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Competitive Enhancement Efforts of Domestic Agribusiness with Preservation of Plant Variations

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The establishment of Act No. 29 of 2000 concerning the Preservation of Plant Varieties in Indonesia was carried out as preparation for Indonesia to join the Union Internationale organization pour la protection des Obtentions Vegetale (UPOV). The problem in this study is how legal protection for plant variety inventors is in increasing the national competitiveness of agribusiness. The results showed that the protection of plant varieties, in Act No. 13 of 2016 concerning Patents and Act No. 29 of 2000 concerning Preservation of Plant Variety as the implementation of the Trade-Related Aspects of Intellectual Property Rights, could not be implemented by Indonesian breeders. The law on Patents has not accommodated the various expectations of breeders/holders to protect their inventions. Variety protection, through the law on the Preservation of Plant Variety, is as an effort to increase the competitiveness of national agribusinesses in the form of provisions for the protection of plant varieties that have not been assertive. It is clear that this has not been understood by breeders/Indonesian holders of existing plant varieties, who are a significant part of the Intellectual Property (IP) that has contributed to economic development.

Key words: *Legal protection, Plant variety, National competitiveness.*

Introduction

Indonesia has a great opportunity to become one of largest agribusiness country's or become one the largest producers of important agribusiness commodities. With international trade liberalization, intense competition will occur in the international agribusiness product market, so competitive advantage becomes a decisive factor (Saragih, 1999).

The International Convention for the Protection of New Varietes of Plants, hereinafter referred to as the Union Internationale pour protection des Obtentions Vegetale (UPOV Convention) was formed to protect the rights of breeders, and as at current, Indonesia is not a member of UPOV. This is because Indonesia does not have the readiness to become a member. If membership is forced, this will harm Indonesian breeders due to the flood of overseas plant variety products.

The establishment of Act No. 29 of 2000, concerning Plant Variety Protection (PVP Act), referred to the UPOV convention so that its provisions are in line with other countries' PVP Acts. The establishment of the Indonesian PVP Act was carried out as preparation for Indonesia to join UPOV. One of the requirements for membership, is that each country that will join is required to have national laws that provide protection for plant varieties (Saleh & Andriana, 2003).

The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) provides Intellectual Property (IP) protection for plant varieties in Trademarks and Geographical Indications and Patents. Article 27 paragraph (3) letter of TRIPs states that TRIPs require member countries to protect plant varieties with one method, "patent or sui generis system or by a combination of patent and sui generis system".

The implementation of TRIPs for plant variety protection is in addition to Act No. 13 of 2016 concerning the Patents (Patent Act), which is also stated in the PVP Act as a sui generis system. The Patents Act considers that plant varieties have their own specificity in the form of "character stability" which is very important for plant varieties. However they cannot be reached by the patent provisions.

Increase in productivity and quality by small and medium farmers largely determines the success of economic development. This is influenced by the success of the innovative development, especially in improving the genetic potential of plant varieties (Government Regulation Number 14 of 2004 concerning Terms and Procedures for Transferring Plant Variety Protection and Use of Varieties Protected by the Government). Private seed industry involvement is necessary to make a major contribution to economic development.

In line with this, efforts must be made to empower small and medium enterprises by facilitating their implementation of economically efficient and healthy business environments in competition through a network of business partnership agreements with adequate legal support. Doing so has led to the growth of the democratic values of justice and order, and provides protection for plant varieties through the Patent Act and PVP Act. Through the

implementation of TRIPs provisions, in increasing the competitiveness of national agribusiness, economic development can be realized.

This study shows the potential importance of plant varieties for agribusiness development as a sector, and identifies that it needs to be supported by a more appropriate form of Intellectual Property regulation. This needs to be done in order to guarantee a conducive situation to develop innovation, especially in improving the genetic potential of plant varieties by exploring and utilizing natural resources in order to produce superior quality varieties, high competitiveness. This must all be done in an effort to support economic development.

Literature Review

Legal protection is the protection of dignity and recognition of human rights possessed by legal subjects based on legal provisions of arbitrariness or a collection of rules that can protect things from other things. With regard to consumers, the law provides protection for customer rights from something which results in the failure to fulfil those rights (Hadjon, 1987; Kyrychenko, 2018).

Legal protection provides protection for human rights that are harmed by others and the protection is given to the community so that they can enjoy all the rights granted by law. In other words, legal protection is a variety of legal efforts that must be given by law enforcement officials to provide security, both in mind and physically, from interference and various threats from any party (Rahardjo, 1993).

The definition of Plant Variety Protection (PVP) in PVP Act Article 1 number (1) is "special protection provided by the state, which in this case is represented by the Government, and its implementation is carried out by the Office of Plant Variety Protection on plant varieties produced by plant breeders through plant breeding activities."

