

Protection of Farmers' Rights to Develop Local Crop Varieties Based on Fairness

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ABSTRACT

Indonesia is a country with significant agricultural potential. Within the framework of national law, Indonesia has established regulations to protect farmers' rights. At the international level, Indonesia has also demonstrated its commitment by ratifying the CBD, ITPGRFA, and the Nagoya Protocol. However, despite the existence of normative bases regulating the protection of farmers' rights, the implementation of these provisions in practice remain suboptimal. Local farmers often do not receive adequate recognition for their contributions. The type of research used normative legal research. Normative legal research is a type of research that analyzes and examines secondary data or reference materials. The study's results indicate that the protection of farmers' rights in Indonesia remains weak due to the dominance of an individualistic approach to intellectual property, as reflected in the PVT Law, which does not adequately accommodate the collective contributions of farmers to local varieties. Traditional farmers' rights, such as seed breeding and exchange, are marginalized and even at risk of criminalization. Farmers' weak bargaining position is exacerbated by factors such as age, low educational levels, and a lack of regeneration due to the negative stigma associated with the farming profession. Although Government Regulation No. 56 of 2022 recognizes farmers' knowledge as communal wealth, the documentation requirements pose an obstacle. The Access and Benefit-Sharing principle has also been adopted in Law No. 65 of 2024, but it has not been supplemented with technical implementation regulations. Therefore, Regulatory reform is needed through a sui generis system that recognizes the collective rights of farmers, as well as a revision of the PVT Law and the issuance of technical government regulations to ensure fair and contextual legal protection.

Keyword – Farmers, Legal Protection, Local Varieties

INTRODUCTION

Indonesia is located in the tropics with a favorable position and has great potential in the agricultural sector. Known as an agrarian country with abundant natural resources and germplasm, it is relatively easy to produce various high-quality agricultural products, which can have a positive impact on developing a more advanced and efficient agricultural sector if managed optimally (BPN, 2025). Rapid growth and development in various other fields have made food security a global issue (Gracella, 2020). In the era of free trade and widespread global industrialization, a conflict of interest arises between traditional knowledge holders and entrepreneurs regarding the use of genetic resources from biodiversity (Anshari Et Al., 2018).

Abundant diversity in Indonesia stems from the indigenous peoples' use of traditional knowledge. Efficient use of resources is key to preventing genetic erosion, particularly for valuable crops. Agriculture is vital for rural economies, with farmers serving as the primary actors in ensuring food security. However, legal policies often overlook the role of farmers, who possess vital breeding expertise but lack access to research and financial support. Effective protection of farmers' rights is crucial for sector sustainability and welfare. Indonesia's regulations protecting biodiversity include laws on cultivation, farmer protection, and variety rights. The ITPGRFA was also ratified. Still, on-the-ground implementation lags, and many smallholders remain unaware or do not benefit from protections.

Japan and Thailand, which have also ratified the ITPGRFA, possess advanced agricultural sectors and more

comprehensive legal frameworks for farmers' rights. Japan established a Participatory Plant Breeding (PPB) program and updated its Plant Variety Protection law to reflect global developments, also promoting agricultural education to engage youth. Thailand's Plant Varieties Protection Act addresses farmers' rights across several provisions, increasing farmer and breeder participation in variety development.

In Indonesia, Law No. 29 of 2000 offers minimal rights for farmers, with just one relevant provision. This lack of legal protection devalues the profession and discourages young people, as evidenced by the older age profile of current farmers. Although Indonesia has ratified key treaties, it is unclear if the laws consistently support farmers. The author thus examines farmers' rights to develop varieties based on justice.

METHODOLOGY

Legal research is a method used to obtain legal rules, legal doctrines, and legal principles in order to provide solutions to all legal problems encountered (Marzuki, 2016). This scientific paper employs legal research methods, including various research types, problem approaches, legal sources, methods for collecting legal materials, and analysis of these materials. The type of research used in the preparation of this scientific paper is normative legal research. Normative legal research is a type of research that analyzes and examines secondary data or reference materials. In addition, normative legal research can also be understood as a type of research that bases its analysis on applicable laws and regulations that are relevant to the legal issues at hand.

