

Plant Variety Protection Law and Farmers' Rights to Save, Exchange and Breed Seeds: The Case of Indonesia

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This article

While the laws based on International Convention for the Protection of New Varieties of Plants (UPOV Convention) have been questioned frequently for their negative impact on farmers, there have been suggestions that Indonesia should accede to the UPOV Convention 1991. Indonesia has already enacted a Plant Variety Protection (PVP) law closely aligned to the Convention. A study was carried out in two villages in East Java, Indonesia exploring issues of farmers in relation to PVP rights of seed companies. This qualitative study involved consultations of and discussions with individual farmers, representatives from farmers' association and local experts.

The study shows prevalence of a strong mechanism protecting PVP rights; constant surveillance by enforcement authorities; and threats of prosecution to farmers by seed companies and imprisonment of some. This has intensified fear among farmers and has led to self-disciplining by auto-limiting their freedom to breed and exchange seeds, thus confirming

the interpretation of breeders' rights as rights of seed companies and not of farmers. This article, giving a background on the impact of the UPOV-based laws, presents the major findings of the study and analyses the legal notions of current UPOV-based Indonesian PVP law which impedes farmers' ability to exchange and breed seeds. Building upon the analysis, the article urges that Indonesia not accede to the UPOV Convention; rather, it should amend its current laws to strengthen the position of farmers in the regime of PVP law.

1. Introduction

The role of IPR in the agricultural sector has been a matter of debate since the early 1980s.¹ The concerns about the asymmetry of IPRs over plant genetic resources and the rights of farmers have been an extensively discussed issue.² Before IPR extended their domain to plant genetic resources, farmers had complete freedom to decide the use of their seeds, whether it be planting, saving or exchanging.³ Increasingly, these activities of farmers are endangered by the proprietary claims of companies based on IPR.

As a member of the World Trade Organization (WTO), Indonesia is obliged under the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) to provide some form of protection to the breeders of new plant varieties. Accordingly, Indonesia enacted the Law on Plant Variety Protection (PVP) in the year 2000. This PVP law is largely based on the International Convention for The Protection of New Varieties of Plants Act of 1991 (UPOV Convention 1991).⁴ It provides a strong protection mechanism for plant breeders. Although plant breeding has been an ancient practice of farmers, the reinforcement of IPR has led to a conflict between the rights of farmers and seed companies who seek to

¹ See RJ Pistorius and JCAC van Wijk, *The Exploitation of Plant Genetic Information: Political Strategies in Crop Development* (UA Amsterdam 1999) 10.

² K Aoki, 'Seeds of Dispute: Intellectual-Property Rights and Agricultural Biodiversity' (2009) 3 GGUELJ 79.; C Fowler, 'The Plant Patent Act of 1930: A Sociological History of Its Creation' (2000) 82 JPTOS 621; JR Kloppenburg, *Seeds and Sovereignty. The Use and Control of Plant Genetic Resources* (DUP Durham and London 1988).

³ JR Kloppenburg, 'Seeds, Sovereignty, and the Vía Campesina: Plants, Property, and the Promise of Open Source Biology' (Workshop on Food Sovereignty, University of Saskatchewan, Saskatchewan, 17-18 November 2008) 3.

⁴ The UPOV Convention was adopted in Paris in 1961 and it was revised in 1972, 1978 and 1991. The UPOV Convention is administered by the *Union internationale pour la protection des obtentions végétales* (UPOV) established in 1961 and based in Geneva.

monopolise these rights. IPR are by their nature monopoly rights but the extensive interpretation by seed companies is leading to rights that go beyond the new plant varieties created by these companies and seem to aspire to control over food production by international companies, seed companies being one important group of actors in this movement.

A few years before, a series of prosecution of farmers in Indonesia involving seed breeding and intellectual property drew much attention of the international community. In this exploratory study, we investigate the interplay between IPR of seed companies, and the rights of farmers. Our study found the prevalence of a strong mechanism to protect the rights of seed companies who have sought to control breeders' rights, such that, the farmers are under constant scrutiny and receive threats of lawsuits, which has highly affected their freedom to save, exchange and breed seeds.

Although TRIPS offers flexibility to design a *sui generis* legislation, Indonesia has been pressured through bilateral agreements with e.g. Japan and the EU to accede to the UPOV Convention 1991. Acceding to this Convention would mean forfeiture of the flexibility granted by the TRIPS to design a *sui generis* law by taking into account the rights of the farmers and its local reality. Therefore, rather than acceding to the UPOV Convention, we argue that Indonesia should seek to design a *sui generis* PVP system positing the rights of farmers to freely exchange and breed their seeds. This article discusses the issues concerning UPOV-based PVP laws in Section 2. Section 3 briefly analyses the provisions of the Indonesian PVP law as well as the cases brought against the farmers. Section 4 presents the major findings of the field research in Indonesia. Section 5 seeks to answer how the concerns of farmers in Indonesia can possibly be addressed.

2. The Obligation to Protect Plant Varieties and the UPOV Convention

Expanding the obligation to protect IPR over new plant varieties across the globe, Article 27(3)(b) TRIPS offers three options to WTO Members for fulfilment of this obligation: first, to allow exclusive patent rights; second, to design an effective *sui generis* system; and third, a combination of these systems. Most developing countries favour designing their own *sui generis* system.⁵ However, backed by developed countries, UPOV promotes its PVP system as the only effective and internationally accepted *sui generis* PVP system.⁶ UPOV falsely claims that ‘the introduction of a system which differs significantly from the harmonized approach based on the UPOV Convention will raise question with regard to the implementation of the TRIPS Agreement’.⁷ The portrayal of UPOV-compliant laws as the only effective *sui generis* system for the protection of plant varieties is incompatible with any interpretation of Article 27(3)(b) TRIPS that is in conformity with Articles 31 and 32 of the 1969 Vienna Convention on Treaties.

Developed countries often urge developing countries to accede to the UPOV Convention or adopt even higher standards through bilateral trade agreements and many

⁵ C Antons and R Kanniah, ‘Plant Variety Protection and Traditional Agricultural Knowledge in Southeast Asia’ (2012) 13(1) AJAL 1, 2.

⁶ R. Kanniah, ‘Plant Variety Protection in Indonesia, Malaysia, The Philippines And Thailand’ (2005) 8(3) JWIP 283, 283.

⁷ UPOV, *International Harmonization Is Essential for Effective Plant Variety Protection, Trade & Transfer of Technology*, UPOV Position based on an intervention in the Council for TRIPS, (UPOV September 19, 2002); G Dutfield, ‘The role of the international Union for the Protection of New Varieties of Plants (UPOV)’ (2011) 9 Intellectual Property Issue Paper, QUNO 11; P Lertdhantewe, ‘Asian Approaches to International Law: Focusing on Plant Protection Issues’ (2013) 8(5) JIPLP 288, 391.

developing countries have acquiesced.⁸ The Indonesia-Japan Economic Partnership Agreement (IJEPA), for example, obliges Indonesia to become a party to the UPOV Convention and the draft of the European Union (EU) proposal for the EU-Indonesia FTA has similar provisions.⁹ The Indonesian government is considering acceding to the UPOV Convention.¹⁰ The UPOV Convention was drafted in 1961 for protection of plant breeders' rights and each subsequent revision (1972, 1978 and 1991) of the Convention has further strengthened these rights. For instance, unlike the previous versions, the UPOV Convention 1991 explicitly forbids the practice of seed exchange without exemption.¹¹ The UPOV regime was designed for the farming system of developed countries where farmers heavily depend on seed supplies from commercial breeders.¹² On the contrary, the farming system in developing countries is characterized by small-scale farming which relies heavily on the informal seed system.¹³ A World Bank commissioned study investigating the impact of the

⁸ N Barizah, 'TRIPs Plus on Plant Varieties Protection Under Indonesia-Japan Economic Partnership Agreement (IJEPA)' (2009) 24(1) *YURIDIKA* 1, 10-11.

