

# The East Asia Plant Variety Protection Forum and UPOV 1991

Implications for Seed Systems in Southeast Asia Sangeeta Shashikant

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#### **Abbreviations**

AIPPI International Association for the Protection of Intellectual Property

ASEAN Association of Southeast Asian Nations
ASSINEL International Association of Plant Breeders

CIOPORA International Community of Breeders of Asexually Reproduced Ornamental

and Fruit Varieties

CPVO (European) Community Plant Variety Office

DUS distinct, uniform and stable

EAPVP Forum East Asia Plant Variety Protection Forum

EU European Union
FTA free trade agreement
IP intellectual property
IPR intellectual property right
IT information technology

ITPGRFA International Treaty on Plant Genetic Resources for Food and Agriculture

JASTA Japan Seed Trade Association

JATAFF Japan Association for Techno-innovation in Agriculture, Forestry and Fisheries

JOPVPC Japan Overseas Plant Variety Protection Consortium

LDC least developed country

MAFF Ministry of Agriculture, Forestry and Fisheries (Japan)

OAPI African Intellectual Property Organization

OECD Organisation for Economic Co-operation and Development

PBR plant breeders' rights
PVP plant variety protection

SEA Southeast Asia

SEMAE French Interprofessional Organisation for Seeds and Plants

(formerly GNIS)

TRIPS Trade-Related Aspects of Intellectual Property Rights

UNDROP United Nations Declaration on the Rights of Peasants and Other People

Working in Rural Areas

UPOV International Union for the Protection of New Varieties of Plants

UPOV 1991 1991 Convention of UPOV

USDA United States Department of Agriculture
USPTO United States Patent and Trademark Office
WIPO World Intellectual Property Organization

WTO World Trade Organization

#### **Executive Summary**

THE International Union for the Protection of New Varieties of Plants (UPOV) remains highly controversial, having triggered widespread protests, legal challenges and constitutional disputes in many developing countries. Opposition to UPOV stems largely from the World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), which obliges WTO member states to establish plant variety protection (PVP) systems. Although the TRIPS Agreement allows countries the flexibility to design their own *sui generis* PVP frameworks, developed nations have consistently pressured developing countries to adopt the rigid and restrictive 1991 Act of UPOV – a system designed for the commercialized farming structures of industrialized nations that rely heavily on seed supplies from commercial breeders.

Supported by the UPOV Secretariat and entities representing dominant players in the global seed industry, developed countries have deployed a range of strategies to pressure developing nations into joining UPOV 1991. In Southeast Asia (SEA), for example, Vietnam and Singapore became members following the signing of free trade agreements with the United States. Today, proponents are intensifying their efforts to target other SEA countries, particularly through initiatives such as the East Asia Plant Variety Protection Forum (EAPVP Forum).

The EAPVP Forum, initiated by Japan, has evolved into a key platform for pressuring SEA countries to join UPOV 1991 and for pursuing regional harmonization of PVP systems based on its rigid standards. While presented as a vehicle for cooperation, the Forum's pro-UPOV agenda – heavily driven by Japan, the UPOV Secretariat, and governments like the Netherlands, Germany, France and the United States, along with their seed industries – systematically influences PVP offices in the region to adopt UPOV 1991 standards, sidelining national agricultural needs and marginalizing local voices advocating for context-appropriate approaches that safeguard farmers' rights and national interests.

This paper exposes the commercial motivations behind the aggressive promotion of UPOV 1991. It presents evidence showing that developed countries – especially the Netherlands, Germany, France, Japan and the United States – stand as the primary beneficiaries of UPOV 1991 and regional harmonization based on this model.

Chapter II of this paper discusses the origins, objectives and set-up of the EAPVP Forum, including steps being taken towards regional harmonization. Chapter III examines the motivations and economic interests driving Japan, foreign governments and entities in pushing SEA countries to join UPOV 1991. Chapter IV reveals how the EAPVP Forum has become a platform for disseminating pro-UPOV disinformation, systematically promoting a narrative that misrepresents the impacts and implications of UPOV 1991.

Chapter V discusses key concerns for seed systems in the SEA region, especially the undermining of national democratic decision-making process, entrenching of UPOV 1991, an inflexible PVP

system in the region, the monopolization of SEA seed systems by a few developed countries and multinational companies, the diminished role of national PVP offices and loss of national sovereignty.

In Chapter VI, the paper concludes that the EAPVP Forum, while presented as a cooperative platform, primarily serves as a strategic tool for Japan and the UPOV Secretariat to pressure SEA countries into adopting the rigid UPOV 1991 framework, threatening their policy space and agricultural sovereignty. SEA countries, especially non-UPOV members, should critically reassess their participation and advocate for a reorientation of the Forum towards: genuine collaboration based on recognition of the sovereign right of each country to preserve the flexibility to have and implement a national PVP system distinct from UPOV Conventions; promoting critical, evidence-based discussions; engagement of diverse perspectives, in particular local stakeholders in SEA such as smallholder farmers, local and indigenous communities; establishment of an independent secretariat; and ensuring greater transparency and accountability of the Forum's activities. Without meaningful reforms, SEA countries should withdraw from the Forum to protect their national interests and policy autonomy.

## Chapter I **Introduction**

THE International Union for the Protection of New Varieties of Plants (UPOV) is widely regarded as highly contentious, sparking protests and prompting legal and constitutional challenges at the national level. The controversy surrounding UPOV can be traced back to the adoption of the World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). Article 27.3(b) of the TRIPS Agreement requires WTO members (except for those designated as least developed countries (LDCs)<sup>1</sup>) to provide a system for the protection of plant varieties "either by patents or by an effective *sui generis* system or by any combination thereof."

The adoption of the TRIPS Agreement was heavily influenced by lobbying from multinational companies in developed countries, which aimed to export their intellectual property (IP) systems to developing nations.<sup>2</sup> At the time of its adoption, plant variety protection (PVP) systems were virtually non-existent in developing countries.

The TRIPS Agreement does not prescribe specific details about the type of PVP system to be adopted. It only stipulates that it must be an "effective *sui generis* system," meaning a unique system tailored to each country's needs and circumstances (socio-economic and ecological). WTO members, therefore, have the freedom to design PVP systems that align with their agricultural contexts and priorities, including the needs and interests of smallholder farmers, who form the backbone of the agricultural sector in developing countries. Consequently, the majority of Southeast Asian nations have opted to design their own *sui generis* PVP systems.

