

Impact of Pluri-Lateral Free Trade Agreements on Innovation: Example of ASEAN

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Abstract

Innovation has been identified as a critical indicator for an economy to succeed in the fourth industrial revolution. Historically, some members of the Association of Southeast Asian Nations have been better known for violation of intellectual rights rather than their protection. However, this is changing as their economies develop and they have been better integrated into the global economy. Integration has been facilitated by their membership of the World Trade Organization and bilateral Free Trade Agreements (FTAs) between individual states and their trading parties. ASEAN has entered into plurilateral FTAs with some of its trade partners. A key element of these plurilateral FTAs is that most dedicate a Chapter on the protection of intellectual property rights. These clauses have two essential elements. Firstly, they set out the obligations of the parties to protect intellectual property rights and their commitment to seek membership of intellectual property treaties. Secondly, the parties undertake to assist the lesser developed members with improving their processes and procedures so that they can accede to appropriate treaties. The research analysed the impact of these multilateral FTAs on the protection of patents and marks by the individual ASEAN members.

Keywords: innovation; plurilateral free trade agreements; intellectual property rights; patents; trade-marks

Introduction

Schwab (2018) has identified four attributes for an economy to succeed in the fourth industrial revolution: resiliency, agility, innovation, and a human-centric approach. Similarly, the Association of Southeast Asian Nations (ASEAN) Integration Monitoring Directorate identifies: innovation and technology; human capital; regulatory frameworks; infrastructure connectivity; and inclusive, sustainable growth (Tijaja, 2019). A common feature of both responses is the need for an innovation pillar. A belief shared by developed and developing nations alike is that innovation is supported by intellectual property protection. It encourages individuals and companies to seek new solutions in products and services, and also, by sharing the details of the innovation through patent disclosures, allows others to learn from the disclosed 'art' (WIPO, 2017) or as conceptualised by Newton – 'Standing on the Shoulders of Giants' (Lingard & Perry, 2016; Popova, 2016). ASEAN is an association of the ten Southeast Asian nations, namely: Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. Of the ten members, Singapore is a developed economy; Cambodia, Lao PDR, and Myanmar are least developed countries; with the remainder developing countries (United Nations, 2020). As shown in Table 1, the development indicators are quite diverse, as is the wide disparity in the level of development.

All ten ASEAN members are members of the World Trade Organization and hence parties to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement). Under TRIPS (art. 1(1)), members can meet their obligations under TRIPS without acceding to any other Intellectual Property treaties. Nevertheless, as discussed later in this research, ASEAN member states are contracting parties to several World Intellectual Property Organization (WIPO) treaties.

Most of the ASEAN economies rely on manufactured exports such as motor vehicles and electronics, which are assembled in-country for external manufacturers. Intellectual property remains with the external manufacturers. It must be protected by the country where the vehicles are assembled. In 1995 the seven ASEAN members signed the *ASEAN Framework Agreement on Intellectual Property Cooperation*. All members of ASEAN except Malaysia have ratified the Agreement. The Agreement has still not entered into force as all members must ratify it for this to occur (art. 8(5)). Its objectives were to strengthen cooperation 'through an open and outward-looking attitude with a view to contributing to the promotion and growth of regional and global trade liberalisation' (art. 1(1)); explore intra-ASEAN cooperation (art. 1(3)); explore the possibility of setting up an ASEAN patent system (art. 1(4)) and trade-mark system (art (5));¹ and consultations on creating ASEAN standards and practices (art. 1(6)).

The ASEAN Working Group on Intellectual Property Cooperation (AWGIPC) was established in 1996 under the ASEAN Framework Agreement on Intellectual Property

¹ It should be noted that in some jurisdictions, including Australia, the term Trade Mark is used rather than Trademark.

Cooperation, although it had not entered into force. (ASEAN Secretariat, 2021). Malaysia joined the AWGIPC, although it had not signed the Framework Agreement. The 2016-2025 Action Plan had four strategic goals, namely: A more robust ASEAN IP System is developed by strengthening IP offices and building IP infrastructure; regional IP platforms and infrastructure are developed to contribute to enhancing ASEAN; an expanded and inclusive ASEAN IP Ecosystem is developed; and regional mechanisms to promote asset creation and commercialisation, particularly geographical indications and traditional knowledge, are enhanced (ASEAN IPR Action Plan 2016-2025, 2016).