RESULTS

Conditions of Farmers and The Protection of Their Rights in Indonesia

Farmers in Indonesia face complex challenges that affect the sector's future, including unstable prices, insufficient rights protection, and an aging workforce. Commodity prices are volatile, particularly for crops like chili peppers and shallots, with sharp price fluctuations caused by factors such as weather and supply-demand imbalances. The agricultural sector in Indonesia contributes the most to national employment, accounting for around 35.3%, but it still faces various labor issues. The primary challenge is an unfavorable demographic shift, where the number of elderly farmers (aged 55 and above) continues to increase, while the number of young workers is declining. The phenomenon of aging farmers and the low interest of the younger generation in working in the agricultural sector exacerbates labor issues, which is also marked by a lower average level of education compared to other sectors (Haryanto, Yoyon, Helmi Z, 2022).

The perception that life in the agricultural sector lacks prestige also influences the aspirations of the younger generation in rural areas. Many of them choose to migrate to cities in search of jobs that are considered more financially lucrative, as well as to pursue further education. Based on BPS 2023 data, the age group of farmers is dominated by those aged 45-54 years, numbering 7,947,405 people, followed by those aged 55-64 years, numbering 6,808,739 people. In contrast, those of productive age (25-34 years) number only 3,005,033 people. Approximately 75% of the workforce in the agricultural sector in Indonesia only completed elementary school education, while only about 1.82% had a bachelor's degree (Republika, 2023). This low level of education contributes to several obstacles, including farmers' limited ability to access and apply modern agricultural technology, low productivity and efficiency in running farming businesses, and a lack of innovation, as well as difficulty in adapting to climate dynamics and market developments.

The decline in interest among the younger generation in becoming farmers is influenced by two main factors: push factors and pull factors. Push factors originate from within the individual, while pull factors originate from the external environment or from outside the agricultural sector (Susilowati, 2016). This problem has resulted in a decline in the number of productive, educated, and young workers. The higher a person's level of education, the broader their knowledge, so there will be more considerations in choosing a type of work (Werembinan, 2018). In addition, the welfare of farmers in Indonesia can also be measured through the Farmer Exchange Rate (NTP), which describes the level of farmers' exchange capacity/purchasing power for products purchased/paid for by farmers, including purchased consumption and production inputs (Faridah N, Syechalad MN, 2016). In this case, farmers' rights are a crucial element in supporting the sustainability of the agricultural sector and enhancing the welfare of farmers (Paminto, 2018).

The protection of farmers' rights is one of the fundamental things in realizing agrarian justice and the sustainability of the national agricultural sector. According to Rusdiyana's research, farmers play a crucial role in agricultural land conservation through practices rooted in local wisdom, which contribute to the preservation of biodiversity and the environment. However, efforts to protect farmers in Indonesia still face several challenges. Issues such as limited access to land, minimal legal protection, especially for small farmers, as well as inequality in access to technology and market dominance, remain significant obstacles that have not been fully overcome. Through traditional breeding practices based on local knowledge and generations of experience, farmers make significant contributions to agricultural biodiversity, which is a crucial foundation for national food security. In this case, farmers are not only users of agricultural technology, but also innovators who can create superior varieties through natural selection and adaptation to the local environment. However, the legal reality in Indonesia shows that the protection of farmers' rights as breeders has not been optimally accommodated within the existing regulatory framework.

