INTERNATIONAL INTELLECTUAL PROPERTY RIGHTS ON AGRICULTURE AND ITS IMPLEMENTATION UNDER INDONESIAN NATIONAL LAW

By

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1. Introduction

Since the ratification of TRIPs Agreement in 1994, Intellectual Property (IP) has been the fastest growing field of law in Indonesia and the Government has launched a substantial reform in this area. This reform has tried to bring Indonesian IP Laws to meet International standard in all subjects of protection including agricultural innovation of new plant varieties. To complete this reform, the Government enacted Plant Varieties Protection Act (PVP Act) in 2000.² The main substance of the PVP Act has borrowed mainly to International Convention on Plant Varieties (1991 UPOV), although there is no international law obligation for Indonesia to fully comliance with 1991 UPOV, except under Indonesia-Japan Economic Partnership Agreement (IJEPA). In fact, Indonesia has not been member to and does not ratify the 1991 UPOV yet.

Firstly, this paper examines the historical background of the international intellectual property rights on agriculture, particularly 1991 UPOV and the significance for Indonesia to provide such protection under its national law. Secondly, it compares the 1978 UPOV and 1991 UPOV, and its substantial provisions particularly in the context of breeder's rights and farmer's rights. Thirdly, this paper also examines whether the adoption of such Convention into Indonesian PVP Act does easily match with Indonesian stage of agricultural research and development as well as the nature of traditional agricultural system in this country. Lastly, it also explores the substantiak provisions of the Act, particularly in the context of farmer's rights and the protection of local varieties. Apart from that, it further examines whether the PVP Act is adequate to protect prevailing tradional agricultural system of knowledge in Indonesia.

Key words: International Intellectual Property, UPOV, IJEPA, Plant Varieties Protection, and Agriculture

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² The Act of the Republic of Indonesia Number 29 of 2000 Regarding Plant Varieties Protection, State Gazette Number 241 of 2000, Additional State Gazette of 2000, Number 4043, enacted on 20 December 2000, entered into force on the date of enactment. See Article 76 of the PVP Act.

2. Historical Backgound of the International Intellectual Property (IPR) on Agriculture

The protection of new plant varieties have been a subject of controversy from the preliminary date of UPOV Convention³ and even before the final conclusion of the TRIPs Agreement⁴ of the WTO Uruguay round. Many argued that the new concept of Plant Breeder's Rights (PBR) occurs because the original IPR system, particularly patent do not providing protection to living organisms.⁵ As a result, compared to inventors in other field of technologies, breeders of new plant varieties would probably received little compensation for their inventions in the absence of patent protection.⁶

Historically, UPOV was initiated by five Western European nations comprising Italy, Germany, France, Belgium and the Netherlands, which were not parties to the Paris Convention at that time, and with the interest to develop commercialised breeding systems. In the absence of any legal framework providing protection to agricutural invention, during the 1991 UPOV Conference, the group of legal experts had to choose between revisions of patent law and development of a new independent law for the protection of breeders outside the patent law on the ground that breeders' rights and inventors' rights are different. In the light of accommodating technical requirement of breeder rights and fitting with specific features of breeders' plant varieties, those countries proposed a concept to develop a new *sui generis* law. Because of that, from the perspective of several developed nations, UPOV regarded as form of *sui generis* system as sets out under Article 27.3 (b) of the TRIPs Agreement.

3. The Protection of New Plant Varieties In Indonesia and its Significance

The dynamic of the protection of new plant varieties can not separated from Indonesia's membership to WTO as mentioned earlier. Under the Plant Varieties Protection Act,

The UPOV Convention established *The Union Internationale pour la Protection des Obtentions Vegetales* or International Union for the Protection of New Varieties of Plants, which based in Geneve. See the detail of UPOV's membership at http://www.upov.int/en/about/members/index.html (last visited 10 May 2007)

Final Act Embodying the Result of the Uruguay Round of the Multilateral Trade Negotiation, 25 April 1994

Michael I Jeffery Q. C., 'Intellectual Property Rights and Biodiversity Conservation; Reconciling the Incompatibilities of the TRIPs Agreement and the Convention on Biological Diversity', in Burton Ong (ed), Intellectual property and Biological Resources (2004) 185, 196.

⁶ Ibid

Hiub Ghijsen, 'Plant Varieties Protection in a Developing and Demanding World', in *Biotechnology and Development Monitor* (36 September/December 2, 1998) at 2, in Patricia Lucia Cantuaria Marin, *Providing Protection for Plant Genetic Resources, Patents, Sui Generis System, and Biopartnerships* (2002) 29.

Paris Convention refers to *The Paris Convention for the Protection of Intellectual and Industrial Property*, originally signed in Paris on 20 March 1883, has been revised a number of times since then- at Rome in 1883, at Madrid in 1890, at Brussels in 1900, at Washington in 1911, at the Hague in 1925, at London in 1934, at Lisbon in 1958, at Stockholm in 1967, at Geneva in 1982 and Geneva in 1984; This Convention is considered to be the original international arrangement for patent protection.

Commission on Intellectual Property Rights, *Integrating Intellectual Property Rights and Development Policy, Report of the Commission on Intellectual Property Rights*, London, (September 2002) at 61.

Patricia Lucia Cantuaria Marin, above n 7, 29.

¹¹ Ibid 227-8.

Michael I Jeffrey, 'The Impact of Trade and Intellectual Property Rights on Biodiversity Conservation; Setting the Boundaries', (Paper presented at the *World Jurist Association 21st Biennial Conference on the Law of the World*, Adelaide, 22 August 2003) 6, in Burton Ong, above n 5, 197.

the need to establish a system of plant breeders' rights (PBR) in Indonesia is driven by several reasons, including; (1) the need to ready supply of distinct crops and plants for developing a progressive, efficient and strong agriculture; (2) the need to preserve germplasm resources to enhance the development for seeding industries to obtain a superior crops; (3) the need to provide legal protection for individual and legal entities in their interest and participation for producing new and superior varieties; and (4) the need to transform international convention on plant varieties into national legislative framework. This last consideration implied that 1991 UPOV has transformed into the Indonesian PVP Act.

Like other IPR protection, PVP is relatively new concept for many Indonesian arisen due to the patent regime did not provide protection for new plant varieties which regarded as the most important outcome in the breeding process. ¹⁷ This new *sui generis* legislation is as a response to the Article 27. (3).b. TRIPs Agreement which requires Member nations to provides an effective *sui generis* law for the protection of plant varieties, if they are not protected by patent. The Indonesian patent law only protects the *process* for the production of plant by using biotechnology techniques, while PVP Act provides protection of the *products* resulted from natural and biotechnology techniques in the form of new plants varieties or species through natural and induced mutation, soma clonal variation, individual crop selection, backcrossing, and transformation from original variety through genetic engineering. ¹⁸

Under the Act, the rationale to provide protection of plant varieties is to support the spirit and activities in plant breading in a way to invent new superior crops needed by society. Such protection is also driven by the interest to facilitate the development of seed industries and a solid agri-business system in this country. Accordingly, there have been a great concern of whether the establishment of a solid agri-business system would not affects the traditional agricultural system and culture which have been existed and developed within the society prior to the enactment of the PVP Act. This traditional agricultural system and culture has been played a pivotal role for the livelihood of the majority of poor farmers in this country. It is expected that the adoption of new concepts and principles able to accommodate the prevailing values which have been existing and flourishing in the society.