Table 1 Selected 2018 World Development Indicators

	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
Population (million)	0,43	16,0	267,1	7,11	32,4	52,7	108,6	5,64	71,3	94,9
Poverty headcount at national poverty levels (% of the population)	-	-	998	-	5,6	-	16,7	-	9,9	6,8
Poverty headcount ratio at USD 2.15 per day (% of the population)	-	-	5,4	-	0,0	-	63,0	-	0,0	1,2
Gross national income (GNI) per capita (Atlas Method) (current USD thousands)	29,0	1,42	3,8	2,47	16,7	1,25	3,64	88,5	6,45	9,36
Primary school completion rate (%)	100	85	100	98	99	95	100	100	994	100
Primary school enrolment (% of gross)	100	100	100	100	100	100	100	100	198	100
Secondary school enrolment (% of gross)	994	-	889	667	882	668.4	884	100	100	-
Mobile cellular subscriptions per 100 persons	130	121	120	51,5	131	116	124	147	176	148
High technology exports (% of manufactured exports)	0	-1,4	-8,2	38	53,2	-3,6	61,3	51,6	23,7	40,8
Net official development assistance received (current USD millions)	-	783	962	589	-34,5	1,712	547	-	-419	1,645

Source: (World Bank, 2021) Values >100 are due to the calculation method. If there is no data, they are indicated by '-'. The actual date of collection of individual data sets varies.

The Action Plan encouraged Member states to seek accession to the Madrid Protocol, Hague Agreement and Patent Cooperation Treaty (Initiative 5). Each member state should also '[e]ndeavour to accede to other WIPO-administered international treaties (Initiative 6). The AWGIPC was explicitly tasked with evaluating 'protection mechanisms of GIs

[Geographic Indications] and assisting in protecting GIs in ASEAN and foreign market' (Initiative 18). AWGIPC was also tasked to promote a protection mechanism for Genetic Resources, Traditional Knowledge and Traditional Cultural Expressions (GRTKTCE) (Initiative 19).

ASEAN has ten Dialogue Partners: Australia, Canada, China, the European Union, India, Japan, Republic of Korea, New Zealand, Russia and the United States (Merced, 2017). The initial focus of the relationship with the Dialogue Partners was on technical and economic assistance. The focus then broadened to include the promotion of two-way trade and investments.

The relationship between innovation and intellectual property, particularly in frameworks for economies, has long been discussed (Landes & Posner, 2003). Currently, the most recognised measure of innovation for nations is the annual Global Innovation Index (GII), which is based on a detailed analysis of seven pillars: institutions, human capital & research, infrastructure, market sophistication, business sophistication, knowledge and technology outputs, and creatives output (Cornell University, INSEAD & WIPO, 2020). The GII is reported as a ranking based on the overall score of the economy.

The GIIs for the ten ASEAN countries from 2011 to 2020 are shown in Table 2. Singapore is by far the best performing of the ASEAN members. The lowest-performing countries are the three least developed countries: Cambodia, Lao PDR and Myanmar. The Philippines has shown the most significant improvement over the ten years, with Thailand and Vietnam showing significant improvement. Malaysia has been consistent, whilst Indonesia has improved but is still relatively poorly placed.

Table 2 Global Innovation Indices of ASEAN Members 2011-2020

Country	Global Innovation Index									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Brunei Darussalam	75	53	74	88	-	-	71	67	71	71
Cambodia	111	129	110	106	91	95	101	98	98	110
Indonesia	99	100	85	87	97	88	87	85	85	85
Lao PDR	-	138	-	-	-	-	-	-	-	113
Malaysia	31	32	32	33	32	35	37	35	35	33
Myanmar	-	-	-	140	138	-	-	-	-	129
Philippines	91	95	90	100	83	74	73	73	54	50
Singapore	3	3	8	7	7	6	7	5	8	8
Thailand	48	57	57	48	55	52	51	44	43	44
Vietnam	51	76	76	71	52	59	47	45	42	42

Source: (WIPO, 2021)

The research looks at the role of plurilateral free-trade agreements in assisting the ASEAN member states in developing their intellectual property frameworks.

Analytical Framework

This research is based on the documentary research concept. It analyses the impact of the ASEAN's membership in plurilateral free trade agreements on the development of the intellectual property regime of the member countries concerning the protection of patents and marks. There are complications when translating laws from one language to another. Many of our language constructs are tied to our culture and understanding.

Methodology

The research adopts the doctrinal legal research method. The authors accessed the official repositories of the intellectual property treaty websites, including the World Intellectual Property Organization, to access official documents, parties to the various treaties, and any reservations. A similar task was undertaken with the ASEAN repository for ASEAN Free Trade Agreements. A legal analysis assessed the impact of plurilateral free-trade agreements on IP legislation of the ASEAN member states.

Analysis

Intellectual Property Treaty Membership of ASEAN Member States

ASEAN member states have obligations under treaties to which they are party and to agreements to which ASEAN is a party. In the latter case, individual member states accede to the agreements following the completion of their internal approval processes. The agreements usually have a threshold number of accessions before the agreement can enter into force. The other potential state parties can accede to the agreement at any time after it enters into force and is then bound to the terms of the agreement.

