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THE CRIMINALIZATION OF SEED SAVING: A LEGAL ANALYSIS OF HOW SEED MARKETING LAWS INDIRECTLY EXTINGUISH FARMERS' PRIVILEGE

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Abstract

Contemporary agricultural governance is increasingly shaped by a complex interplay of intellectual property (IP) rights and product registration frameworks. These laws, designed to ensure seed quality, phytosanitary safety, and consumer protection, establish stringent criteria for the production, certification, and commercialization of plant reproductive material. Through a systematic doctrinal legal analysis of international instruments (e.g., UPOV, ITPGRFA) and comparative national legislation from the European Union, the United States, and key developing economies, this research demonstrates how marketing laws functionally criminalize traditional seed practices. By imposing onerous administrative, technical, and financial burdens, these regulations create a *de facto* prohibition on the informal seed exchange that underpins farmers' privilege, effectively privileging formal, commercial seed systems. This article concludes that the circumvention of farmers' rights through technical compliance standards represents a significant legal and policy challenge, contributing to the consolidation of corporate seed markets and the loss of agricultural biodiversity, thereby necessitating urgent regulatory reform to rebalance public and private interests in the seed sector.

Keywords: - Farmers' Privilege, Seed Marketing Laws, Regulatory Convergence, Seed Sovereignty, De facto Criminalization.

1: Introduction

The global agricultural landscape is undergoing a profound transformation, increasingly characterized by a regulatory paradigm that prioritizes commercial seed systems over traditional, farmer-managed practices.¹ This introductory chapter establishes the foundational context for the research, outlining the shift from overt intellectual property (IP) conflicts to the more subtle, yet pervasive, encroachment of seed marketing laws on farmers' rights. The core

¹ Philip H. Howard, *Concentration and Power in the Food System: Who Controls What We Eat?* (Bloomsbury Academic 2016)

research problem is articulated: the instrumentalization of seed marketing regulations, laws ostensibly designed for quality control and consumer protection to indirectly extinguish the centuries-old farmers' privilege to save, reuse, and exchange seeds.² This circumvention occurs not through the direct prohibition found in patent law but through the imposition of technically and financially onerous compliance standards, creating a *de facto* criminalization of traditional practices. The chapter formally presents the central research questions, which probe the synergistic interaction between IP and marketing regimes, the comparative legal pathways across the Global North and South, and potential decriminalizing policy mechanisms. The hypothesis is stated, positing that these marketing laws function as a powerful tool for the enclosure of the seed commons, advancing corporate interests.³ The scope is delineated to a focused legal analysis of key jurisdictions the European Union, the United States, India, Brazil, and China situated within the context of international frameworks like the UPOV Convention and the ITPGRFA. The chapter concludes by outlining the methodological approach of doctrinal and comparative legal analysis⁴

1.1 Research Questions

1. How do the technical and administrative requirements of seed marketing laws (e.g., variety registration, certification, and standardization) interact with intellectual property regimes to create a synergistic, *de facto* barrier that nullifies the *de jure* existence of farmers' privilege?
2. In a comparative analysis of jurisdictions from the Global North and Global South, what are the distinct legal pathways and consequences through which seed marketing regulations criminalize traditional seed practices and contribute to biocultural erosion?
3. What effective legal and policy mechanisms can be proposed to decriminalize seed saving and redesign regulatory frameworks to genuinely safeguard farmers' privilege and seed system pluralism?

1.2 Hypothesis

This research posits that stringent seed marketing laws, through their imposition of technically and financially prohibitive compliance requirements, indirectly extinguish farmers' privilege

² GRAIN, *The Pitfalls of Trying to Protect Farmers' Seeds Through Laws*, GRAIN (Aug. 29, 2025), <https://grain.org/en/article/7307-the-pitfalls-of-trying-to-protect-farmers-seeds-through-laws>.