4. Internasional Intellectual Property Rights on Agriculture – Comparation Between the 1978 UPOV Convention and the 1991 UPOV Convention)

¹³ The Preamble of Indonesian Plant Varieties Protection Act of 2000, point b, above n 2.

¹⁴ Ibid point c.

¹⁵ Ibid point d.

¹⁶ Ibid point e.

Andriana Krisnawati and Gazalba Saleh, Perlindungan Hukum Varietas Baru Tanaman Dalam Prespektif Hak Paten dan Hak Pemulia (Legal Protection on New Plant Varieties in the Perspective of Patent Rights and Breeder Rights) (2004) 87.

Article 6 (5).c. of the Indonesian Plant Varieties Protection Act, above n 3.

¹⁹ Ibid. Explanatory Memoranda, the Indonesian Plant Varieties Protection Act, 2000, paragraph 4.

²⁰ Ibid. Paragraphs 3, 4, and 5.

Culture Sharing Undermines Local Property Rights', The Jakarta Post (Jakarta, 25 April 2001) in Riza Tjahjadi (ed.), Agreement on Agriculture AOA, TRIPs, WTO, Food Security and Perspectives its Reality in Indonesia (2003) 63-4.

The only international legal regime dealing with the protection of intellectual property in agriculture is the International Convention for the Protection of New Varieties of Plants (hereinafter UPOV).²² The UPOV is the first internationally recognised legal instrument for the protection of plant breeder's rights (hereinafter PBR) as well as an intergovernmental organization with 53 member nations,²³ although, at the earlier stage of its development as mentioned earlier, UPOV was only proposed by 5 (five) Western European nations. However, there is no model for sui generis system except UPOV model since the existance of the TRIPs Agreement. Accordingly, many Member nations choose UPOV Convention as a model for their national laws on the protection of new varieties of plant.

There are two UPOV which are in force at this moment; UPOV 1978 and UPOV 1991.²⁴ But in general, both of them provide minimum standard of protection and threshold of PBR on the basis of newness, ²⁵ distinctiveness, ²⁶ uniform, ²⁷ and stable.²⁸ The UPOV is distinct to patent system because it provides two exclusions from the PBR protection known as farmers' privileges or rights, ²⁹ and research and development exceptions.³⁰ However, there are some fundamental differences between the UPOV 1978 and the UPOV 1991. Under the UPOV 1978, there is a breeder's right to provide prior authorisation, but it is limited on three activities that are; (1) for the production for commercial purposes, (2) for offering for sale, and (3) for marketing of the reproductive propagating material of the variety.³¹ Then, it seems, the UPOV Convention of 1991 strengthens the protection of breeder, and provides a broader approach for the

UPOV is initials of the origin name in French 'Union pour la Protection des Obtentions Vegetales', known as International Convention for the Protection of New Varieties of Plants (2 December 1961), as revised three times, at Geneva on 10 November 1972, on 13 October 1978 and on 19 March, 1991.

The UPOV Convention established *The Union Internationale pour la Protection des Obtentions Vegetales* or International Union for the Protection of New varieties of Plants, which based in Geneve. See the detail of UPOV's membership at http://www.upov.int/en/about/members/index.html (last visited 10 May 2007)

Originally, the UPOV was firstly adopted on December 2, 1961 (hereinafter UPOV 1961). And then this Act was amended in 1972 and then it was revised again in 1978 (hereinafter UPOV 1978). The UPOV 1978 was amended again in 1991 (hereinafter UPOV 1991). Interestingly, when UPOV 1978 entered into force, states could no longer accede to UPOV 1961, see the UPOV 1978, Article 33 (3). However, when UPOV 1991 entered into force, the UPOV 1978 was closed to further accession except for those States that had already notified their intention to accede UPOV 1978 and had started that process; See UPOV 1978 Article 37 (3)

Means not have been offered for sale or marketed, with the agreement of the breeder or his successor in title, in the source country, or for longer than a limited number of years in any other country.

Newness means distinguishable by one or more characteristic from any other variety whose existence is a matter of common knowledge.

The UPOV 1978 is not use the word "uniform" but it uses the word "homogeneous".

²⁸ See Article 5 of the UPOV 1991, then Articles 6-9 point out the definition of these requirements.

Article 2 of the UPOV 1991. According to Graham Dutfield, farmer's rights is not IP rights, this concept is is frequently suggested as a principle that could be introduced into an IP system for plant varieties as a form of compensation or benefit sharing mechanism", see Graham Dutfield, *Intellectual Property Rights, Trade and Biodiversity; Seeds and Plant Varieties* (2000), IUCN, 216; While the definition of farmers' rights can be found in the Resolution 5/1989, which was adopted by at the 25 Session of the FAO Conference in Rome, 29 November 1989. This Resolution endorsed the Concept of Framers' Right as follows:

^{&#}x27;Farmers' rights mean rights arising from the past, present and future contributions of farmers in conserving, improving, and making available plant genetic resources, particularly those in the centres of origin/diversity. These rights are vested in the international community, as trustee for present and future generations of farmers, for the purpose of ensuring full benefit to farmers, and supporting the continuation of their contribution, as well as the attainment of the overall purposes of the International Undertaking'.

Article 15 (ii) and (iii) of the UPOV 1991.

Article 5 of the UPOV 1978.

protection of plant varieties to all forms of production at international level.³² It extends the scope of breeder rights by increasing the acts or activities which requires prior authorization from the breeder. These activities include as follows: (1) the production or reproduction; (2) conditioning for the purpose of propagation; (3) offering for sale; (4) selling or other marketing; (5) exporting;(6) importing; (7) and stocking for the above purposes.³³ This obligation is not only required for the reproductive propagating material, but also essentially derived varieties.³⁴ Moreover, If the UPOV 1978 provides farmers' privilege, under UPOV 1991 such privilege is optional and depends on national PBR law.³⁵ In addition, the period of protection is also extended from not less than 15 years³⁶ under the UPOV 1978 to minimum 20 years under the UPOV 1991.³⁷

By taking into account the nature of UPOV 1991 and its historical background above, many considers that it would not appropriate to be implemented in developing countries. This primarily because the specific character of developing country's agricultural system and tradition are completely different from those in the most developed nations in which the UPOV was originally derived. In the case of Indonesia, this probably true. Some also argue that the application of PVP Act, based on principles 'one size fits all' without taking into account non legal factors like, historical, social, cultural, economic of each single country is neither feasible nor unfair, as each single country have different interest and capacity and what is best for one country is not always best for the other. The transformation of the law without taking into account such differences may lead to unenforceability of the law and in this context may potential to make farmers in developing countries unable to survive due to the expensive of protected seed.