The protection of plant varieties, if carried out systematically through sustainable development and conservation activities, has the potential to enrich national biodiversity and provide tangible benefits to local communities, especially when utilized efficiently and equitably. When viewed from the perspective of intellectual property rights (IPR), farmers, as local breeders, play a crucial role in the development of plant varieties. However, this role still lacks adequate recognition. In practice, small-scale farmers often face limitations in accessing legal information, registering varieties, and obtaining the necessary technical support. This reflects that the rights protection system has not fully reached all parties fairly, and tends to benefit groups with greater access to resources. This system tends to limit farmers' ability to save seeds from their harvest, replant those seeds in the next growing season, and freely exchange seeds among fellow farmers within their local communities (Imanullah, Moch. Najib, 2017). The enforcement of intellectual property rights, both directly and indirectly, has resulted in the marginalization of the strategic role of local farmers in protecting and preserving plant genetic resources.

An example of weak protection for farmers is the case of Tukirin, a farmer from Ngronggot Subdistrict, Nganjuk Regency, who was convicted on Tuesday, February 15, 2005, under case number 13/Pid.B/2005/PN.Nganjuk for violating Article 61 paragraph (1b) in conjunction with Article 14 paragraph (1) of the SBT Law, for which he was sentenced to 6 months imprisonment with a one-year probation period. Tukirin carried out innovative activities, such as cross-breeding corn seeds, on his own land independently. This process began with selecting parent plants from corn varieties commonly found in markets around his residence. The results of this crossbreeding were then sold at a low price, without labels or packaging, to other farmers in the area. In 2010, a farmer named Kunoto, also known as Kuncoro bin Mirin, from Ngasem District, Kediri Regency, was sentenced by the Kediri District Court through case number 188/Pid.N/2010/PN.Kdr on May 31, 2010. This case is similar to the cases of other farmers who were also involved in seed production. Violations of farmers' rights to local varieties constitute a failure on the part of the state to provide adequate legal protection. Legal protection is an action taken with the aim of providing protection to legal subjects through various legal instruments. Legal protection reflects the function of law, which is the concept that law is capable of providing justice, order, certainty, benefits, and peace. According to Philipus M Hadjon, there are two types of protection: preventive legal protection and repressive legal protection (Hadjon, 2007).

In preventive legal protection, the state should provide a legal framework that provides certainty and initial protection for farmers' rights to local varieties. This includes regulations that not only recognize but also facilitate farmers' traditional practices in developing, storing, replanting, and exchanging seeds. In reality, existing regulations, such as Law No. 29 of 2000 on Plant Variety Protection (PVT Law), for example, provide more protection to breeders from research institutions and agribusiness corporations, while the contributions of local farmers tend to be neglected. Although the regulation contains articles that allow for the recognition of local varieties bred by farmers, the procedures and requirements are considered too complex and biased. on the socio-economic conditions of smallholder farmers (Faujura, 2020). For example, the state needs to establish a community-based registration mechanism for local varieties that does not impose burdensome administrative requirements and ensures that local seeds cannot be commercialized by outside parties without the community's prior consent.

Indonesia has also established several legal instruments to ensure farmers' rights. One of the main regulations is

Law Number 19 of 2013 concerning the Protection and Empowerment of Farmers (P3 Law), which emphasizes the importance of protection in terms of the provision of means of production, price guarantees, certainty of farming businesses, and protection against the risk of crop failure through the Rice Farming Insurance scheme. However, in practice, this law still faces various challenges, including the imbalance in the distribution of agricultural facilities, policy changes that impact Bulog's role in absorbing crop yields, and the limited number of agricultural extension workers in several regions (Choirunnisa, 2022). At the global level, Indonesia has also ratified international agreements in line with its national culture and customs, such as the World Trade Organization (WTO), Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement, the Convention on Biological Diversity (CBD), the International Union for the Protection of New Varieties of Plants (UPOV), and the Nagoya Protocol, which are international legal instruments that set new standards in intellectual property protection and biological resource management. In addition, the existence of forums such as the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC-WIPO) and the principle of Farmers' Rights in the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) also provide normative pressure for developing countries, including Indonesia, to make adjustments to their national legal systems (Pajrin R, 2023).