ASEAN member states are contracting parties to World Intellectual Property Organization (WIPO) treaties as well as the *International Convention for the Protection of New Varieties of Plants* and the *World Trade Organization Agreement on Trade-Related Aspects of Intellectual Property Rights*, which is a requirement of being a member of the World Trade Organization (Table 3).

With the more recent emphasis on the protection of intellectual property rights, the partners negotiating free trade agreements tend to include a chapter on intellectual property rights. In this case, the focus is on plurilateral-lateral free trade agreements between ASEAN and its dialogue partners.

Table 3 ASEAN Member State Membership of International Patent and Mark Treaties
(as of 14 February 2021)

	Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
<i>World Intellectual Property Convention</i>										
Year of accession/ ratification	1994	1995	1979	1994	1988	2001	1980	1990	1989	1975
<i>Paris Convention for the Protection of Industrial Property</i>										
Year of accession	2012	1998	1950*	1998	1988	-	1980	1994	2008	1949
<i>Patent Law Treaty (2000)</i>										
Year of accession	-	-	-	-	-	-	-	-	-	-
<i>Washington Treaty on Intellectual Property in Respect of Integrated Circuits (1989)</i>										
Year of accession	-	-	-	-	-	-	-	-	-	-
<i>Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure</i>										
Year of accession	2012	-	-	-	-	-	1981	1994	-	-
<i>Hague Agreement Concerning the International Registration of Industrial Designs</i>										
Year of accession	2013	2016	-	-	-	-	-	2005	-	2019
Geneva Act (1999)	2013	2016	-	-	-	-	-	2005	-	2019
<i>Lisbon Agreement for the Protection of Appellations of Origin and their International Registration</i>										
Year of accession	-	-	-	-	-	-	-	-	-	P
Geneva Act (2015)	-	2018	-	2020	-	-	-	-	-	2019
<i>Patent Cooperation Treaty (PCT)</i>										
Year of accession	2012	2016	1997	2006	2006	-	2001	1994	2009	1992
<i>Trademark Law Treaty (TLT) (1994)</i>										
Year of accession/ ratification	-	-	1997	-	-	-	-	-	-	-
<i>Nice Agreement</i>										
Year of accession/ ratification	-	-	-	-	2007	-	-	1999	-	-
<i>Singapore Treaty</i>										
Year of accession/ ratification	-	-	-	-	-	-	-	2007	-	-
<i>Madrid Agreement Concerning the International Registration of Marks</i>										
Year of accession/ ratification	-	-	-	-	-	-	-	-	-	1973
Madrid Protocol [18]	2016	2015	2017	2015	2019	-	2012	2000	2017	2006
<i>Locarno Agreement Establishing an International Classification for Industrial Designs</i>										
Year of accession	-	-	-	-	-	-	-	2019	-	-
<i>Strasbourg Agreement Concerning the International Patent Classification</i>										
Year of accession	-	-	-	-	-	-	-	-	-	-
<i>International Treaty on Plant Genetic Resources for Food and Agriculture (also known as ITPGRFA, International Seed Treaty or Plant Treaty)</i>										
Contracting party	-	P	P	P	P	P	P	-	-	-
Signature only	-	-	-	-	-	-	-	-	P	-
<i>UPOV Convention</i>										
Year of accession	-	-	-	-	-	-	2018	2004	-	2006
<i>Agreement on Trade-Related Aspects of Intellectual Property Rights</i>										
Year of accession	1995	2004	1995	2013	1995	1995	1995	1995	1995	2007

Source: WIPO and authors. *Indonesia acceded to Paris Agreement as the Dutch East Indies.

Patent and Trade-mark Clauses in Plurilateral FTAs to which ASEAN is a Party

ASEAN has entered into FTAs with six of its ten dialogue parties: Australia, China, India, Japan, Korea and New Zealand. All sixteen countries were party to negotiations for the *Regional Comprehensive Economic Partnership*, which entered into force on 1 January 2022 with 12 original parties: Australia, New Zealand, Brunei Darussalam, Cambodia, China, Japan, Laos, the Republic of Korea², Singapore, Thailand and Vietnam (Department of Foreign Affairs and Trade, 2021). India was not in a position to sign the RCEP Agreement. However, the parties left it open for India to accede to the Agreement at a later date (Ministers' Declaration, 2020). Hong Kong was not a party to the RCEP negotiations. There is diversity among ASEAN members, including their legal systems. As FTA obligations require ASEAN members to refine their laws, the significant trading FTA partnerships are informative of the changes required.