32 Article 15 of the UPOV 1991.

'[Optional Exception] Notwithstanding Article 14, each Contracting Party may, within reasonable limits and subjects to the safeguarding of the legitimate interests of the breeder, restrict the breeder's right in relation to any variety in order to permit farmers to use for propagating purposes, on their own holdings, the products of the harvest which they have obtained by planting, on their own holdings, the protected variety or a variety covered by Article 14 (5) (a) (i) or (ii)'.

Article 14 of the UPOV 1991.

³⁴ Article 14 (5) of the UPOV 1991

³⁵ Article 15 (2) states that :

³⁶ Article 8 of the UPOV 1978.

Article 19 of the UPOV 1991.

See. eg, Amy Nelson, 'Note: Is There an International Solution to International Property Protection for Plants? 37 *Geo. Wash. Int'l L. Rev.* 997, 997-1029; Sheila Seshia, 'Plant Variety Protection and Farmers' Rights in India; Law- Making and the Cultivation of Varietal Control (n.d), access at http://www.ids.ac.ukids/env/PDFs/EPWartcile/Shaila.pdf> (Last visited on June 2006); Philipphe Cullet and Radhuka Koluru, 'Plant Variety Protection and Farmers' Rights; Towards a Broarder Understanding, 24 *Delhi Law Review* 2002 (2003) 41, available at http://www.ielrc.org/content/a0304.pdf>(last visited on February 2007).

See, eg, Surinder Kaur Verma which argues that UPOV is more suitable to developed countries where the farmers use standard modern technologies, including power-driven machinery and vehicles and varies of chemicals, in Surender Kaur Verma, 'Fitting Plant Variety Protection and Biotechnology Inventions in Agriculture Within the Intellectual Property Framework; Challenges for Developing Countries' (Paper Presented at the UNCTAD/ICTSD/HKU/IDRC Regional Dialouge, 'Intellectual Property Rights (IPRs), Innovation and Sustainable Development, Hong Kong, 8-10 November)7.

RP. Cantrell, et. All., 'Perspectives on the IPR Need of Developing Countries' (Paper Presented at the Symposium on Intellectual Property Rights for the Public Good; Obligation of U.S.Universities to Developing Countries, University of Minnesota, 29 April 2004) 6.

See, eg, Vandana Shiva, 'Bio-diversity Totalitarianism; IPRs as Seed Monopolies', 1997 *Eco. & Pol. Weekly* 2582 (October 11); Surinder Kaur Verma, above n 39, 5.

5. Indonesian-Japan Economic Partnership Agreement (IJEPA) and the Protection of New Varieties of Plant in Indonesia

Under the TRIPs Agreement, there is no obligation for Member nations to comply with UPOV Convention of 1991, and accordingly, Indonesian also does not ratify UPOV Convention 1991 yet. However, Under the Indonesia- Japan Economic Partnership Agreement (IJEPA), Indonesia is obligated to adopt or become a party to a number of international conventions in relation to the protection of IP, one of them is UPOV Convention of 1991 as stipulated under Article 106.⁴² This new trend of bilateralism of international trade has followed a similar pattern, in which developed country and developing country counterpart usually requires the participating country to ratify UPOV, ⁴³ as a part of IPR protection commitment. Accordingly, those who argue that bilateral agreement is acting as an agent for developing highest global standards for IPR protection, ⁴⁴ can be justified in this context.

Under theArticle 106 (1) (2) of IJEPA, Indonesia is only obligated to comply with international agreements to which Indonesia is party. And because Indonesia is not a party to and not a member of UPOV yet, there is no legal obligation for Indonesia to comply with both UPOV Convention of 1978 and 1991. However, on the subsequent Article, its Article 106 (3) (c) provides further obligation for Indonesia to endeavour to become a party to the 1991 UPOV Convention. In addition to this, Article 116 regarding New Varieties of Plants under IJEPA stipulates that: "Each Party shall provide for the protection of all plant genera and species by an effective plant varieties protection system which is consistent with the 1991 UPOV Convention. (italic added)." Consequently, Indonesia shall adopt UPOV 1991 and shall amend its national PVP Act in line with the UPOV 1991.

Some argue that it is potentially risky and may not appropriate for developing countries to apply UPOV 1991, as the UPOV 1991 provision was actually designed for developed countries with commercial breeding industries. The UPOV 1991 may also not appropriate for developing countries on the basis that the characteristics of agricultural system, culture and technology are completely different from those of UPOV original Member Nations. Furthermore, in the context of sustainable development, the application of UPOV 1991 may disadvantages to country, in which the agriculture plays an important socio-economic role as well as in those where the biological and cultural diversity in agriculture must be protected and rewarded for their commercial benefits, like Indonesia for instance.

⁴² See Article 106.

See, eg, The Vietnam-US Bilateral Trade Agreement which obligates both parties to be a member of UPOV, in Commission on Intellectual Property Rights above no. 15, 62; See also Peter Drahos, 'Expanding Intellectual Property's Empire: The Role of FTAs', available at http://www.grain.org (last visited on April 2007); See Also Linda Weiss, et. All, *How to Kill A Country; Australia's Devastating Trade Deal with the United States* (2004) 113-138.

See this analysis in Carlos M Correa, 'Bilateral Investment Agreements: Agents of New Global Standards for the Protection of Intellectual Property Rights?' (A study commissioned by GRAIN as an independent exploration of the implications of bilateral investment agreements), available on http://www.grain.org(last visited on May 2, 2006).

⁴⁵ Maristela Basso and Edson Beas Rodrigues JR, p. 196.

⁴⁶ Ibid.

6. The Protection of New Plant Varieties Under Indonesian PVP Act

Threshold of Protection

The plant varieties which are not protected by patent law fall within this regime. The scope of protection is to all categories of plants, whether they generatively⁴⁷ or vegetatively⁴⁸ reproduced except micro-organism (protected by patent) such as bacteria, bacteroids, microplasm, virus, viroid, bacteriofag. ⁴⁹ The threshold of protection under the Indonesian PVP Act is more and less similar to other jurisdictions which ratified UPOV version 1991, that are new, distinctive, uniform, stable and given a denomination (name).⁵⁰ Both newness and distinctiveness are determined on the time of the approval of the PVP application. A plant variety is regarded as a new if the propagation material or the harvested products have not been traded or may have been traded from less than a year in Indonesia, or have been traded for no more than four years for a seasonal plant and six years for annual plant overseas.⁵¹ While a variety is unique if it can be clearly differentiated from other varieties which existence is already publicly known.⁵² Furthermore, a variety is deemed as a uniform if the main features are proven uniform although varied as a result of changes in planting method and environment,⁵³ whereas a variety is considered as a stable if the plant characteristic do not experience any changes when multiplied in large quantities through specific reproduction cycles do not undergo change at the end of each reproduction cycles.⁵⁴

As a consequence of the above requirements, in the case of application of transgenic varieties,⁵⁵ the applicant shall provides, full description of varieties which includes, as follows:

details of variety's molecular description and genetic stability of the proposed traits, the reproductive system of the original parent, existence of its wild relatives, compound content that can affect the environment and human health and the destruction methods in the event of any deviations; together with a declaration on the safety for human health and the environment from an authorised agency.⁵⁶

The PVP Office has also adopted the guidelines for the conduct of novelty, distinctness, uniformity and stability and the development of the harmonised descriptions of new varieties of plants owned by UPOV.⁵⁷ This guideline arranged to

⁴⁷ Generative reproduction refers to plant reproduction through the cross breeding of reproductive cells.