Conversely, developed countries have consistently advocated for the adoption of the 1991 Convention of UPOV (UPOV 1991). The origins of UPOV are rooted in the Global North, with the initial Convention being adopted in 1961 by 12 European governments in response to demands from commercial seed breeders in Europe. The International Association for the Protection of Intellectual Property (AIPPI), comprising IP lawyers for industry, the International Association of Plant Breeders (ASSINEL), and the International Community of Breeders of Asexually Reproduced Ornamental and Fruit Varieties (CIOPORA) were instrumental in its formation.<sup>3</sup>

There are currently 44 economies designated by the United Nations as LDCs. Among the members of the Association of Southeast Asian Nations (ASEAN), Laos and Cambodia are LDCs. Under the WTO rules and decision IP/C/88 of the WTO's TRIPS Council, LDCs do not have to implement any aspect of the TRIPS Agreement other than Articles 3, 4 and 5 of the Agreement at least until 1 July 2034 or until such a date on which they cease to be an LDC, whichever date is earlier. Therefore, LDCs need not comply with Article 27.3(b) of the TRIPS Agreement. The text of decision IP/C/88 is available at https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/IP/C/88.pdf&Open=True

<sup>&</sup>quot;Who Owns the Knowledge Economy? Political Organising Behind TRIPS", available at http://www.thecornerhouse.org.uk/sites/thecornerhouse.org.uk/files/32trips.pdf

<sup>&</sup>quot;Plant Variety Protection in Developing Countries, A Tool for Designing a Sui Generis Plant Variety Protection System: An Alternative to UPOV 1991", available at https://www.apbrebes.org/files/seeds/files/ToolEnglishcomplete. pdf

Each subsequent revision of the UPOV Convention has progressively strengthened the rights of commercial breeders, at the expense of farmers' rights and considerations of food sovereignty and security at the national level. UPOV 1991, specifically, was negotiated and adopted by only 20 UPOV member countries, with South Africa (still under apartheid rule then) being the sole developing country among them. The UPOV system was essentially designed for farming systems of developed countries, which are heavily reliant on seed supplies from commercial breeders.

Since the adoption of the TRIPS Agreement, developed countries, with the support of the UPOV Secretariat and entities representing the interests of the dominant players in the commercial seed sector, have employed a range of strategies to persuade more developing countries to join UPOV 1991. These tactics include propagating disinformation, grooming national PVP offices, and using coercive measures such as making UPOV 1991 membership a condition in North-South free trade agreements (FTAs). For example, Vietnam joined UPOV 1991 in 2006 following the signing of a bilateral trade agreement with the US in 2000 which included a provision that Vietnam should give effect to provisions of UPOV and "shall promptly make every effort to accede" to UPOV Conventions.<sup>4</sup> Even Singapore, a non-agricultural state, became a party to UPOV 1991 in 2004 after an FTA with the US. Advocates of UPOV are now targeting other Southeast Asian countries through initiatives like the East Asia Plant Variety Protection Forum (EAPVP Forum).

See https://ustr.gov/sites/default/files/US-VietNam-BilateralTradeAgreement.pdf

#### Chapter II

#### The EAPVP Forum, Its Set-Up and Objectives

THE EAPVP Forum seems to have been initiated by Japan. In October 2007, Japan hosted a "Workshop on the Cooperation and Harmonization in Plant Variety Protection in the Asian Region" which mooted the idea of a harmonized PVP system for the region in line with UPOV.<sup>5</sup> The first annual meeting of the EAPVP Forum took place in July 2008 in Japan. The focus of the Forum is on countries in the Southeast Asian (SEA) region plus China, Japan and South Korea (SEA+3).

During the 12th annual meeting of the EAPVP Forum in 2019, a 10-year strategic plan (2018–2027)<sup>6</sup> was adopted which establishes the "long-term direction" of the Forum to be: "Establish effective PVP systems consistent with the UPOV Convention among Forum members towards achieving all Forum members' membership of UPOV, as a basis for further PVP harmonization and cooperation in the region in order to contribute to developing sustainable agriculture and achieving food security".

Towards that end, the "objectives" in the form of "direct goals" of the Forum are:

- "Objective 1: Strengthen national PVP system consistent with the UPOV Convention to encourage investment in plant breeding"
- "Objective 2: Contribute to support achievement of UPOV membership, to facilitate harmonization of application and examination procedures, and to enhance efficient PVP cooperation in the region".

To operationalize the objectives and realize the "long-term direction", the strategic plan highlights the need for "national-specific activities" to achieve Objective 1 and "regional cooperation activities" to achieve Objective 2. At the centre of both the national and regional activities, the plan is to develop/amend national PVP systems in accordance with UPOV 1991 and to create a harmonized PVP system at the regional level for SEA+3, based on the UPOV system. It envisions that the harmonized regional system will centralize the filing and examination of PVP applications.

Under the strategic plan, each member of the Forum is encouraged to develop an "Individual Implementing Strategy" with a view to becoming a party to UPOV 1991.

See http://eapvp.org/files/about/docs/jointstatement\_en.pdf

<sup>6</sup> See http://eapvp.org/uploads/EAPVPF\_12\_03.pdf

#### 1. Secretariat of the Forum

Japan seems to be the principal financier and host of the Forum, with substantial support from the UPOV Secretariat. The Japan Association for Techno-innovation in Agriculture, Forestry and Fisheries (JATAFF)<sup>7</sup> hosts the office of the Forum. According to the Forum's rules of procedure, the official website is supported by Japan and the "UPOV Office extends assistance to the Forum activities under the cooperative framework of the Government of Japan and in accordance with UPOV's priorities." Additionally, the rules specify that members can receive "support from donor(s)" for organizing activities, but this is "subject to consultation with the donor(s)."

#### 2. Towards Harmonization: The EAPVP Forum's Pilot Project (e-PVP Asia)

In 2018, to incentivize SEA countries to join UPOV 1991 and to expedite regional harmonization in alignment with UPOV standards, e-PVP Asia was initiated. The initiative aims to standardize PVP systems at the regional level, from the filing of PVP applications to the grant of PVP, based on the UPOV system. It is envisioned to be a harmonized mechanism built using UPOV's information technology (IT) tools and database with a unified application form, harmonized DUS (distinct, uniform and stable) test proceedings and mutual acceptance of DUS test results. Its development is supported by financial assistance from Japan and technical assistance from UPOV. The system is planned to be operationalized in phases.

According to a report on this EAPVP pilot project,<sup>9</sup> the first phase (from 2018 to 2022) aimed to develop and test a model of the online PVP registration application platform known as e-PVP. In the second phase (starting 2023), the initiative would become operational. However, a 2023 report by Japan to UPOV on recent PVP developments states that Japan, Vietnam and UPOV will be launching e-PVP Asia only by early 2027.<sup>10</sup>

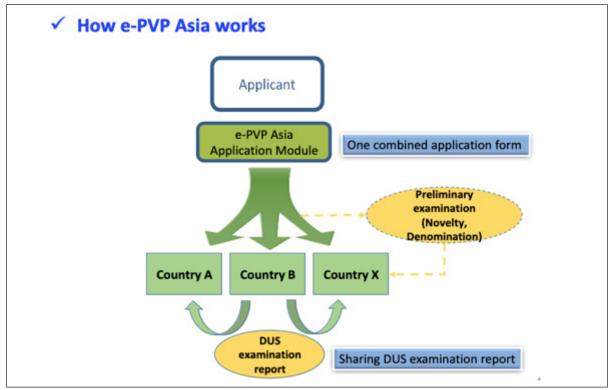
To participate in this project, countries would have to be UPOV members (i.e., Japan and Vietnam), although the initiative also seems to be open to SEA countries that are intending to join UPOV.