The Right to Plant Variety Protection (RPVP) in PVP Act Article 1 number (2) explains that "special rights granted by the state to breeders and/or holders of Plant Variety Protection to use their own varieties of yields or give approval to other people or legal entities to use it for a certain amount of time."

Legislation that provides protection for plant varieties, in addition to providing benefits to the owner or holder of RPVP, also provides legal protection for the parties involved in the plant breeding activities. Such protection includes the recognition of the traditional knowledge of the societies of traditional farmers. In general, the capabilities of traditional farmers are developed from the knowledge inherited from generation to generation. To protect the interests of traditional farmers in the process of breeding plants, the sui generis system

through the granting of breeding rights is required. The sui generis system for the protection of plant varieties should include the following elements (Krisnawati, 2004):

- plant varieties cannot be granted patents because they are contrary to the purpose of protecting plant life as living things;
- farmers must be permitted to reuse seeds obtained from protected varieties, by storing part of the crop to be planted during the next planting period, without the existence of the obligation to pay royalties to the rights holders as long as they do not commercialize the seeds;
- each party must be permitted to use protected plant material for the development of further varieties without the consent of the right-holders by providing compensation to right-holders;
- rights holders must provide compensation to traditional farmers who have provided local varieties or knowledge for the development of protected varieties, because they involve the rights of local communities as traditions and knowledge that has been held for generations;
- compulsory licenses must be provided for public purposes, especially concerning matters that are urgent and related to the public interest.

Bainbridge (1990) stated that: “Intellectual property is the collective name given to legal rights which protect the product of the human intellect”. Policy developments and concerns about the protection of intellectual assets, including the protection of new plant varieties, are based on several theories known as the theory of "reward", the theory of "recovery", and the theory of "incentive" (Pratama, 1999):

- The theory of "reward" stated that the creator or inventor who produces the invention must be protected and rewarded for his effort in producing inventions. This is contained in the understanding of the community regarding the appreciation of one's work or an acknowledgment of the success achieved.
- The theory of "recovery" stated that the inventor or creator after issuing effort and time as well as costs must get the opportunity to regain investment from what he has issued.
- The theory of "incentive" stated that in order to attract efforts and funds for the implementation and development of creativity of discovery, and produce something new, it is necessary to have an "incentive" that can spur so that the intended research activities can occur. Giving reward, recovery, and incentive to breeders are logical consequences and the form of appreciation given to breeders for their success in finding or developing new plant varieties.

Methodology

The research approach in this study is to use normative juridical to test rules, norms, and directives related to the main purpose of this research. A literature review is needed to gather various laws, theories, and careful practices related to the problem to be examined.

The data used in this study includes secondary data, namely: data obtained from literature studies (library research). This data is obtained by reading, quoting, analyzing the literature, principles and theories of law and regulations relating to research.

Discussion

In the development process, law should not be ignored because sustainable development requires a basic conception that stimulates and focuses development as a reflection of modern legal goals. The concept of Law as a tool of social engineering by Roscou Pound can be implemented in developing countries, which makes the law the basis for changing the mindset of conventional general society to become more modern, namely from an agrarian atmosphere to industry. Friedman also revealed the same thing, namely that law is a means of social engineering. Law is not allowed to be passive, but it should function as an improvement in certain situations that leads towards a situtation that is better in line with the goals of community development (Friedman, 1990).

The birth of the PVP Act was a consequence of Indonesia's participation as a signatory to the agreement of the General Agreement on Tariffs and Trade (GATT) and the World Trade Organization (WTO), which is one of the series of agreements containing the TRIPs agreement. This agreement implies that after ratification, Indonesia must harmonize the Intellectual Property (IP) legislation with the approval of TRIPs, including the PVP Act (Saidin, 2004).

Plant varieties such as other IP subjects are assets for their owners to have high economic value (Cheeseman, 1998). In order to be able to penetrate the international market and be able to meet national needs, the existence of plant varieties must always be improved. This improvement is not only from the quantity aspect but the quality aspect needs to adjust to the demands of consumers which can undergo fundamental changes. This requires the state to provide special protection in accordance with the concept of a "modern welfare state". For the sake of people's welfare, the state no longer serves as the center of activity, but only as a support in achieving people's welfare in an effort to avoid obstacles of injustice (Saly, 2004).

The IP scope regulated in TRIPs does not specifically list PVP as a form of protection. However, the formation of a PVP is a manifestation of one of the protection systems provided

by TRIPs, notably Article 27 paragraph (3) of b TRIPs provides: (Gautama, 1994) "…However parties shall provide for the protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof".

The TRIPs agreement gives freedom to each member country to determine ways that are appropriate to implement the provisions in the TRIPs Agreement into their legal system. This is in accordance with the free to determine principle contained in the TRIPs agreement. Each member country is obliged to adjust their laws and regulations with various international conventions in the field of Information Technology, which is the principle of the Intellectual Property Convention.