While vegetative reproduction refers to plant production that is not done through cross breeding reproductive

Explanatory Memoranda of Indonesian Plant Varieties Act, Article 2 (1), above n 3.

Article 2 (1), Chapter II, part one of the Indonesian Plant Varieties Protection Act, above n 3.

⁵¹ Ibid Article 2 (2).

⁵² Ibid Article 2 (3).

⁵³ Ibid Article 2 (4).

⁵⁴ Ibid Article 2 (5).

According to Mangku Sitepoe, transgenic Varieties is variety developed through genetic engineering, Mangku Sitepoe, *Rekayasa genetic*, (Genetic Engineering) (2001) 27.

⁵⁶ Article 11 (4) Chapter III, part one of the Indonesian Plant Varieties Protection Act, above n 2.

See The Departemen Pertanian Republik Indonesia - Pusat Perlindungan Varietas Tanaman (The Department of Agriculture of the Republic of Indonesia - The Centre of Plant Varieties Protection), *Panduan Umum Pengujian Kebaruan, Keunikan, Keseragaman dan Kestabilan (General Guidelines for the Conduct of Novelty, Distinctness, Uniformity and Stability*, PVP/PP/1/2/ Date: 20 July 2006; See also Departemen Pertanian Republik Indonesia-Pusat Perlindungan Varietas Tanaman (The Department of Agriculture of the

provides basic principles in both procedural and individual examinations.⁵⁸ Thus, Indonesia is not only adopting UPOV principles, but also includes the technical application of the UPOV.

Subject, Scope, Right and Obligation of Breeder

The subject of the protection is the PVP right holder in which it can be breeder, or natural and legal person or other parties who receive further rights from the right holder.⁵⁹ If the production of variety is based on a contact of employment, the employer is the holder of the right without reducing the right of breeder, except it agreed otherwise.⁶⁰ Similarly, if the production of variety is as a result of a commissioned work, the party commissioning the work is the holder of the right except it agreed otherwise.⁶¹ While the breeder has a right to receive a fair compensation and moral right, in which his/her name to be included in PVP certificate.⁶² The PVP right holder has obligation to implement its PVP right in Indonesia, pay annual fee, provide and show the sample of seed varieties.⁶³ If technically and economically the right is not fair to be implemented in Indonesia, the right holder can be excepted from the obligation to implement it in Indonesia as long as he/she proposed written application to the PVP Office and enclosed the reason and evidence from authorised institution.⁶⁴

Article 6 stipulates that for the purpose of propagation, the holder of the PVP right has the right to use and exercise the rights and give consent to any parties or other legal entities to use the varieties not only in the form of seeds but also harvested products. This Article 6 (2) points out that Article 6 (1) applies to a wide range of varieties covering an essentially derived variety, and undistinguished varieties from protected varieties, produced variety using a protected variety. While the rights to use a variety involves the a number of activities as follows: (a) production and multiplication of seeds; (b) preparation for propagation purposes; (c) Advertisement; (d)offering; (e) selling or trading; (f) Exporting; (g) Importing; preparation for any of the above

Republic of Indonesia - The Centre of Plant Varieties Protection), Panduan Umum Pengujian Kebaruan, Keunikan, Keseragaman dan Kestabilan (General Guidelines for the Conduct of Novelty, Distinctness, Uniformity and Stability) PVP/PP/1/1/date: 21 January 2006. Both available online at official PVP website, < http://setjen.deptan.go.id/ppvp/> (last visited at May 2007).

- 58 Ibid.
- ⁵⁹ Article 5 (1) of the Indonesian PVP Act, above n 2.
- 60 Ibid Article 5 (2).
- 61 Ibid Article 5 (3).
- ⁶² Ibid Article 8.
- 63 Ibid Article 9.
- ⁶⁴ Ibid Article 9 (2) (3).
- 65 Ibid Article 6 (2).
- Under the Government Regulation Number 13 of 2004, Regarding the "Penamaan, Pendaftaran dan Penggunaan Varietas Asal untuk Pembuatan Varietas Turunan Essential" (Denomination, Registration, and the Use of Original Varieties for Developing Essentially Derived Varieties), Article 1 (6), essentially derived varieties means varieties resulted from 'perakitan' (engineering) of original varieties by using certain selection in such a way so such varieties express essential features of its original varieties (minimum 70 %), but it can be clearly distinguished from its original variety from the characteristic which occur as a result of derivation activities. Furthermore, Article 2 (2) of the similar regulations states that this essentially derived variety is variety resulted from certain selection methods, including, natural mutation; induction mutation; individual selection of existing varieties; cross breeding (silang balik or Cross breeding), soma clonal variations; and genetic engineering. See also Article 6 (5), a, b, c of the Indonesian PVP Act, above n 2.

activities.⁶⁷ The scope of the right under this Act is similar to UPOV Convention 1991, Article 14 (1).

The Article 6 (4) obviously provides that the use of the harvested products for propagation purposes which originates from protected varieties must be with the consent of the PVP rights holder. This provision aims to ensure that part of the harvested product is not used for seed multiplication. Furthermore, the Article 6 (5) also stipulates that not only the use of new protected varieties which are need the consent of the PVP right holders, but also the use of essentially derived varieties. This is in line with UPOV 199, Article 14 (5). As essentially derived varieties is eligible for PVP rights, the consent from the owner of the original variety is needed to ensure that the holder of PVP rights or the owner of the denomination of the original variety continue to enjoy its economic rights from the essentially derived varieties. Therefore, in context of scope, the Article 14 of the UPOV 1991 has been transformed into Article 6 of the Indonesian PVP Act.

The only variety which can not be given PVP are those that are used for the purposes which are in conflict with prevailing laws, social order, ethics or morality, religious norms, health and the conservation of environment. The production of psychotropic plants is regarded as not inconformity to prevailing laws, public order, health, ethics, and living environment. A variety deemed in conflict with the religious principles, for instances using genes from animal sources which are against the norms of particular religions. To

Excepted from Infringement

Article 10 provides three acts which are not regarded as infringement of PVP rights, that are; (1) the use of harvested crop of protected varieties as long as not for commercial purposes (2) the use of protected varieties for research and plant breeding activities; and (3) the government use of protected varieties in the light of food supply policy and medicine without infringing the economic right of the PVP right holder.