Several international agreements specifically regulate farmers' rights and the management of genetic resources. On a global scale, significant developments have occurred in the recognition of farmers' rights, particularly in the context of communal intellectual property and the implementation of Plant Variety Protection (PVP) systems in various countries. In Indonesia, the response to these dynamics is reflected in the enactment of a number of laws at the national level, as a form of adjustment to the obligations in ratified international agreements, including adjustments to legislation in the field of intellectual property as a follow-up to the commitments in the TRIPS Agreement (Pajrin R, 2023). On the other hand, plant variety protection is a crucial instrument for Indonesia in preserving biological diversity and ensuring its utilization for the greatest well-being of the people. However, in practice, there are significant challenges because several international agreements ratified by Indonesia have conflicting normative tendencies. For example, the Law on Plant Variety Protection (PVT Law) refers to the UPOV Convention, even though UPOV does not provide adequate space for the protection of farmers' rights. This inconsistency creates disharmony in the national legal system, particularly in the sector of plant variety protection and the recognition of farmers' rights. Therefore, legal harmonization efforts are essential so that national regulations can strike a balance between global interests and the protection of farmers' rights as key players in a sustainable agricultural system.

The concept of farmers' rights in the international legal framework is based on the recognition of farmers' contribution as guardians of biodiversity and developers of plant genetic resources. These rights include, among others, the right to save, reuse, exchange, and sell traditional agricultural seeds, as well as the right to benefit sharing from the utilization of genetic resources that they have preserved. Farmers' rights are inherent rights that enable farmers to carry out traditional practices, particularly in terms of saving seeds from their harvests for replanting, exchanging seeds with fellow farmers, and developing and preserving plant varieties that have been passed down through generations. These rights are rooted in the historical role of farmers, who have consistently contributed to the conservation and management of agricultural genetic resources. These resources remain an important foundation for food security and the sustainability of agricultural systems to this day (Pajrin R, 2023). Conversely, in Indonesian national legal practice, the plant variety protection system regulated by Law No. 29 of 2000 on Plant Variety Protection (PVT Law), places greater emphasis on granting exclusive rights to plant breeders and is generally still oriented towards the model of individual intellectual property rights protection such as UPOV 1991, which does not explicitly regulate or guarantee the rights of local farmers over traditional varieties (PVT Law, No. 29, 2000). Meanwhile, in parallel, the Convention on Biological Diversity (CBD) and the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) have established international legal norms that recognize and guarantee the rights of local communities, including farmers, to their biological diversity and traditional knowledge (Seeds and Farmers Rights).

Repressive legal protection has a role to play in providing remedies when rights are violated. This requires the state to provide legal instruments and dispute resolution mechanisms that are not only formal but also substantive, capable of delivering genuine justice for vulnerable groups, such as farmers. Repressive protection should ideally take the form of accessible complaint procedures, non-burdensome legal processes, adequate legal

aid, and decisions that recognize farmers' rights to the origin of varieties and their rights to share in the economic benefits of utilizing those varieties. However, in reality, repressive legal protection mechanisms against violations of farmers' rights are still very limited and ineffective. Most farmers in Indonesia, particularly in rural areas, lack sufficient legal knowledge to understand their rights within the framework of intellectual property law. The community, especially farmers, needs protection that is not only legal but also economic to ensure the sustainability of their agricultural activities. The protection of plant varieties, if managed in accordance with principles of justice that take into account the rights of farmers, will provide double benefits, not only for the local community but also for local governments that play a crucial role in natural resource management. The protection of plant varieties cannot be separated from the involvement of local communities or farmers themselves, as they possess the knowledge, skills, and experience necessary for the conservation and development of plant varieties. Therefore, the involvement of farmers in the decision-making process and the implementation of policies related to plant varieties is crucial, so that their rights are recognized and protected fairly, and they receive equitable economic benefits.