Universal recognition of IP protection is also regulated in Article 27 of the Declaration of Human Rights, December 10, 1948, namely "Everyone has the freedom to participate in cultural life, to enjoy the arts and to share in scientific advancement and its benefits. Everyone has the right to the protection of morals and material interactions resulting from any scientific, literary or artistic production of which he is the author ".

Thus, even though the TRIPs Agreement does not specifically list plant varieties, each member country is free to determine the methods deemed appropriate to implement the provisions of plant varieties contained in the TRIPs Agreement, and these provisions must be adapted to various international conventions in the IP field.

Prior to the approval of TRIPs, the provision of patents for plant varieties already existed. The United States has regulated patents (Mollengraff, 1953) since 1930. Anyone who discovers/develops different or new plant varieties, and their multiplication is not through reproductive cell marriage (asexually reproduced), can be protected by the Plant Patent Act (Jondle, 1989). Outside the Plant Patent Act, the United States still has other laws relating to plant varieties, namely the Plant Variety Protection Act and Utility Patents (Saleh & Andriana, 2003).

Australia provides patent protection in the Australian Patent Act of Australia. This patent only provides protection for plant varieties that are developed using modern biotechnology techniques. In the event of failures to comply with the patent provisions, developers shall be entitled to protection through the rights of the breeder in the separate Law of Plant Breeder's Right Act 1994 (Hawkins, 2017).

Regulations on the rights of breeders in the Netherlands have actually existed since 1941, namely in the Kweekersrechtbesluit 1941, (Breeders' Rights Decree) which was valid until June 1, 1967 (Sneep and Hendriksen, 1979), and was replaced by Zaaizaad en Plantgoedwet (Seeds and Planting Material Act) (Hoeth, 1984). To adjust to international conventions in

the field of protection of plant varieties, their provisions underwent changes on 28 January 1999. Article 29 paragraph (1) of such stipulates that species or genus of plant varieties that meet different, uniform and stable elements will be given the rights of breeders.

Associated with the international conventions, specifically those for the protection of plant varieties, an international convention has been agreed on, namely UPOV, United Nations Convention on Biological Diversity, and the Cartagena Protocol on Biosafety for the Biodiversity Convention.

If it is associated with the provisions of TRIPs, the PVP in Indonesia is a form of protection based on the sui generis system as the implementation of TRIPs. It implies that the regulation of plant variety protection is left to the needs and conditions of each country. It is unknown whether PVP will stand alone or will run simultaneously with the implementation of the patent so that there will be a combination of forms of protection.

In Indonesia, the implementation of TRIPs concerning PVP is outlined in the PVP Act. If there is an association with the notion of sui generis for the background of plant varieties, the variety has its own specificity so it cannot be included in the Patent rules.

This unclear form of protection for traditional rights also poses problems as well as restrictions on the duration of protection. The traditional knowledge of the community is continually applied so it is difficult to determine how long the protection period will be. This transform the traditional knowledge of a community into a public domain. This will cause harm to local communities because they are not compensated for their knowledge by other parties (Saleh & Andriana, 2003).

Specificity, in the form of character stability, is very important for plant varieties but cannot be reached by the patent provisions. Similarly to the terms "novelty" and "inventiveness" that must be owned for inventions in the field of engineering to be patented, new varieties under the PVP Act are still required to have DUS, namely: "Distinct", "Uniformity", and "Stability" from character (Baihaki, 1996).

As a basic level, several provisions in the Patent Act are also included in the provisions of the PVP Act. For example, both state that both patent and PVP are rights are only granted by the state and licensor.

Furthermore, several provisions contained in the PVP Act are not found in the Patent Law, namely, the necessity of naming the varieties that are requested to be protected as stated in article 2 of the PVP Act.

The authority to give exclusive rights to breeders relating to the multiplication of materials (seeds and other ingredients for propagation) as stated in Article 6 of the PVP Act explains that "PVP holders have the right to use and give approval to people or other legal entities to use varieties in the form of seed crops used for propagation" and "The right to use the aforementioned varieties included: producing or multiplying seeds, preparing for the purpose of propagation, advertising, offering, selling or trading, exporting, importing, reserving for purposes as referred to in the description above".

The exclusive rights award, in the form of economic benefits for findings, will encourage the growth of innovation and stimulate a person/company to invest their capital in research and will ultimately contribute to agricultural progress (Baihaki, 1996). In line with this, Public Benefit Theory (Sherwood, 1990) stated that the inventors of plant varieties must be respected and protected by law so that their findings can continue to be the basis of industrial growth and economic development.

Recovery Theory, provides that in creating a work, scientists, inventors, or creators have spent many things such as energy, time, and costs. They should be able to get back what they have spent. This is also in accordance with Incentive Theory (Sherwood, 1990) which states that the submission of incentives can motivate to carry out more useful research activities.