⁹ Indonesia-Japan Economic Partnership Agreement 2008, art (3)(c); The European Union's (EU) proposal for a legal text on intellectual property in the EU-Indonesia FTA
<https://trade.ec.europa.eu/doclib/docs/2017/february/tradoc_155281.pdf> accessed 28 December 2018.

¹⁰ Authors participated in a public discussion 'Right of farmers in the perspective of Plant Variety Protection' organized by Crop Protection Centre and Agricultural Licensing, Ministry of Agriculture's held in Yogyakarta, 22 November 2018 [the government representatives acknowledged that Indonesia is receiving pressures to accede to the UPOV Convention].

¹¹ World Bank, *Intellectual Property Rights: Designing Regimes to Support Plant Breeding in Developing Countries* (No. 35517-GLB) (IBRD/World Bank 2006) 46.

¹² CM Correa, *Plant Variety Protection in Developing Countries: A Tool for Designing A Sui Generis Plant Variety Protection System: An alternative to UPOV 1991* (APBREBES 2015) 27.

¹³ T Braunschweig and others, *Owning Seeds, Accessing Food: A Human Rights Impact Assessment of UPOV 1991 Based on Case Studies in Kenya, Peru And the Philippines* (The Berne Declaration Zurich 2014) 6.

strengthened intellectual property regime in the plant breeding industry in developing countries concluded that, by limiting the saving, exchanging and selling of farmer-produced seeds of protected varieties, IPR may reduce the effectiveness of informal seed systems, which are the primary source of seeds.¹⁴ A human rights impact assessment of the UPOV Convention 1991 on three countries found that the restrictions on the use, exchange and sale of PVP protected seeds could adversely affect the right to food, as seeds might become either more costly or harder to access.¹⁵ In addition, the study pointed out that these restrictions could also affect other human rights, by reducing the amount of household income which is available for food, healthcare or education.¹⁶ When the PVP system expands, it can be anticipated that the formal sector will grow over time and it might be difficult for farmers to stay outside the formal seed system, should they wish so.¹⁷ The growth of the formal seed system, and the strong protection of breeders' right will cause farmers' dependence on the formal sector for seeds.¹⁸

¹⁴ NP Louwaars and others, *Impacts of Strengthened Intellectual Property Rights Regimes on The Plant Breeding Industry in Developing Countries* (Report commissioned by the World Bank Wageningen 2005) 4.

¹⁵ Braunschweig and others (n 13) 7.

¹⁶ *ibid.*

¹⁷ A Christinck and MW Tvedt, *The UPOV Convention, Farmers Rights and Human Rights: An Integrated Assessment of Potentially Conflicting Legal Frameworks* (GIZ, 2015) 63.

¹⁸ Recognizing the farmers' dependency on commercial breeders' seeds as a serious problem, the Committee on ESCR recommended in 2008 that India provide '[s]tate subsidies to enable farmers to purchase generic seeds which they are able to reuse, with a view to eliminating their dependency on multinational corporations'.

Committee on Economic, Social and Cultural Rights, *Consideration of Reports Submitted by States Parties Under Articles 16 And 17 of The Covenant: Concluding Observations of the Committee on Economic, Social and Cultural Rights- India*, Fortieth Session 28 April - 16 May 2008, (UN Economic and Social Council, E/C.12/IND/CO/5, 8 August 2008) para 69.

For developing countries, the UPOV- based laws create obstacle in the realization of human rights obligations including the right to food as stipulated in International Covenant on Economic Social and Cultural Rights 1966 (ICESCR), the right of indigenous people as stipulated in ILO Convention 169 and the rights of farmers as stipulated in International Treaty on Plant Genetic Resources for Food and Agriculture 2001 (ITPGRFA).¹⁹ The ITPGRFA specifically acknowledges the rights of farmers to save, use and exchange, and sell farm-saved seeds²⁰ and the Convention on Biological Diversity (CBD) provides for access and benefit sharing. Indonesia is party to these conventions and formulating a *sui generis* law allows incorporation of the principles of CBD and ITPGRFA in its legal framework.²¹

The UPOV Convention, on the other hand, limits the ability to effectively protect farmers' rights since States can guarantee farmers' rights only 'within reasonable limits and subject to the safeguarding of the legitimate interests of the breeder'.²² When a State decide to accede to the UPOV Convention, its national laws should confirm the UPOV provisions.²³ Therefore, the principles of farmers' rights, access and benefit-sharing, although important to a country like Indonesia, cannot be incorporated as they would contravene the UPOV Convention.²⁴

When the 'African Model Legislation for the Protection of the Rights of Local Communities,

¹⁹ Christinck and Tvedt (n 17); *ibid*.

²⁰ International Treaty on Plant Genetic Resources for Food and Agriculture 2001, art 9.

²¹ Lertdhamtewe (n 9) 395.

²² UPOV Convention 1991, art 15(2).

²³ *ibid* art 34(3).

²⁴ T Adebola, 'Examining Plant Variety Protection in Nigeria: Realities, Obligations and Prospects' (2018) 22(1-2) JWIP 36, 43; For discussion on intellectual property and concerns over sovereign discretion in the matters of domestic issues like food security see R Neethu, 'Sovereign Trusteeship And Multilateral Protection of Intellectual Property Rights' (2015) 10(2) JIPLP 89.

Farmers and Breeders, and for the Regulation of Access to Biological Resources'²⁵ was considered by the African States in their effort to adopt an effective *sui generis* system, the model law was heavily criticized.²⁶ UPOV argued that public interest issues such as food security, community rights and farmers' rights should be separated from the commercial rights of breeders, and WIPO maintained that the model law's rejection of patents on life forms is a violation of TRIPS obligations.²⁷

The Special Rapporteur on the right to food, De Schutter, pointing out the impact of UPOV-based laws on farmers' freedom of exchanging and selling farm-saved seeds, urged the developing countries to design a *sui generis* form of protection.²⁸ The adoption of the 'United Nations Declaration on the Rights of Peasants and Other People Working in Rural' by the UN Human Rights Council confirms the 'right to save, use, exchange and sell their farm-saved seed or propagating material' (Article 19(1)(d)).²⁹ Similarly, a European

²⁵ OAU, *The African Model Legislation on the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources* (OAU Algeria 2000).

²⁶ SI Straba, 'Legal and Institutional Considerations for Plant Variety Protection and Food Security in African Development Agendas: Solutions from WIPO?' (2017) 12(3) *JIPLP* 191, 192.

²⁷ E Opoku Awuku, 'Intellectual Property Rights, Biotechnology and Development: African Perspectives' in D Wüger and T Cottier (eds), *Genetic Engineering and the World Trade System: World Trade Forum* (CUP Cambridge 2008) 109, 114.

²⁸ O De Schutter, *Report of the Special Rapporteur on the right to food* (UN. A/64/170. 2009) para 40.

