

**Evaluating The Concept Of Essentially Derived Varities To Protect
Economic Interest Of Breeders/Rights Holder And Foster Development
Of Plant Variety Innovation In Indonesia**

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Article Info

Received: 2024-08-12

Revised: 2025-02-21

Accepted: 2025-03-31

Keywords:

*Breeders/Rights Holder,
Essential Characteristics,
Essentially Derived
Varieties, Plant Variety
Protection.*

Abstract

The development of modern biotechnology has introduced the concept of essentially derived variety (EDV) protection. However, its regulation in Indonesia led to ambiguity regarding the protected parties. Both EDV and initial variety breeders/holders perceive a lack of adequate protection, potentially causing economic losses. To analyze the legal gap, this study employs judicial-normative methods by examining Indonesian Positive Law and international instruments and proposing an ideal protection framework. The findings reveal moderate differences between national and international laws. There is a remuneration policy provided by EDV breeders/holders and/or reversed burden of proof mechanism in proving essential characteristics as stipulated in the 1991 UPOV Convention, neither of which are yet regulated under Indonesian legislation. Therefore, legislators must harmonize regulations and the PVP Office should take a more proactive approach to protecting breeders/holders, including the use of local varieties. As a result, the existing concept will be more optimal in ensuring interests of related parties.

I. Introduction

The development of modern biotechnology, accompanied by maximizing use of existing varieties as the primary ingredient in plant breeding other varieties, is inherently capable of fostering innovation and enhancing genetic potential of plant varieties. However, in practical implementation, the development of new varieties through utilization of modern biotechnology has potential to infringe intellectual property rights of plant breeders/holders who have obtained legal protection. Innovations that emerge from this process often involve only minor alterations to the existing varieties that have been protected, resulting in a diminution of the economic interests of the breeders of existing varieties.¹ This phenomenon is known as copycat breeding, plagiarism, mimicry, imitation, or cosmetic breeding.²

Breeders who do copycat breeding, plagiarism, mimicry, imitation, or cosmetic breeding often argue their plant breeding are not violation the law, especially Intellectual Property Law. Their fundamental argument is based on the exclusion provisions stated in the International Convention for the Protection of New Varieties of Plants in 1978 or the breeder's exemption provisions.³ These provisions permit the use of protected varieties as a source in the plant breeding without requiring prior consent from the breeder of existing protected variety. However, it should be acknowledged the exemption is subject to certain limitations. For instance, the protected variety must not be used repeatedly for the commercialization of new varieties, or solely for research purposes.⁴

Phenomenon of copycat breeding, plagiarism, mimicry, imitation, or cosmetic breeding constitutes a concrete form of abuse in the implementation of exception provisions and led to plant variety protection rights infringement. Protected varieties are frequently utilized for plant breeding purposes that extend beyond the scope of research on the variety itself. Rather, protected varieties are used to serve commercial interests of new plant breeders/rights holder, enabling the breeders/rights holder to compete with their competitors in market.⁵ This practice is undertaken without authorization or permission of the proprietor of the existing variety, resulting failure to receive any financial benefits, such as royalties or fees, that would otherwise accrue to the existing variety proprietor. Even when authorization is granted, existing provisions that exclude infringement of rights create a dilemma for its protection from perspective of the existing variety rights holders and the new variety right holders as the party that developed it. This

¹ Usha Kiran and Nalin Kant Pandey, "Intellectual Property Rights in Plant Biotechnology and Breeding," in Kamaluddin, Usha Kiran, and M. Z. Abdin, eds., *Technologies in Plant Biotechnology and Breeding of Field Crops*, (Singapore: Springer Nature, 2022), pp. 274.

² See Noel Byrne, *Commentary on Substantive Law of the 1991 UPOV Convention for the Protection of Plant Varieties*, (London: Centre for Commercial Law Studies, 1994), pp. 55.

³ Vila A. Tonapi, M. Elangovan, and N. Seetharama, "Essential Derivation of Varieties and the Imminent Challenges to Indian Plant Breeders," *Electronic Journal of Plant Breeding*, Vol. 1, No. 4 (2010), pp. 1258.

⁴ Union for the Protection of New Varieties of Plants, "International Convention for the Protection of New Varieties of Plants," (Geneva: UPOV Headquarters, 1978), Article 5.3. The provisions of the article were later amended in 1991.

⁵ Usha Swaminathan and Jananipriya Rameshbabu, "Social Benefits, Development, and Pertinence of Laws: The Case of Commercialization of Plant Genetic Resources in the Global Markets," in Siva Ramamoorthy, Inocencio Jr. Buot, and Rajasekaran Chandrasekaran, eds., *Plant Genetic Resources, Inventory, Collection, and Conservation*, (Singapore: Springer, 2022), pp. 521-522.

is exemplified in *Pitica v Kyria* [1985].⁶

In light of the evolution of phenomenon and legal precedent set by the *Pitica v Kyria* case, Union for the Protection of New Varieties of Plants (“UPOV”) later emphasized the importance of safeguarding plant variety protection rights. UPOV introduced a new concept in the International Convention for the Protection of New Varieties of Plants in 1991, termed “Essentially Derived Varieties” or in Indonesian translated as “Varietas Turunan Esensial” (“EDV”). The concept narrows the provisions of exclusion of infringement of plant variety protection rights. Indonesia has indirectly adopted these UPOV Convention provisions in the Positive Law.⁷

