

Developing country's *sui generis* options Thailand's *sui generis* system for plant variety protection

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ABSTRACT

Many people believe that a country must join UPOV 1991 in order to comply with WTO intellectual property obligations. This is not the case. WTO rules do require Members to protect intellectual property in plant varieties. This can be a sui generis system, developed to suit each country's needs and priorities. Regrettably, there is limited information and awareness of the sui generis options available to countries. Most technical assistance and advice is geared to encouraging countries to adopt a UPOV-type system, in spite of the fact that UPOV is designed for industrial-type agriculture, and not the diversity of agricultures that co-exist in developing countries. The purpose of this paper is to describe areas in which developing countries have had experience with sui generis systems, with a view to encouraging and supporting countries wishing to develop a PVP system suited to its needs.

I. BACKGROUND

Thailand's plant protection regime, which is currently represented by the *Plant Variety Protection Act B.E.2542 (AD1999)* (PVP Act)¹, is the result of Thailand's joining the WTO and its adherence to the TRIPS Agreement. Implemented on November 26, 1999, the Thai PVP Act represents a unique *sui generis* system for the protection of plant varieties, which is different from the model cited in the *International Union for the Protection of New Varieties of plants* (UPOV).² Like other developing member countries, Thailand construed the term '*sui*

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1 *The Plant Variety Protection Act B.E.2542* (1999) (Thailand) ('PVP Act of Thailand').

2 *International Union for the Protection of New Varieties of plants*, 33 UST 2703, 815 UNTS 109 (1961); revised by 33 UST 2703 (1978); revised by 815 UNTS 89 (1991) ('UPOV Convention').

generis system' in Article 27.3(b) of the TRIPS as allowing it discretion to determine the type and design of the plant protection regime it adopted.³

It is estimated that more than one-third of the 60 million Thai population (21,778,677) are farmers,⁴ and although most of the seed today is marketed by major seed corporations, such as *Chia Tai* and Monsanto, farmers are still a significant source of seed supply. Empirical evidence indicates that farmers produce 20% of the seeds required for agriculture in Thailand.⁵ To respond to the complexity of farming in the country, the central tenet of the Thai PVP Act specifically addresses Thailand's major concern to protect local farming communities while simultaneously promoting the breeding of innovative plants by establishing IP protection. Thus, the Thai PVP Act divides plant varieties into two main categories: (1) new plant varieties, and (2) extant varieties, which refer to local domestic plants, general domestic plants, and wild plant varieties.

This paper discusses the rules and provisions of Thailand's *sui generis* system for plant variety protection, which was adopted in response to Article 27.3(b) of the TRIPS by comparing it with the UPOV treaty.⁶

II. PLANT BREEDERS' RIGHTS

Chapter III of the Thai PVP Act, entitled "Protection of New Plant Varieties," provides a comprehensive set of provisions that attempt to protect the rights of plant breeders.⁷ While it can be said that the Thai PVP law deviates from certain aspects of the UPOV and is therefore unfit for membership, it is evident that many provisions for breeders' rights in Thailand's PVP law are taken from the UPOV system. Provisions for breeders' rights in the Thai PVP Act are critically analyzed below.

A. Definition of Breeders

Under the Thai PVP Act, a "breeder" is deemed to be 'a person who has bred or developed a variety and, as a consequence thereof, obtained a new plant variety'.⁸ This legal definition tracks the same standard as the UPOV treaty.⁹ While a farmer can also be a breeder, a community of farmers that creates a new variety does not fall within the scope of this definition.

3 See Pawarit Lertdhamtewe, 'Asian approaches to international law: focusing on plant protection issues' (2013) 8(5) *Journal of Intellectual Property Law and Practice*, 388-398 (discussing the term *sui generis* system for plant variety protection in Article 27.3(b) of TRIPS).

4 Centre for Agricultural Information Report on Agricultural Economics in 2006-07 Years (Bangkok, Ministry of Agriculture and Cooperatives, Government of Thailand, 2008) (in Thai). This report is the most recent report on agricultural information in Thailand, prepared by the Thai government.

5 See Prem Nath et al., *The Vegetable Sector in Thailand: A Review* (Bangkok: FAO, Regional Office for Asia and Pacific, 1999).

6 The three players considered in this paper are: 1) breeders, 2) farmers, and 3) local communities.

7 The PVP Act of Thailand, above n 1, §§ 12 – 42.

8 *Ibid*, § 3.