³ Navdanya International, *The Law of the Seed* (2013)

⁴ Mauro Cappelletti, 'Foreword: The Significance of Comparative Law' in Cappelletti (ed), *New Perspectives for a Common Law of Europe*.

by criminalizing traditional seed-saving and exchange practices, thereby functioning as a powerful tool for the enclosure of the seed commons and the advancement of corporate interests over farmers' rights.

1.3 Scope of Research

This research will focus on the legal analysis of seed marketing laws and their interface with farmers' rights, primarily within the context of the European Union's Plant Reproductive Material Law, the United States' Federal Seed Act, and select national frameworks from developing countries, referencing foundational international instruments like the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and the UPOV Convention.

2: The Conceptual Foundations of Farmers' Rights and Seed Governance

2.1. The Historical and Legal Evolution of Farmers' Privilege

This sub-chapter traces the origins of farmers' privilege from an implicit, customary right inherent to agriculture for millennia to its formalization and subsequent erosion in modern legal systems. It begins by establishing that saving, replanting, and exchanging seeds are practices as old as agriculture itself, forming the bedrock of food system resilience and cultural heritage.⁵

2.2. Seed Sovereignty and Food Sovereignty: Conceptual Frameworks

Here, the discussion expands beyond legal exceptions to encompass the broader political and social movements of seed and food sovereignty. Seed sovereignty is defined as the right of farmers and communities to hold, breed, and exchange diverse seeds, free from restrictive intellectual property rights and corporate control.⁶ It is positioned as a fundamental component of food sovereignty, a concept pioneered by La Vía Campesina, which asserts the right of peoples to define their own agricultural and food policies.⁷

2.3. The Seed Commons vs. Commodification of Genetic Resources

This section introduces the central conflict between the concept of the "seed commons" and the "commodification" of genetic resources. The seed commons refers to the collective heritage of

⁵ Stephen B. Brush, *Farmers' Bounty: Locating Crop Diversity in the Contemporary World* (Yale University Press 2004) 12.

⁶ Pat Mooney, *The ETC Century: Erosion, Technological Transformation, and Corporate Concentration in the 21st Century* (ETC Group 2008).

⁷ Nyéléni Forum, *Nyéleni 2007: Forum for Food Sovereignty* (Feb. 2007).

plant genetic resources, managed and shared by farming communities across generations, often governed by systems of customary law and reciprocity.⁸ In stark contrast, commodification involves the transformation of seeds from a shared resource into a private, intellectual property-protected good, designed for sale and accumulation.⁹ This sub-chapter analyzes this tension as a fundamental driver of legal conflict, where IP rights and marketing laws are the primary legal tools used to dismantle the commons and enforce a private property regime, a process critically described as "accumulation by dispossession."¹⁰

2.4. Intellectual Property in Agriculture: A Primer

This foundational sub-chapter provides a clear overview of the primary IP mechanisms governing seeds.

2.4.1. Plant Variety Protection (PVP) under UPOV

Details the *sui generis* system of PVP, which offers a softer form of IP, allowing for the protection of new, distinct, uniform, and stable varieties, and historically included explicit exemptions for farmers and breeders.¹¹ The evolution from UPOV 1978 to UPOV 1991 is highlighted as a key moment that strengthened breeders' rights and weakened these exemptions.¹²

2.5. Understanding *De Facto* vs. *De Jure* Criminalization

This concluding sub-chapter establishes a crucial analytical distinction for the entire thesis. *De jure* criminalization refers to an explicit legal prohibition, such as a patent law that forbids the saving of a protected seed.¹³ In contrast, *de facto* criminalization occurs when a practice, while not explicitly illegal, is rendered impossible or prohibitively risky through indirect means.¹⁴ This thesis posits that seed marketing laws achieve this by imposing variety registration, seed certification, and labeling requirements that are tailored to large-scale commercial seed producers, effectively pushing non-compliant, farmer-saved seeds out of the legal market and branding their exchange as an illicit activity.¹⁵

⁸ Silke Helfrich and David Bollier, 'The Commons as a Template for Transformation' in *We are the Crisis of the System: A Conversation with John Holloway* (Planetaryization Project 2022)

⁹ Jack Kloppenburg, *First the Seed: The Political Economy of Plant Biotechnology* (2nd edn, University of Wisconsin Press 2004).