The concept of EDV, which was introduced in 1991, has potential to raise legal issues when it is implemented. Research by Professor Charles Lawson of Griffith Law School calls into question the standard of “essential” characteristics referred to in this concept.⁸ Concurrently, research indicates the use of certain derivation techniques can have a different effect on essential characteristics of the plant.⁹ Whereas, the overarching objective of such a policy is reinforce legal certainty of protection for the use of existing protected varieties.¹⁰

The implementation of the VTE concept in Indonesia itself has not been extensively undertaken. According to data obtained from the Plant Variety Protection Office of the Ministry of Agriculture of the Republic of Indonesia (“PVP Office”), from 2008 to June 2024, a total of 31 EDV were granted plant variety protection rights. A subsequent challenge pertains to the limited awareness among breeders concerning the utilization of alternative varieties in the development of new varieties (EDV). This issue is typically only discernible to the Examiner during the DUS test examination.¹¹ During registration of

⁶ In this case, the issue was whether the licensee could extend the scope of protection to the original plant variety right holder of the rose that had been developed through mutation? According to the European Commission, this is not possible because the infringement exception applies to protect licensees who have developed their own varieties. See 85/561/EEC: Commission Decision of December 13, 1985 relating to a proceeding under Article 85 of the EEC Treaty (IV/30.017 - Breeder's Rights: Roses), OJ L 369, 31/12/1985, pp. 9-18.

⁷ Indonesia is not a member state of UPOV nor has it ratified/participated in the UPOV Convention but indirectly has adopted UPOV provisions to regulate plant variety protection. See Ranggalawe Suryasadin Sugiri, “The Dynamic of the Indonesian Plant Variety Protection System.” *WIPO-WTO Colloquium Papers*, Vol. 1, No. 5. (2010), pp. 55.

⁸ Charles Lawson, “Plant Breeder's Rights and Essentially Derived Varieties: Still Searching for Workable Solutions,” *European Intellectual Property Review*, Vol. 499, (2016), pp. 36. See also Charles Lawson, “Essentially Derived Varieties: A Workable Compromise Against Free-Riding Breeders?” in Kamalesh Adhikari and David J. Jefferson, eds., *Intellectual Property Law and Plant Protection: Challenges and Development in Asia*, 1st ed.1, (Lonton: Routledge, 2020), pp. 39.

⁹ Yuanyuan Yang, et.al., “Identifying Parameters for Defining “Essentially Derived Varieties” of Maize Inbred Lines Using High-Throughput Genome-Wide SNP Markers,” *Plants*, Vol. 11 (2022), pp. 1-2.

¹⁰ See Stephen Smith, Elizabeth Jones, and Barry Nelson, “The Use of Molecular Markers to Assist in the Determination of Essentially Derived Varieties,” in Roberto Tuberosa, Andreas Graner, and Emile Frison, eds., *Genomics of Plant Genetic Resources: Managing, Sequencing, and Mining Genetic Resources*, 1st ed.1, (Netherlands: Springer Dordrecht, 2014), pp. 55-56.

¹¹ The DUS test (in Indonesian term translated to Uji BUSS) is a test of the fulfillment of the New, Unique, Uniform, and Stable elements of the variety submitted for registration by referring to the Individual Testing Guidelines (PPI) for the national level and UPOV Guidelines for the international level. See Pusat Perlindungan Varietas Tanaman, *Panduan Umum Pengujian Kebaruan, Keunikan, Keseragaman, dan Kestabilan*, (Jakarta: Departemen Pertanian, 2006), p. 5.

applications for plant variety protection rights, breeders often neglect to consider the use of other existing protected varieties, deeming it to be disadvantageous to their own.¹² This oversight potentially leads to the reoccurrence of legal infringements akin to those observed prior to 1991.

There is also lack of clarity in the regulatory framework concerning licensing for the use of existing varieties. Normatively, EDVs breeding in Indonesia required to obtain a permit from the existing breeder's or rights holders. On the other hand, written agreement of its permit is not mentioned as requirement document that must be attached for registration of EDVs. The law does not provide any further explanation related to formality of the permission, so this ambiguity suggests possibility that permit may encompass a broader scope than the written agreement.¹³

Regarding to the issues and potential legal challenges outlined above, it is worthwhile to conduct a research within the context of Intellectual Property Law, particularly as it pertains to the concept of EDV in Indonesia. A comparison is made with EDV's international concept under the UPOV Convention of 1991 and Indonesian positive law to obtain a comprehensive picture of its legal protection. Furthermore, this paper discusses the standards employed by Indonesian and/or international regulations concerning determination of EDV characteristics. The objective of this study is to provide a comprehensive understanding of legal framework governing the protection of intellectual property rights for breeders and rights holders in the context of EDV breeding. By examining the regulations and standards established by Indonesia and international authority, this study seeks to contribute to the development of effective legal mechanisms that can balance protection of intellectual property rights for EDV breeding.

2. Research Method

In this research, the author employed normative juridical approach based on secondary data. A comparison is made with the legal concept of EDV that applies nationally in Indonesia and internationally based on the 1991 UPOV Convention. The objective is to obtain a comprehensive picture of legal protection based on primary, secondary, or tertiary legal materials.