9 The 1991 UPOV Convention, above n 2, art. 1(iv).

B. Conditions for Protection

Thailand's PVP Act assigns breeders the right of new, distinctive, uniform, and stable varieties.¹⁰ This novel standard is defined in terms of commercial novelty, which means that, prior to sale the application material is the standard for determining novelty.¹¹ The exact scope of novelty requirement is similar to the criteria of novelty under the 1978 UPOV Convention. To be eligible for protection, a plant variety must also meet other certain eligibility criteria, namely, distinctiveness,¹² uniformity,¹³ and stability,¹⁴ (DUS). Thus, it is evident that the criteria of DUS in Thailand's PVP provisions are also adopted from the text of the 1978 UPOV Convention.¹⁵

C. Duration of Protection

The Thai PVP Act provides varying durations of protection, depending on the type of plant variety. Unlike the UPOV treaty, new plant varieties have a specific term of 12 or 17 years, depending on the type.¹⁶ Thus, according to Thailand's PVP law, the term of protection is shorter than that of the UPOV, which provides a minimum 20-year term of protection. The reason for this may be a fear of creating a monopoly of food produced by the IP system.

An impressive protection term in the Thai PVP Act is the sub-categorization of the protection term applied to trees (27-year term of protection). This extra duration is offered for trees because they typically do not become obsolete: the breeding of a new and better tree is a relatively rare occurrence. This term of protection is longer than that prescribed in the UPOV. The total number of new plant variety rights granted currently stands at 101.¹⁷

10 The PVP Act of Thailand, above n 1, §§ 11–12.

11 Ibid, § 12(1) (“A plant variety capable of registration as a new plant variety under this Act shall be of the following descriptions: (1) being a plant variety the propagating material of which has not been exploited, whether by means of sale or distribution in any manner whatsoever, in or outside the Kingdom by the breeder or with the breeder’s consent for more than one year prior to the date of filing the application [...]”).

12 Ibid, § 12(2) (“Being distinctive from other plant varieties existing on the date of filing the application, provided that such distinctiveness is related to a feature beneficial to the cultivation, consumption, pharmacy, production or transformation, including the distinctness from the following plant varieties: (a) plant variety application; (b) plant varieties in respect of which application for registration has been made in the Kingdom and which will subsequently have been registered.”).

13 Ibid, § 11(1) (“Being of uniformity in the particular features of the variety in respect of shape and appearance or in respect of other characteristics resulting from the expression of the genotype specific to such plant variety.”).

14 Ibid, § 11(2) (“Being stable in the particular features of the variety which are capable of expressing such particular features in every cycle of the production of the propagating material of such plant.”).

15 See Pawarit Lertdhamtewe, ‘Thailand’s plant protection regime: a case study in implementing TRIPS’ (2012) 7(3) *Journal of Intellectual Property Law and Practice*, 186-193 (arguing that the eligibility thresholds in Thailand’s PVP Act tracks the 1978 UPOV standard).

16 The PVP Act of Thailand, above n 1, § 31.

17 Statistic on registration of new plant varieties in Thailand is available through *Plant Variety Protection Division* at <<http://www.doa.go.th/pvp/newpvp2.htm>>.

D. Scope of Breeders' Rights

Under the Thai PVP Act, breeders of new varieties have exclusive monopoly rights to retain/prevent others from producing, selling, distributing in any manner, importing or exporting the protected new plant variety without their authorization (similar to the 1978 UPOV treaty).¹⁸ However, while the Thai PVP Act grants exclusive monopoly rights to plant breeders, these exclusive rights are subject to certain exceptions, including the following:

- (1) An act related to a protected new plant variety without the intention of using it as propagating material;
- (2) Education, study, experiment or research related to a protected new plant variety for the purpose of breeding or developing plant varieties;
- (3) An act related to a protected new plant variety committed in good faith;
- (4) The cultivation or propagation by a farmer of a protected new plant variety from the propagating material made by the farmer, provided that, in a case where the Minister, with the approval of the Commission, publishes that new plant variety, its cultivation or propagation by farmers may be made in a quantity not exceeding three times the quantity obtained;
- (5) An act related to a protected new plant variety committed for non-commercial ends; and
- (6) The sale or distribution by any means, importation or exportation, or possession for the purpose of any of the aforesaid activities, of the propagating material of the protected new plant variety which has been distributed by the right holder or with the right holder's consent.¹⁹

E. Compulsory Licensing Exception

The Thai PVP Act provides another exception to the rights of plant breeders. This provision is referred to as "compulsory licensing". Interestingly, the compulsory licensing provision in Thailand's PVP law allows other persons to compete with the right holder.²⁰ The Director-General of the Department of Agriculture has the power to authorize a third party to use such a protected variety without the authorization of the breeders.²¹ Compulsory licensing provides essential stability to the national welfare, such as food security; thus, this provision should be commended.

