative%20Analysis.pdf
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Bala Ravi, S. P. (n.d.). *Farmers' rights, their scope and legal protection in India* (p. 317). https://www.bioversityinternational.org/fileadmin/user_upload/online_library/publications/pdfs/Community_biodiversity_ma
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Bhutto, A. W., & Bazmi, A. A. (2007). Sustainable agriculture and eradication of rural poverty in Pakistan. *Natural Resources Forum*, 31(4), 253–262. <https://doi.org/10.1111/j.1477-8947.2007.00162.x>
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Constitution (Eighteenth Amendment) Act, 2010 (Act No. 10 of 2010), § 49 (for Paragraph (b)). (2010). *Preamble of Plant Breeders' Rights Act 2016*. http://www.senate.gov.pk/uploads/documents/1480330690_813.pdf
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Cullet, P., & Koluru, R. (2002). Plant variety protection and farmers' rights. *Delhi Law Review*, 2002(2003), 41. <https://www.ielrc.org/content/a0304.pdf>
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Dhar, B. (2002). *Sui generis systems for plant variety protection*. Quaker United Nations Office. <https://quano.org/sites/default/files/resources/Sui-Generis-Systems-for-Plant-Variety-Protection-English.pdf>
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- FSCRD. (2002). *Focus on seed programs*. Islamabad.
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Hakim, S. T., Nadeem, S. G., Tayyab, S. M. H., & Kazmi, S. U. (2012). Knowledge and awareness of routine biosafety measures and proper waste disposal practices among healthcare workers in Karachi, Pakistan. *Applied Biosafety*, 17(4), 208–212.
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Hayat, U., Ali, S., Mateen, A., & Bilal, H. (2019). The Role of Agriculture in Poverty Alleviation: Empirical Evidence from Pakistan. *Sarhad Journal of Agriculture*, 35(4).
<https://doi.org/10.17582/journal.sja/2019/35.4.1309.1315>
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Howard, P. H. (2015). Intellectual property and consolidation in the seed industry. *Crop Science*, 55(6), 2489–2495. <https://doi.org/10.2135/cropsci2014.09.0669>
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Hussain, A. (2022). Risk management for small farmers in Pakistan: A review. *The Pakistan Journal of Agricultural Sciences*, 59(02), 247–259. <https://doi.org/10.21162/pakjas/22.334>
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Kshetri, B. T. (2013). National seed legislation: Harmonization with international treaties and conventions. *Agronomy Journal of Nepal*, 3, 138–149. <https://doi.org/10.3126/ajn.v3i0.9016>
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Legislation on access to biological resources and community rights. (n.d.). <http://www.farmersrights.org/database/pakistan.html>
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Louwaars, N., Dons, H., Van Overwalle, G., Raven, H., Arundel, A., Eaton, D., & Nelis, A. (2009). *Breeding business: The future of plant breeding in the light of developments in patent rights and plant breeder's rights*. Netherlands Ministry of Agriculture, Nature and Food Quality (LNV), Wageningen, Centre for Genetic Resources (CGN) – Wageningen University and Research Centre. Available at SSRN: <https://ssrn.com/abstract=1720088>
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Mushita, A., & Thompson, C. (2008). Agricultural Biodiversity: African alternatives to a 'green revolution.' *Development*, 51(4), 488–495. <https://doi.org/10.1057/dev.2008.54>
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- PBR Act 2016, § 24. (2016). *Detailed text*. http://www.senate.gov.pk/uploads/documents/1480330690_813.pdf
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Rana, M. A. (2014). *The seed industry in Pakistan: Regulation, politics and entrepreneurship* (Vol. 19). International Food Policy Research Institute. <https://ideas.repec.org/p/fpr/psspwp/19.html>
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Rana, M. A. (2021). When seed becomes capital: Commercialization of Bt cotton in Pakistan. *Journal*

- of *Agrarian Change*, 21(4), 702–719.
<https://doi.org/10.1111/joac.12422>
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Section 22 of PBR Act 2016.
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Section 39(2) of PPV &FR Act 2001, India.
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Smale, M., Bellon, M. R., & Aguirre Gomez, J. A. (2001). Maize diversity, variety attributes, and farmers' choices in Southeastern Guanajuato, Mexico. *Economic Development and Cultural Change*, 50(1), 201-225.
<https://asu.elsevierpure.com/en/publications/maize-diversity-variety-attributes-and-farmers-choices-in-southea>
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Speaker for leaving law making for next NA, The Nation, 2024.<http://nation.com.pk/islamabad/27-Dec-2012/speakers-for-leaving-law-making-for-next-na>
- [Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Sustainable Development Policy Institute. (2003). *Trade-Related Aspects of Intellectual Property Rights (TRIPs) agreement: Impact on food security of the people living in HKH* (Policy Brief Series 17). Islamabad.
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- Tiwari, A., Tikoo, S. K., Angadi, S. P., Kadaru, S. B., Ajanahalli, S. R., & Vasudeva Rao, M. J. (2023). Plant breeding: Its evolution and recent trends. In *Market-driven plant breeding for practicing breeders* (pp. 1-32). Springer Nature Singapore.
[Google Scholar](#) [Worldcat](#) [Fulltext](#)
- World Intellectual Property Organization. (n.d.). *WIPO: The global intellectual property organization*.
<http://www.wipo.int/portal/en/index.html>
[Google Scholar](#) [Worldcat](#) [Fulltext](#)