JATAFF provides support to Japanese breeders by assisting with PVP applications abroad and facilitating the enforcement of plant breeders' rights. JATAFF's membership comprises 85 entities, including prominent Japanese corporations like Takii, Sakata, Kubota, Yakult, Suntory, Kirin and Ajinomoto, alongside numerous prefectural governments. JATAFF serves as the representative organization of the Japan Overseas Plant Variety Protection Consortium (JOPVPC), backed by financial support from the Ministry of Agriculture, Forestry and Fisheries (MAFF) of Japan. Other organizations of the JOPVPC include the Japan Seed Trade Association (JASTA). Source: https://www.jataff.or.jp/project/hinsyu/jataff-en.pdf

<sup>8</sup> See http://eapvp.org/uploads/EAPVPF\_12\_07.pdf

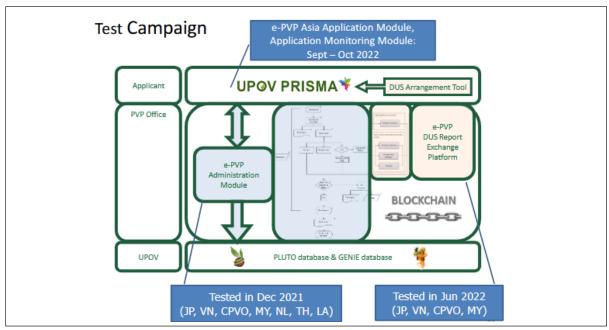
See http://eapvp.org/uploads/EAPVPF\_15\_03\_Report-of-the-EAPVP-Pilot-Project\_rev.pdf

<sup>&</sup>quot;Japan, Vietnam and UPOV are ... working together to develop a single online application Platform 'e-PVP Asia' that enables a onetime application to multiple PVP Offices connected with the PRISMA, thereby expediting the application process. The 'e-PVP Asia' is also expected to facilitate cooperation in examination among participating countries. We are aiming to launch 'e-PVP Asia' by early 2027." See UPOV Document TWF/54/3 (Annex VI), available at https://www.upov.int/edocs/mdocs/upov/en/twf\_54/twf\_54\_3.pdf



 $\textbf{Source:} \ \ JATAFF \ \ presentation, \ \ http://eapvp.org/uploads/10.-e-PVP-Asia-and-Viet-Nam\%E2\%80\%99s-recent-developments-under-e-PVP-Asia.pdf$ 

The e-PVP platform is envisioned to integrate with UPOV's databases, namely PRISMA, PLUTO and GENIE.<sup>11</sup>



 $\textbf{Source}: Report of the \ EAPVP\ Pilot\ Project, \ http://eapvp.org/uploads/EAPVPF\_15\_03\_Report-of-the-EAPVP-Pilot-Project\_rev.pdf$ 

UPOV PRISMA is an online tool for making PVP applications to PVP offices of participating UPOV members. The PLUTO database contains information on plant varieties from UPOV members and the Organisation for Economic Co-operation and Development (OECD). The GENIE database provides online information on genera and species protected by UPOV members, cooperation in examination, experience in DUS testing and the existence of UPOV Test Guidelines.

Between 2018 and March 2022, nine meetings on the e-PVP Asia project were held physically in Vietnam as well as virtually <sup>12</sup> to discuss the governance of the project. The 9th session approved fundamental documents of e-PVP Asia: <sup>13</sup>

- Memorandum of cooperation (MOC) between the e-PVP Asia participating countries and UPOV;
- Terms of use of e-PVP Asia;
- Rules of procedure of the steering committee;
- Financial regulations of e-PVP Asia;
- Terms of reference of the e-PVP Asia implementing agency;
- Procedure for selecting the e-PVP Asia implementing agency;
- Payment mechanism;
- e-PVP Asia requirements regarding combined application form, technical questionnaires, preliminary check of denomination and preliminary check of novelty.

These documents are not readily available on the website of the EAPVP Forum.

The development of e-PVP Asia is extremely worrying for it risks not only entrenching a wholly unsuitable PVP system in the region, but also causing loss of national sovereignty over seed, deepening concentration in the seed sector.

 $<sup>^{12} \</sup>quad http://eapvp.org/uploads/EAPVPF\_15\_03\_Report-of-the-EAPVP-Pilot-Project\_rev.pdf$ 

http://eapvp.org/uploads/EAPVPF\_15\_03\_Report-of-the-EAPVP-Pilot-Project\_rev.pdf

#### Chapter III

## Influence of Japan, Foreign Governments and Entities in the EAPVP Forum

#### 1. Influence of Japan

JAPAN, in collaboration with the UPOV Secretariat, is the primary driver of the EAPVP Forum. Japan considers a harmonized PVP system modelled on UPOV 1991 in the SEA region as crucial for enhancing its competitiveness and securing its dominance in the region's commercial seed sector.

Japan's "Individual Implementing Strategy" (2018–2027),<sup>14</sup> presented at the 11th annual meeting of the Forum in 2018, highlights several of its motivations, i.e., stagnation in the number of applications for PVP in Japan, concern over the use of its varieties in foreign markets as well as loss of competitiveness in such markets. Hence, to strengthen Japan's international competitiveness in the agricultural and food industry, the implementing strategy sets out its objective to "improve the protection of PBR [plant breeders' rights] in the third [foreign] countries in order to provide breeders effective and efficient PVP system as well as to enhance Japan's innovation".

Towards that aim, Japan states that its strategy is to "encourage and support establishment of PVP laws in line with the 1991 Act of the UPOV Convention in Asian countries under the EAPVP's 10-Year Strategic Plan in collaboration with the UPOV and other authorities for economic development in the region and proper investment by the Japanese seed industry", and to build a "regional harmonized mechanism for application and examination procedures ... in collaboration with the UPOV and other authorities".

Japan's Ministry of Agriculture, Forestry and Fisheries (MAFF)'s Intellectual Property Strategy 2025<sup>15</sup> (dated April 2021) elaborates on the risk of plant varieties developed in Japan being taken abroad, stressing that "[m]easures to deal with this risk include the acquisition of breeder's rights by breeder's right holders for themselves in foreign countries or regions, in order to allow themselves to seek an injunction of distribution of their varieties in overseas markets or to claim damages for unauthorized cultivation". The strategy also points towards the challenge faced by its breeders in having to file for PVP in each country, hence the need for Japan "to promote the smooth registration of varieties overseas".