Data presented herein were obtained through a combination of literature searches and interviews. The legal norms and their application are analyzed by harmonizing the implementation of the provisions of the relevant laws and regulations. Its application

¹² Based on author interviews with employees from Legal Services and PVP Examiners on 21 and 28 May 2024 at the Center for Plant Variety Protection and Agricultural Licensing of the Ministry of Agriculture.

¹³ See Annex II of the Regulation of the Minister of Agriculture No. 25 of 2021: "*Khusus untuk permohonan Hak PVT Varietas Turunan Esensial (VTE) Pemohon Hak PVT VTE wajib mendapat persetujuan dari pemberi atau pemilik varietas asal untuk memperoleh Hak PVT, dan harus melampirkan bukti persetujuannya. Apabila persetujuan belum/tidak diperoleh, maka permohonan Hak PVT untuk varietas turunan esensial tersebut tidak dapat diterima atau untuk sementara akan ditangguhkan sampai dengan pemohon yang bersangkutan melengkapi persetujuan dari pemilik varietas asal.*"

Un-official translation: "Specifically for the application of PVP Rights for Essentially Derived Varieties (EDV), the applicant for PVP Rights for EDV must obtain approval from the grantor or owner of the initial variety to obtain PVP Rights, and must attach proof of approval. If the approval has not been obtained, the application for PVP Rights for the essentially derived variety cannot be accepted or will be temporarily suspended until the applicant completes the approval from the owner of the variety of origin."

based upon insights from interviews conducted with the Center for Plant Variety Protection and Agricultural Licensing of the Ministry of Agriculture (PVP Office).¹⁴ The findings of this research is descriptive and analytical in nature, as the data used is in the form of qualitative.¹⁵ Given the foregoing, the objective of this study is to provide a prescription regarding the ideal legal protection for existing plant variety protection breeders/rights holders and EDV breeders/rights holders.

3. Results and Discussion

1. The Concept of Essential Derived Varieties

a. Based on the International Legal Instruments (Union for the Protection of New Varieties of Plants Convention)

EDV has limited the range of actions that are excluded from infringement of Plant Variety Protection Rights (*exemptions/exclusions*). As stipulated in the 1978 UPOV Convention, unauthorized use of the breeder's variety as a source for producing another variety for marketing that variety shall not be considered an infringement, unless such use is repeatedly made for commercial production of another variety.¹⁶ The 1991 UPOV Convention further restricted access to the unauthorized use of protected varieties for the purpose of producing other varieties, including restriction that no other breeding varieties qualify as EDV.¹⁷ In this context, EDV breeders/rights holders are granted the same exclusive rights as breeding varieties in general.¹⁸

The utilization of a protected variety as a source for breeding new variety does not inherently render the new breeding variety as an EDV. According to the 1991 UPOV Convention, terminology used to denote the source variety from which new varieties are derived is Initial Variety. The conception of an EDV from the initial variety is contingent on the fulfilment of the following criteria:¹⁹

- 1). It is predominantly derived from the initial variety, or from a variety that is itself predominantly derived from the initial variety, while retaining the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety;

¹⁴ Soerjono Soekanto dan Sri Mamudji, *Penelitian Hukum Normatif: Suatu Tinjauan Singkat*, ed.1 (Jakarta: PT RajaGrafindo Persada, 2007), pp. 13-14.

¹⁵ Sri Mamudji, *et.al.*, *Metode Penelitian dan Penulisan Hukum*, (Jakarta: Badan Penerbit FHUI, 2016), p. 67.

¹⁶ Article 5 (3) of UPOV 1978: "Authorisation by the breeder shall not be required either for the utilisation of the variety as an initial source of variation for the purpose of creating other varieties or for the marketing of such varieties. Such authorisation shall be required, however, when the repeated use of the variety is necessary for the commercial production of another variety."

¹⁷ Article 15 (1) of UPOV 1991: [Compulsory exceptions] The breeder's right shall not extend to:

- (i) acts done privately and for non-commercial purposes,
- (ii) acts done for experimental purposes and
- (iii) acts done for the purpose of breeding other varieties, and, except where the provisions of Article 14(5) apply, acts referred to in Article 14(1) to (4) in respect of such other varieties.

¹⁸ Article 14(5)(a)(i) of UPOV 1991: "The provisions of paragraphs (1) to (4) shall also apply in relation to: (i) varieties which are essentially derived from the protected variety, where the protected variety is not itself an essentially derived variety,"

¹⁹ Union for the Protection of New Varieties of Plants, "International Convention for the Protection of New Varieties of Plants," (Geneva: UPOV Headquarters, 1991), Article 14(5)(b).

- 2). Clearly distinguishable from the initial variety; and
- 3). Except for differences which result from the act of derivation, it conforms to the initial variety in the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety.

Based on all criteria above, it can be deduced that three fundamental criteria can be employed to ascertain whether a variety is an EDV from initial variety. An EDV must be predominantly derived from the initial variety and it must be clearly distinguishable from its initial variety. Although it must be distinguishable, the last criteria emphasizes compatibility between the EDV and the initial variety in terms of the expression of "essential characters" resulting from the genotype or combination of genotypes of the initial variety. All three criteria must be met cumulatively.