ASEAN-Australia-New Zealand FTA

The objectives of the intellectual property chapter of the *ASEAN-Australia-New Zealand FTA (AANZFTA)* are:

Each Party confirms its commitment to reducing impediments to trade and investment by promoting deeper economic integration through effective and adequate creation, utilisation, protection and enforcement of intellectual property rights, taking into account the different levels of economic development and capacity and differences in national legal systems and the need to maintain an appropriate balance between the rights of intellectual property owners and the legitimate interests of users in subject matter protected by intellectual property rights. (ch 13, art. 1).

Each of the parties affirmed its rights and obligations to each other under the *TRIPS Agreement (AANZFTA, ch. 13, art. (3))*. The parties must maintain a trade-mark classification system consistent with the Nice Agreement and that the trade-mark system may be used to protect geographical indications (*AANZFTA, ch. 13, art. 7*). Provided parties meet their international obligations, they may 'establish appropriate measures to protect genetic resources, traditional knowledge and folklore' (ch. 13, art. 8).

The parties acknowledged significant capacity differences in the area of intellectual property (art. 9(1)). If requested, a party can assist it in implementing Chapter 13 of the Agreement (art. 9(2)). They also to agreed promote dialogue (art. 9(3)), cooperation (art. 9(4)), education and awareness regarding intellectual property protection and enforcement (art. 9(5)). They also agreed to cooperate on border measures to eliminate intellectual property violations (art. 9(6)). If parties intend to accede to specified patent and mark protection treaties, they can seek the cooperation of other parties in their path to accession and implementation (art. 9(7)). They can also seek support in their efforts to develop an inclusive system of trade-mark registration (art. 9(8)), subject, of course, to the availability of resources

² For the Republic of Korea it will enter into force on 1 February 2022.

(art. 9(9)). The specified treaties were *Patent Cooperation Treaty, Strasbourg Agreement, Budapest Treaty, Madrid Protocol, Patent Law Treaty, UPOV Convention, and Singapore Treaty*. Finally, the parties agreed to establish a Committee on Intellectual Property to ‘monitor the implementation and administration’ of the Intellectual Property Chapter. The Committee will meet annually, or as required, with its program developed by the parties (art. 12(2)).

ASEAN-China Framework Agreement

The *ASEAN-China Framework Agreement* includes an agreement on intellectual property (art. 7(2)). In December 2009, the parties signed a *Memorandum of Understanding on Cooperation in the Field of Intellectual Property*. The parties reaffirmed ‘their commitment under treaties to which they acceded and under their respective national laws and regulations’ (art. 1).

They agreed to establish a periodic Heads of Intellectual Property Offices Meeting to facilitate this. The meetings would:

- a. Share information on the latest developments and exchange views on international intellectual property issues (art. 2(1))
- b. Coordinate on intellectual property rights protection (art. 2(2))
- c. Exchange information and experiences concerning the examination of patents (art. 2(3));
- d. Cooperate in the development of IP automation and database (art. 2(4)); and
- e. ‘[e]xchange of views on major issues related to the international intellectual property systems that are under deliberation at the World Intellectual Property Organisation and other international fora’ (art 2(5)).

They also agreed to recognise the contribution made by genetic resources, traditional knowledge and folklore for scientific, cultural and economic development and to improve the ‘legal system for the protection of genetic resources, traditional knowledge and folklore’ (art. 3).

ASEAN-Hong Kong, China FTA

The *ASEAN-Hong Kong, China FTA (AHKFTA)* affirmed the rights and obligations of the parties to abide by their *TRIPS* obligations (ch. 10, art. 1). They also agreed ‘to promote and strengthen co-operation in . . . intellectual property rights to enhance their economic and trade relations’ (ch. 10, art. 2).

ASEAN-India Regional Trade and Investment Area

Intellectual property rights were not included in the framework agreement for the *Regional Trade and Investment Area*.

ASEAN-Japan Comprehensive Economic Partnership

Japan and ASEAN signed a framework agreement for the *ASEAN-Japan Comprehensive Economic Partnership* in 2003. Japan committed to mutual cooperation and to support ASEAN members in capacity development in the field of intellectual property rights (art. 5(1)(3)). Japan would also promote accession to the related international agreement as was mentioned briefly as a field of economic cooperation in Article 53 of the *AJCEP Agreement* signed in 2006 [28]. The parties entered into an agreement in 2019 for Japan to provide technical assistance through the Japan International Cooperation Agency (JICA) for specific programs determined by the parties (*TCA-ASEAN*).

ASEAN-Korea Framework Agreement

The *ASEAN-Korean Framework Agreement (AKFTA)* includes a commitment to 'explore and cooperate' in the realm of intellectual property (art. 3.1(1)(j)).