In fact, regulations in Indonesia on genetic resources are still sectoral in nature (Lubis, 2009). Although Indonesia has ratified several international legal instruments that recognize and guarantee farmers' rights, there are several problems in protecting farmers' rights in Indonesia, including farmers often facing difficulties in accessing the land, capital, and agricultural technology needed to increase productivity. To address various structural and implementation problems in the protection of farmers' rights, a multilevel and cross-sectoral, synergistic approach is necessary. At the policy level, the state needs to strengthen the regulatory framework governing the protection of farmers through efforts to harmonize legislation, simplify bureaucratic procedures, and enhance the effectiveness of supervision of agricultural land protection and subsidy distribution. At the grassroots level, community-based empowerment strategies such as the establishment of farmer cooperatives, the strengthening of young farmer groups, and the development of agriculture through an agro-ecotourism approach are considered capable of promoting farmers' economic independence while expanding their social and institutional networks. Active participation from academics, research institutions, and civil society organizations is also an important element in supporting inclusive and equitable agricultural development. Comprehensive protection from a legal, economic, and socio-cultural perspective will enable Indonesian farmers to obtain their rights in a more fair and equitable manner. This is not only important for the welfare of farmers themselves, but also serves as a solid foundation for future food security and national agrarian sovereignty.

Fulfillment of The Principles of Protection of Farmers' Rights in Regulations Concerning Farmers.

Indonesia, as an agrarian country, has a large portion of its population dependent on the agricultural sector, especially those in rural areas, who rely on agricultural activities such as farming, horticulture, and other farming-related businesses. This condition is not only seen from a demographic and social perspective, but is also supported by geographical and ecological conditions that are highly conducive to agricultural development. Weak legal protection and minimal state intervention in farmer empowerment have led to the need for comprehensive regulations that favor the interests of farmers. Therefore, Law No. 19 of 2013 concerning the Protection and Empowerment of Farmers (P3 Law) was enacted as a legal instrument to address these issues. Law of the Republic of Indonesia Number 19 of 2013 concerning the Protection and Empowerment of Farmers is a national regulation that explicitly regulates the legal framework for efforts to protect and empower farmers in Indonesia. The urgency of the formation of Law No. 19 of 2013 concerning the Protection and Empowerment of Farmers can be traced through the "considering" section of the law, which explicitly mentions several strategic factors that underlie the need for this regulation. Based on Law of the Republic of Indonesia Number 19 of 2013, Article 1, the definition of protection is written as "Farmer Protection is all efforts to help farmers in facing problems such as difficulties in obtaining production infrastructure and facilities, business certainty, price risks, crop failure, high-cost economic practices, and climate change". Substantively, the main objective of farmer protection in the P3 Law is to provide legal certainty and guarantee the continuity of farming businesses, including through land protection, the provision of production facilities, and risk mitigation through insurance schemes.

One of the important provisions in this law is contained in Article 13, which states that the central government and local governments, in accordance with their respective authorities, have legal and administrative responsibilities in providing protection to farmers. Basically, every public policy does not stop at the formulation

stage, but must be followed up through a systematic implementation process (Haedar, 2008). Policy implementation is a crucial stage that reflects the actual realization of policy decisions in the form of a series of operational activities. According to Ripley and Franklin, as quoted by Winarno, policy implementation refers to the entire series of processes that occur after a law is passed, legitimizing the implementation of programs, policies, and the provision of concrete benefits or outputs. This process is not merely administrative in nature, but includes various forms of action taken by policy implementers, especially bureaucrats, who are responsible for ensuring that the policy can be operationalized and produce real impacts in accordance with the objectives that have been set (Ripley, Rendal B, Grace A. Franklin, 1998). When discussing the implementation of Law No. 19 of 2013, several previous studies can be referred to. Research by Siagian indicates that the implementation of the P3 Law in Banten Province has included the provision of agricultural tools, the establishment of government purchase prices (HPP), and the introduction of rice farming insurance (AUTP). However, various obstacles persist in the field. Based on interviews with the Banten Provincial Agriculture Office, it was identified that one of the main obstacles lies in budget constraints (Heri Fransisco Siagian, Damanhuri, & Ronni Juwandi, 2022).