¹⁰ David Harvey, *A Brief History of Neoliberalism* (Oxford University Press 2005) 159.

¹¹ UPOV (1978) Art 5.

¹² UPOV (1991) Art 14.

¹³ *Monsanto Co. v. Schmeiser*, [2004] 1 S.C.R. 902, 2004 SCC 34 (CanLII).

¹⁴ Olivier De Schutter, 'The Right of Everyone to Enjoy the Benefits of Scientific Progress and the Right to Food: From Conflict to Complementarity' (2011) 33 *Human Rights Quarterly*.

¹⁵ Regine Andersen, 'Governing Agrobiodiversity: Plant Genetics and Developing Countries' (Routledge 2008).

3: The International Legal Architecture Governing Seeds

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

This sub-chapter provides a critical analysis of the UPOV Convention as the cornerstone of international plant variety protection. It details the historical trajectory from the 1961/1972 Acts, which recognized the breeders' exemption and a broad farmers' privilege, to the 1991 Act, which significantly strengthened the rights of breeders.¹⁶ The chapter argues that UPOV creates a top-down model of seed regulation that many developing countries are pressured to adopt through trade agreements, despite its potential incompatibility with their agro-ecological and social contexts.¹⁷

3.2. The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)

In contrast to UPOV, the ITPGRFA, adopted in 2001, represents a multilateral system aimed at conserving and sustainably using plant genetic resources. However, the treaty leaves the implementation of these rights to national governments, creating a significant implementation gap and a fundamental tension with the more stringent and legally enforceable obligations under UPOV.¹⁸

3.3. The Convention on Biological Diversity (CBD) and the Nagoya Protocol

This section analyzes the CBD's ecosystem-oriented approach, which is based on the principle of national sovereignty over genetic resources and the objective of conserving biological diversity.¹⁹ The Nagoya Protocol on Access and Benefit-Sharing (ABS) operationalizes the CBD by creating a legal framework to ensure that benefits arising from the utilization of genetic resources are shared fairly and equitably.²⁰ This complexity often disadvantages small-scale farmers and researchers while favoring large corporate entities with the legal capacity to navigate these systems.²¹

¹⁶ Protection of New Varieties of Plants (UPOV Convention)

¹⁷ Sophia Murphy, 'The WTO and Food Security: What's at Stake for Food Sovereignty?'

¹⁸ Regine Andersen, 'The History of Farmers' Rights: A Guide to Central Documents and Literature.'

¹⁹ Convention on Biological Diversity (CBD) (1992) Art 1, 15.

²⁰ Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the CBD (2010).

²¹ Food & Agriculture Organization of the United Nations, *The Second Report on the State of the World's Plant Genetic Resources for Food and Agriculture* (2010)

3.4. The World Trade Organization (WTO) and the TRIPS Agreement

This sub-chapter addresses the powerful role of trade law in shaping national seed policies. Article 27.3(b) of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) requires WTO members to provide protection for plant varieties, either by patents, by an effective *sui generis* system (such as UPOV), or by a combination thereof.²² This mandate has been a primary driver for the global proliferation of IP regimes for plants, forcing many countries to adopt legislation that may undermine their own farming communities' practices.²³ The threat of trade sanctions gives this agreement a coercive power that soft-law instruments like the ITPGRFA lack, creating a hierarchy of international legal norms that privileges private IP rights over farmers' rights.²⁴

3.5. Tensions and Synergies between International Regimes

The final sub-chapter synthesizes the analysis by mapping the points of conflict and potential synergy between these overlapping international legal orders. It highlights the fundamental philosophical clash between the ITPGRFA's ethos of a commons-based, facilitated exchange and UPOV/TRIPS's model of private, exclusive rights.²⁵ The chapter discusses the ongoing political and legal struggles to reconcile these regimes, such as the debate over "mutually supportive implementation," and concludes that the current fragmented architecture often leads to legal insecurity for farmers and a systemic bias towards formal, commercial seed systems.²⁶