18 The PVP Act of Thailand, above n 1, § 33 para. 1.

19 Ibid, § 33 para. 2.

20 Ibid, § 37, para. 1 ("Upon the expiration of three years as from the date of the registration of a new plant variety, other persons may file an application with the Director-General for authorization of the use of the protected plant variety if it appears at the time of such application that there has been no sale of the propagating material of that new plant variety or the sale thereof has been made in the quantity insufficient for the need of the people within the Kingdom or at exorbitant prices unless the right holder can prove that the lack of sale or the sale in the quantity insufficient for the need of the people within the Kingdom or at exorbitant prices is caused by the circumstance beyond his control or that the new plant variety is a derivative intended to be utilized for the sole production of hybrid seeds provided that the hybrid seeds have been produced in such quantity sufficient to the need of the people within the Kingdom and sold at the prices which are not exorbitant.").

21 Ibid, § 37, para. 2 ("The Director-General, with the approval of the Commission, has the power to authorize the use of the rights under Section 33 paragraph one upon payment by the applicant of reasonable remuneration to the right holder of the new plant variety.").

However, the most significant features of the Thai PVP Act lie in a set of provisions that attempt to protect the rights of farmers and local farming communities. Each of the provisions discussed below not only deviates from the UPOV, but also demonstrates that the rights are contoured to suit the unique national conditions.

III. RIGHTS OF FARMERS AND LOCAL SOCIETIES

Thailand's plant protection regime responds to the preferences of farmers and local communities, with the majority of those preferences found in the set of provisions concerning local domestic plants, general domestic plants, and wild plant varieties that provide special and differential treatment to farmers and local communities.²²

A. Registration of Local Domestic Plant Varieties

The protection of local domestic plant varieties was introduced in the Thai PVP law as a means to provide exclusive monopoly rights to farmers and local communities that take care of the existing plant varieties found within Thailand's territory.²³ Since the objective of the Act is to balance plant breeders' rights with the rights of farmers and local communities, it recognizes the vital role played by farmers and local farming communities in conserving, developing and improving plant genetic resources by allowing them to register local domestic plant varieties.²⁴ Interestingly, there is no explicit mention of the "rights of farmers" or "rights of local communities" in Thai law, but the term "local domestic plant variety" is used as a way to refer to the recognition of the rights of farmers and local communities, which is a concept ignored by the UPOV. In fact, Article 27.3(b) of the TRIPS Council also suggests that the protection of innovation by farmers and local farming communities in the developing world should be promoted by the implementation of a more comprehensive *sui generis* system for plant variety protection.²⁵

B. General Domestic Plants & Wild Plant Varieties

Another significant deviation from the UPOV lies in a set of provisions for the legal protection of general domestic plants and wild plant varieties,²⁶ which encompasses everything in the public domain, including materials traditionally cultivated by farmers or of which farmers possess common knowledge. Thus, the PVP Act defines 'wild plant variety' as a 'plant variety that currently exists or used to exist in the natural habitat and has not been commonly

22 See Chapter IV and V of the Thai PVP Act, *Ibid.*

23 *Ibid.*, § 47, which explicitly acknowledges that local government organizations, farmers' groups, or coops, as the owners of the local domestic plant variety, can enjoy the exclusive right to develop, study, conduct an experiment or research in, produce, sell, export, or distribute the propagating material in any means.

24 *Ibid.*, § 44(1), (2) and (3), which stipulates that the local domestic plant variety can be registered by an individual or a single community, which must provide the method of its conservation or development, the landscape together with a concise map showing the boundary of the community and adjacent areas, as well as a list of members of the community.

25 *Review of the Provisions of Article 27.3(b)*, WTO Doc. IP/C/W/369, 8 August 2002, 13.