A closer look at Law No. 19 of 2013 reveals that it not only discusses protection but also the empowerment of farmers as stated in Article 1 Paragraph 2, which defines Farmer Empowerment as all efforts to improve the ability of farmers to carry out better farming practices through education and training, extension and assistance, the development of agricultural product marketing systems and facilities, the consolidation and guarantee of agricultural land area, easy access to science, technology, and information, and the strengthening of farmer institutions. This definition covers a number of important elements that reflect the strategic dimensions of farmer empowerment, namely a) an emphasis on a series of systematic efforts aimed at comprehensively improving the capacity and competence of farmers, b) this capacity building is directed at more productive, efficient, and sustainable agricultural business management, c) the approach used includes various intervention mechanisms, such as the implementation of education and training programs, extension and assistance activities, and the development of infrastructure and agricultural product marketing systems. In addition, empowerment is also achieved through the consolidation of ownership and guarantees for the sustainability of agricultural land, expanded access to relevant science, technology, and information, and the strengthening of farmer institutions as collective entities within the agribusiness system. This indicates that farmer empowerment policies encompass not only production and economic aspects, but also address the preservation of local knowledge and the sustainability of biological resources (Syahyuti, Sri Wahyuni, Rita N. Suhaeti, Amar K. Zakaria, 2014).

Efforts to protect local varieties are not yet fully optimal if they are not integrated with legal mechanisms that specifically regulate intellectual property rights in agriculture. In this case, Law Number 29 of 2000 concerning Plant Variety Protection (PVT Law) is very relevant. The PVT Law provides legal protection for plant varieties produced by breeders through the granting of exclusive rights. Although initially focused on protecting the results of scientific innovation and modern technology, this law also opens up space for the recognition of local varieties developed by farmers using traditional methods. Traditional knowledge is not a new issue at the international level; however, at the national level, public understanding of traditional knowledge remains underdeveloped and incomprehensively understood (Djulaeka, 2014). Protection of traditional knowledge should be a necessity, but local communities often feel that they do not need it because they do not understand intellectual property rights (IPR). Traditional knowledge passed down through generations by indigenous communities makes a substantial contribution to the management and development of genetic resources in agriculture. However, amid the dynamics of globalization and massive growth of the seed industry, legal issues have arisen regarding the recognition and legal protection of rights to traditional knowledge within the scope of national law (Septarina, 2026). Farmers' knowledge falls under the category of traditional knowledge regulated in Article 8 of Government Regulation No. 56 of 2022 concerning Communal Intellectual Property.

One of the fundamental weaknesses in developing a legal protection system for traditional knowledge is the limited documentation, databases, and inadequate information storage mechanisms regarding the existence and characteristics of such traditional knowledge. The absence of written documentation of traditional knowledge results in a lack of references that can be used as prior art in the patent application examination process. As a result, inventions derived from traditional knowledge can be patented by other parties without the knowledge or consent of the community that originally owns it. This situation creates legal protection inequality and has the

potential to harm indigenous or local communities, as they are the holders of moral and historical rights to traditional knowledge (Schuler, 2004). Although local knowledge plays a strategic role in the conservation and development of plant varieties, its protection has not been explicitly accommodated in Law No. 29 of 2000 concerning Plant Variety Protection (PVT). The regulation tends to focus on protecting new varieties that meet certain criteria and grants exclusive rights to plant breeders, without providing adequate legal recognition of the collective contribution of indigenous peoples as guardians and preservers of local varieties from one generation to the next (Reh Bungana Add All, 2020).