Essential characteristic is defined as a fundamental feature to the crop variety as a whole. An essential characteristic influences the main features, performance or value of a variety that relates directly or indirectly to the value chain of a variety or its propagation.²⁰ These characteristics may include, but are not limited to, morphological, psychological, argonomic, industrial and/or biochemical attributes.

UPOV provides several examples of plant breeding methods that may indicate the creation of EDV. First method involves the selection of natural or induced mutants, or somaclonal variants. The next method is the selection of individual variants of the plant variety of origin. Another method is backcrossing. The last method is through transformation by genetic engineering.²¹ It is also possible to conceive and develop other method as the times evolve.²²

b. Based on National Legal Instruments in Indonesia

Law No. 29 of 2000 on Plant Variety Protection ("**PVP Law**") provides similar provisions regarding EDV to the 1991 UPOV Convention. EDV breeders/rights holders are granted the same exclusive rights as general variety protection rights holder.²³ Therefore, the utilization of EDV by a third party must be granted authorization by the EDV breeders/rights holder.

The EDV breeding in Indonesia must first obtain consent from the breeders/rights holder of initial variety. An EDV can be derived from protected

²⁰ Point 12 of UPOV Explanatory Notes on EDV 2023: "'Essential characteristics' are characteristics that are fundamental for a variety as a whole. They should contribute to the principal features, performance or value for use of a variety and be relevant for one of the following: the producer, seller, supplier, buyer, recipient, user of the propagating material and/or of the harvested material and/or of the directly obtained products and/or the value chain." See Union for the Protection of New Varieties of Plants, "Explanatory Notes on Essentially Derived Varieties Under the 1991 Act of The UPOV Convention," UPOV/EXN/EDV/3, (Geneva: UPOV Headquarters, 2023), p. 8. 8.

Explanatory Notes are documents used as guidance and information related to the UPOV Convention. See UPOV, "UPOV Collection," available at https://www.upov.int/upov_collection/en/, accessed on November 27, 2024.

²¹ Article 14 (5) (c) of the 1991 UPOV: *Essentially derived varieties may be obtained for example by the selection of a natural or induced mutant, or of a somaclonal variant, the selection of a variant individual from plants of the initial variety, backcrossing, or transformation by genetic engineering.*

²² Union for the Protection of New Varieties of Plants, UPOV/EXN/EDV/3, (Geneva: UPOV Headquarters, 2023), p. 8.

²³ *Law on the Protection of Plant Varieties*, Law Number 29 of 2000, State Gazette of 2000, No. 240, hereinafter referred to as the PVP Law, Article 6 paragraph (2) letter a.

varieties or varieties that have been registered and named by the government in accordance with applicable laws and regulations, also they were not previously qualified as an EDV.²⁴ In general, the term of varieties refer to a group of crops/plants from one type or species that is denoted by its shape, growth, leaves, flowers, fruits, seed and its genetic characteristics or genetic combination that can be differentiated from similar types or species by at least one determining attribute and when reproduced do not experience any change.²⁵ Furthermore, Government Regulation No. 13 of 2004 regarding the Naming, Registration and Use of Varieties of Origin for the Production of Essential Derivative Varieties ("**GR No. 13 of 2004**") stipulates that initial variety can be an existing variety that has been cultivated for generations and has become property of the community (local varieties) or breeding varieties, whether or not given plant variety protection by law.²⁶ Local varieties or breeding varieties that are not granted plant variety protection must generally be named and registered first by the PVP Office before they are used as initial variety for EDV breeding.²⁷

Authorization for the use of initial variety for EDV breeding is subject to a distinct consent mechanism. For the use of local varieties, approval must be obtained from the Regent/Mayor, Governor, or PVP Office that represents the interests of the relevant local community through an authentic deed before the EDV breeding.²⁸ At a minimum, the deed must contain the following information:

- 1). Name and Address or domicile of the person or legal entity that breeds EDVs;
- 2). Rights and obligations of the parties;
- 3). The means of resolving disputes that may occur between the parties.

These aforementioned informations collectively constitute the minimum standard of the deed or agreement's substance, thereby enabling the parties to incorporate additional provisions or clauses, provided they do not contravene the prevailing laws and regulations in Indonesia.

It is conceivable that provisions and/or clauses pertaining to remuneration exist for the use of local varieties. Remuneration for the use of local varieties for EDV breeding will be distributed to the community that possesses the local variety through the Regent/Mayor, Governor, or PVP Office.²⁹ The payment is allocated to enhance well-being of the local variety proprietor community, as well as the conservation of the local variety concerned and efforts to preserve germplasm in

²⁴ Article 6 paragraph (5) letter a of the PVP Law *juncto* Article 6 paragraph (6).

²⁵ Article 1 paragraph point 3 of PVP Law.

²⁶ Article 1 point 5 of GR No. 13 of 2004: "Varieties of Origin are Varieties used as basic materials for the production of Essentially Derived Varieties which include varieties that have granted PVP rights and Varieties that have not granted PVP rights but have been named and registered by the Government." See *Government Regulation on the Naming, Registration, and Use of Varieties of Origin for the Production of Essential Derivative Varieties*, hereinafter referred to as the GR No. 13 of 2004, State Gazette of 2004, No. 4375, Article 1 number 5 and Article 3 paragraph (2).

²⁷ GR No. 13 of 2004, Article 3 paragraph (2).