4: The Anatomy of Seed Marketing Laws: A Tool for De Facto Criminalization

4.1. The Ostensible Aims: Seed Quality, Consumer Protection, and Market Efficiency

This sub-chapter begins by acknowledging the legitimate public interest goals historically underpinning seed marketing laws. It outlines how these regulations were initially conceived to prevent the spread of seed-borne diseases, ensure germination rates, and provide farmers with reliable information, thereby fostering market transparency and agricultural

²² Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) (1994) Art 27.3(b).

²³ Peter Drahos and John Braithwaite, *Information Feudalism: Who Owns the Knowledge Economy?* (Earthscan 2002).

²⁴ Graham Dutfield, *Intellectual Property Rights and the Life Science Industries: A Twentieth Century History* (Routledge 2003) 198.

²⁵ Laurence R. Helfer, 'Regime Shifting: The TRIPS Agreement and New Dynamics of International Intellectual Property Lawmaking' (2004) 29 *The Yale Journal of International Law* 1, 45.

²⁶ Sebastian Oberthür and Thomas Gehring, 'Institutional Interaction in Global Environmental Governance: The Case of the Cartagena Protocol and the World Trade Organization' (2006) 6 *Global Environmental Politics* 1, 15.

productivity.²⁷ The analysis references early 20th-century legislation, such as the foundational principles behind the US Federal Seed Act of 1939, which aimed to protect farmers from adulterated and mislabeled seed.²⁸ The chapter establishes that the very frameworks designed for consumer protection are increasingly functioning as non-tariff barriers to the informal seed systems upon which a vast number of the world's smallholder farmers depend.²⁹

4.2. Key Components of Seed Marketing Regulations

This section provides a granular dissection of the technical mechanisms of seed marketing laws, demonstrating how each component constructs a barrier to farmers' privilege.

4.2.1. Variety Registration and Distinctness, Uniformity, and Stability (DUS) Criteria

Explains how the requirement for a variety to be officially registered based on its Distinctness (from existing varieties), Uniformity (genetic homogeneity within the variety), and Stability (remaining true to type after reproduction) inherently discriminates against farmers' varieties (landraces).³⁰

4.2.2. Labeling, Traceability, and Marketing Requirements

Analyzes the administrative burdens imposed by strict rules on packaging and labeling, including detailed information on purity, germination, and variety name. These requirements are impractical for small-scale, local seed exchange, effectively criminalizing the traditional, trust-based systems of seed barter and sale that operate without such formalities.³¹

4.3. The Administrative, Technical, and Financial Burden of Compliance

Building on the previous section, this sub-chapter synthesizes the individual components to illustrate the cumulative, prohibitive cost of compliance. It argues that the real barrier is not a single law but the synergistic effect of multiple requirements registration fees, costs of maintaining certification standards, laboratory testing, and administrative overhead.³² For a large seed corporation, these are manageable business costs, but for a smallholder farmer or a community seed bank, they are insurmountable.³³

²⁷ Sebastian Oberthür and Thomas Gehring, 'Institutional Interaction in Global Environmental Governance: The Case of the Cartagena Protocol and the World Trade Organization' (2006) 6 *Global Environmental Politics* 1, 15.

²⁸ James C. Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (Yale University Press 1998) 264.

²⁹ Federal Seed Act, 7 U.S.C. §§ 1551-1611 (1939)

³⁰ Patrick Mulvany, 'Corporate Control over Seeds: Limiting Access and Farmers' Rights' (2005).

³¹ William Lesser, 'An Economic Approach to Identifying an "Effective Sui Generis System" for Plant Variety Protection Under TRIPS' (1997)

³² Karine E. Peschard, 'Seed Wars: Controversies and Cases on Plant Genetic Resources and Intellectual Property'.