Within the international legal framework, the recognition of the existence and role of traditional knowledge has been accommodated through multilateral legal instruments, specifically the Convention on Biological Diversity (CBD) and the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization. Both instruments emphasize the importance of respecting the contributions of indigenous peoples in the conservation and sustainable use of genetic resources. In particular, the Nagoya Protocol regulates the obligation to apply the principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) as legal prerequisites in the process of accessing and utilizing traditional knowledge, including that related to plant cultivation practices. Related to Law Number 28 of 2014 concerning Copyright: This law recognizes traditional cultural expressions as objects of copyright protection. However, this protection focuses more on aspects of cultural expression, such as art and literary works, and does not specifically regulate traditional knowledge in the context of agriculture (Reh Bungana Add All, 2020). Then Law Number 13 of 2016 concerning Patents. In this law, traditional knowledge can be part of the background of a patented invention. However, protection for traditional knowledge that does not meet the criteria for a new invention remains suboptimal. In the context of genetic resources, the term “protection” is highly relevant to the issues of conservation and the granting of licenses for the use of genetic resources at the request of other parties, as well as the procedures for sharing profits (fee, royalty) from their use with the owners of the genetic resources. Regulations on this matter have been accommodated globally through an international legal instrument, namely the 2010 Nagoya Protocol, which is part of the implementation of the Convention on Biological Diversity. This protocol is designed to address the primary challenges in protecting genetic resources, particularly in relation to efforts to preserve and prevent the extinction of biological diversity, which is the foundation of life and ecosystem sustainability.

One of the primary objectives of this legal framework is to ensure that the utilization of genetic resources is carried out fairly and sustainably, accompanied by access and benefit-sharing (ABS) mechanisms. Indonesia has demonstrated its commitment to this international regulation through the ratification process of the Nagoya Protocol on May 8, 2013, which was then formally incorporated into Law No. 11 of 2013 of the Republic of Indonesia as a means of integrating international principles into the national legal system. National regulations on access and benefit sharing in the utilization of genetic resources are still sectoral or partial in nature and are regulated in several laws. In this context, the principle of benefit sharing is a crucial instrument to ensure that the benefits of utilizing plant genetic resources are not only enjoyed by users (companies, research institutions), but also by farmers, as the original owners and guardians of these varieties. When analyzed normatively through the perspective of the theory of justice developed by John Rawls. In *A Theory of Justice* (1971), Rawls presents two main principles: the principle of equal liberty and the difference principle, which states that social and economic inequality can only be justified if it provides tangible benefits to the most disadvantaged groups in society. When applied in the context of ABS in Indonesia, the system of benefit sharing for the utilization of genetic resources and traditional knowledge must be designed to provide substantive benefits to local communities and small farmers, who have long been the main guardians of agricultural biodiversity.

Therefore, local communities that have traditionally managed, preserved, and utilized these plant varieties have a strong basis for claiming rights to benefit sharing arising from the utilization of these genetic resources, whether in the context of research, development, or commercial exploitation. This principle aligns with the principles of justice and the recognition of the rights of traditional communities within the framework of national and international law. Basically, the CBD has three objectives, namely, a) conservation of biological diversity, b) promotion of the sustainable use of diversity, and c) ensuring increased commercial benefits from the use of genetic resources shared in a fair and equitable manner. Internationally, traditional knowledge remains unregulated (Zainul, 2011). Indonesia has adopted various regulations to regulate access to genetic resources

and ensure that local communities receive equitable benefits from their use. The Intellectual Property Rights (IPR) system plays an important role. The IPR system, as regulated in the TRIPs Agreement, provides legal protection to intellectual property rights holders, allowing them to exercise their rights or grant permission to others to exercise them, and prohibits others from using these rights without permission. This provides a strong legal basis for regulating the use of genetic resources and ensuring that the benefits of such use are shared fairly among the parties concerned.