Regional Comprehensive Economic Partnership Agreement

The *Regional Comprehensive Economic Partnership Agreement* has a very extensive chapter on Intellectual Property (ch. 11). Parties may formulate or amend their laws and 'adopt measures necessary to protect public health and nutrition and to promote the public interest in sectors of vital importance to its socio-economic and technological development' (art. 11.4(1)). They may also adopt appropriate measures 'to prevent the abuse of intellectual property rights by right holders or the resort to practices which unreasonably restrain trade or adversely affect the international transfer of technology' (art. 11.4(2)). The legislation of a party may provide more extensive protections than required by Chapter 11 but must not contravene it (art. 11.5)). The regime for the exhaustion of intellectual property rights is up to each party (art. 11.6).

Parties must ratify or accede to the following patent and mark protection treaties (art. 11.9(1)), namely: *Paris Convention*, *PCT* and *Madrid Protocol*. They are also to endeavour to ratify or accede to the *Budapest Treaty*. As in the *AANZFTA*, if a party intends to ratify or accede to the *UPOV Convention*, the *Geneva Act (1999)* and the *Singapore Treaty*, they may seek support from the other parties (*RCEP*, art. 11.9(3)). Each party must maintain a trade-mark classification system consistent with the *Nice Agreement* and follow updated versions (*RCEP*, art. 11.21). Each party is to grant owners of registered trade-marks exclusive rights (art. 11.23).

Each party is to protect geographical indications through a trade-mark system, a sui generis system, or other means provided the requirements of the *TRIPS Agreement* [3] are met (*RCEP*, art. 11.29).

The agreement deals extensively available with the patentable subject matter whether products or processes, in all fields of technology. They must be 'new, involve an inventive

step, and are capable of industrial application' regardless of the place of invention, the field of technology, and whether imported or locally produced (art. 11.36(1)). Importantly:

2. A Party may exclude from patentability inventions, the prevention within its territory of the commercial exploitation of which is necessary to protect *ordre public* or morality, including to protect human, animal or plant life or health, or to avoid serious prejudice to the environment . . .
3. A Party may also exclude from patentability:
 - (a) Diagnostic, therapeutic, and surgical methods for the treatment of humans or animals; and
 - (b) Plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, each Party shall provide for the protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof. (art. 11.36(2)-(3)).

In addition, each party is to provide that a person may undertake an act for experimental purpose on a patented invention without infringing an owner's patent (art 11.40). Each party must 'provide for protection of independently created industrial designs that are new or original' (art. 11.49). A party, subject to its international obligation, may protect genetic resources, traditional knowledge and folklore (art. 11.53(1)). Undisclosed information is to be provided protection (art. 11.56), as is the commercial use of a country name where this may mislead a consumer about the place of origin of a product (art. 11.57).

Enforcement provisions must include civil remedies (s. J(2)), border provisions (s. J(3)) and criminal remedies (s. J(4)). The parties also agreed to cooperate and consult (s. K). Finally, the parties were able to provide a list of requests for technical assistance. Four countries responded (Annex 11B). Cambodia requested assistance in setting up a trade-mark registration system, including new plant varieties and capacity building concerning sound marks and trade-marks. Lao PDR also requested support in establishing an electronic trade-mark system. Myanmar's request was for support in the operation of collective management organisations, establishing an electronic trade-mark registering system, and developing a system to protect geographic indications and enforcement. Finally, Vietnam requested support for capacity building concerning sound marks and information technology.

Patent and Trade-mark legislation in the ASEAN Member States

Each of the ASEAN member states has an extensive patent and trade-mark legislation portfolio, as shown in Tables 4 and 5. Much of the legislation has been promulgated following ASEAN members' accession to bilateral and plurilateral free trade agreements.

Table 4 ASEAN Member State - Patent Legislation (as of 14 February 2021)