26 See Chapter V (§§ 52-53), entitled "General Domestic Plant and Wild Plant Varieties," of the PVP Act of Thailand, above n 1.

cultivated’, while ‘general domestic plant variety’ is defined as ‘a plant variety originating or existing in the country and commonly exploited, and shall include a plant variety which is not a new plant variety, a local domestic plant variety or a wild plant variety’.²⁷ Such protection is meant to cover all types of plant varieties found within the Thai sovereign state and strengthen traditional knowledge rights (prior art) protection.²⁸ This clearly adheres to the principles of the CBD with respect to protecting traditional knowledge.²⁹

C. Farmers’ Privileges

The most significant feature of the Thai PVP Act lies in providing farmers with a saved-seed exemption. Such an exemption not only deviates from the UPOV, but also highlights the fact that the rights have been contoured to suit Thailand’s unique national conditions. Thailand’s PVP law recognizes farmers’ traditional rights to save and re-use seeds from their harvests by incorporating the concept of farmers’ rights in the ITPGRFA.³⁰ Farmers’ traditional rights are commonly referred to as “farmers’ privileges” or “farmers-saved seed” exemption. Thus, this exemption in the Thai PVP law, which is one of the major deviations from the UPOV, permits farmers to retain seeds from crops grown in subsequent seasons to produce more crops.³¹ Farmers’ right to save seed is extremely important to a country like Thailand, where agriculture is done by small-scale farmers. Thus, this exception is to be commended.

D. Disclosure of Origin

Although the requirements for eligibility in Thailand’s PVP Act discussed above can be traced to the text of 1978 UPOV Convention, the law sets out a disclosure of source and legal provenance requirement for the registration of new plant varieties. The Act specifically requires every application to include details of the origin of the new plant variety, and all information regarding the use of genetic material in the breeding process or development of the new plant variety.³² Commentators have suggested that such requirements are meant to restrict deceptive acts domestically and serve as a passport or permit for the transfer of biological materials.³³

E. Access and Benefit-Sharing

One final area of deviation relates to access and benefit-sharing measures. The Thai PVP Act essentially details the access and benefit-sharing rules for general domestic plant and wild

27 Ibid, § 3.

28 Daniel F. Robinson, ‘Exploring Components and Elements of *Sui Generis* Systems for Plant Variety Protection and Traditional Knowledge in Asia’ (ICTSD Program on IPRs and Sustainable Development, March 2007) 31.

29 *United Nations Convention on Biological Diversity*, art. 8(j), opened for signature 5 June 1992, 31 UNTS 818 (entered into force 29 December 1993).

30 *International Treaty on Plant Genetic Resources for Food and Agriculture*, art. 9, Rome 3 November 2001, Doc. Y3159/E.

31 The PVP Act of Thailand, above n 1, § 33(4).

32 Ibid, § 19.

33 Lertdhamtewe, above n 3, 397; and Robinson, above n 28, 22.

plant varieties.³⁴ A range of requirements needs to be made with regard to IP, including the intention of those seeking access to genetic resources.³⁵ More importantly, the statute requires breeders to accept a profit-sharing agreement where a general domestic plant or a wild plant variety or any part thereof has been used in the breeding of the variety for a commercial purpose.³⁶ This is meant to facilitate the introduction of benefit-sharing to protect the rights of local communities.

IV. CHALLENGES AND FUTURE PROSPECTS

While the objectives of the *sui generis* PVP system implemented and developed by Thailand are commendable, the Thai PVP Act currently faces a great deal of criticism, including the following: (1) the Thai PVP law does not meet the UPOV standards; (2) the provisions related to the exclusive rights of breeders may be inconsistent with the breeders' interests; (3) the provisions for the rights of farmers and local societies are largely declaratory and have no practical effect.³⁷ Thus, whether the independent *sui generis* framework for plant variety protection developed by a country like Thailand will be realized in a practical manner remains to be seen.

34 Daniel Robinson, 'Sui Generis plant variety protection systems: liability rules and non-UPOV systems of protection' (2008) 3(10) Journal of Intellectual Property Law and Practice, 659-665, 663.

35 The PVP Act of Thailand, above n 1, § 52.

36 Ibid, § 52.

37 See Pawarit Lertdhamtewe, 'Plant variety protection in Thailand: the need for a new coherent framework' (2013) 8(1) Journal of Intellectual Property Law and Practice, 33-42 (identifying the major problems underlying Thailand's plant protection regime, as represented by the PVP Act).