²⁹ UN Human Rights Council, *United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas*, (adopted 28 September 2018 (A/HRC/RES/39/12)), Article 19(1)(d). The Resolution was adopted by a recorded vote of 33 to 3, with 11 abstentions (in favour: Afghanistan, Angola, Burundi, Chile, China, Côte d'Ivoire, Cuba, Democratic Republic of the Congo, Ecuador, Egypt, Ethiopia, Iraq, Kenya, Kyrgyzstan, Mexico, Mongolia, Nepal, Nigeria, Pakistan, Panama, Peru, Philippines, Qatar, Rwanda, Saudi Arabia, Senegal, South Africa, Switzerland, Togo, Tunisia, Ukraine, United Arab Emirates, Venezuela (Bolivarian Republic of); against:

Parliament Report recalls ‘need to prevent the potentially negative impact of IPR clauses, e.g. on seed privatisation, in trade agreements on food sovereignty.’³⁰ The Report continues by stressing ‘that women who work in subsistence agriculture face additional barriers to maintaining food sovereignty owing to the strong protection of new varieties of plants under the International Convention for the Protection of New Varieties of Plants (UPOV Convention) in trade agreements’.³¹

Since Indonesia is not a party to the UPOV Convention, it can enjoy the flexibility granted by TRIPS to develop a *sui generis* law to protect commercial breeders’ rights along with the rights of farmers. Acceding to such legal obligation merely as a response to bilateral obligations, ignoring the interest of those directly affected is not justifiable. It is worth noting that the accession to the UPOV Convention as a response to bilateral obligations and without consultation to directly affected groups, was declared a violation of the constitution and the International Labour Organization (ILO) Convention 169 by the Constitutional Court in Colombia.³²

3. Indonesian PVP Law and the Seed-related Prosecutions against Farmers:

Although Indonesia is not a party to the UPOV Convention, it has been in continuous contact with UPOV for assistance in the development of laws based on the UPOV

Australia, Hungary, United Kingdom of Great Britain and Northern Ireland; abstaining: Belgium, Brazil, Croatia, Georgia, Germany, Iceland, Japan, Republic of Korea, Slovakia, Slovenia, Spain.

³⁰ Committee on International Trade and Committee on Women’s Rights and Gender Equality, *Report on gender equality in EU trade agreements* (EU Parliament, 2018(2017/2015(INI)) A8-0023/2018) para 18.

³¹ *ibid* para 19.

³² Decision C-1051/12, Colombian Constitutional Court, 05 December 2012 cited in JA Pabón Cadavid, ‘Indigenous and Traditional Communities Must Be Consulted Before Approval of Intellectual Property Treaties’ (2015) 10(1) *JIPLP* 11, 11-13.

Convention.³³ While drafting its Plant Variety Protection (PVP) Act, Indonesia sought comments from UPOV on the conformity of its draft with the UPOV Convention 1991.³⁴ Eventually, Indonesia adopted the ‘Laws of the Republic of Indonesia No. 29 of 2000 on Plant Variety Protection’, which closely follows the UPOV model.³⁵

The Indonesian PVP Act is largely based on the UPOV Convention 1991, to the extent that the explanatory note on the Act cites the UPOV Convention as one of the compelling international obligations that led Indonesia to enact the legislation for plant variety protection although Indonesia has not acceded the convention. UPOV has been assessing the situation of plant variety protection in Indonesia and providing comments on its PVP Act about its conformity with the UPOV Convention 1991.³⁶ While Indonesia readily accepted foreign assistance for drafting its PVP legislation, it did not allow for public consultation and participation even when some requests were made.³⁷

A plant variety protection right in Indonesia is granted to a plant breeder for a plant variety that is new, distinct, uniform and stable.³⁸ Upon fulfilment of these conditions, a breeder - often a company - is entitled to the plant variety protection right which grants the

³³ UPOV ‘Status in Relation to The International Union for The Protection of New Varieties of Plants UPOV Convention’ <<http://www.upov.int/export/sites/upov/members/en/pdf/status.pdf>> accessed 01 August 2019.

³⁴ UPOV, *Annual Report of the Secretary General for 2000* (UPOV Council, Thirty-Fifth Ordinary Session, October 25, 2001, Geneva, 27 September 2001, C/35/2) para 119.

³⁵ N Barizah, ‘The Indonesian Plant Varieties Protection Act: The Dilemma of Meeting International and Bilateral Obligations and Protecting Traditional Farmers’ in M McCann and K Brepsant (eds), *WIPO-WTO Colloquium for Teachers of Intellectual Property* (WIPO/WTO, 2012) 59.

³⁶ UPOV, *Annual Report of the Secretary General for 2006* (UPOV Council, Forty-First Ordinary Session, October 25, 2007, Geneva, 13 September 2007, C/41/2) para 49.

³⁷ Antons and Kanniah (n 5) 14-15.

³⁸ Laws of the Republic of Indonesia No. 29 of 2000 on Plant Variety Protection, art 2(1).

right holder the right to use a variety and prevent others from using the variety for commercial purposes without his consent. The first PVP right certificate was issued in 2007, and as of June 2019, 453 varieties have been registered for the PVP right certificate.³⁹ The plant breeders' right involves the rights over the activities of (a) production and multiplication of seeds, (b) preparation for propagation purposes, (c) advertisement, (d) offering, (e) selling or trading, (f) exporting, (g) importing and (f) preparation for any of aforementioned activities (Article 6(1)(3)). Anyone committing these activities without the consent of a PVP rights holder is subject to imprisonment of a maximum of seven years and a fine up to 2.5 Billion Rupiah.⁴⁰ The breeders' right cover not only the use of seeds but also the use of any harvested products for propagation ensuring that any part of the harvested product is not used for seed multiplication.⁴¹ The rights are also extended over a range of varieties including (i) an Essentially Derived Variety (EDV), (ii) the varieties that cannot be clearly distinguished from a protected variety, and, (iii) a variety produced by repeatedly using a protected variety.⁴² The plant variety protection right is protected for 20 years for seasonal plants and 25 years for annual plants.⁴³ The Indonesian Patent Act of 2016 protects the biotechnological process of production of plants or animals; however, the seed itself is not patentable. The seeds are protected only under the PVP Act. The aspects of plant variety

³⁹ Centre for Protection of Plant Varieties and Agricultural Licensing, 'List of PVP Rights Certificates.' <<http://pvtppt.setjen.pertanian.go.id/cms2017/informasi-publik/daftar-sertifikat-hak-pvt/>> accessed 05 August 2019.

⁴⁰ Laws of the Republic of Indonesia No. 29 of 2000 on Plant Variety Protection, art 71.

⁴¹ *ibid* art 6(1)(4).

⁴² *ibid* art 6(2).

⁴³ *ibid* art 4.

protection laws that directly affect farmers' freedom of saving, exchanging and breeding their seeds are explained in detail in section 5 of this article.

The Indonesian legal system is a civil law system, cases relating to IPR are tried in criminal or commercial court depending on the matter concerned. There have been several cases in Indonesia where farmers were prosecuted for breeding and exchanging their seeds. The Indonesian Human Rights Committee for Social Justice, a non-governmental organization, has recorded about fifteen such cases involving the criminalization of farmers as of 2016.⁴⁴ Most of these cases were filed from 2005 to 2010. The farmers were charged with infringements such as copying of a breeding technique, theft of parental seeds, cross-breeding, and illegal distribution of seeds, amongst others. In order to seek redress over the infringement of plant breeders' rights, non-IPR specific seed laws like seed certification/registration laws are also often deployed along with the IPR laws.⁴⁵ Likewise, in most of the cases, the farmers in Indonesia have been accused of seeds distribution without certification based on the Law No. 12/1992 on plant cultivation system.