The requirement and its procedure for the use of plant varieties by the Government enshrined under the Government Regulation Number 14 of 2004,⁷¹ in which it aimed to accommodate the possibility of insecurity of food and the threat of health for the purpose of public interest.⁷² According to this regulation, the use of protected varieties by the government must consider the economic rights of the right holders by providing a fair remuneration to them, and the amount of such remuneration will be determined based on the agreement between the right holders and the Minister.⁷³ Furthermore, there is a freedom to use protected varieties for the purpose of research activities, plant breeding and constituting new varieties as stock for cross breeding as long as they are

⁶⁷ Ibid, Article 6 (3) of Indonesian PVP Act.

⁶⁸ Ibid, Explanatory Memoranda of the Article 6 (4) of Indonesian PVP Act.

⁶⁹ Ibid, Article 3 of the Indonesian PVP Act.

⁷⁰ Ibid, Explanatory Memoranda of the Article 3.

The Government Regulation Number 14 of 2004 Regarding Requirement and Transfer Procedure for the Plant Varieties Protection and the Use of Protected Varieties by the Government, State Gazette of the Republic of Indonesia Year 2004 Number 31, Additional State Gazette of the Republic of Indonesia Number 4376.

⁷² Ibid Chapter VI, Articles 33 (1) and (2).

⁷³ Ibid Chapter VI, Articles 33 (3) and (4).

not used for original varieties as provided under Article 6 (5). All aforementioned Articles are in accordance to UPOV 1991 Articles 15 (1) and Article 17.

Farmer Rights and Local Varieties

With the wide scope of right given to the right holder, the only right given to the farmer is the use of part of harvested crops from the protected varieties as long as not for commercial purpose. Non commercial purposes under this Article are the farmer individual activities particularly those of small farmers for their own needs and does not include activities that are extended to meet the needs of their group. 74 This Article is fully conform to UPOV 1991 Article 15 (2) on the exception to breeder's right, in which member nations have an optional exception to determine it. However, Indonesia chooses to provide limited rights to the farmers exactly similar to the UPOV provision.

The most crucial aspect of the Act is that it negates the right of the farmer to re-sow the seed resulted from his/her harvest as stipulated under Article 6 (1). Although there is no established provision which states that the user of protected plant varieties has no right to re-use harvested seed for propagation, the Article 6 (1) implies that the re-saw of harvested seed are prohibited except with permission from PVP right holder. Then, Article 10 (1) makes clear by explicitly stated that the use of part of harvested crop of a protected variety is legitimate as long as for not commercial purposes. Fall within the category of non commercial purposes pursuant to this Article is individual activities particularly small farmer for his/her own need, and not sharing and exchange it with his/her friends.⁷⁵ Accordingly, this Act provides insufficient provisions for accommodating the right of farmers to continue their traditional wisdom of sharing and exchange seeds as it will harm the breeder's right holder.

Interestingly, the Act stipulates that local varieties own by society shall be under the control of state, ⁷⁶ and this control will be implemented by the government. One of the manifestations of the use of this control is that the government obligated to give name to such varieties.⁷⁷ This may also mean that farmer and community have no right to control their communal property.

7. The Indonesian Plant Varieties Protection Act and National Agricultural **Innovation**

Prior to the existence of PVP Act, Agricultural R&D in Indonesia is public research, funded mainly dominated by Agricultural R&D Agency of the Department of Agriculture. Consequently, the result of R&D activities is public good so that every one can use and reproduce it for its own use as well as for commercial purposes. Moeljopawiro from the National Commission of Germ Plasm argued that this condition is not conducive for the development of private seed industry in producing high quality of seeds in Indonesia.⁷⁸ As the fact showed that the involvement of agricultural

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Ibid, Explanatory Memoranda of Article 10 (1) (a).

Ibid Explanatory Memoranda Article 10 (1).

Ibid Explanatory Memoranda Article 7 (1) which defines local varieties as varieties that has been breeder from generation to generation by the farmers and becomes society's owned.

Ibid Article 7 (2) (3).

Sugiono Moeljonopawiro, 'Perlindungan Varietas Tanaman; Kaitannya dengan Pengelolaan Plasma Nutfah Dalam Pengembangan Varietas' (Plant Varieties Protection: its Relationship with Management of Germ

industries on R&D is very limited.⁷⁹ Moeljopawiro argued that the richness of Indonesia's genetic resources has not been optimally utilised for breeding new varieties due to little activities on breeding processes.⁸⁰ In average, breeding activities for the development of new varieties is very low in Indonesia, primarily due to (1) limited research funding, only depends on government; (2) limited skilled breeders; (3) no involvement of national seed industries;(4) lack of appreciation for breeder researchers; (5) the economic role and its importance of breeding activities is still not obviously seen; and (6) no guarantee for the legal protection of new varieties.⁸¹

In essence, the PVP act is important tool to advanced agricultural development in Indonesia, 82 and for the best utilization of God's gift biological diversity including genetic resources to enhance not only for agricultural sector, but also 'for the entire development of the nations as a whole'. 83 Ideally, the existence PVP Act enables Indonesia to increase agricultural R&D, particularly on agricultural biotechnology. However, almost twelve year of the existence of PVP act, there is lack of convincing evidence that PVP Act increases agricultural innovation and R&D in Indonesia. The agricultural R &D remain dominated by Indonesian Agency for Agricultural Research and Development (IAARD) of Department of Agriculture.

Imported seed is also another problem which may affect agricultural development in Indonesia. The fact showed that the imported seed have been dominated the market because such seeds have not been developed in Indonesia on the basis that Indonesia still unable to create seeds in high quality.⁸⁴ Most of imported seeds are sub tropical varieties in which Indonesia also do not have its germ plasma.⁸⁵ The problem is that, under the Act Number 12 of 1992 regarding Plant Cultivation System, imports seed is prohibited, except in the form of what is known as 'benih bina' (breeder seeds). 86 In practice, the policy of the Directorate of Seeding gives permission to import seed as long as such seed have not produced yet in Indonesia and has comparative advantages to domestic seeds.⁸⁷ This policy has widely open the flow of imported seeds to Indonesia on the ground that most imported seeds are usually high yielding seeds which are have not produced yet in Indonesia. In long term, the roles of the government's research institution in inventing new varieties, especially those high economic -values, may decrease gradually along with competition coming from imported seeds. This policy is not supportive to the government's willingness to transfer foreign agricultural biotechnology to Indonesia.

Plasma in the Development of Varieties) (2005) Komisi Nasional Sumber Daya Genetik (National Commission on Genetic Resources), available at http://indoplasma.or.id/artikel_2005_pvt.htm (last visited on February 2006) at 1

⁷⁹ Ibid.

⁸⁰ Ibid.