The strategy highlights the importance of markets in Southeast Asia for Japan and how the MAFF will, through the EAPVP Forum, "encourage relevant East Asian countries to accede to the UPOV Convention". It adds that through the "active use" of the Forum, the MAFF "will also further cooperate with overseas authorities for protecting and examining plant varieties to accelerate the registration of new plant varieties overseas".

http://eapvp.org/files/report/docs/philippines/meeting\_documents/EAPVPF\_11\_04\_05.pdf

https://www.maff.go.jp/e/policies/intel/attach/pdf/index-2.pdf

In line with its IP Strategy, Japan has amended its Plant Variety Protection and Seed Act. The amended act with effect from 1 April 2022 controversially restricts protected varieties in Japan from being brought to foreign countries and eliminates the right of farmers to save seeds. As stated in the IP Strategy, Japan is leveraging the EAPVP Forum, including through initiatives like e-PVP Asia, to quickly expand its proprietary seed portfolio in Southeast Asia and hence capture the region's commercial seed market. Japan's implementing strategies presented at annual meetings of the Forum are explicit about strengthening its competitiveness by achieving its national goal to "promote harmonization and cooperation of UPOV PVP system regionally/internationally to protect Japan's brand in the foreign countries". 16

Japan justifies its push for a regional harmonized system based on UPOV 1991 by citing infringement cases affecting its breeders. However, many of these cases involve fellow UPOV members, such as South Korea, China and Australia, or stem from Japanese breeders failing to secure protection abroad. Ultimately, Japan's aggressive pursuit of regional harmonization primarily serves to accelerate PVP for its breeders and solidify its dominance in Southeast Asia's commercial seed sector.<sup>17</sup>

As the EAPVP Forum's key donor and secretariat, Japan plays a dominant role in influencing PVP offices in Southeast Asia to align with its objectives. Japan features prominently in Forum activities, particularly annual meetings, where it is JATAFF which frequently delivers welcoming remarks regardless of the host country. In addition, the Forum's 10-year strategy originated from a Japanese proposal in 2017. Similarly, the e-PVP pilot project is also a Japanese-led initiative.

#### 2. Influence of Other Foreign Governments and Entities

Alongside Japan, the UPOV Secretariat plays a significant role in shaping the EAPVP Forum. Its representatives, including the Vice Secretary-General, actively participate in the majority of the Forum's activities. Like Japan, UPOV exerts considerable influence over the Forum's direction, activities and annual meetings. For instance, the Forum's annual meetings regularly feature welcoming remarks from UPOV's Vice Secretary-General, further reinforcing its presence and authority.

In addition to representatives from PVP offices from the SEA+3 region, the EAPVP Forum meetings are also attended by "guest" participants. Table 1 provides an overview of the various "guests" who have taken part in the Forum's annual meetings.

Japan's Individual Implementing Strategies presented at the annual meetings of the EAPVP Forum are available at http://eapvp.org/report/

A forthcoming study will highlight the detrimental impact of Japan's PVP system on its agricultural system.

#### Table 1

Year	Guests Participating		
17th EAPVP Forum Meeting (2024)	UPOV Secretariat, Naktuinbouw (Netherlands), European Community Plant Variety Office (CPVO), US Department of Agriculture (USDA), Mekong US partnership, Asia and Pacific Seed Alliance		
16th EAPVP Forum Meeting (2023)	UPOV Secretariat, Naktuinbouw, United States Patent and Trademark Office (USPTO), Mekong US partnership including the USDA Foreign Agricultural Service		
15th EAPVP Forum Meeting (2022)	UPOV Secretariat, CPVO, Naktuinbouw, SEMAE (France, previously known as GNIS), Asia and Pacific Seed Association		
14th EAPVP Forum Meeting (2021)	UPOV Secretariat, CPVO, USPTO, GNIS, Asia and Pacific Seed Association		
13th EAPVP Forum Meeting (2020)	UPOV Secretariat, CPVO, Naktuinbouw, Ministry of Agriculture Netherlands, GNIS, Asia and Pacific Seed Association		
12th EAPVP Forum Meeting (2019)	UPOV Secretariat, CPVO, Naktuinbouw, Ministry of Economic Affairs Netherlands, GNIS, USPTO, Federal Plant Variety Office of Germany, Instituto Nacional de Semillas of Argentina		
11th EAPVP Forum Meeting (2018)	UPOV, CPVO, GNIS, Naktuinbouw		
10th EAPVP Forum Meeting (2017)	Not available		
9th EAPVP Forum Meeting (2016)	UPOV, CPVO, USPTO, Naktuinbouw		
8th EAPVP Forum Meeting (2015)	UPOV, CPVO, USPTO, Naktuinbouw		
7th EAPVP Forum Meeting (2014)	UPOV Secretariat, GNIS, World Vegetable Centre, Japan International Cooperation Agency		

The regular "guest" participants are the UPOV Secretariat; European Community Plant Variety Office (CPVO); United States Patent and Trademark Office (USPTO); Naktuinbouw; and representatives of the multinational seed industry (e.g., representatives from the French Interprofessional Organisation for Seeds and Plants (SEMAE, formerly GNIS)). The annual meetings of the Forum have also been attended by representatives of various other developed-country agencies such as the Federal Plant Variety Office of Germany and the Ministry of Economic Affairs of the Netherlands.

Naktuinbouw is a Dutch centre that assesses the identity, quality and health of propagating material in the horticulture sector. It also organizes trainings that promote PVP systems modelled on UPOV. https://www.naktuinbouw.com/. For more information on how Naktuinbouw and other entities are promoting UPOV in developing countries, see "UPOV's War against the Rights of Farmers", APBREBES, 2024, available at https://www.apbrebes.org/news/upovs-war-against-farmers-rights

<sup>19</sup> See https://www.semae.fr/en/

Glaringly absent from the EAPVP Forum, though, are the local actors from the SEA region who will be affected by the decisions of the PVP offices, particularly smallholder farmers, indigenous peoples, local communities and civil society organizations. These groups have repeatedly raised concerns about the implications of adopting UPOV 1991. The sidelining of these diverse local voices calls into question the credibility and legitimacy of the Forum.

#### 3. Economic Interests of Japan, Foreign Governments and Entities

The dominant role of Japan, the UPOV Secretariat as well as foreign governments and entities such as the European Union (EU), the Netherlands, Germany, France and the US in the proceedings and activities of the EAPVP Forum is striking, though unsurprising, given their substantial economic interests in seed exports (see Table 2).

Table 2

	Export of Seed for Sowing by Country – Calendar Year 2020 <sup>20</sup>			Export of Seed for Sowing by Country - Calendar Year 2022 <sup>21</sup>			
Country	Quantity (Metric Tons)	Value (Million USD)	Share of Value in Total Global Seed Exports (15,850 Million USD) in 2020	Quantity (Metric Tons)	Value (Million USD)		
France	820,819	2,293	14%	1,507,449	2,565	16%	
Germany	363,409	1,103	7%	287,848	1,123	7%	
Japan	9,681	155	1%	9,433	136	0.8%	
Netherlands	1,137,280	3,193	20%	1,053,800	3,162	20%	
Other EU countries <sup>22</sup>	2,863,029	4,052	26%	2,860,892	4,113	25%	
US	530,261	1,846	12%	572,727	1,965	12%	

https://worldseed.org/document/seed-exports-2020/

https://worldseed.org/document/seed-export-2022/

Seed companies from the Netherlands, France, Germany and the US are among the dominant users of the EU's Community Plant Variety system administered by the CPVO. As a result, they are also likely to be the leading seed exporters within other EU countries.

Companies from France, Germany, Japan and the US collectively control over half of the global seed market for proprietary field crops and vegetable seeds sold via the commercial market and genetically modified crop traits (see Table 3).