²⁸ GR No. 13 of 2004, Article 9 paragraph (1) *juncto* Article 9 paragraph (2).

²⁹ GR No. 13 of 2004, Article 10 paragraph (2). See also Article 7 paragraph (1) and paragraph (4) of PVP Law.

the region where the local variety is located.

Authorization for the use of other varieties for breeding EDV is regulated similarly to the use of local varieties. The use of varieties for breeding EDV requires an authentic deed prior to their breeding. The Deed must include specific clauses that serve as a minimum standard and remuneration clause. A notable distinction between the use of local varieties and other varieties is that the other varieties remuneration is directly allocated to the Rights Holder and/or Breeders. The provision of such remuneration is not subject to specific parameters; however, it is imperative to ensure that the rights holders and/or breeders are duly protected through the provision of reasonable or fair remuneration, which are contingent upon the economic benefits arising from the EDV itself.³⁰

In addition to requirement for an EDV to be derived from the aforementioned varieties and obtain consent from breeders/rights holder, an EDV is required to essentially retain the expression of the essential characteristics of the initial variety. Despite maintaining the expression of the essential characteristics of the initial variety, the initial variety and the EDV remain clearly distinguishable from the characteristics arising from the act of derivation itself. The clear distinction between the two is determined based on the characteristics of the plant species, which consists of at least qualitative character elements. For example, to determine the qualitative characteristics of a flower, one can look at the differences in its shape and/or color.³¹ The use of qualitative character parameters will make it easier for the PVP Examiner to distinguish between EDV and initial variety because it can be seen visually by eyes. The details of the characteristics of plant species contained in a variety are compiled in the Individual Testing Guidelines (PPI) that have been prepared and approved by the Head of the Center for Plant Variety Protection and Agricultural Licensing.³² The preparation of PPI must be preceded by observations according to the list of characteristics as a marker of each plant related to the granting of plant variety protection rights in testing the distinctness of the variety to be compared with the characteristics of the initial variety of the EDV.³³

After comparison, the degree of similarity between the two is calculated to determine which characteristics of the initial variety are retained. EDV must be able to retain at least 70% (seventy percent) of essential characteristics of the initial variety.³⁴ The essential characteristics can be genetic and/or

³⁰ Article 16 paragraph (5) of GR No. 13 of 2004: "In the event that the owner of the Breeding Variety is not the breeder of the Variety concerned, the agreement as referred to in paragraph (1) must still guarantee the rights of the breeder concerned to get a decent reward by taking into account the economic benefits that can be obtained from the Essential Derived Variety."

³¹ *Minister of Agriculture Regulation on Selection Methods in the Production of Essential Derived Varieties*, PERMENTAN No. 34/Permentan/OT.140/7/2008, Article 10 paragraph (1) *in conjunction with* Article 10 paragraph (2).

³² PERMENTAN Number 34/Permentan/OT.140/7/2008, Article 10 paragraph (3).

³³ PERMENTAN Number 34/Permentan/OT.140/7/2008, Article 10 paragraph (4) *juncto* Article 10 paragraph (5).

³⁴ GR No. 13 of 2004, Article 2 paragraph (3).

morphological.³⁵ Thus, if the level of similarity between a new breeding variety and source variety (initial variety) is less than 70%, the new breeding variety is not classified as an EDV.³⁶

The final aspect of an EDV is its breeding using specific methods or techniques. EDV can be obtained from induced mutation, somaclonal variation, individual plant selection, backcrossing, and/or genetic engineering transformation of the original variety.³⁷ The use of these techniques over time has the potential to evolve, so that it does not rule out the presence of other techniques of breeding an EDV.³⁸

In certain instances, employing prevailing techniques necessitates specialized calculations to ascertain the degree of similarity among the 70% essential characteristics. To determine it, the number and list of characteristics of plant are required so that there is a common tool and method of comparison. Moreover, the determination may also take into account of advice and consideration of relevant agencies.

Table 1. Comparison of EDV's Concept under International Legal Instruments and Indonesian National Legal Instruments

Elements	International Regulation (UPOV Convention 1991)	Indonesian Regulation
Initial Variety	- Varieties that are protected by PVP rights; - Varieties that are not protected by PVP rights.	- Varieties, both protected by PVP Rights and not yet protected; - Local Varieties.
Consent for the Use of Initial Varieties	Consents are only required for breeding varieties that have been protected by PVP rights.	Consents are required for all breeding varieties, whether they have been protected by PVP rights or not, as well as local varieties.
Degree of Similarity	Not regulated, only provides an overview of the predominantly derived characteristics.	70% (seventy percent)
Essential Characteristic Parameters	Provides options for member states to assess them based on the parameters of morphological, psychological, argonomic, industrial and/or biochemical characteristics.	Limited to morphological and/or genetic characteristic parameters.

³⁵ PERMENTAN Number 34/Permentan/OT.140/7/2008, Article 10 paragraph (7).

³⁶ PERMENTAN Number 34/Permentan/OT.140/7/2008, Article 10 paragraph (6).

³⁷ PVP Law, Article 6 paragraph (5) letter c.

³⁸ GR No. 13 of 2004, Article 2 paragraph (2) and its explanation.