The rights of local communities to plant varieties are explained by Prof. Agus Sardjono, who argues that the protection of traditional knowledge is a combination of economic rights and moral rights. Economic rights give local communities the right to obtain financial benefits from the utilization of their genetic resources, while moral rights emphasize respect for their cultural identity and social rights. (Sardjono, 2010). One of the existing laws and regulations is Law No. 29 of 2000 concerning Plant Variety Protection. This law regulates the utilization of genetic resources through a *sui generis* system, which is related to patent rights. Revision of Law No. 14 of 2001 into Law No. 65 of 2024 on patents reorganizes the scope of legal protection in the field of genetic resources (GR), specifically by stipulating the obligation to include the origin of GR and traditional knowledge, as well as requiring fair benefit sharing from the utilization of both. Through Law No. 65 of 2024 concerning Patents, the state aims to enhance legal protection not only for inventors but also for the broader community, thereby supporting national interests. Protection of biodiversity, particularly local varieties, through the Access and Benefit Sharing mechanism can provide significant benefits for Indonesia. To that end, it is essential to optimize regulations in the field of Genetic Resources and enhance public education, with the full support of all relevant parties (Zulia and Zainol, 2013). In practice, the implementation of ABS policies in Indonesia does not yet fully reflect the principle of distributive justice as formulated by Rawls. The mechanisms for access licensing and benefit-sharing negotiations are often still dominated by state and corporate actors, with minimal meaningful participation from resource communities. Therefore, the national legal system in terms of ABS regulation needs to undergo normative and institutional reformulation to be more in line with Rawls' principles of social justice.

Legal protection of farmers' rights in the Plant Variety Protection Law (PVT Law) and the Sustainable Agricultural Cultivation Law is still considered very limited. Neither regulation explicitly and specifically regulates the substance of farmers' rights, resulting in ambiguity in their implementation. The existing provisions often give rise to various interpretations, which ultimately lead to legal uncertainty and a lack of support for farmers. Law No. 29 of 2000 on Plant Variety Protection emphasizes the protection of plant breeders' rights, which are generally held by large companies. In contrast, the protection of farmers' rights, including the right to save, reuse, and sell their own harvest, remains very limited. The lack of explicit recognition of traditional agricultural practices, including the practice of saving seeds from one harvest to the next, makes farmers vulnerable to criminalization. Synergy between the P3 Law and the PVT Law is crucial in enhancing the legal protection of farmers' rights to local varieties. The P3 Law creates a framework for socio-economic empowerment and protection, while the PVT Law provides formal legal recognition of rights to varieties as a form of communal intellectual property. However, several obstacles still need to be overcome in the integrated implementation of these two laws, including a lack of legal literacy among farmers, minimal government facilitation in the registration process of local varieties, and a complex bureaucracy that makes it difficult for farmers to access legal protection. Therefore, the harmonious integration of policies between the P3 Law and the PVT Law needs to be immediately strengthened through derivative regulations that favor small farmers.

CONCLUSION

Legal inequality is evident in the lack of optimal recognition of farmers' collective rights to local varieties, due to the application of an individual intellectual property regime. This marginalizes farmers' traditional practices in breeding, storing, and exchanging seeds, which should be recognized as historical and communal rights. Ironically, in some cases, farmers are criminalized for local innovations that are not legally protected, even though they contribute to the sustainability of genetic resources. The condition of farmers in Indonesia, who are predominantly elderly and have low levels of education, further exacerbates their weak bargaining position. The regeneration of farmers is an urgent challenge, given the lack of interest among the younger generation in this sector due to the perceived low economic and social value of the farming profession. The principles of Access

and Benefit Sharing in the Nagoya Protocol and the Convention on Biological Diversity have been incorporated into national law through Article 26 of Law Number 65 of 2024 concerning Patents. However, there is no concrete and operational technical mechanism to ensure fair benefit sharing between users of genetic resources. This is in contrast to Thailand's PVT Law B.E. 2542, which explicitly regulates a profit-sharing scheme with clear proportions specified in Article 49. The Indonesian PVP Law tends to be incompatible with the collective and hereditary nature of varieties developed by traditional farmers, thus failing to provide effective legal protection. Therefore, drafting a Government Regulation as an implementing regulation is urgent to ensure the effective protection of farmers' rights under this scheme.

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