Table 3

Ranking	Company /Headquarters	Seeds & Trait Sales \$US millions	% Global Mar- ket Share
1.	Bayer <sup>13</sup> (Germany)	10,286	23
2.	Corteva Agriscience <sup>14</sup> (USA)	7,756	17
3.	ChemChina/ Syngenta <sup>15</sup> (China)	3,193	7
4.	BASF <sup>16</sup> (Germany)	1,705	4
5.	Groupe Limagrain/ Vilmorin & Cie <sup>17</sup> (France)	1,684	4
6.	KWS <sup>18</sup> (Germany)	1,494	3
	TOTAL TOP 6	26,118	58
7.	DLF Seeds <sup>19</sup> (Denmark)	1,153	3
8.	Sakata Seeds <sup>20</sup> (Japan)	648	1.0
9.	Kaneko Seeds <sup>zı</sup> (Japan)	570	1.0
	Total World Market	45,000	100

**Source**: "Agrochemicals & commercial seeds", *Food Barons 2022*, ETC Group, https://www.etcgroup.org/foodbarons-2022-agrochemicals-seeds

Additionally, Bayer (Germany), BASF (Germany), Corteva (USA), FMC (USA) and Sumitomo Chemicals (Japan) dominate 51.5% of the market for agrochemicals, which are extensively used with proprietary seeds.<sup>23</sup>

As a result, applicants from the EU – particularly the Netherlands, Germany and France – along with the US are the primary claimants of PVP and beneficiaries of the UPOV system. These countries' commercial seed industries are the most prolific users of PVP protections in foreign countries, as shown in Table 4. Japan through its EAPVP Forum initiatives is striving to catch up in securing PVP protection abroad.

The consistent presence and influence of Japan and other foreign governments and entities in the Forum reflect their vested interest in protecting and expanding the monopoly rights of their seed industries which already wield substantial control over the global commercial seed sector.

<sup>&</sup>quot;Agrochemicals & commercial seeds", *Food Barons 2022*, ETC Group, https://www.etcgroup.org/food-barons-2022-agrochemicals-seeds

Table 4

Countries of Origin of Non-Resident PVP Applications

Country	2021 (Total PVP Applications: 6,225)	2022 (Total PVP Applications: 5,747)	2023 (Total PVP Applications: 5,314)	
United States	1,531 (25%)	1,400 (24%)	1,221 (23%)	
Netherlands	1,325 (21%)	1,267 (22%)	1,222 (23%)	
Germany	616 (10%)	484 (8%)	425 (8%)	
Switzerland	531 (9%)	657 (11%)	539 (10%)	
France	485 (8%)	532 (9%)	483 (9%)	
Australia	226 (4%)	129 (2%)	148 (3%)	
Japan	212 (3%)	204 (4%)	189 (4%)	
Spain	188 (3%)	151 (3%)	148 (3%)	
United Kingdom	180 (3%)	122 (2%)	180 (4%)	
Total	86%	85%	87%	
Other countries	14%	15%	13%	
US+Netherlands+	67%	67%	67%	
Germany+France+Japan				

**Source**: Statistical information provided by UPOV members as contained in UPOV Document C/56/INF/7, https://www.upov.int/edocs/mdocs/upov/en/c\_56/c\_56\_inf7.pdf; UPOV Document C/57/7, https://www.upov.int/edocs/mdocs/upov/en/c\_57/c\_57\_7.pdf; and UPOV Document C/58/7, https://www.upov.int/edocs/mdocs/upov/en/c\_58/c\_58\_7.pdf

#### Chapter IV

#### **EAPVP Forum: A Ground for UPOV Propaganda**

SINCE its inception, the EAPVP Forum has expanded through annual meetings and specialized sessions centred on the UPOV system and its perceived benefits. These gatherings often include visits to countries implementing UPOV standards, reinforcing its influence. PVP offices from SEA+3 countries actively participate in the Forum meetings, occasionally even hosting the meetings. During these events, they present annual reports to UPOV and the attending "guests" (listed in Table 1), detailing their PVP status, challenges, efforts and strategies for joining UPOV 1991, even though the SEA countries, except Vietnam and Singapore, are not UPOV members.

Public opposition to UPOV 1991 remains strong in non-UPOV Southeast Asian countries.<sup>24</sup> In response, the Forum also discusses strategies for overcoming national resistance to joining UPOV 1991. For instance, at a "Meeting to Introduce the Actual Information About the UPOV System"<sup>25</sup> held in February 2023, Ghana shared how it overcame opposition to the country's enactment of a PVP Act aligned with UPOV 1991, ultimately enabling its accession to the convention.

Ghana's participation in such discussions is particularly noteworthy, given that the country had no prior experience in implementing plant variety protection, including the UPOV system. As a result, Ghana lacked firsthand knowledge of its actual impact, raising questions about the credibility of its presentation on the subject. In reality, empirical evidence shows that UPOV implementation in the African Intellectual Property Organization (OAPI) region covering 17 francophone African countries has been a dismal failure, <sup>26</sup> further casting doubt on claims made in such forums.

For non-UPOV countries, the appeal of the Forum may be that it provides an opportunity to discuss technical matters, such as training on DUS examination for specific varieties, with other PVP offices in the region. However, while a few trainings are organized on particular technical aspects of PVP with trainers usually from Japan and Vietnam (proponents of the UPOV system), the majority of the Forum activities are about outright promotion of UPOV 1991, and understanding, implementing and enforcing that system.

Effectively, under the guise of provision of technical assistance and cooperation, the EAPVP Forum is a platform for Japan, the UPOV Secretariat and other pro-UPOV countries, with the backing of participating "guest" entities (the primary beneficiaries of the UPOV system), to cultivate support among Southeast Asian PVP offices for UPOV 1991. The ultimate goal is to push these countries

For example, see https://www.bothends.org/en/Whats-new/Letters/Open-letter-to-the-Indonesian-Government-concerning-plant-variety-rights-in-the-Free-Trade-Agreement-with-Indonesia/; https://grain.org/en/article/6372-asia-under-threat-of-upov-91

<sup>25</sup> http://eapvp.org/report-data/thailand/meeting-to-intro-actual-info-about-the-upov-system/

<sup>&</sup>quot;A Dysfunctional Plant Variety Protection System: Ten Years of UPOV Implementation in Francophone Africa", Working Paper, APBREBES, 2019, available at https://www.apbrebes.org/news/dysfunctional-plant-variety-protection-system-ten-years-upov-implementation-francophone-africa

towards UPOV 1991 membership and establish a harmonized regional PVP system based on its provisions, ensuring strict enforcement at the national level.

Thus, unsurprisingly, the Forum does not involve discussions on alternative *sui generis* approaches to implementing PVP and diverse perspectives – particularly those of smallholder farmers in the region. This approach also involves manipulating facts, omitting critical viewpoints and disseminating misleading or biased information to advance the interests of UPOV and its proponents.