2. An Examination of Efforts to Balance Legal Protection for the Rights Holders in Framework of Essential Derived Variety Breeding in Indonesia

Exclusive rights are the main aspect that is important to consider in relation to EDV breeding. The exclusive rights in this context refers to protection plant variety rights ("PVT Rights"), a special right granted by the state to breeders and/or rights holders to use their own breeding varieties or to give approval to other individuals or legal entities to use them for a certain period.³⁹ Conceptually, the objective of PVT Rights is to safeguard economic interests, thereby ensuring a degree of exclusivity for breeders/right holders derived from the breeding process.⁴⁰ Breeders have the right to use and give their consent to other persons or legal entities to employ their varieties in the form of seeds and/or crops for the purpose of propagation through certain activities.⁴¹ It is imperative to acknowledge the moral implications inherent in these provisions, along with the emphasis on exclusivity.⁴² Moreover, there is legal recognition through the clarity of related subjects and the legal relationship between breeders and the varieties they breed.⁴³

The breeding and propagation of EDV requires explicit permission or approval from the breeder/right holders of the initial variety. This is because the initial variety is considered a protected variety and/or has submitted an application for registration or has been granted a certificate. According to the normative provisions outlined in the 1991 UPOV Convention, granting of such permission may entail the right of breeders/rights holders of initial variety to receive remuneration as a form of benefit-sharing.⁴⁴ The embodiment of such general provisions of UPOV in Indonesia is specifically regulated for the scope of EDV in PP 13/2004.

Before granting a remuneration, permission to use the initial variety must be given in written. The permission must be in the form of a written agreement, made in front of public official (in this case a notary) and prepared before the EDV breeding, as regulated by the positive law in Indonesia. With such provisions, the agreement has the same strength as an authentic deed in the context of a dispute, which guarantees the civil rights of breeders/rights holders by external, formal, and/or material evidentiary strength.⁴⁵

Besides the requirement of a written agreement prior to the EDV breeding,

³⁹ PVP Law, Article 1 number 2.

⁴⁰ Admin, "What are the Exclusive "Rights" of the Breeder?" *Plant and Soil Sciences eLibrary*, available at <https://passel2.unl.edu/view/lesson/f798630b33e5/5>, accessed on November 27, 2024.

⁴¹ See Article 6 paragraph (1) in conjunction with Article 6 paragraph (3) of the PVP Law and Article 14 (1) of the UPOV Convention 1991.

⁴² Stephen Smith, "The Foundations, Continuing Evolution, and Outcomes from the Application of Intellectual Property Protection in Plant Breeding and Agriculture," in Irwin Goldman, ed., *Plant Breeding Reviews*, 1st ed. (New Jersey: Wiley, 2020), pp. 128-129.

⁴³ Emi Indah Lestari, Kholis Roisah, and Adya Paramita Prabandari, "Perlindungan Hukum Terhadap Varietas Tanaman Dalam Memberikan Kepastian Hukum Kepada Pemulia Tanaman," *NOTARIUS*, Vol. 12, No.2 (2019), pp. 980.

⁴⁴ Article 17(2) of UPOV 1991: "[Equitable remuneration] When any such restriction has the effect of authorizing a third party to perform any act for which the breeder's authorization is required, the Contracting Party concerned shall take all measures necessary to ensure that the breeder receives equitable remuneration."

⁴⁵ See Rahmawati Boty "Kekuatan Akta Notaris dalam Menjamin Hak Keperdanaan," *Jurnal Cendekia Hukum*, Vol. 3, No.1 (2017), pp. 88-89.

another aspect that is important to note is the legal subject therein. In drafting the agreement, the parties involved will depend on the initial variety is used for EDV. This is in line with the essence of the Plant Variety Protection Law, which prioritizes the element of ownership of intellectual property rights of a variety. The legislation in Indonesia has specifically regulated this in the provisions of Article 9 and Article 16 of GR No. 13 of 2004.

Different parameters can be applied in the actual determination of the nominal amount of the remuneration. There are different provisions for the payment of royalties for the use of local variety and/or breeding variety. GR No. 13 of 2004 basically does not stipulate the remuneration a mandatory provisions.⁴⁶ Therefore, it does not have a legal effect on the agreement and cannot be a reason for annulling the agreement. However, if the parties decide to regulate provision of remuneration, there are certain conditions that must be complied with as stipulated in Article 10 paragraph (1) of GR No. 13 of 2004 for the use of local varieties and Article 16 paragraph (5) of GR No. 13 of 2004 for the use of breeding varieties.

On the other hand, plant breeding can be said to have created a similarity to previous varieties due to the influence of essential characteristics. In generally, there will be little similarity between varieties will show similarity, even when the breeder wants to ignore the EDV aspect in their applications.⁴⁷ The development of the use of biotechnology also affects the number of differences in essential characteristics.⁴⁸ This condition is commonly referred to as plagiarism, copycat breeding, mimicry, imitation, or cosmetic varieties. If the breeder of that variety wants to register for plant variety protection rights by ignoring the EDV element in it, there is a high potential that distinctness in the DUS test will not be fulfilled and the plant variety protection application for registration at the PVP Office will not be obtained.⁴⁹

Authorized party to determine the existence of essential characteristics in a variety qualified as an EDV in Indonesia is basically PVP Examiner at PVP Office. Although not explicitly mentioned in the PVP Law or its related laws and regulations, their authority is related to the substantive examination process of an application for

⁴⁶ Article 9 paragraph (4) of GR No. 13 of 2004: "*Perjanjian sebagaimana dimaksud pada ayat (1) dapat mengatur tentang imbalan bagi masyarakat pemilik Varietas Asal yang diperoleh dari Varietas Turunan Esensial yang bahan dasarnya Varietas Lokal.*" ("The agreement as referred to in paragraph (1) **may** regulate remuneration for the community who owns the Variety of Origin obtained from Essential Derivative Varieties whose basic ingredients are Local Varieties.")