³³ Michael Blakeney, 'Intellectual Property Rights and Food Security' (CABI 2009).

4.4. How Marketing Laws Interface with Intellectual Property Regimes

This critical sub-chapter directly addresses the first research question, analyzing the synergistic relationship between IP and marketing laws. It posits that while IP rights like patents create the *de jure* restriction, seed marketing laws create the enforcement mechanism and market conditions that make the IP regime effective.³⁴ For example, a patented seed may legally prohibit saving, but it is the marketing laws that prevent the saved seed from being cleaned, packaged, and sold or exchanged with neighbors without infringing on certification and labeling rules.³⁵ Furthermore, the DUS criteria required for variety registration dovetail with the requirements for PVP under UPOV, creating a seamless pipeline from the breeder's laboratory to the commercial market, while filtering out non-conforming, farmer-developed varieties. This interplay creates a powerful, self-reinforcing regulatory complex that systematically marginalizes farmer seed systems.

5: Comparative National Analysis: Legal Pathways and Impacts

5.1. The European Union: Stringent Standards and the Closure of the Informal Market

This conducts a deep dive into the EU's regulatory framework, primarily the Plant Reproductive Material Law (EU) 2016/2031. It critiques the law's narrow definition of "market" and its stringent requirements for marketing even small quantities of seed.³⁶

5.2. The United States: The Federal Seed Act and the Dominance of Commercial Systems

This section analyzes the US model, where the Federal Seed Act operates in tandem with a robust utility patent system for seeds. The US case is distinctive for the primacy of patent law (*J.E.M. Ag Supply v. Pioneer Hi-Bred*), which explicitly overrides the narrower exemption available under the Plant Variety Protection Act.³⁷ However, seed marketing laws still play a crucial role by defining the legal standards for all seed in commerce. The analysis focuses on how state-level seed laws, often harmonized with the Federal Seed Act, enforce labeling and certification, making it commercially and legally untenable for farmers to operate outside the certified seed system, even for non-patented varieties.³⁸

³⁴ Peter Drahos, 'The Jurisprudence of the TRIPS Agreement' in *A Philosophy of Intellectual Property*.

³⁵ *Bowman v. Monsanto Co.*, 569 U.S. 278 (2013)

³⁶ Regulation (EU) 2016/2031 on the marketing of plant reproductive material.

³⁷ *J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred International, Inc.*, 534 U.S. 124 (2001).

³⁸ James B. Wadley, *The Federal Seed Act: Regulation of Feed Sales and Seed* (July 16, 2006)

5.3. India: The Seeds Act, PPVFR Act, and the Shrinking Space for Informality

This sub-chapter examines the complex legal landscape in India, where the Seeds Act of 1966 and the PPVFR Act of 2001 create a tense coexistence. The Seeds Act mandates notification and certification for seeds to be sold, directly conflicting with farmers' customary rights to sell their own seeds.³⁹ While the PPVFR Act is celebrated for its relatively strong provisions on Farmers' Rights, including the right to save, use, sow, re-sow, exchange, share, and sell farm-saved seed, this right is contradicted and constrained by the older Seeds Act.⁴⁰ The analysis explores ongoing legal debates and civil society challenges, arguing that the failure to harmonize these laws and create clear, practical exemptions for farmers has created legal uncertainty and continues to threaten the vitality of local seed systems.⁴¹

5.4. Brazil: Seed Laws, Technological Packages, and Agro-industrial Concentration

The focus here is on how Brazil's seed laws (e.g., the Seed Law No. 10,711/2003) have been designed to support a capital-intensive agro-industrial model. The law establishes a rigorous National Register of Cultivars (RNC) and a certification system managed by a state agency.⁴² This sub-chapter analyzes how this framework, combined with the widespread adoption of patented transgenic technology, has led to the "technological package" model, where seed, herbicide, and other inputs are sold as an integrated unit.⁴³