Country	Legislation
Brunei Darussalam	<i>Emergency (Industrial Designs) Order, 1999</i> <i>Emergency (Layout Designs) Order, 1999</i> <i>Patents Order, 2011</i> <i>Patents Rules, 2012</i> <i>Industrial Design (International Registration) Rules, 2014</i> <i>Plant Varieties Protection Order, 2015</i>
Cambodia	<i>Law on Patents, Utility Models and Industrial Designs, 2003</i> <i>Law on Amendments to the Law on Patents, Utility Models and Industrial Designs, 2017</i> <i>Law on Seed Management and Plant Breeder's Rights, 2008</i>
Indonesia	<i>Law on Patents</i> <i>Law Regarding Industrial Designs</i> <i>Law Regarding Layout Designs of Integrated Circuits</i> <i>Law on Plant Variety Protection</i> <i>Law Regarding Trade Secret</i>
Lao PDR	<i>Law on Intellectual Property (amended), 2017</i>
Malaysia	<i>Patents Act 1983 (as amended)</i> <i>Industrial Designs Act 1996 (as amended)</i> <i>Layout-Designs of Integrated Circuits Act 2000</i> <i>Protection of New Plant Varieties Act 2004</i>
Myanmar	<i>Patents Law 2019</i> <i>Industrial Designs Law 2019</i> <i>The Seed Law 2019</i> <i>Law Amending the Seed Law 2015</i> <i>Seed Law Regulations 2016</i> <i>Myanmar Traditional Medicine Council Law 2019</i> <i>New Plant Variety Protection Law 2019</i> <i>Animal Health and Breeding Development Law 2020</i>
Philippines	<i>Intellectual Property Code (2015 Edition)</i> <i>Philippine Plant Variety Protection Act 2002</i> <i>Patents Act as amended to 2019</i>
Singapore	<i>Registered Designs Act as amended to 2019</i> <i>Plant Varieties Protection Act as amended to 2019</i> <i>Patent Act (1979) as amended by the Patent Act (No. 2) (1992) and the Patent Act (No. 3) (1999)</i> <i>Ministerial Regulation on the Application for Patent Protection to Implement the Patent Treaty Cooperation (2009)</i>
Thailand	<i>Protection of Layout-Designs of Integrated Circuits Act (2000)</i> <i>Plant Varieties Protection Act (1999)</i> <i>Protection and Promotion of Traditional Thai Medicinal Intelligence Act, (1999)</i> <i>Trade Secrets Act B.E. 2545 (2002)</i> <i>Law on Intellectual Property 2005</i> <i>Law amending the Law on Intellectual Property 2009</i> <i>Law amending the Law on Insurance Business and the Law on Intellectual Property 2019</i>
Vietnam	<i>Law on Biodiversity 2008</i> <i>Seed Ordinance 2004</i>

Table 5 ASEAN Member State - Mark Legislation (as of 14 February 2021)

Country	Legislation
Brunei Darussalam	<i>Trade Marks Act (rev ed 2000)</i> <i>Emblems and Names (Prevention of Improper Use) Act</i>
Cambodia	<i>Law Concerning Marks, Trade Names and Acts of Unfair Competition, 2002</i> <i>Law on Geographical Indications, 2014</i>
Indonesia	<i>Law on Trademarks and Geographical Indications</i>
Lao PDR	<i>Law on Intellectual Property (Amended), 2017</i>
Malaysia	<i>Trade Marks Act 2019</i> <i>Geographical Indications Act 2000</i> <i>Geographical Indications (Amendment) Act 2002</i>
Myanmar	<i>Trademarks Law 2019</i> <i>Animal Health and Breeding Development Law</i>
Philippines	<i>Intellectual Property Code (2015 Edition)</i>
Singapore	<i>Trade Marks Act as amended to 2019</i> <i>Geographical Indications Act as amended to 2019]</i>
Thailand	<i>Trademark Act (1991) (as amended up to Trademark Act (No. 3) (2016)</i> <i>Protection of Geographical Indications Act (2003)</i> <i>Ministerial Regulation of Geographical Indications (2003)</i>
Vietnam	<i>Law on Intellectual Property 2005</i> <i>Law amending the Law on Intellectual Property 2009</i> <i>Law amending the Law on Insurance Business and the Law on Intellectual Property 2019</i>

Reviews of Intellectual Property Rights Practices of ASEAN Member States

World Trade Organization Trade Policy Reviews

The discussion on technology and digitalization in ASEAN started off as early as the 1990s when the shift of the traditional economy from resource-based to manufacturing emerged. Over the years, Southeast Asia countries have derived their industry and technological advancement as part of their main force for ASEAN economic integration despite the obvious challenges for member countries to expand their development potential (Wai, 1995). In more recent years, these topics cannot be separated from globalization and advancement of information technology, industry 4.0, digitalization of finance, and

The World Trade Organization (WTO) undertakes trade policy reviews of its member, with the frequency of the review varying according to its share of world trade (WTO, 2021).

Brunei Darussalam - the latest review was reported in 2015 (WTO, 2015). During the period under review, the government converted the Patent Registry Office into the Brunei Intellectual Property Office (BIPO), para. 3.117). Brunei's increased participation in international IP treaties is according to ASEAN commitments for simplified and harmonised IP protection and registration in the ASEAN Economic Community. The applicant may choose a local approach where local search and examination is outsourced to examiners from

Danish, Austrian, and Hungarian patent offices or a foreign approach that relies on search and examination reports issued by prescribed foreign patent offices, namely: Australia; Canada; European Patent Office; Japan; Republic of Korea; New Zealand; United Kingdom; and United States (para. 3.122). Undisclosed information (confidential information or trade secrets) is not protected by legislation; however, provisions exist under common law (para. 3.129).