Article 16 paragraph (4) of GR No. 13 of 2004: "*Perjanjian sebagaimana dimaksud dalam ayat (1) dapat mengatur tentang imbalan bagi pemilik Varietas Hasil Pemuliaan.*" ("The agreement as referred to in paragraph (1) **may** regulate remuneration for the owner of the Breeding Variety.")

⁴⁷ Jay Sanderson "Examining and Identifying Essentially Derived Varieties," in Jay Sanderson, ed., *Plants, People, and Practices: The Nature and History of the UPOV Convention*, (UK: Cambridge University Press, 2017). pp. 205

⁴⁸ Michael A. Kock, "Essentially Derived Varieties in View of New Breeding Technologies - Plant Breeders' Rights at a Crossroads," *GRUR International*, (2020), pp. 17.

⁴⁹ Krieger, "EDV Principle: A Necessary PVP Protection Mechanism, not a Redundant Plagiarism Prevention," *SeedWorld*, available at <https://www.seedworld.com/europe/2021/03/09/edv-principle-a-necessary-pvp-protection-mechanism-not-a-redundant-plagiarism-prevention/>, accessed on November 27, 2024.

plant variety registration to obtain PVP rights.⁵⁰ The PVP Office may request expert assistance and/or information from other institutions outside or inside the country only when a specific opinion related to its expertise is required and/or when there is a gap in the knowledge or ability of the PVP Examiner. However, the responsibility, authority, and final decision remain with the PVP Office.⁵¹ For example, opinions from the National Atomic Energy Agency for induced mutation techniques using gamma irradiation and/or opinions from the Biosafety and Food Safety Commission for selection methods using genetic engineering will be considered.

However, previous research shows that the role of PVP Office itself in carrying out its duties and authorities has not been optimally implemented. The PVP Office in carrying out its duties and authorities in practice depends on reporting.⁵² In line with this, there will still be a great potential for the circulation of varieties (alleged as an EDV) with similar essential characteristics in the public/community from the unlawful use of initial variety due to the lack of reports or complaints, especially complaints from Breeders/Rights Holder of the initial variety. Since the Breeder/Rights Holder have the right to file a lawsuit or claim remuneration for infringement of their PVP rights through the District Court based on the provisions in Article 66 paragraph (1) and Article 67 paragraph (1) of the PVP Law. Nevertheless, the state through the PVP Office still has the right to file criminal charges for violations of PVP rights that have a broad impact on the order of national socio-economic and political life.⁵³

UPOV has a different set of rules for the proof of essential characteristics or determine them. The 1991 UPOV Convention does not specify the role of PVP Office, in particular with regard to the authority of the PVP Office to determine the essential characteristics of an EDV. The role of PVP Office is limited to testing the fulfillment of DUS elements (through DUS Test) prior to the grant of plant breeder' rights by specific test or based on existing test result documents submitted at the time of application for registration.⁵⁴

In essence, the party that determines whether a variety is an EDV or not is the Breeder/Rights Holder of an EDV itself as the applicant for registration. The Breeder/Rights Holder of the initial variety also can determine the existence of essential characteristics in the context that their variety has been used for EDV breeding.⁵⁵ This policy reflects that EDV breeding is based on the agreement of the parties. It reflects more when there is a dispute over an EDV, consensus resolution of

⁵⁰ Article 30 paragraph (1) of the PVP Law: "*Pemeriksaan substantif dilakukan oleh Pemeriksa PVT, meliputi sifat kebaruan, keunikan, keseragaman, dan kestabilan varietas yang dimohonkan hak PVT.*" ("Substantive examination is conducted by the PVP Examiner, covering the nature of novelty, distinctness, uniformity, and stability of the variety applied for PVP rights.")

⁵¹ PVP Law, Article 30 paragraph (2).

⁵² Indah Syalsabilla Effendi, Nurwati, R. Yuniar Anisa Ilyanawati, "The Effectiveness of the Center for Plant Variety Protection and Agricultural Licensing in Providing Legal Protection of Plant Varieties," *Transnational Business Law Journal*, Vol.4, No.2, (2023), pp. 160.

⁵³ PVP Law, Article 69.

⁵⁴ Union for the Protection of New Varieties of Plants, "International Convention for the Protection of New Varieties of Plants," (1991), Article 12.