5.5. China: Centralized Control and Modernization through the Seed Law

This section analyzes China's Seed Law, revised in 2016 and 2022, which reflects the state's drive for "seed self-sufficiency" and modernisation of the breeding sector.⁴⁴ The law emphasizes the use of "approved" varieties and the quality control of seeds marketed. While the law does not explicitly outlaw farmer seed exchange, its focus on promoting certified, high-yield varieties and its stringent controls on the formal seed market create a policy environment that actively discourages and marginalizes local seed systems.⁴⁵ The analysis considers how China's model represents a state-capitalist approach to seed governance, where regulatory power is used to streamline and control the seed supply chain in the name of national food security, often at the expense of agricultural biodiversity and smallholder autonomy.

³⁹ The Seeds Act, 1966 (India) No. 54 of 1966.

⁴⁰ The Protection of Plant Varieties and Farmers' Rights Act, 2001 (India) No. 53 of 2001, s 39(iv).

⁴¹ Shalini Bhutani, 'India's Seed Laws: Changing the Rules of the Game' (2016) 51(40)

⁴² Lei No. 10.711, de 5 de Agosto de 2003.

⁴³ Karine E. Peschard, 'Seed Wars: Controversies and Cases on Plant Genetic Resources and Intellectual Property

⁴⁴ Seed Law of the People's Republic of China (2022 Revision)

⁴⁵ Yiching Song, *Scientific Contributions*

5.6. Comparative Summary: Converging Trends and Jurisdictional Variations

This concluding sub-chapter synthesizes the case studies. It identifies a convergent trend across all jurisdictions: the use of seed marketing laws to standardize, formalize, and control the seed supply, thereby marginalizing informal systems.⁴⁶ However, it also highlights key variations: the EU's quality-focused bureaucracy, the US's patent-driven model, India's legislative contradictions, Brazil's agro-industrial integration, and China's state-led control. The summary argues that despite these different pathways, the outcome is consistently a shrinkage of the legal space for farmers' privilege and a consolidation of corporate and state power over the genetic foundation of agriculture.⁴⁷

6: Socio-Legal Consequences of Regulatory Convergence

6.1. The Erosion of Agricultural Biodiversity (Agrobiodiversity)

The stringent requirements for variety registration, particularly the Distinctness, Uniformity, and Stability (DUS) criteria, create a powerful legal and market incentive for the proliferation of a narrow range of commercially viable, high-yielding varieties. This systematic bias against heterogeneous farmers' varieties, known as landraces, leads directly to genetic erosion.⁴⁸ Landraces, developed over centuries through farmer selection, possess a wealth of genetic traits crucial for adaptation to changing climates, pests, and diseases. As marketing laws make their exchange and commercialization increasingly difficult, they fall out of use and are lost forever, depleting the genetic pool available for future food security and climate resilience.⁴⁹

6.2. The Impact on Farmer Livelihoods and Seed Sovereignty

The *de facto* criminalization of seed saving imposes significant economic costs on farmers, forcing them into annual purchases of commercial seed and associated inputs. This transition from a self-provisioning system to a cash-based one increases indebtedness and vulnerability to market shocks for smallholders.⁵⁰ More profoundly, it constitutes a direct assault on seed sovereignty the right of farmers to control their own means of production. When farmers can

⁴⁶ Philip H. Howard, 'Intellectual Property and the Concentration of Global Seed Markets' (2018) 3 *Review of Agrarian Studies* 1

⁴⁷ Niels P. Louwaars, 'The Political Economy of Seed Reform' (World Bank 2013) 25

⁴⁸ *Plant Genetic Resources for Food and Agriculture: The Impact of International Regulatory Frameworks* (FAO 2014) 45.