One of the highly publicised cases is the case of Tukirin. A case against Tukirin was filed in the district court of Nganjuk Regency (the first-degree court). Tukirin had learnt some seed breeding skills by participating in a cooperation project between the local government and a seed company (PT BISI), where the seeds produced by the participating farmers were marketed and sold by the company. After the project ended, Tukirin started breeding seeds on his own and selling those to his neighbours without any label. When these farmers were

⁴⁴ IHCS 'Data Kriminalisasi Petani Menggunakan Uu 12/1992 Dan Uu 29/2000.' (27 September 2016) <<http://en.ihcs.or.id/?p=429>>accessed 15 August 2019.

⁴⁵ TA Wattnem, 'Outlawing Informal Seed Systems in the Global South: Seed Laws, Certification, and Standardization' (M. Sc. thesis, University of Wisconsin 2014) 14-17.

involved in the breeding project, there were no terms of contract signed with them. Rather, the local government of Nganjuk released a statement clarifying that the government had agreed to the project as a means of teaching modern seed breeding skills to the farmers and such prosecution of farmers came as a surprise.⁴⁶ When the seed company (PT BISI) filed a case against Tukirin and his friend Suprpto, there was much confusion on what charges were brought against them.⁴⁷ Initially, they were charged with theft of seeds, but it was not proven, and the accusation shifted to the plagiarism of cultivation methods, and finally, in the third trial, Tukirin was convicted of committing a crime related to seed certification without permission.⁴⁸ The Court held that Tukirin had violated Article 14(1) of the Law No. 12/1992 on the plant cultivation system. Article 14(1) of the Law provides that seed certification is to be undertaken by the government, or by individual or legal entities that are authorised to do so. Article 61(1)(b) further states that anyone who carries out seed certification without permission as referred to in Article 14(1) is liable to a penalty of maximum three years imprisonment and a maximum fine of 150 million rupiah. The court convicted Tukirin of being involved in unauthorised seed certifying activity although he was just involved in breeding and exchanging seed.⁴⁹ The company made unsubstantiated allegations and the

⁴⁶ H Jhamtani, and D Patria 'Case Documentation: Indonesian Farmers Prosecuted for Breeding Their Own Seeds' (Asian Farmers' Association for Sustainable Development 2006) <<http://asianfarmers.org/case-documentation-indonesian-farmers-prosecuted-for-breeding-their-own-seeds/>> accessed 15 October 2018.

⁴⁷ *ibid.*

⁴⁸ API 'Belajar dari Pengalaman: Kasus Petani Jagung di Kediri, Jawa Timur Dampak Penerapan Undang-Undang Sistem Budidaya Tanaman (UU SBT) UU No 12 Tahun 1992, Kertas Posisi yang disampaikan dalam audiensi dengan pihak Sekjen DPR di Jakarta, Malang dan Surabaya tahun 2010.' (24 January 2011) <<http://api.or.id/belajar-dari-pengalaman-kasus-petani-jagung-di-kediri-jawa-timur-dampak-penerapan-undang-undang-sistem-budidaya-tanaman-uu-sbt-uu-no-12-tahun-1992/>> accessed 15 October 2018.

⁴⁹ Jhamtani, and Patria (n 46).

Court handed down the verdict on inappropriate legal basis. Although one could argue that Tukirin had not fulfilled the requirement of Article 13(2) of the Law which states that the seeds to be released must go through certification and should meet the quality standards set by the government, it is still an unreasonable claim since the seeds that Tukirin used to produce were the ones already released by the seed company (PT BISI). The company had been marketing and selling the same seeds produced by Tukirin and others and as these seeds were not a new variety, there was no legal obligation for certification. In an inappropriate legal basis of Article 14(1) and 61 (1)(b), the court sentenced Tukirin to six-month imprisonment but suspended the sentence and instead imposed a one-year probationary sentence. He was also prohibited from planting the seeds for one year.⁵⁰ Further, Tukirin was not accompanied by a lawyer although he has a right to have legal representation. He was not informed about the verdict of the court and the laws he had violated until four months after the case was decided, and eventually he lost his right to appeal.

Some other farmers faced similar kind of judgments to that of Tukirin, prohibiting them from breeding or planting or selling their seeds.⁵¹ In these cases, the seed company had claimed that the farmers copied breeding techniques that had been patented by it.⁵² However, it is essential to note that the legal basis of these cases was Law No. 12/1992 on plant

⁵⁰ AFA, 'Case Documentation: Indonesian Farmers Jailed for Planting Company Corn Seeds' (Asian Farmers' Association 2006) <<http://asianfarmers.org/case-documentation-indonesian-farmers-jailed-for-planting-%e2%80%9ccompany-%e2%80%9d-corn-seeds/>> accessed 10 June 2019.

⁵¹ For instance, see cases: 'Kusen bin Danuri et al., Kediri District Court Decision No. 262/PID.B/2005/PN.Kdi; Budi Purwo Utomo bin Sugito Yuwono, Kediri's District Court Decision No, 516/Pid.B/2005/PN.Kdi; Jumidi bin Karsomin, Kediri District Court Decision No. 261/PDI.B/2005/PN.Kdi; Suyadi bin Kartomejo, Surabaya High Court, Decision No. 157.PID/2007/PT.SBY ' in API (n 48).

⁵² *ibid.*

cultivation system which does not regulate the patent infringements; instead, it deals with the certification of seeds. Similarly, the Kediri District Court received the cases involving examination of patent infringements although it is beyond its jurisdiction. The Indonesian Patent Law provides that the Commercial Court should deal the patent-related cases.⁵³

In another case, Budi Purwo Utomo was accused by PT BISI of unauthorized seed certification, cultivation without a permit and copying of a breeding technique. Utomo claimed to have learnt new breeding techniques by studying books.⁵⁴ Cases were filed in two different districts: Tulungagung, where the seeds were distributed and Kediri where Budi stayed. The Tulungagung District Court declared that the act committed by Budi was not a criminal offence and he was therefore acquitted. However, a few months later, he was convicted by the Kediri District Court and sentenced to prison for six months and one-year probation.⁵⁵

Interestingly, although the themes of the cases and issues raised are mainly about the theft of parent seeds or breeding methods of the companies, which are the issues of intellectual property, the Plant Cultivation System law which deals with seed certification has been deployed to convict the farmers. In almost every case, the issue of theft of the company's seeds or plagiarism of the company's breeding method has been raised. However, PT BISI could produce no such evidence.⁵⁶ Rather, as an easy means, the Law on Plant Cultivation System was deployed accusing farmers of unauthorised seed certification or cultivation and distribution of seeds without certification although they had supplied seeds

⁵³ *ibid.*

⁵⁴ Jhamtani, and Patria (n 46).

⁵⁵ IHCS (n 44).

⁵⁶ La Via Compensia and GRAIN, *Seed Laws that Criminalize Farmers: Resistance and Fight Back* (La Via Compensia and Grain 2015) 31-32.

merely to their neighbours. Local farmer rights activists assert that the cases were initiated to intimidate and warn the farmers to refrain from breeding and exchanging seeds and thus to protect the varieties of the company.⁵⁷ This claim is reasonably logical in the sense that the cases raised a whole lot of issues including copying of a breeding technique or plagiarism of seeds, however, when it came to the actual activation of a legal clause or a basis on which farmers were convicted, the law on plant cultivation, which is a seed certification law came into play. It was, in fact, easier to claim and prove that the seeds were distributed without permission than to prove the technical aspects of plagiarism.