⁵⁵ Union for the Protection of New Varieties of Plants, "Explanatory Notes on Essentially Derived Varieties Under the 1991 Act of The UPOV Convention," pp. 15.

related parties based on an agreement between related parties will be prioritized.⁵⁶ If there is no agreement between parties or the consensus between parties cannot be reached, the next step is through litigation procedural.⁵⁷

In certain situations, both at litigation and non-litigation stages, the EDV breeder is charged with providing evidence (*reverse burden of proof*). Relevant information belonging to the Breeder/Rights Holder of initial variety will be used as a test document to harmonize the evidence carried out by the EDV's breeder/rights holder.⁵⁸ Through this procedure, the EDV Breeder/Rights Holder proves that they are not using the initial variety as claimed by the Breeder/Rights Holder of the initial variety.⁵⁹ As a matter of fact, EDV's Breeder/Rights Holder can transparently show their history of breeding new varieties suspected of EDV that have violated the law, from the seed being used to the sale and purchase of the new variety. Also it is possible to inspect the breeding ground of the new variety suspected EDV.⁶⁰ If it is found that the initial variety belongs to the plaintiff (Breeder/Rights Holder of initial variety) without permission, then it is proven that there has been an infringement of PVP rights so the defendant (Breeder/Rights Holder of EDV) is required to pay damages.

4. Conclusion

This research shows the concept of EDV protection, which originates from the 1991 UPOV Convention has differences when its provisions are indirectly adopted by Indonesia through the PVP Law, GR No. 13 of 2004, and another related regulation of the Ministry of Agriculture. Significant regulatory differences are the kind of initial variety used for EDV and permission to use it. According to the 1991 UPOV Convention, an EDV must obtain a consent if the initial variety is a protected variety, while Indonesian Law regulates more broadly than that. According to GR No. 13 of 2004, a consent is required for the use of initial varieties in the form of local varieties and/or varieties, both protected and *un-protected*. As a result of this regulation, the scope PVP Rights in Indonesia has implicitly become broader through the concept of EDV protection as it covers all varieties.

Another difference is the regulation of technical matters for determining EDV in Indonesian Law. The 1991 UPOV Convention recommends several characteristics that can be used as parameters to determine essential characteristics. Among the characteristics offered, Indonesia has limited the use of morphological and/or genetic characteristics in order to determine essential characteristics. The threshold for an essential characteristic to be considered as predominantly similar between the EDV and its initial variety in

⁵⁶ Barry Greengrass, "The 1991 Act of the UPOV Convention," paper presented at the Seminar on the Nature of Rationale for the Protection of Plant Varieties Under the UPOV Convention by the International Union for the Protection of New Varieties of Plants, Pretoria, South Africa, 1995, pp. 55.

⁵⁷ *Ibid.*

⁵⁸ Union for the Protection of New Varieties of Plants, "Explanatory Notes on Essentially Derived Varieties Under the 1991 Act of The UPOV Convention," pp. 15.

⁵⁹ Joel Smith, *et.al.*, "Gene Editing and Plant Varieties: Protecting Investment or Slowing Innovation?" Thomson Reuters Practical Law, available at [https://uk.practicallaw.thomsonreuters.com/w-032-3083?transitionType=Default&contextData=\(sc.Default\)&firstPage=true](https://uk.practicallaw.thomsonreuters.com/w-032-3083?transitionType=Default&contextData=(sc.Default)&firstPage=true), accessed on November 27, 2024.

⁶⁰ This statement is in line with the implementation of the provisions of the 1991 UPOV Convention by several UPOV member states. See GRAIN, *UPOV 91 and Other Seed Laws: A Basic Primer on How Companies Intend to Control and Monopolize Seeds*, (2015), pp. 14-16.

Indonesia is specifically stated compared to the UPOV Convention, which is at least 70% of essential characteristics of the initial variety. If it does not meet this percentage, then the new breeding variety using the derivation technique is not qualified as an EDV.

The concept of EDV protection, as regulated in the UPOV Convention and Indonesian Law, if implemented in accordance with theoretical framework, has potential to serve as an optimal protection model for breeders/rights holder of the initial variety and/or EDV. This is attributable to the certainty of determination in the EDV breeding, the presence of remuneration, and inverse burden of proof mechanism, which is conducive to the facilitation of the interest related parties. Furthermore, EDV protection concept prioritizes an approach based on agreement between the parties so as to minimize disputes that have potential to harm both.

However, this research also shows, in order to be more ideal for implementation, the EDV protection concept still needs to be adjusted. The Indonesian Law normatively stipulates that the party who determines whether the variety is EDV or not is the PVP Examiner, while the 1991 UPOV Convention prioritizes the active role of the breeder/rights holder. The understanding of the two different schemes needs to be harmonized if it is to be implemented.

The PVP Examiner, together with the Breeder/Rights Holder, may be the subject who plays a role in determination of the essential characteristics. In the substantive examination process, the main subject that plays a role in determining the essential characteristics is the PVP Examiner because they possess knowledge and relevant documents on other varieties that are alleged to have been used as the initial variety. In this case, PVP Examiner has an obligation to maintain confidentiality. Due to that obligation of the PVP Examiner, in the event of dispute between the parties, proof of essential characteristics must be carried out by the Breeder/Rights Holder of EDV breeder/rights holder and/or initial variety.

As previously stated, the establishment of justice can be achieved through the implementation of reversed burden of proof mechanism. The parties may provide evidence by submitting relevant information or documents. In this context, it is important to maintain the neutrality of judges through the involvement of experts, one of whom may be the PVP Examiner. Authentic deed as a written agreements prior to the breeding of the EDV also play an important role as evidence. Thus, the existing concept of EDV protection is able to provide optimal protection balanced with the development of innovation.

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