⁸¹ Ibid 1-2

⁸² See the Preamble point (a) of Indonesian PVP Act, above n 3.

⁸³ Ibid, Explanatory Memoranda of Indonesian PVP Act.

⁸⁴ Ibid

⁸⁵ Ibid.

Article 10 of the Crop Cultivation System Act, states that: *Introduksi* from overseas conducted in the form of 'seed or *materi Induk*' for plant breeding; Furthermore,
Article 17 (3) emphasis that import seed from overseas must satisfy quality standard of 'benih bina'

Article 17 (3) emphasis that import seed from overseas must satisfy quality standard of 'benih bina' (Breeder Seeds).

See The Directorate of Seeding and Commercialisation Policy of the Department of Agriculture of the Republic of Indonesia, at http://ditjenbun.deptan.go.id>(last visited on February 2007).

8. The Indonesian Plant Varieties Protection Act and Traditional Farmer

As mentioned earlier that PVP Act inhibits the farmers to share and exchange the seeds of the protected varieties that they bought. In the context of Indonesia, sharing and exchange seeds are a part of traditional wisdom principles⁸⁸ for many collective communities for century. A study conducted by Nababan found that adat communities also has distribution sharing mechanism of harvested crop resulted from communal property resources which has a significant value for eliminating social envy within the society.⁸⁹ Another studies had also showed that through traditional wisdom of Indonesian adat society has able to sustain and enrich biodiversity, 90 because each ethic group in Indonesia has its own measure to conserve genetic resources. 91 Dayak Kanayat community located in West Kalimantan for example, has an important ritual related to rice called 'Naik Dango', which usually conducted after harvest. 92 On that ceremonial day, all neighbouring villages come together with their own seeds resulted from their harvest, including their saving seeds. Those seeds then exchanged among them, and will be planted for next forthcoming session. This tradition enriches the varieties of rice genetic resources.⁹³ The varieties developed by farmers also enrich the collection of International Rice Research Institutes (IRRI), 94 and it becomes the important material for further breeding process and innovation.

This showed that seeds and its related knowledge is not part of trading activities as some ethic group believe that seed is not part of commercial good. Seed, according to Dayak Kanayat community, for example, is common property owned by all member of community, including the knowledge related to such seeds. Those perspectives do not easily match with notion of plant varieties protection in which seed and other genetic resources considered as a trade commodity.

This traditional wisdom based on the following principles: (1) People's dependency to nature requires harmony relationship, in which people is a part of nature itself which should be kept its balance; (2) The right over certain *adat* territory is exclusive as right over and or communal property resources or collective resources known as adapt territory known as *ulayat* in most part of Sumatra, Petuanan in Maluku. This binds all *adat* people to keep and manage it for common justice and prosperity, and to secure it from exploitation by other parties; (3) The system of knowledge and the structure of Adat Governance provides capacity to solve their problem related to the use of forest resources; (4) Allocation system and *Adat* law enforcement to secure communal property resources from over use whether by their own community or other parties outside the community; (5) Distribution sharing mechanism of harvest crop of communal property resources had able to eliminate social envy in the society, see Abdon Nababan, 'Pengelolaan Sumberdaya Alam Berbasis Masyarakat Adat, Tantangan dan Peluang' (*Adat* Society -based Natural Resources Management), (Paper presented at *Pelatihan Pengelolaan Lingkungan Hidup Daerah*, The Centre of Environmental Research, Bogor Institute of Agriculture –IPB, 5 July 2002) 2.

⁸⁹ Ibid.

⁹⁰ Ibid.

Ibid. This system is different from ethic to ethic in accordance with social and cultural condition and local type of its ecosystem. They generally have system of knowledge and management of local resources inherited and developed continuously from their ancestors. For example, *Adat* community in Kimaan Island, Merauke Regency, Irian Jaya, have been developing 144 cultivars of sweet potatos. While Dani Ethic, in Palimo, *Lembah Balien*, has been developing 74 cultivar of sweet potatos

Jhamtani Hira and Lutfiyah Hanim, Globalisasi dan Monopoli Ilmu Pengetahuan (Globalisation and Knowledge Monopoly) (2002) 70.

Jhamtani Hira and Lutfiyah Hanim, interview with C. Mangking (*Daya' Kanayat-Toho* –West Kalimantan) and Lorenz (Dian Tama –Pontianak- West Kalimatan), cited in, above 92.

⁹⁴ Ibid.

⁹⁵ Ibid.

Apart from that, some provisions of the Act also do not match well with the prevailing condition in Indonesia. In Indonesian context, particularly within the poor farmer community, the border line between commercial and non-commercial purposes under the Article 10 (a) of the PVP Act is blurred.

Furthermore, Article 1 (4) of the PVP Act also raises a great concern as it defines the term 'plant breeding' (*Pemuliaan tanaman*) as "a series of research activities and experiments or the discovery and development of a particular variety, in accordance with, *standard methods* for the production of new varieties while protecting the purity of the new seed that is produced." (Italic added)

It seems that such definition is only suit to the development of plant varieties conducted in laboratory, and does not match well with the way of farmers in Indonesia develops new varieties with their traditional breeding methods. It is almost impossible for farmer and local people to be regarded as plant breeder on the basis that they may never knows 'standard methods' for development of new varieties and how to maintain the purity of the new seeds pursuant to the Article 1 (4) above. It can also be interpreted that breeding process developed by the farmers and local community will not recognised as 'plant breeding' by virtue of Article 1 (4) of the PVP Act. Meanwhile, the new varieties developed by commercial plant breeders may derived from 'original plant' which have been developed by farmers, but the Act does not clearly specify the compensation for farmers for developing local varieties used by commercial breeders for creating new varieties. This can be interpreted that this Act is particularly designed for commercial plant breeders and researcher, and not for the farmers. ⁹⁷

Article 5 (1) further stipulates that the 'holder of PVP right is a breeder, or any person or legal entities, or other parties that receive further rights from previous right holder'. From the first sight, this Article seem to provide an opportunity for farmers to get PVP right, however, this opportunity may sealed by the Article 7 of the Act on the basis of as follows: Firstly, Article 7 provides that 'local varieties owned by the community shall be under the control of the State', ⁹⁸ and shall be implemented by the Government. ⁹⁹ Then the Government has an obligation to give a name to the local varieties. ¹⁰⁰ It means that if a farmer develops new varieties derived from local varieties which do not have name or its name is unknown, it is uneasy for her/him to get PVP.

Moreover, the threshold of protection is almost impossible to be fulfilled by farmer, as it designed for industrial agricultural industries and to certain extent this Article has closed the possibility for farmer to develop a new seed derived by using their traditional breeding methods from protected new varieties which they bought from seeding industries. The procedure for getting PVP is as difficult as the procedure for obtaining patent right. It involves technique of writing documents in which it is very likely to be

See Article 1 (4) of the Indonesian PVP Act, above n 2...