However, in 2013, local human rights and farmers' organizations challenged the constitutionality of key provisions of Law No. 12/1992 on the plant cultivation system in the Constitutional Court. Article 9 of the law provided that the individuals or legal entities required a license from the government in order to search and collect genetic resources for plant breeding. Similarly, Article 12(1) of the law made the circulation of varieties resulting from plant breeding or introduction from abroad dependent on prior release by the government. The petitioners argued that the law unfairly treated farmers as if they were a large seed company.⁵⁸ Therefore, regarding these provisions, the Constitutional Court decided that these provisions have to be rephrased to exempt the individual small farmers from the requirement of a license and to exempt the varieties achieved through breeding by individual small farmers.⁵⁹ The Court acknowledged that the government had the authority to set policies to determine the related aspects of seed production and circulation, and further

⁵⁷ Response of the local farmer rights/human rights activists.

⁵⁸ La Via Compensia and GRAIN (n 56) 31-32.

⁵⁹ See R Kanniah and C Antons, 'The Regulation of Innovation in Agriculture and Sustainable Development in India and Southeast Asia' in C Antons (ed), *The Routledge Handbook of Asian Law* (1st edn, Taylor and Francis 2017) 287.

explained that the government should protect the status of poor farmers instead of requiring them to obtain a permit for collecting and producing local seeds.⁶⁰ After this decision, the seed certification law could no longer be used as a means to prosecute local farmers in the act of breeding and exchanging of seeds among themselves. However, as it will be discussed in subsequent sections, PVP law serves as an instrument detrimental to farmers' freedom of breeding and exchanging seeds, and the farmers have been threatened time and again with the possibility of lawsuits.

4. The Present Situation of PVP Laws and Farmers in Indonesia – Findings of the Study

A study was carried out in two villages in East Java, Indonesia into farmers' understanding of and experience with the Indonesian Plant Variety Protection (PVP) Law.⁶¹ The qualitative study carried out in 2018 (October-December) involved consultation and discussions with individual farmers, representatives of farmers' associations, activists, and local experts, the total of 26 respondents in the region. The study revealed the prevalence of informal seed system amongst the farmers as well as strong mechanisms dedicated to protecting plant breeders' rights. The study established awareness of farmers of the implications of the PVP law. The study also observed insecurity amongst the farmers due to strong laws protecting plant breeders' rights. The major findings of the study are presented below.

4.1. Prevalence of Farmers' Informal Seed System

⁶⁰ S Hendrianto, *Law and Politics of Constitutional Courts: Indonesia and the Search for Judicial Heroes* (Routledge Oxon and New York 2018) 193.

⁶¹ Given the sensitivity of the information, the specific locations have been kept anonymous.

Several studies have concluded that the informal seed system is the primary means for farmers in developing countries to access seeds.⁶² Our study found the prevalence of a similar scenario in Indonesia. The farmers in Indonesia rely heavily on the informal seed system to access their seeds - they prefer local seeds and are actively involved in activities to exchange seeds amongst themselves. Moreover, farmers in Indonesia have their own customary practices and sense of justice in their agricultural dealings which serves as a safeguard for resource-poor farmers. For instance, borrowing seeds from another farmer in Indonesia generally requires only to cover the transportation cost in the beginning and pay back the same amount of seed borrowed later after harvest. Similarly, when the seeds are bought from fellow farmers in the village, the seller generally compensates the buyer in the event of crop failure. One of the farmers stated, "...we prefer to use the seed of our own farmers, Because it has lower price, and if, for example, the crop fails, it is still the responsibility of our own farmers [implicit commitment to resupply seed to the farmer whose crop has failed]".

Although informal, these kinds of practices support resource-poor farmers to a considerable extent and serves as a strong reason behind farmers' preference of local seeds. The farmers in Indonesia prefer to rely on informal seed networks for various reasons. The commercial seeds being expensive, require specific kinds of fertilizers and special care, which adds up to the cost of production, although, as farmers reported, there is no significant difference in yield. Moreover, the Indonesian farmers are aware of the legal implications of using PVP protected seeds and are concerned that, requiring them to buy seeds every season, makes them dependent on seed companies. A farmer said, "Even if it may give a high yield, it does not allow to save seeds, so makes us dependent. So we use local and hybrid seeds. So we can have a high yield and we can also save seeds."

⁶² Louwaars and others (n 14); Braunschweig and others (n 13).

As it will be explained in the next section, the series of legal suits against farmers and frequent visits by representatives of seed companies to warn them about the implication of infringements of their rights have caused a deterrent effect amongst farmers, such that, they prefer to abstain from using PVP protected seeds. During the study, it was also observed that the farmers' rights activists and farmers associations in Indonesia (like Aliansi Petani Indonesia) have been working actively to inform and warn farmers about the technical and legal consequences of using PVP protected and other commercial seeds.

Although the farmers prefer local seeds, it was reported that the local seeds are not sufficiently available to fulfil the increasing demand for the seeds. While the commercial seeds are readily available in the market, the local seeds cannot easily be commercialized. One of the respondents stated, 'Local farmers can produce their own local seeds, however, to commercialize such seeds, it takes complicated steps such as licensing, three years examination by the government, and it is very expensive.'⁶³ Therefore, although farmers can sell the seeds to other farmers in the local market, the seeds cannot be supplied to other parts of the country where the local seed is scarce because the seeds have to go through the certification process in order to be commercialized. It was also reported that some of the farmers use commercial seeds because their land can no longer be used to plant local seeds, due to degradation of their land from chemical fertilizers required for PVP protected seeds.

4.2. Prevalence of Strong Mechanism to Protect Plant Breeders' Rights and Insecurities of Farmers

The study found a prevalence of strong mechanisms for protecting plant breeders' right. Seed companies are very active in protecting their IPR and they are supported in this by the institutions of the State.

⁶³ Statement of Prof, Dr Sumerji SP MP. This was further corroborated by the response of farmers consulted.

Farmers reported that police officers and company officials often visit the fields and the houses of the farmers, sometimes forcibly, in order to check if the farmers have been illegally using the PVP protected seeds. One of the farmers states, “I have experienced a situation where I was told that I could not sell the yield of my seeds. Policed entered into my house and crop field to check the illegal use of commercial seeds...I feel insecure in breeding my own seed because of the previous police intervention.” The company officials and police officers frequently warn the farmers to abstain from illegal seed saving and breeding. There have been instances where the company officials have destroyed the yield of the farmers for the alleged illegal saving of seeds and threatened to file lawsuits.

Usually the scenario is as follows: at the sales points, while buying the seeds, farmers are told that they cannot sell, distribute or save the seeds and in case they do so, the saved seeds have to be given to the company, if not, these saved seeds would be destroyed, or a lawsuit would be initiated against the farmer. It must be noted that the PVP law allows the seeds to be saved for non-commercial use. However, the farmers are verbally instructed by company representative not to save seeds. The farmer’s address is recorded, and every month a company representative inspects the farmer’s place. The company also ensures that the harvest is done in the presence of its representatives. Those who buy the seeds amounting to more than fifty kilograms have to sign a written contract.⁶⁴ A farmers’ right activist said, “They supervise what is the quantity of distributed seeds, and who bought it. So basically, for example, if there will be harvest tomorrow, the company’s people will have already known that tomorrow Mr. X will have his corn harvested.”

⁶⁴ This was reported by farmers and also verified with an inquiry at the sales point of a seed company. However, the management of the seed company of the selected regions denied responding despite frequent efforts of the researchers.