Cambodia - the review on Cambodia was issued in 2018 (WTO, 2018a). It reported that: 'Cambodia attaches great importance to IPR protection to attract foreign investment and foster domestic growth' (para. 3.121). The Government drafted a National IP Strategy focused on improving capacity and capability in intellectual property services in agriculture, culture, education and training, industry and commerce, and tourism. In the period under review, Cambodia entered into three multinational treaties (para. 3.122). Bilateral agreements on intellectual property protection and cooperation with the United States, Thailand, the European Patent Office, and Singapore; and with cooperation only with China, Japan, the Republic of Korea and Lao PDR. Technical assistance was also being provided by WIPO (para. 3.123). From 2012 to the time of the report, 326 patent applications had been lodged, 44 registrations of utility models and 392 applications to register industrial designs (para. 3.130). In the same period, 33,038 trade-mark registration applications were lodged, and 25,351 marks were registered (para. 3.131).

Indonesia - the Secretariat noted that Indonesia remained a net importer of intellectual property right intensive goods (WTO, 2020a, para. 3.203). They reported that, during the review period, Indonesia enacted a new Patent Act to optimise the state's IP services and align IP protections with Indonesian interests whilst abiding by international principles (para. 3.209). During the review period, most of the patents were 'overwhelming filed by, and granted to non-residents' (para. 3.214). During the review period, new marks and geographical indications legislation entered into force (para. 3.219).

Lao PDR - according to the Secretariat, the Lao IP system is an integral part of the strategy for socio-economic development (WTO, 2020b, para. 3.126). During the review period, the omnibus Law on Intellectual Property (2011) was amended to further align with international standards (para. 3.127). As of the end of March 2019, 646 patent applications had been filed (para. 3.134), whilst by early April 2019, there had been 46,452 filings for trade-marks (para. 3.135). Three applications for Geographical Indications had been registered by June 2019 (para. 3.139). There are capacity constraints on registering plant varieties hindering Lao PDR's intent to join the *UPOV* (para. 3.140).

Malaysia - the main Malaysian initiative during the review period was the launch of its IP Monetisation Roadmap 2015-2020, which has the aim of changing the IP mindset so that IP is viewed as an asset 'with financial value and returns' (WTO, 2018b, para. 3.168). The roadmap has three pillars: the transformation of IP into financial assets, mobilisation of IP assets, and establishment of an IP Marketplace to become a trading hub for IP. Residents 'in general made more applications for utility models' (para. 3.179).

Myanmar - during the review period culminating in its 2020 review, Myanmar reformed its legislation (WTO, 2020c, para. 3.115). The laws were to enter into force in 2021 (para. 3.117). Geographical indications may be protected under the Trademark Law (para. 3.179). Everything is now in a state of flux as there was a brutal military coup d'état on 1 February 2021 (Human Rights Watch, 2021).

Philippines - the 2018 Review reported that the Philippines amended its Intellectual Property Code at the beginning of the review period (WTO, 2018c, 3.129). From January to September 2017, there were 21,834 trade-mark applications, 852 industrial design applications, 1,948 patent applications and 753 utility model applications (table 3.11).

Singapore - during the review period, Singapore adopted an IP Master Plan, intending to become an IP hub in Asia (WTO, 2016, para. 3.87), amended its Patents Act, Plant Varieties Protection Act, and enacted a new geographical indications (GI) law (para. 3.89). The amended Patent Act strengthened the patentability requirements. It ensures that they fully comply with the criteria of novelty, inventiveness, and industrial applicability (para 3.90). The Geographical Indications Act entered into force when the EU-Singapore FTA [89] was ratified in November 2019 (para. 3.92).

Thailand - the Trade Performance Review of 2020 reported that Thailand adopted a number of reforms to its IP systems during the period under review, particularly in science, technology, and innovation (WTO, 2021, para. 3.221). Considerable efforts were made to streamline its patent and trade-marks examination process (para. 3.222). There is increasing attention 'to the more complex areas of its policy framework and institutional development, ICT adoption, and complex skills training for its workforce, which are vital for its growing creativity and innovation capital' (para. 3.224).

There was a surge in applications for utility models, with those by Thai residents being for food and cosmetics (para. 3.232). Thai residents lodged the most patent applications in optics, being 13.7% of global applications in the 2015-2017 period (para. 3.239). Over the review period, there was a steady growth in patent protection applications, 'especially in human necessities, transportation, and chemistry and metallurgy'. The average examination period for a patent application is 6-8 years (para. 3.240). Trade-mark applications take around 16-18 months, provided there is no opposition or appeal (para. 3.244). As of March 2020, Thailand had 137 registered GIs (para. 3.249).

Vietnam - the latest Trade Policy Review for Vietnam was reported in November 2013 and is, therefore, outdated (WTO, 2013a). What was noted was the highly complex nature of the enforcement system, which is regulated by a combination of legal and administration texts (para. 3.190).