Interview with Riza Tjahjadi, The Director of Pesticide Action Network (PAN) of Indonesian (Jakarta, 14 December 2006); See also document proposed by Minister for Environment on PVP Bill based on Bill Drafted by Team 13 of Commission III the People's Representative Council in Jhamtani Hira and Lutfiyah Hanim, above n 92, 101.

⁹⁸ Article 7 (1) of the Indonesian PVP Act, above n 2.

⁹⁹ Ibid Article 7 (2).

¹⁰⁰ Ibid Article 7 (3).

mastered by majority of farmers. If a farmer would like to obtain PVP right, he/she should hire expensive PVP consultant which may unaffordable for the farmers.

In addition, Article 7 of the Act provides that the state controls over local varieties owned by community. ¹⁰¹ The Act defined local varieties as the varieties that are already in existence and have been cultivated by farmers for generations and have become a communal property. ¹⁰² The government has responsibility to give name of local variety, has to regulate compensation right from the use of such varieties in relation to PVP and other genetic resources conservation efforts. In addition, the government also regulates the economic benefit for the community as the owner of local variety. ¹⁰³

Under the Government Regulation Number 13 of 2004, the mandate to control over local varieties given to the Major of the City or Regency ("Bupati"/ "walikota") to act o behalf of the society in their region as the owner of local varieties. ¹⁰⁴ As a result, prior agreement with the major of the city shall be made by those who want to use local varieties as original varieties for developing essentially derived varieties. ¹⁰⁵ This Agreement also needs to specify economic benefit of the owner of local varieties for the purpose to increase prosperity of the community and genetic resources conservations. ¹⁰⁶

The above explanation has indicated that the PVP Act does not provides sufficient protection to farmers, although the Act clearly expressed that the PVP is not aimed to close any opportunity for small farmers to use new varieties for their own private use, and permanently protects local varieties for the benefit and interest of wider society. ¹⁰⁷ It is important to note that the evidence that local farmers benefit from the PVP Act is far from clear. Otherwise, it may create dependency of farmer to seeding industry, ¹⁰⁸ because to protect the market segmentation of protected varieties, the Act inhibits the right of the farmer to use harvested varieties for exchange the seed among their neighbouring farmers. As the most of characteristic of farmer in Indonesia is small farmer with limited land and economically marginalised, the dependency on expensive price of seed from seeding industries would potential to destroy their livelihood.

In certain degree, the PVP Act may also undermine the values of prevailing tradition. It seems that legal drafter fail to take into consideration on how important maintaining traditional wisdom and its values like mechanism of sharing seed among the farmers to conserve genetic resources and to avoid social envy. This potential to destroy the traditional wisdom of tadat communities in Indonesia in preserving genetic resources and knowledge related to it.

¹⁰¹ Ibid Article 7 (1).

¹⁰² Ibid Explanatory Memoranda Article 7 (1).

¹⁰³ Ibid Explanatory Memoranda Article 7 (4).

See Article 5 of the Government Regulation Number 13 of 2004 above n 108, this role including giving name to the local varieties and then register it to PVP office.

¹⁰⁵ Ibid Article 9.

¹⁰⁶ Ibid Article 10 (1) (2).

Explanatory Memoranda of the Indonesian PVP Act paragraph 6, above n 3.

See 'Prison for Creative Farmer', *Tempo* (Jakarta ,Sunday 28 August 2005); See also 'Seed Patent has Sent Farmer to the Court', *WALHI News*, access at

http://www.walhi.or.id/kampanye/psda/050922_ptnbenih_cu/ (last visited at October 2006).

The existence of PVP act, insists uniformity and standardisation in agricultural products, and this rarely suit with mega-cultural diversity of mega biodiversity Indonesia. State sovereign rights have been repressively enforced without taking into account the sovereignty of *adat* societies to govern and develop cultural and political independency. The use of biodiversity and genetic resources based on system of knowledge has been developed from generation to generation for many centuries in Indonesia. This system of knowledge usually based on traditional wisdom to how to preserve genetic resources to enrich variety of resources.

Currently, the crisis of diversity in agriculture due to development and economic activities should be take into account. The use of hybrid varieties or ('varietas benih unggul') in Indonesia has been contributed to the extinction of biodiversity. ¹⁰⁹ The Ministry of Environment noted that the extensive use of monoculture technology in agriculture, particularly the use of *Pelita Baru* (new high quality of rice) has led the disappearance of around 1,500 local varieties of rice in the last 20 years. ¹¹⁰ Similarly, one of rice breeder from the Department of Agriculture argued that the application of PVP Act will increase breeder activities and the use of 'unggul' (hybrid) varieties so that it will threat the existence of local varieties. ¹¹¹ As Dutfield correctly points out that IP regimes on biotechnological inventions foster the speed of the development of monoculture technology. ¹¹² The thresholds plant varieties protection (new, distinctive, uniform, stable, and denomination) is regarded as the cause of the spreading use of monoculture technology. However, the extinction of traditional and local varieties is likely to be followed by the extinction of the knowledge related to it. ¹¹³

All aforementioned indicates that the PVP Act has a potential implication on local farmers, traditional agricultural and ecological knowledge and wisdom. In this context, strengthening IP protection on agriculture is not always useful as it can inhibit research, contribute to the expensive price of seeds should be payed by farmers, decreasing genetic resources varieties, and misappropriation use of genetic resources. Because of that, the transplantation and adoption of the legal principles, policy and its institution from one country to another should consider the differences of non-legal factors of the source country and adoptee country, such as historical, political, cultural, and

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For example, green revolution which had started in Indonesia by the end of 1960s, encouraged farmer in Indonesia to cultivate hybrid varieties (like IR 64 type) which have been developed by research institutes. Consequently, traditional types of varieties is not popular anymore from times to times as many farmers did not cultivate it. Farmer tends to cultivate hybrid varieties on the basis to ease the process of marketing as almost all farmers cultivate the same varieties. Jhamtani Hira and Lutfiyah Hanim, above no 92, 41.

See 'Air, Energi, Kesehatan, Pertanian, dan Keanekaragaman Hayati; Kehati Dalam Pengelolaaan Lingkungan Hidup dan Pembangunan Berkelanjutan' (Water, Energy, Health, and Biological Diversity; Biodiversity in Environmental Management and Sustainable Development), Assistant Deputy of Biodiversity Conservation, the Minister of Environment, (Paper Presented at Workshop 'Keanekaragaman Hayati di Ujung Tanduk' (Jakarta, 18-19 December 2006). See also Jhamtani Hira and Lutfiyah Hanim, Ibid 54.

Suwarno, 'Pemanfaatan Varietas Unggul Tanaman dan Teknologi Benih Dalam Kegiatan Pertanian di Indonesia' (The Utilisation of Superior Varieties of Plant and Seed Technology in Agricultural Activities in Indonesia), (Paper presented at the Seminar *Perlindungan HAKI bagi Varietas Baru Tanaman di Indonesia* –Protection of IPRs for New Varieties of Plant in Indonesia, Jakarta LKHT FH-UI, October 2001)

¹¹² Dutfield, Graham, ...