Given the prevalence of such strong mechanisms and surveillance from the authorities and the prosecutions faced by farmers a few years ago, all of the respondents (farmers) reported that they felt insecurities in using PVP protected seeds. Moreover, they are very concerned about the sources of the seeds they plant and are fearful that if PVP protected seeds somehow entered their seed network, it would drag them into legal trouble. As such, they reported that they feel insecurities in exchanging seeds with other farmers (outside their circle) since they are apprehensive about the sources of seeds they plant because the law does not explicitly protect innocent infringers who could end up using PVP protected seeds that reach to them through the highly prevalent practice of seed exchange amongst the farmers.

Along with the practice of seed saving and exchanging, the PVP law has also affected the breeding activities of farmers. The PVP system provides exceptions to the plant breeders' rights allowing other breeders to further breed with the protected varieties. Article 10(b) of the Indonesian PVP Act allows the protected variety to be used to breed new varieties. However, such new varieties should not be EDV.⁶⁵ Farmers report situations where seed company's claims over the varieties bred independently by their fellow farmers. Since the rights of the plant breeder extends to the varieties that cannot be clearly distinguished from a protected variety and also to the EDVs, there are plausible grounds to make such claims. Therefore, farmers' freedom to freely breed their seeds can be restricted because of the interpretative leeway in the regime of the prevalent PVP law. A local farmers' leader stated, "Let's say that a variety is owned by a company. And there are local seeds such as Genjah Sono or Genjah Kodok. They [the farmers] cross-breed the seeds. It is legal for them [the farmers] to develop it further. But BISI [a seed company] won't agree to this stating that the new seed still has a characteristic resemblance to its seeds."

⁶⁵ More about EDV is dealt section 5.2.

A study carried out by Allansi Petani Indonesia (API) in 2010 found that the farmers (in Malang) did not understand the PVP Act because there had not been any socialization of the law, however, they felt the negative impact of the law and national seed policies.⁶⁶ Besides, the study observes that ‘the farmers in the selected regions are reluctant and afraid to breed the seeds (to do crossing), for they are feared to be arrested by the police and to be jailed like the 14 farmers who had previously been apprehended and legally processed.’⁶⁷ Our study (in the same province), however, found that the farmers are aware of the implications of the PVP law. Different factors could have played a role, notably the time factor, since it has been 18 years since the law was passed. Moreover, the presence of police and company officials to ensure the protection of the breeders’ rights of the companies and activism of the local activists could be attributed as factors socializing the law. Sharing the dissatisfaction over such laws, farmers reported that they are aware of such laws and they try not to violate it. The village secretary of one of the selected regions stated, ‘people in our village do not violate laws, so we do not have to fear.’ However, for the farmers, not violating the law, in a real sense, has become abstaining from breeding new variety and being cautious while exchanging seeds. Therefore, the fear of being arrested by the police for involving in breeding activities is prevalent among the people as had been found out by the API study.

5. Addressing the Concerns of Farmers in Indonesia

The farmers in Indonesia have faced lawsuits in the past for breeding and exchanging seeds. Although the commonly deployed provisions of the Law on Plant Cultivation System have been declared void by the Constitutional Court, the farmers still receive threats of

⁶⁶ M Rifa’I and M Nur Uddin, *The Implications of Seeds Policy and Contract Farming (Kontruk Usahatandon) on Biodiversity Loss and Farmers’ Right in Malang And Kediri Regency, East Java* (API and IGJ 2010).

⁶⁷ *ibid.*

lawsuits based on the prevalent PVP Act. The following sections of this article focus on two significant aspects of farmers' right, namely, the right to save and exchange seeds and the right to breed their seeds. We analyse how the current UPOV-based PVP law of Indonesia severely restricts these rights of farmers and concurrently suggest devising a *sui generis* regime which takes into account the concerns of farmers and addresses the pitfalls of the UPOV-based laws.

5.1. Securing Right of Saving and Exchanging Seeds

The plant breeders' right in respect to a protected variety secures the rights of a breeder over the activities of (a) production and multiplication of seeds, (b) preparation for propagation purposes, (c) advertisement, (d) offering, (e) selling or trading, (f) exporting, (g) importing and (f) preparation for any of aforementioned activities (Article 6(1)(3), Indonesian PVPA). Anyone engaging in these activities without the consent of the plant breeder rights' holder can face imprisonment up to a maximum of seven years, and a fine up to 2.5 Billion Rupiah. The right holder is further entitled to claim for the damages incurred.⁶⁸ Because of the interpretative leeway created by flexible concepts such as similarity with protected seeds or the concept of EDVs, farmers who are involved in any of the seed-related activities which are part of the traditional farming activities such as saving, using, exchanging or selling farm-saved seed or propagating material, a plant breeder may nevertheless successfully claim a PVP infringement in Indonesian courts.

The UPOV-based laws contain a weak recognition of the rights of farmers. The farmers' rights are conceived as part of the exceptions to breeders' rights and breeders can override these exceptions by conditioning initial access to the protected variety on forfeiture

⁶⁸ Laws of the Republic of Indonesia No. 29 of 2000 on Plant Variety Protection, arts 67, 71.

of farmers' rights.⁶⁹ Following the UPOV-model, the Indonesian PVP Act provides that using part of the harvested crop of a protected variety for non-commercial purposes, research activity and for breeding a new variety does not constitute a violation of breeders' right.⁷⁰ The explanatory note of the Act clarifies that 'non-commercial purposes' are the individual activities, particularly those of small farmers for their own needs. Such provision for a farmer is very narrow because it would not allow for any selling of the surplus of the harvest and its narrow interpretation would probably cover any form of exchange of the harvested product for the use on other farms.⁷¹ These systems of sale and exchange are an essential mechanism by which farmers have traditionally selected and improved their own varieties, and the restriction of this right may impede this process of improvement.⁷² The right to sell seed is crucial to maintaining the livelihood of the farming community and the nation's self-reliance in agriculture.⁷³

While, exchanging seeds is a common culture in many developing countries, there are sometimes special rituals dedicated to it. For instance, The *Dayak Kanayant* community in Indonesia observes a traditional ritual related to rice which is conducted after harvest when all neighbouring villages come together with their own seeds and exchange those among

⁶⁹ S Ragavan and JM O'Shields, 'Has India Addressed Its Farmers' Woes-A Story of Plant Protection Issues' (2007) 20(1) GIELR 97, 111.

⁷⁰ Laws of the Republic of Indonesia No. 29 of 2000 on Plant Variety Protection, art 10.

⁷¹ Christinck and Tvedt (n 17) 69.

⁷² CIPR, *Integrating Intellectual Property Rights and Development Policy: Report of the Commission on Intellectual Property Rights* (CIPR 2002) 63.