⁴⁹ Stephen B. Brush, *Farmers' Bounty: Locating Crop Diversity in the Contemporary World* (Yale University Press 2004) 12

⁵⁰ Raj Patel, 'The Long Green Revolution' (2013) 40(1) *The Journal of Peasant Studies* 1, 22.

no longer save and exchange seeds without falling foul of complex regulations, they lose a fundamental aspect of their autonomy and cultural identity.⁵¹

6.3. Consolidation of Corporate Power in the Global Seed Market

Seed marketing laws, with their high compliance costs, function as significant barriers to entry for small and medium-sized enterprises, effectively cementing the market dominance of a handful of transnational corporations.⁵² The synergy between stringent marketing regulations and strong intellectual property rights creates a feedback loop: IP protects the innovation, and marketing laws control the channel of distribution, locking in market share.⁵³ This consolidation grants these corporations unprecedented influence over the global food supply, allowing them to set prices, dictate terms to farmers, and shape agricultural research priorities towards their proprietary products, further marginalizing public sector and farmer-led breeding initiatives.

6.5. Implications for Food Security and Resilience

The homogenization of crops driven by these regulatory frameworks creates systemic vulnerability. Monocultures of genetically uniform seeds are highly susceptible to widespread failure when confronted with new pests, diseases, or climatic extremes, as history has repeatedly shown.⁵⁴ In contrast, diverse, decentralized seed systems, which are suppressed by current laws, provide a vital buffer against such shocks.⁵⁵ By privileging uniformity and legal control over diversity and adaptability, the current regulatory trajectory undermines the long-term resilience of the global food system.⁵⁶

7: Rebalancing the Scales: Legal and Policy Recommendations

7.1. Principles for Reform: Upholding Farmers' Rights and Ecological Integrity

Any meaningful regulatory reform must be guided by a set of core principles that re-center public interest. These include the Precautionary Principle, to prevent irreversible harm to

⁵¹ La Vía Campesina, 'The Declaration of Nyéléni' (2007)

⁵² Philip H. Howard, *Concentration and Power in the Food System: Who Controls What We Eat?*.

⁵³ Peter Drahos, 'The Jurisprudence of the TRIPS Agreement' in *A Philosophy of Intellectual Property*.

⁵⁴ Committee on World Food Security, *The High Level Panel of Experts on Food Security and Nutrition (HLPE)*, 'Agroecological and Other Innovative Approaches for Sustainable Agriculture and Food Systems that Enhance Food Security and Nutrition' (2019).

⁵⁵ International Panel of Experts on Sustainable Food Systems (IPES-Food), *From Uniformity to Diversity: A Paradigm Shift from Industrial Agriculture to Diversified Agroecological Systems* (2016).

⁵⁶ Food & Agriculture Organization of the United Nations (FAO), *The State of Food and Agriculture 2013: Food Systems for Better Nutrition* (2013).

agrobiodiversity; the Principle of Farmers' Sovereignty, affirming their right to save, use, and exchange seeds; and the Principle of Ecological Integrity, ensuring that seed laws support rather than undermine agricultural resilience.⁵⁷ These principles must take precedence over the narrow objective of market efficiency and serve as the litmus test for all future seed policy, requiring a fundamental shift from a control-oriented to a rights-based and ecologically-oriented regulatory paradigm.⁵⁸

7.2. Decriminalizing Seed Saving: Proposed Amendments to Marketing Laws

7.2.1. Establishing Alternative, Low-Cost Certification for Local Varieties

To create a positive pathway for farmer varieties to enter formal markets, states should establish participatory guarantee systems or alternative quality assurance mechanisms.⁵⁹

7.3. Promoting Positive Legislation for Seed System Pluralism

Beyond mere exemptions, proactive legislation is needed to support and revitalize pluralistic seed systems. This includes legal recognition and financial support for Community Seed Banks as vital repositories of agro biodiversity and hubs of local seed exchange.⁶⁰ Furthermore, laws should facilitate the registration and marketing of "Conservation Varieties" and "Farmers' Varieties" through simplified, low-cost procedures that acknowledge their inherently diverse and dynamic nature, as pioneered in some European regulations but requiring significant expansion and simplification.⁶¹ Public funding must be redirected to support participatory plant breeding programs that involve farmers in developing locally adapted varieties, strengthening the informal seed sector from within.