Jhamtani Hira and Lutfiyah Hanim interview with Witoro and Wahono from the Nastari Foundation (*Yayasan Nastari*), in above n 92, 55.

economic. As Montesquieu remain us that 'the legal institution and principles from one country rarely serve another well'. 114

9. Indonesian Plant Varieties Protection Act and its Implementation

One of the biggest issues of the implementation of the PVP Act is the lack of knowledge and understanding about the notion of PVP. Almost the majority of stakeholders, including legal enforcer bodies, local government apparatuses, and society do not understand well the concept of PVP, and if any it is very limited.

Among legal enforcer bodies, for examples, the understanding of the notion of IPR is limited, let alone the PVP rights. 115 Tukirin case is best examples to illustrate this concern. Tukirin is a 53 years old corn farmer in Nganjuk Regency, East Java. From 1994 to 1998, he and a few other farmers were involved in a cooperation project between PT BISI (leading seed company) and the local government to develop corn seeds. During the projects, he and other farmers bought seeds from the shop while PT BISI provided the male seeds. The seeds were planted in farmer's land in particular way; three lines of female seeds and one line of male seeds. The harvested corn were bought and marketed by PT. BISI. During this project, Tukirin was the second best seed developer. After the project finished, in 1999, he continued to plant corn by buying seeds every season from PT BISI, however, he feel seeds cost was very expensive, Rp. 26.000-30.000 per kg (US \$2.90-3.30). In 2003, he breed his own seeds using skill he had gained during the project. He selected the larger corn type which were pale in colour, which he considered as male, and planted with the seed from normal corn, which he considered as female. He planted by inserting male seeds among the line of female plants. Although the harvest seeds was not the same in quality as PT BISI's seeds, he considered succeed. He sold this seed without label to his neighbours at Rp. 6.000 (US 65 c). 116 In 2005, Tukirin caught by polices accompanied by PT BISI employees and government extension officers in his house. Then the case brought before the court. The judge of the local court of Nganjuk regency punished Tukirin with suspended prison sentence and ordered them not to plant his own corn seed for one year.

From the legal perspective, the actual legal basis for charging Tukirin was not obvious; stealing patent/protected seed, selling seeds without proper certification, or copying BISI's breeding method. It is awkward that the judge ruled that Tukirin violated Article 14 (1) of the Law Number 12 of 1992 on Plant Cultivation System. By using

Montesquieu, *The Spirit of the Laws* (1748), Book 1, Chap. 3 cited in Butt, Simon, 'Intellectual Property in Indonesia; A Problematic Legal Transplant' (2002) 24 (9) *E.I.P.R.* 429-437, 429.

This can be seen clearly from the way they handle the cases, legal logic they use, and the quality of their decisions dealing with PVP related infringement; see for example, Tukirin Case.

The chronology of this case can be accessed through Official *WALHI* (Friends of the Earth Indonesia-Forum for Environmental and Social NGOs, Community Organisation) website, at http://walhi.or.id/kampanye/psda/050922_ptnbenih_cu/> (last visited at January 2007), WALHI is one of the Institution handles this case.

^{&#}x27;Patent Benih Seret petani Jagung ke Pengadilan' (Patented Seed Bring Corn Farmers to Court), Lembar Info WALHI (WALHI News) (Thursday, 22 September 2005), available online at http://walhi.or.id/kampanye/psda/050922_ptnbenih_cu/

See The Act of the Republic of Indonesia Number 12 of 1992 Regarding Crop Cultivation System. Based on the court proceeding on three times session held for this case, Tukirin and Suprapto (his friend) alleged commit illegal seeding by using technique owned by PT. BISI. However, nether the process of breeding nor the seed owned by PT BISI protected under patent Act or PVP act. Then, in its decision on February

that Act, the court verdict has serious legal flaws. First the court held that Tukirin and friends had copies BISI's patented corn-breeding method based on the law No. 12 /1992. In fact, this law is not about patent. If they infringed patent right, the Act Number 14 of 2001 on Patent, shall be applied. If the court believed that it was a case of patent infringement, according to Article 118 of Indonesian Patent Act, the Commercial Court should have been charged to handle this case. In fact the proceeding of this case was held in local court. The judge also did not mention PVP Act instead of Patent Act. However, the fact showed that the *process* or breeding method of PT. BISI has not been patented, and the variety it self also has not been protected by PVP. Accordingly, there is no legal basis for charging Tukirin and friends by using the both Act. It indicates the lack the knowledge of the legal enforcer bodies about patent and PVP.

The notion of IP protection on agriculture, particularly on seed go beyond the general knowledge of poor farmers in Indonesia because it is conflicting with their traditional breeding practices and values. It may understandable on how can share and exchange their own seed which they bought legally regarded as breaching the law. Indeed, it may beyond the simple logical thinking of many traditional farmers in Indonesia.

10. Conlusion

Although Indonesia is not party to and does not ratify UPOV Convention 1991 yet, the substance of PVP is mainly in line with the UPOV Convention 1991. This adoption aimed to bring into line Indonesian IP laws to meet TRIPs standard. Indonesia also adopted the UPOV manual or guidelines for the conduct of novelty, distinctiveness, uniformity and stability and the development of the harmonised description of new varieties of plant. However, the full adoption may not appropriate for Indonesia due to the prevailing agricultural system and level of agricultural R & D is still not as equal as to those countries in which the UPOV was actually designed for.

There is an indication that the Act still does not function well in accordance with its objectives to enhance national R&D in agriculture and to best utilise the country's rich of biodiversity. National R & D in Agriculture remains dominated by public research agencies, and the private sector participation is still very limited. Furthermore, the existence of the PVP Act has a potential implication on local farmers, traditional agricultural knowledge and ecological wisdom, particularly the rights of the farmers.

To accommodate all stakeholders interest in agriculture in order to achieve its objectives, Indonesia should not only design the PVP legislation only based on the UPOV, but also should take into consideration the prevailing values and norms that lives in the society, like the values of traditional ecological and agricultural knowledge and wisdom. By adopting these values, it is expected that Act will smoothly absorbed

25, 2005, the judges held that both farmers violate article 61 (1) b *juncto* article 14 (1) Act No. 12 of 1992, in which both articles dealing will seed certification. It was absolutely inappropriate if Trukirin' plant breeding associated with certification activities as defined under article 13 (2) (3) of Plant Cultivation System Act. It is important to note that the obligation of seed certification for hybrid varieties which already released and will be disseminated under article 13 is on the owner of branded seed (PT.BISI). Planted and Breeded seeds by Tukirin and other farmers was released seeds and distributed by PT.BISI through its seed agents and shops around East Java. Corn seeds resulted from Tukirin land and then replanted again was not new variety, and accordingly, there is a legal obligation for certification. Thus, the judge decision is absolutely wrong.

and transform into the society, and otherwise, the Act will punish the people and its tradition.