⁷³ Braunschweig and others (n 13) 7; Gene Campaign 'Advocacy to Protect Farmers' Rights'

<<http://genecampaign.org/farmers-rights/>> accessed 16 August 2019.

themselves to plant for the forthcoming session. This tradition highlights the concept of common property, as well as the need to promote social harmony and avoid social envy.⁷⁴

In order to protect the freedom of farmers to save and exchange seeds, the Indian PVP law has made a noteworthy provision. A farmer in India is entitled to save, use, sow, resow, exchange, share or sell his farm produce including seed of a PVP protected variety. The Indian PVP law only restricts farmers from selling seeds of a protected variety in packages and containers with labels bearing the registered name of a protected variety.⁷⁵ The UPOV Convention, on the other hand, limits the government's ability to protect farmers' rights effectively. For instance, under Article 15(2) of UPOV Convention 1991, governments may provide farmers' rights only 'within reasonable limits and subject to the safeguarding of the legitimate interests of the breeder'. Such limitations prevent governments from making concessions to farmers that would effectively balance welfare with trade which developing countries are longing for.⁷⁶

One of the concerning issues among the Indonesian farmers, as found in our study, is a fear of being sued without any intention of infringing the breeders' rights. Farmers are worried that the PVP protected seeds could enter their informal seed network and drag them into a legal complication. The UPOV standards allow the prosecution of farmers when any seed or propagating material of a protected variety is found on a farm and used by farmers, although without intention to infringe the right of the breeder.⁷⁷ As the current Indonesian PVP Act is based on the UPOV model, it does not protect farmers from innocent infringement. Indian and Australian PVP Acts have made some provisions in this regard. A

⁷⁴ Barizah (n 35) 70-71.

⁷⁵ Protection of Plant Varieties and Farmers' Rights (PPVFR) Act, 2001, s 39 (1) (iv).

⁷⁶ Ragavan and O'Shields (n 69) 111.

⁷⁷ Christinck and Tvedt (n 17) 63.

farmer cannot be convicted on charges of infringement if he proves that he was not aware of the existence of the right so infringed at the time of infringement.⁷⁸ The proof of innocence can include matters like the literacy level of the farmer, or the lack of licenses written in his local language, etc.⁷⁹

Since the farmers in Indonesia have been constantly threatened by fear of lawsuits, a statutory provision explicitly protecting farmers from innocent infringement can strengthen the legal position of the farmers and ensure that they exchange seeds and involve in breeding activities without any threat. Most importantly, the law should address the concerns about the farmers' ability to sell and exchange seeds as accessibility of seeds is related the right to food.⁸⁰

5.2. *Securing Right of Breeding*

One of the features that distinguish the PVP system from the patent is that the PVP system provides for breeders' exemption authorizing other breeders' use of protected varieties for creating a new variety. However, expanding the scope of the plant breeders' right, the UPOV Convention 1991 introduced the concept of 'Essentially Derived Varieties (EDV)' to include varieties that are derived directly or indirectly from a protected initial variety (UPOV, 2017). Accordingly, the Indonesian PVP has followed the same path. Along with the protected varieties, the breeders' right therefore covers (i) the varieties that cannot be

⁷⁸ Protection of Plant Varieties and Farmers' Rights (PPVFR) Act, 2001, Section 42 (India).; Plant Breeder's Rights Act 1994, s 57 (Australia).

⁷⁹ Ragavan and O'Shields (n 69) 121.

⁸⁰ Braunschweig and others (n 13) 7.

clearly distinguished from the protected variety and also (ii) the varieties that are EDV.⁸¹ The inclusion of the concept of EDV in the PVP system approximates the PVP to the patent law.⁸² The EDVs are varieties derived either from a protected variety or from a variety predominantly derived from the initially protected variety. They are the first-or-second-generation derivatives from the protected varieties.⁸³

The degree of similarity between the protected variety with other varieties and the issue of essentially derived varieties stand as a concerning issue to the farmers. There could be situations where material used by farmers is quite similar to a protected variety, for instance, traditional varieties might be similar to a protected variety.⁸⁴

Unlike other areas of IPR, where the question of infringement is determined by accessing similarities between the claimed subject matter and the process or product applied by the accused, in case of PVP, this becomes a question of whether the characteristics that define a protected variety are present in the propagating material used by farmers. Therefore, difficulties arise when varieties used by farmers cannot be distinguished clearly enough from protected varieties.⁸⁵ The fact that the EDV could be obtained indirectly from an initial variety implies that the characteristics could be obtained from another source, for example, including from gene flow. Therefore, if a protected variety enters into the farmer-managed breeding and seed system, where it may be altered through farmers' seed management

⁸¹ Laws of the Republic of Indonesia No. 29 of 2000 on Plant Variety Protection, art 6(2).; UPOV Convention 1991, art 14(5)(a).

⁸² Correa (n 12) 30.

⁸³ Ragavan and O'Shields (n 69) 4.

⁸⁴ Christinck and Tvedt (n 17) 64.

⁸⁵ *ibid*.

activities, if the ‘essential’ characteristics are still present, the breeder’s right would be enforceable.⁸⁶

In order to answer whether a variety is an EDV of an initial variety, the genetic distance estimate between two varieties should be compared to threshold distances, and these threshold values are not statistical questions, rather they are subjective value judgements.⁸⁷ Along with the practical technical difficulties in establishing when a variety qualifies as an EDV, the concept of EDV introduces the limitations that threaten the informal seed sector as farmers may no longer be able to freely use protected varieties for further breeding for adapting the varieties to local conditions.⁸⁸ It must be stressed that the principle of independence of variety, allowing the breeder’s exemption is one of the main principles in the plant variety protection system.⁸⁹ While the concept of EDV limits the potential of farmers to adapt protected modern to local conditions, the varieties locally bred by farmers under very challenging natural conditions continue to be a source of breeding materials for formal breeders.⁹⁰

The introduction of the concept of EDV, therefore, largely broadens the scope of rights of breeders and restricts farmers’ access to protected varieties for further breeding and

⁸⁶ *ibid* 67-68.

⁸⁷ See V Lombard and others, ‘Genetic Distance Estimators Based on Molecular Data for Plant Registration and Protection: A Review’ (2001) 451 *Acta horticultrae* 55, 61; M.D. Janis and S. Smith, ‘Technological change and the Design of Plant Variety Protection Regimes’ (2007) 82 *CKLR* 1557, 1599.

⁸⁸ *Correa* (n 12) 30.

⁸⁹ G Wurtenberger, ‘Legal perspectives on Essentially Derived Varieties’ (2013) 8 *Revista Electronica do IBPI* 200, 201; JMA Blokland, ‘Can we still take the breeders exemption for granted?’ (2010) 855 *Acta horticultrae* 31.

⁹⁰ NG Ignacio, JA Santos-Doctor and R Ferrer, ‘Essentially derived varieties and the perspective of farmer-breeders’ (Seminar on Essentially Derived Varieties 22 October 2013 UPOV Geneva, 2013) 35, 38.

adapting. The previous versions of UPOV conventions that did not have the concept of EDVs were also interpreted to meet TRIPS requirements. However, at present the UPOV only allows accession to its Convention 1991, which fiercely protects EDVs. The extension of the breeders' rights to EDVs and other similar varieties also necessitates the provisions protecting innocent infringers as explained in the previous section. Giving more security to its farmers, India has made deviation from the UPOV even in relation to EDVs. While it defines EDV in a similar manner with the UPOV, it grants the rights over EDV to the farmer (or the second-generation breeder) who derived it.⁹¹ The issue of EDV, introduced by the UPOV Convention 1991 therefore stands as an important recent development in scope breeders' rights and consequently narrowing the farmers' right to breed.

An important issue in relation to securing the farmers' right to be freely involved in breeding activities is the recognition of the farmers as a breeder. The fact that plant breeders can secure rights over their plant varieties, but the traditional farmers, who had been improving plant varieties for generations receive no recognition, demonstrates a serious asymmetry.⁹² It is crucial for developing countries to carefully consider their objectives and realities in the area of agriculture and plant breeding when considering who may qualify as 'breeder' in their PVP law.⁹³ Article 1(5) of the Indonesian PVP Act defines plant breeders as

⁹¹ Ragavan and O'Shields (n 69) 122.