For instance, a presentation by Japan at a Forum seminar asserted that "[p]roductivity of sweet potato and maize in Vietnam have shown high increase [of] 3.8% per year and 1.8% per year respectively after becoming UPOV member in 2006". Similar statements are also regularly presented by other advocates of the UPOV system, e.g., the UPOV Secretariat and Germany. These claims are based on a research paper initiated and financed by UPOV itself. However, the findings of this paper have been challenged for its many flaws, including baseless information and absurd claims. <sup>29</sup>

An in-depth study on the effect of PVP in Vietnam revealed that between 2006 and 2016, not a single PVP application was filed in the country for sweet potato.<sup>30</sup> In addition, the study showed that both crops had been performing well even before 2006. Between 1995 and 2000, the average maize yield in Vietnam increased by 30%, an average of 5% per year.<sup>31</sup> Further, record yields were even observed for cassava, in the absence of a single application for PVP.<sup>32</sup>

Evident from the disinformation propagated through the EAPVP Forum is a desperate attempt by UPOV and its proponents to construct a causality between crop yield increases and UPOV membership where there is none.

Other "guest" entities in the Forum also play a role in reinforcing the pro-UPOV narrative. For instance, to persuade SEA to embrace regional harmonization, i.e., through e-PVP Asia, the CPVO, at a Forum meeting in 2023, gave a presentation on the operations and experience of the EU in implementing a common regional PVP system based on UPOV 1991.<sup>33</sup> The CPVO representative emphasized benefits for breeders, national authorities and examination offices, as well as a positive impact on the European economy, environment, employment etc, citing specific studies<sup>34</sup> to support the claims.

<sup>&</sup>lt;sup>27</sup> See http://eapvp.org/uploads/2-The-Plant-Variety-Protection-System-by-Mr.-Teruhisa-Miyamoto.pdf

Noleppa, S., "The socio-economic benefits of UPOV membership in Viet Nam: An ex-post assessment on plant breeding and agricultural productivity after ten years", HFFA Research, available at https://www.upov.int/export/sites/upov/about/en/pdf/HFFA\_Final\_Report\_Vietnam.pdf

<sup>29 &</sup>quot;UPOV Misleads Developing Countries with Absurdly Incorrect Information", available at https://www.apbrebes. org/node/327

SEARICE, APBREBES and Fastenopfer, "Plant Variety Protection in Practice in Vietnam: The Pains in the Gains Achieved", 2021, available at https://www.apbrebes.org/node/326

See https://www.researchgate.net/publication/254386249\_Maize\_in\_Vietnam\_Production\_Systems\_Constraints\_and\_Research\_Priorities/link/55cd440008aebd6b88e05f45/download, p. 16.

<sup>32</sup> See https://www.apbrebes.org/press-release/upov-misleads-developing-countries-absurdly-incorrect-information

http://eapvp.org/uploads/9.-Implementation-of-a-Common-Regional-PVP-System-the-experience-of-the-European-Union.pdf

Noleppa, S., "The economic, social and environmental value of plant breeding in the European Union: An ex post evaluation and ex ante assessment", HFFA Research, 2016, available at https://www.plantetp.eu/wp-content/uploads/2021/11/noleppa-2016-the-economic-social-and-environmental-value-of-plant-breeding-in-the-european-union.pdf; and Community Plant Variety Office and the European Union Intellectual Property Office, "Impact of the Community Plant Variety Rights System on the EU Economy and the Environment", April 2022, available at https://cpvo.europa.eu/sites/default/files/documents/cpvr\_study\_full\_report\_0.pdf

However, the EU situation is fundamentally different from that of Southeast Asia. The EU is a political and economic union with a democratic legislative process involving the European Council and Parliament. In contrast, Southeast Asia lacks regional political and economic integration. And except for Vietnam and Singapore which implement UPOV norms, most other SEA countries have unique PVP systems of their own.

As for the claimed benefits of a regional system, the studies referenced in the CPVO's presentation are questionable. One study (Noleppa) broadly discusses the benefits of plant breeding, which probably would have occurred even without a regional PVP system (i.e., CPVO) as each EU member already implements PVP. Nowhere does the study even refer to the CPVO. The second study was conducted by the CPVO itself, raising concerns about conflicts of interest and undermining the study's credibility as an independent assessment of the system's effectiveness.

Notably, as shown in Tables 5 and 6 in Chapter V, regional harmonization primarily benefits just a handful of developed countries. In the case of the CPVO, the Netherlands, France, Germany and the US dominate the use of the regional system, while applications from other countries remain minimal. Even more concerning, harmonization has led to increased concentration in the breeding sector, further consolidating control among a few key players.

Proponents of a harmonized regional PVP system conveniently overlook the failure of the OAPI regional system based on UPOV 1991, which is implemented across 17 francophone countries in Africa. In 1999, under pressure from Geneva-based institutions such as UPOV, the World Intellectual Property Organization (WIPO) and the WTO – alongside developed countries and their seed industries – OAPI incorporated Annex X modelled on UPOV 1991 into its foundational Bangui Agreement.

The move was driven by promises of agricultural transformation, including the rise of a competitive commercial seed sector, increased foreign investment in plant breeding, access to new foreign plant varieties, substantial royalty revenues for national research institutes, and broad societal benefits. More than a decade after Annex X entered into force, empirical evidence revealed a "dysfunctional PVP system that does not align with the region's socio-economic and agricultural realities". In fact, the results are telling: by the end of 2023, two decades after UPOV's introduction, only 19 plant variety titles were in force across the entire region – clear evidence of the failure of the regional system. 36

<sup>&</sup>quot;A Dysfunctional Plant Variety Protection System: Ten Years of UPOV Implementation in Francophone Africa", Working Paper, APBREBES, 2019, available at https://www.apbrebes.org/news/dysfunctional-plant-variety-protection-system-ten-years-upov-implementation-francophone-africa

<sup>&</sup>lt;sup>36</sup> UPOV Document C/58/7, available at https://www.upov.int/edocs/mdocs/upov/en/c\_58/c\_58\_7.pdf

#### Chapter V

## Concerns for Seed Systems in the Southeast Asian Region

UNDER the TRIPS Agreement, developing countries have full flexibility to implement a PVP system that suits their needs. Taking into account this freedom and the importance of farmer-managed seed systems in developing countries, United Nations and other experts discourage developing countries from adopting a UPOV-based PVP system.<sup>37</sup> In this context, the influence of pro-UPOV countries and entities with vested commercial interests over SEA PVP offices raises serious concerns. While developing a harmonized regional PVP system based on UPOV might seem efficient, it is likely to have significant adverse consequences for the region.

#### 1. Undermining National Democratic Decision-Making Processes

A key concern with the EAPVP Forum is its undermining of national democratic processes. Most SEA countries have distinct, non-UPOV PVP systems that carefully balance national objectives, the interests of various farming stakeholders – including plant breeders – and international legal obligations of the State. The development of these national PVP systems typically involves stakeholder consultations and action by the parliament, ensuring a democratic decision-making process.