The Absolute Monopoly of The Market theory, which is the basic philosophical basis of exclusive monopoly authority, suggests that breeders have the right to use property rights that shelter them in regulated markets (Philip & Firth, 1999). This includes the form of multiplying seeds, preparing for mission propagation, promoting, introducing or trading, importing and exporting, and reserving for the needs of these activities.

These exclusive rights also have consequences in the form of the right to prevent other people who intend to imitate or exploit the work/innovation that has been produced except by agreement. This is in line with what was stated in theory of "Monopoly of use of One's Personnel Creation" (Philip & Firth, 1999). This means that other people cannot carry out commercial activities against plant varieties that have been protected without the consent of the rights holders concerned.

However, the nature of the monopoly is not absolute. The PVP Act in the context of Intellectual Property legislation in Indonesia has limited the monopoly with social functions in accordance with Pancasila philosophy. This regulates the principle of a balance between individual interests/breeders and the interests of society. Therefore, the PVP Act, as part of Intellectual Property, needs to be seen as a whole and needs to consider the perception of Indonesian people who still think Intellectual Property is a public right.

This manifestation can be seen in the PVP Act, namely the exclusion of exclusive rights in the form of protected varieties, although it does not explicitly identify farmers' privileges or farmers' exemptions. However, the article is a recognition of farmers' privileges which is not found in the patent provisions.

Another important thing in the sui generis system for plant varieties is that the scope or content regulated can accommodate protection as expected by parties related to breeding activities, this a recognition of "traditional knowledge" and is accommodated by the PVP Act.

Indonesia, as an agrarian society with a large population from various backgrounds, has economic potential stemming from traditional knowledge, agricultural products, biodiversity, preservation, and medicines (Kamil, 2002; Leitão, 2013). The economic potential arises from those communities which are generally located in rural areas that can be categorized as traditional communities; they need special protection.

Costa Rica is another country that considers the traditional knowledge of society as important and it has regulated the form of protection in its' national provisions. The country regulates the traditional knowledge of the community in its' Biodiversity Act, (Saleh & Andriana, 2003), so that if there is a violation, a lawsuit can be carried out, as occurred in the case of Basmati Rice (Hilman and Romadoni, 2001). In this case, the United States committed a patent infringement on varieties of Basmati which are local varieties and had been developed with the traditional knowledge of the Indian society. The government in India had a strong desire to save its conservative commodities. This is evidenced by designing The Geographic Appelation Bill. Through these provisions the Government in India is expected to be able to save all types of local plants.

These actions need to be replicated by other countries including Indonesia, which has a wealth of biological resources. For Indonesia, it would be more appropriate if the legal protection system for local traditional plant varieties could be accommodated into separate laws and regulations such as those of the Indian government.

Violations of the conventional insights of society still occur frequently in Indonesia. One such example is the case of biopiracy by Shiseido, Japan for Indonesian Traditional Plants (Hilman and Romadoni, 2001). In this case there was a misunderstanding of the interpretation of the subject that had been registered by Japan, who claimed that a subject was a registered patent. The subject was a local medicinal plant and traditional spices native to Indonesian commodities. What had actually been registered was a patent method that uses herbs.

This can happen due to the fact that some Indonesians who do not understand the practice of patents are involved in the sorting and choosing of the creation and methods protected by patents.

Cases like the above can also occur in Indonesia due to the lack of legal conservation methods for conventional knowledge of traditional medicinal plants and spices which have been passed down from generation to generation. This can lead to biopiracy, as local medicinal plants and spices still belong to the public (public domain), so anyone is allowed to use them.

As long as there is no proper legal protection system for traditional knowledge, these traditional Indonesian plants cannot be protected under the provisions of the PVP Act. If this provision is implemented, the use of biopiracy by foreign parties can be prosecuted based on the provisions of the Indonesian PVP Act.

Submission of protection for breeders' rights will provide opportunities for breeders and it will motivate private contributions to create new variations. Indonesia, as an agrarian country, should be able to produce highly competitive agricultural goods and services that are able to meet global market quality standards. In addition, Indonesia should also be able supply goods and services that are needed by the market on an ongoing basis and able to offer competitive prices, especially in consideration of the ongoing challenges of globalization.

Conclusion

Protection of plant varieties through the Patent Act as an implementation of TRIPs has not been effectively implemented by Indonesian inventors. Various weaknesses of the Patent Act have caused it to be unable to accommodate various inventors' expectations, which has impacted on the weakness of agribusiness competitiveness. Likewise, with the birth of the PVP Act as a sui generis system in line with TRIPs, even though the arrangement is more comprehensive when it is compared to the Patent Act, it still does not motivate the inventors of national plant varieties to obtain their inventions protection.

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