⁹² CM Correa, *Options for The Implementation of Farmers' Rights at The National Level* (South Centre, Trade Related Agenda Development and Equity Working Papers 8 2000) 4; "The maintenance and crossbreeding done by these traditional Communities is the result of extensive experimentation in the field. But they have not been paid for the value they have delivered, whereas breeders and seed companies have resorted to IP rights to recover their development expenditures. The farmers who utilize improved varieties are then obliged to pay for them." E Verkey, 'Shielding Farmers' Rights' (2007) 2(12) *JILPL* 825, 831.

⁹³ QUNO, *Definition of 'Breeder' under UPOV Why it matters*, Briefing paper 2 (QUNO 2014) 2-3.

‘those who carry out breeding activities’. And rather narrowly, plant breeding has been defined 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’.⁹⁴ This definition of ‘plant breeding’ leaves it open to interpretation, the parameters of ‘standard methods’ of plant breeding and whether conventional breeding methods used by farmers would qualify as plant breeding.⁹⁵ The concept of breeder in the Indonesian PVP Act emphasizing research, experiments and standard methods for production of new varieties is even stricter than that of UPOV 1991, which defines a breeder as ‘the person who bred, or discovered and developed, a variety’.⁹⁶ The explanatory note adopted by the council of UPOV clarifies that it makes no restriction with regard to the methods or techniques by which a new variety is bred and under the UPOV Convention there is no restriction on who can become a breeder.⁹⁷ However, a notable concern in the UPOV-style understanding of ‘breeder’ is that the informal group of farmers or communities do not qualify as ‘breeder’ unless they have obtained a status of a legal person. This is evident in the explanatory note which explains that only a breeder defined in the UPOV 1991 is entitled to be a right holder and such right holder should be a physical person or should be an entity with rights and obligations in accordance with the legislation of the member country.⁹⁸ These elements reflect in Article 5 of the Indonesian

⁹⁴ Laws of the Republic of Indonesia No. 29 of 2000 on Plant Variety Protection, art 1(4).

⁹⁵ R Kanniah, ‘Plant variety protection in Indonesia, Malaysia, the Philippines and Thailand’ (2005) 8(3) JWIP 283, 295.

⁹⁶ UPOV Convention 1991, art 1(iv).

⁹⁷ UPOV, *Explanatory Notes on The Definition of Breeder Under The 1991 Act of The UPOV Convention* (Adopted by the Council at its forty-seventh ordinary session on October 24, 2013, UPOV/EXN/BRD/1).

⁹⁸ *ibid.*

PVP Act, which requires the right holder to be any person or legal body explicitly excluding the collective community of farmers.

Legally, when the farmers who show that they have bred a variety, they are plant breeders. However, as Sanderson suggests, there are several practical challenges for farmers claiming to be plant breeders under UPOV-based plant variety rights schemes.⁹⁹ And these challenges stem from the collective and collaborative nature of traditional plant breeding. Most of the time, farmers are involved in collective or community breeding, and a narrow definition of a breeder excludes such breeding. Some scholars argue that in designing alternative protective measures, the concept of intellectual property rights for farmers is no longer suitable, rather an alternative rights system that does not focus on property, but on recognition and protection is necessary.¹⁰⁰ They argue that the stewardship model tends to be more effective than the ownership approach in the realization of farmers' rights.¹⁰¹

However, a noteworthy legal provision recognising collective ownership can be seen in India where a group of farmers is included under the definition of a breeder. Section 2(c) of the Protection of Plant Varieties and Farmers' Rights (PPVFR) Act, 2001 states that 'breeder' means a person or group of persons or a farmer or group of farmers or any institution which has bred, evolved or developed any variety. Any farmer or group of farmers or community of farmers claiming to be the breeder of the variety can, therefore, make an

⁹⁹ J Sanderson, *Plants, People and Practices: The Nature and History of The UPOV Convention* (CUP New York 2017) 112.

¹⁰⁰ R Salazar, NP Louwaars and B Visser, *On Protecting Farmers' New Varieties: New Approaches to Rights on Collective Innovations in Plant Genetic Resources*, (IFPRI, Working paper 45 2006).

¹⁰¹ K Peschard, 'Seed wars and farmers' rights: comparative perspectives from Brazil and India' (2017) 44(1) JPS 144.

application for registration.¹⁰² Several farmers varieties have been registered in India. As of 30 October 2018, 774 registration certificates were issued to private seed companies whereas 1587 certificates were issued to individual farmer/farming community.¹⁰³ Similarly, the Indian PVP Act exempts individual, group or community of farmers from any fees payable during the registration of their varieties, for conducting tests on them, for renewal of registrations, benefit claim, etc. These exemptions also cover fees on all legal proceedings at the PVPA-Tribunal or any other concerned tribunal or court.¹⁰⁴

The field study in Indonesia found that the farmers prefer local seeds to the commercial seeds; however, the Indonesian law does not provide a necessary framework to recognise the farmers as breeders. It provides a very narrow definition by limiting breeding to some scientific activities. Furthermore, the widening scope of breeders' rights to include the EDVs and other characteristically similar varieties limits farmers' ability to breed, although the idea of breeders' exemption has been one of the fundamental issues in PVP regime. Therefore, efforts ought to be taken to facilitate the breeding activities of farmers in order to empower them economically.

6. Conclusion:

Indonesia has enacted a PVP law which is largely based on the UPOV 1991 model. The law was enacted without any public participation even when requests were made. The prevalent PVP law ignores the concerns of farmers, especially in terms of their freedom to

¹⁰² Protection of Plant Varieties and Farmers' Rights (PPVFR) Act, 2001, ss 14, 16(d), 39(1).

¹⁰³ PPVFRA 'Compendium of Registered Varieties under PPV&FR Act, 2001' (2018)

<<http://www.plantauthority.gov.in/pdf/CompendiumFinal27Oct2018.pdf>>accessed 15 August 2019.

¹⁰⁴ Protection of Plant Varieties and Farmers' Rights (PPVFR) Act, 2001, s 44.

save, exchange and breed their seeds. Our study reveals the presence of a strong mechanism protecting breeders' rights, and both IPR and non-IPR measures have been used to secure their rights.

Although there are no recent court cases relating to PVP law in Indonesia, it can be seen that the law has been enforced outside the court. The rules have been internalized beyond their legal scope such that farmers have begun to refrain from breeding activities although the law does not prohibit. The impact of law has been greater than its force.

Indonesia should develop a framework for protecting farmers' freedom to save, exchange and breed seeds freely and recognize their efforts in plant breeding. The introduction of legislation which creates obstacles to the reliance of farmers on informal seed systems also violates the human rights obligation of the states since it would deprive farmers of a means of achieving their livelihood.¹⁰⁵ Acceding to the UPOV Convention will restrict the flexibility to devise a *sui generis* law available under Article 27(3)(b) of the TRIPS. The TRIPS agreement has not set any criteria for such *sui generis* law. Therefore, it is an opportunity to develop a PVP legislation addressing the concerns of farmers by taking into account of the pitfalls of the UPOV model laws, obligations under CBD and ITPGRFA, and learning from other countries' experience. Such *sui generis* law should not be detrimental to already prevalent support and security to resource-poor farmers and be in line with the farmers' sense of justice. Further, it should also ensure that other non-IPR laws do not undermine the intent of such law. Since the study also revealed farmers' preference for the locally produced seeds but that local seeds are not adequately available, the Indonesian government should therefore make efforts to promote farmers in seed breeding activities.

¹⁰⁵ De Schutter (n 32) para 4.