7.4. Strengthening the Implementation of Farmers' Rights under the ITPGRFA

At the international level, pressure must be increased on contracting parties to move from rhetorical support for Farmers' Rights to their concrete implementation in national law. This includes establishing national multilateral benefit-sharing funds financed by a levy on commercial seed sales, as envisioned by the Treaty, to support farmer-led conservation and breeding efforts.⁶²

⁵⁷ Olivier De Schutter, *The Right of Everyone to Enjoy the Benefits of Scientific Progress and the Right to Food: From Conflict to Complementarity*.

⁵⁸ UN General Assembly, *United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas*, A/RES/73/165 (2018).

⁵⁹ Michel P. Pimbert, *Transforming Knowledge and Ways of Knowing for Food Sovereignty* (IIED 2017).

⁶⁰ Ronnie Vernooy et al., *Community Seed Banks: Origins, Evolution, and Prospects* (Routledge 2015).

⁶¹ European Commission, *Commission Directive 2008/62/EC on Conservation Varieties*.

⁶² ITPGRFA, Art 9.2(b).

7.5. The Role of National Governments and International Bodies in Fostering Change

National governments must demonstrate political courage by reviewing and reforming their seed laws through inclusive, multi-stakeholder processes that genuinely incorporate the voices of farmers' organizations.⁶³ Simultaneously, international bodies like the FAO and the Governing Body of the ITPGRFA should issue clear guidelines on how to design farmers' rights-compliant seed marketing legislation.⁶⁴ They must also challenge the pressure exerted by developed countries and corporate lobbies to adopt UPOV 1991 as the only *sui generis* system, advocating instead for a flexible approach under TRIPS that allows countries to design systems tailored to their agricultural realities and food sovereignty needs.⁶⁵

8: Conclusion

This research has systematically demonstrated that seed marketing laws, often overlooked in favor of more visible intellectual property conflicts, constitute a profound and pervasive threat to farmers' privilege and agricultural biodiversity. The traditional practices of saving and exchanging seeds.⁶⁶

The research questions posed at the outset find their answers in this analysis. The interaction between marketing laws and IP is one of mutual reinforcement, where IP provides the legal claim and marketing laws provide the market control. The comparative analysis reveals distinct yet converging pathways in the EU, US, India, Brazil, and China, all leading to the erosion of farmers' rights and biocultural diversity. In response, the proposed legal and policy mechanisms ranging from explicit exemptions and alternative certification to support for community seed banks and the robust implementation of the ITPGRFA provide a normative roadmap for decriminalization and the re-establishment of seed system pluralism.

The broader implications of this study are significant. It reveals a troubling trend in global governance, where technical regulations, framed in the neutral language of science and market efficiency, are wielded as instruments of power to reshape agricultural societies and economies.

⁶³ Patrick Mulvany, 'Corporate Control over Seeds: Limiting Access and Farmers' Rights' (2005).

⁶⁴ Food and Agriculture Organization (FAO), *The Second Report on the State of the World's Plant Genetic Resources for Food and Agriculture* (2010).

⁶⁵ C.M. Correa, S. Shashikant & F. Meienberg, *Plant Variety Protection in Developing Countries: A Tool for Designing a Sui Generis Plant Variety Protection System – An Alternative to UPOV 1991*(Association for Plant Breeding for the Benefit of Society, 2015).

⁶⁶ GRAIN, *The Pitfalls of Trying to Protect Farmers' Seeds Through Laws*, GRAIN (Aug. 29, 2025), <https://grain.org/en/article/7307-the-pitfalls-of-trying-to-protect-farmers-seeds-through-laws>.

The loss of seed sovereignty is not merely a technical or legal issue; it is a fundamental issue of human rights, ecological sustainability, and democratic control over our food systems. This thesis concludes that urgent and transformative regulatory reform is not just a policy option but a critical necessity to avert the continued erosion of the genetic and cultural foundations of our food supply and to forge a more just and resilient agricultural future.