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Congress requires the United States Trade Representative (USTR) to conduct an annual review of intellectual property protection and enforcement status in the United States trading

partners (USTR, 2020, p. 4). In 2020 Indonesia remained on the Priority Watch List, whilst Thailand and Vietnam remained on the Watch List (p. 10).

Indonesia – was considered to have inadequate and ineffective intellectual property protection and enforcement (p. 48). The Report questioned the adequacy of Indonesia's 2016 Patent Law, geographical indications legislation, and lack of data secrecy provisions and enforcement. The main areas of improvement were in the areas of enforcement against pirated and counterfeit goods.

Thailand – was considered to have made progress in addressing concerns raised under the bilateral Trade and Investment Framework Agreement between the United States and Thailand (TIFA) [90] (USTR, 2020, p. 65). It considered that Thailand needed to streamline the patent registration process, address the backlog in pending pharmaceutical patent applications, lengthy civil IP enforcement proceedings, unfair commercial use of data and inadequate secrecy provisions. The remainder of the issues related to copyright, piracy, and enforcement. Thailand had been on the Priority Watch List for over ten years (Lighthizer, 2017). It shows that Thailand had serious property infringement problems like other developing countries under pressure to abide by international IP treaties and, on the other hand, the rules of the United States.

Vietnam – made progress during the review period by issuing a national IP strategy and continued public awareness and training activities (p. 66). Administrative enforcement processes failed to deter widespread counterfeiting and piracy, and the United States was cooperating with Vietnam concerning criminal enforcement of IP violations. Unauthorised disclosure of test data used to obtain marketing approval of pharmaceutical products needed 'clarification'. The report also noted that Vietnam had committed to improving its IP regime through free trade agreements and international treaties.

Discussion and Conclusion

All ASEAN members are parties to the *TRIPS Treaty*. and have acceded to several additional IP treaties. Even Cambodia, Lao PDR, and Myanmar, recognised as least developed countries by the United Nations Committee for Development Policy (2021), had until 1 July 2021 to meet their obligations (WTO, 2013b) have entered into IP treaties. Several factors have driven these developments.

Ideology is clearly not a reason. ASEAN includes three democratic constitutional monarchies (Cambodia, Malaysia and Thailand), one absolute monarchy (Brunei Darussalam), two presidential democracies (Indonesia and the Philippines), one parliamentary democracy (Singapore), two communist states (Lao PDR and Vietnam) and at the time of writing Myanmar in a state of turmoil following a brutal military coup d'état. This lack of ideology is further exemplified by the fact that four members of ASEAN (Brunei Darussalam, Malaysia, Singapore and Vietnam) were signatories to the *Trans-Pacific Partnership (TPP)*. When first mooted, it was driven by the United States, particularly in

extending the protection of intellectual property rights. The *TPP* morphed into the *Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)* [92] following the United States' withdrawal from the *TPP*. Some of the more contentious intellectual property rights clauses from the *TPP* were set aside for later discussion by the parties to the *CPTPP* (Annex II). The other 11 signatories to the *TPP* signed the *CPTPP*. At the time of writing, ASEAN members Singapore and Vietnam had ratified their membership, with the *CPTPP* entering into force on 30 December 2018 (DFAT, 2021b).

One of the key drivers is the desire for all three of the least developed and all six developing countries to improve their intellectual property regimes so that innovation becomes a driving force in their economies. Robust IP frameworks are considered a feature of developing better innovation within a jurisdiction and having better outcomes. Some ASEAN countries have a long way to go to reach an independent innovation-driven economy, whereas others, such as Singapore, provide a model for development. Singapore has one of the highest scores in the GII globally, with a ranking in the top ten.

One of the critical foundations for its success is the long-term cooperation between ASEAN and some of its key dialogue partners, particularly Australia and New Zealand. Australia became ASEAN's first dialogue partner in 1974 and was elevated to a strategic level in 2014 (ASEAN Secretariat, 2021b). New Zealand became a dialogue partner in 1975, elevated to a strategic level in 2015 (ASEAN Secretariat, 2021c). Over the years, both countries have collaborated and cooperated with ASEAN and its members culminating with the entering into force of the *ASEAN-Australia New-Zealand Free Trade Area* in 2010. The approaches of Australia and New Zealand are quite different from the approach of the United States with its investigations and publication of its Special 301 Reports. Australia and New Zealand much prefer the 'collaborative' (carrot) approach as opposed to the 'blame' (stick) of the United States. This cooperation between ASEAN and its dialogue parties allows the parties, on the one hand, to seek assistance and, on the other, provide assistance to enhance the capacity of ASEAN member states in intellectual property protection regimes within their jurisdictions.

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