As a result, several non-UPOV SEA countries, such as Malaysia, the Philippines and Thailand, have enacted PVP laws that include broader exceptions to protect farmers' rights, including farmers' ability to freely save, use, exchange and sell farm-saved seeds or propagating materials. Additionally, they incorporate measures to protect national interests, such as:

- **Preventing biopiracy** by requiring applicants for PVP to disclose the origin of the plant material used in developing the variety for which protection is sought and ensuring the applicant's compliance with national access and benefit-sharing laws and regulations.
- Ensuring seed/propagating material availability by mandating that PVP applicants deposit adequate quantities of seeds/propagating materials with national authorities for local community use.
- **Ensuring seed/propagating material accessibility** by empowering governments to take measures to ensure PVP holders supply quality seed/propagating materials at reasonable prices and quantities.
- **Protecting national food security** by enabling governments to take measures to address excessive importation of seed/propagating material, which could supplant local seed systems and jeopardize food security.

<sup>&</sup>quot;Focus on Plant Variety Protection: A Compilation of Selected Literature on the Impact of the UPOV Convention, Alternative *sui generis* PVP Laws and the Effect on Farmers' Rights", APBREBES, 2020, available at https://www.apbrebes.org/node/323

Despite these protections, PVP offices from SEA countries are participating in the EAPVP Forum, which primarily seeks to push UPOV 1991 adoption in the region. For a country to become a UPOV member, its national legislation must strictly conform to UPOV 1991, with its PVP laws having to undergo a compliance review by UPOV's governing bodies before membership is granted – leaving little to no room for deviation.<sup>38</sup>

Notably, UPOV 1991 does not permit PVP laws that explicitly recognize farmers' rights to freely save, use, exchange and sell seeds – even for smallholder farmers. It also rejects legal provisions designed to align with other relevant national laws such as on access and benefit sharing, biosafety or any other law or any other provisions to protect local seed systems, farming communities and national agricultural sovereignty. These rigid requirements expose UPOV's inflexibility.

By engaging in the EAPVP Forum's push towards UPOV 1991, PVP offices are sidelining their own, democratically established national PVP laws. This undermines parliamentary authority in shaping laws tailored to each country's unique agricultural landscape. Instead, under the influence of the Forum, ministries of agriculture and PVP offices are being pressured into a top-down adoption of UPOV 1991 – ignoring diverse perspectives, empirical evidence, national realities and international legal obligations, including with respect to farmers' right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture, as required under the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) and further reinforced by the United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas (UNDROP).

#### 2. Effects and Beneficiaries of Regional Harmonization (e-PVP Asia)

As highlighted above, e-PVP Asia was initiated to accelerate the adoption and harmonization of PVP standards based on UPOV 1991 in the region. Since the Forum excludes the participation of diverse voices and views from SEA, discussion on e-PVP Asia has been driven by proponents of the mechanism, focused solely on the perceived advantages of such a mechanism. They claim a regional PVP system will increase efficiency through a uniform combined PVP application form, reduce duplication in the examination of applications, especially in DUS testing, lower costs for obtaining PVP and expedite the granting process. Absent from the discussion are the implications of such a system, which are examined below.

Who Is Likely to Benefit from e-PVP Asia?

To understand who stands to benefit from a harmonized regional PVP system, it is essential to examine the experience of the CPVO, which administers a regional PVP system for the EU's 27 members. The CPVO's annual report for 2022 stated that "[n]early every year more than one-third of all applications received have originated from the Netherlands (34% in 2022) ... The Netherlands is followed, quite some distance behind, by France, Germany, the United States and Switzerland". For a detailed breakdown by country of origin of applications received by the CPVO, see Table 5 (for 2022) and Table 6 (for 2023).

<sup>&</sup>quot;The UPOV accession process – Preventing appropriate PVP laws for new members", ABPREBES, 2023, available at https://www.apbrebes.org/news/upov-accession-process-preventing-appropriate-pvp-laws-new-members

https://cpvo.europa.eu/sites/default/files/documents/annual\_report\_2022.pdf

Outside of the EU, applicants from the United States are the most frequent users of the CPVO system, with a handful of other developed countries also participating. In contrast, developing countries barely use the CPVO's regional PVP mechanism, even when they are UPOV members. Countries such as South Africa, Brazil, Argentina and Colombia – despite being UPOV members – make minimal use of the system. Interestingly, applicants from non-UPOV countries like Thailand, India and Iran engage with the CPVO more actively than many UPOV member states.

Table 5

Countries of Origin of PVP Applications Received by the CPVO in 2022

CPVO Members	Number of Applications	Non-EU Countries	Number of Applications
Netherlands	1,093	United States	282
France	535	Switzerland	179
Germany	414	United	57
		Kingdom	
Spain	116	Australia	33
Italy	98	Japan	31
Denmark	83	Israel	16
Belgium	81	New Zealand	8
Poland	36	South Africa	8
Austria	24	China	7
Sweden	21	Thailand	7
Czech	11	Argentina	4
Republic			
Hungary	9	Canada	4
Ireland	7	South Korea	3
Slovenia	6	Mexico	3
Greece	3	Taiwan	3
Bulgaria	2	India	2
Portugal	2	Uruguay	2
Estonia	1	Brazil	1
Latvia	1		
Total	2,543	Total	650

**Source**: CPVO, https://cpvo.europa.eu/sites/default/files/documents/annual\_report\_2022. pdf

Table 6

Countries of Origin of PVP Applications Received by the CPVO in 2023

CPVO Members	Number of Applications	Non-EU Countries	Number of Applications
Netherlands	1,002	United States	246
France	418	Switzerland	193
Germany	336	United	42
		Kingdom	
Italy	117	Australia	39
Spain	107	Japan	36
Denmark	97	Israel	26
Belgium	45	Canada	12
Poland	32	Colombia	10
Hungary	22	China	9
Austria	13	Taiwan	8
Czechia	7	South Africa	7
Greece	6	South Korea	5
Sweden	4	New Zealand	4
Finland	4	Argentina	4
Slovenia	3	Thailand	2
Portugal	2	Mauritius	1
Latvia	1	Iran	1
Ireland	1	Costa Rica	1
Bulgaria	1	Chile	1
		Brazil	1
Total	2,218	Total	648

 $\begin{tabular}{ll} \textbf{Source}: & CPVO, & https://cpvo.europa.eu/sites/default/files/documents/2024-10/annual-report-2023.pdf & \end{tabular}$ 

The CPVO's annual reports also reveal a high degree of concentration in plant breeding. The reports list the top 15 applicants that frequently use the CPVO; based on the information provided, it is clear that a handful of applicants dominate in each sector. In 2022, the top five applicants had a share of applications ranging from 74% for vegetables and 60% for agricultural to 52% for ornamental species and 50% for fruit species.<sup>40</sup> Similarly, in 2023, the top five applicants had a share of applications ranging from 69% for vegetables and 62% for agricultural to 52% each for ornamental species and fruit species.<sup>41</sup> Notably, the applicants are mostly from the Netherlands, France, Germany and the US.

Based on information contained in Tables 6–9, pp. 36–37, CPVO Annual Report 2022, available at https://cpvo.europa.eu/sites/default/files/documents/annual\_report\_2022.pdf

Based on information contained in Tables 6–9, pp. 33–34, CPVO Annual Report 2023, available at https://cpvo.europa.eu/sites/default/files/documents/2024-10/annual-report-2023.pdf

A study commissioned by the Greens/EFA Group in the European Parliament<sup>42</sup> considered concentration in the seed breeding sector – tracked through the requests of companies for plant breeder rights in Europe – and found that between 2000–2011 just five companies applied for 83% of the PVP for tomato varieties (the most profitable vegetable species) in the Netherlands. The study noted that "At EU level, this concentration effect was even more pronounced, with the top 5 seed companies applying for 91% of intellectual property right (IPR) protection. In 2011, Monsanto and Syngenta were responsible for 57% of PBR applications for tomato, against only 12% in 2000". One of its conclusions was that "strong IPR protection is reinforcing the abovementioned consolidation and concentration process of the biggest companies".

The CPVO's experience is instructive. It suggests that the primary beneficiaries of a harmonized regional mechanism are a few developed countries that have a huge stake in the commercial seed and agrochemical markets. A regional system that enables PVP monopoly rights to be applied for and granted in multiple jurisdictions while restricting the ability of farmers to freely save, exchange and sell farm-saved seed/propagating material and other measures to safeguard national interests would mainly serve to strengthen and accelerate the dominance of commercial breeders and seed companies from the Netherlands, France, Germany, the US and Japan in the SEA region. The highly concentrated seed market in the EU should be a wake-up call for SEA governments.

In the US as well, the focus on expanding proprietary rights in the seed sector has resulted in a worrying situation of extreme concentration in IP ownership, with the top four companies (Bayer, Corteva, ChemChina and BASF) owning 97% of canola, 95% of corn, 84% of soybean, 51% of wheat, and 74% of cotton intellectual property (patents and PVP).<sup>43</sup> This has led to concerns on the lack of transparency on existing IP rights associated with a particular plant variety; the use of licences to override research and breeding exemptions guaranteed by plant breeders' rights; anticompetitive behaviour in the industry; and the negative impact of the current system on innovation and genetic diversity in the fields.<sup>44</sup>

An Increase in PVP Applications/Grants Does Not Equate to an Increase in the Availability of Seeds/ Propagating Materials

A regional PVP system modelled on UPOV 1991 would not permit the granting of PVP rights to be conditioned on the applicant making the protected seed or propagating material available in sufficient quantities and at affordable prices in the countries where those rights are granted. As a result, an increase in PVP applications or grants does not necessarily translate into greater availability of seeds or propagating material at the national level. Instead, commercial breeders are likely to use the regional system primarily to secure PVP rights as a means of restricting competition from breeders in Southeast Asian countries – an approach Japan has already signalled its intent to pursue.

<sup>&</sup>quot;Concentration of Market Power in the EU Seed Market", study commissioned by the Greens/EFA Group in the European Parliament, available at https://www.greens-efa.eu/files/assets/docs/concentration\_of\_market\_power\_in\_the\_eu\_seed\_market.pdf

USDA, "More and Better Choices for Farmers: Promoting Fair Competition and Innovation in Seeds and Other Agricultural Inputs", 2023, available at https://www.ams.usda.gov/sites/default/files/media/SeedsReport.pdf "Our results show that the top four companies dramatically increased their share of IP ownership since the 1990s. For example, for corn, the top four companies owned 41% of IP in 1990, with Pioneer making up 38%. By 2000, this share had increased to 77% with Pioneer acquired by DuPont (33%) and Monsanto emerging as a significant IP owner (26%). In 2010, top four ownership increased to 93%. Today, the top four (Bayer, Corteva, ChemChina and BASF) own 97% of canola, 95% of corn, 84% of soybean, 51% of wheat, and 74% of cotton IP. Bayer owns the highest percentage of utility patents, including 71% of corn patents, while Corteva owns the highest percentage of PVP certificates, including 53% of corn PVPs."

https://www.apbrebes.org/news/updates-plant-variety-protection-57

In contrast, without a regional mechanism, breeders seeking PVP must apply individually in each country. This process naturally discourages anti-competitive applications, as breeders are more likely to seek PVP rights only in countries where they genuinely intend to market their varieties.

#### Diminished Role of PVP Offices and Loss of National Sovereignty

Currently, national PVP systems in non-UPOV countries have full flexibility in managing the filing and granting of PVP applications, including setting requirements and determining the information applicants must provide. For example, a non-UPOV country may require PVP applicants to deposit samples of the seed or propagating material in a national seed bank or implement measures that ensure that protected varieties are available in sufficient quantities and at affordable prices for farmers.

However, adopting UPOV significantly restricts a country's ability to design and implement its own PVP system. Regional harmonization further erodes this flexibility by centralizing PVP management and decision-making at the regional level. The e-PVP Asia initiative, overseen by Japan and UPOV, will inevitably lead to increased foreign influence – particularly from Japan and Western interests, which already exert significant control over the EAPVP Forum.

National PVP offices can also expect to receive much less revenue as filing of PVP applications is increasingly centralized (as applicants opt to file through the regional mechanism) and national DUS testing is less required. It can be expected that over time the expertise and role of national PVP offices will diminish significantly as much of the process is handled at the regional level, controlled by a few influential governments and entities.

An even more concerning consequence is the loss of national sovereignty. With PVP governance shifting away from national ministries of agriculture, countries may find themselves unable to implement necessary measures to protect national interests. Centralization risks facilitating the monopolization of the PVP system and, by extension, the seed sector.

#### Entrenching UPOV 1991 in Southeast Asian Countries

One of the most alarming effects of e-PVP Asia would be the entrenchment of a wholly unsuitable PVP system in the SEA region. There is an extensive volume of literature and empirical evidence that supports the conclusion that UPOV-based PVP systems are inappropriate for developing countries.<sup>45</sup> For example, a study commissioned by GIZ on behalf of the German Federal Ministry for Economic Cooperation and Development recommended that developing countries that have not yet joined UPOV "consider opting for an alternative *sui generis* system of PVP that allows for more flexibility". The study concluded that "[t]he 'one size fits all' approach of UPOV appears ... problematic if the highly diverse conditions and needs of developing countries are to be addressed", and that "UPOV 91–based PVP laws were found to not advance the realization of Farmers' Rights; rather they are effective in the opposite direction".<sup>46</sup>

<sup>&</sup>quot;Focus on Plant Variety Protection: A Compilation of Selected Literature on the Impact of the UPOV Convention, Alternative *sui generis* PVP Laws and the Effect on Farmers' Rights", available at https://www.apbrebes.org/sites/default/files/2020-12/APBREBES\_UPOV-LitRev\_EN\_12-20\_fin.pdf

GIZ, "The UPOV Convention, Farmers' Rights and Human Rights: An integrated assessment of potentially conflicting legal frameworks", 2015, available at http://www.giz.de/fachexpertise/downloads/giz2015-en-upov-convention.pdf

The design and development of UPOV 1991 never took into account the needs and interests of agricultural systems prevailing in developing countries. UPOV 1991 also presents an outdated model of agriculture as it was developed more than 30 years ago. Its inflexibility and rigidity do not allow its members to implement a PVP system that balances diverse national interests or reflects the latest developments in international law relevant to States as well as to smallholder farmers. In 2021, Honduras's Supreme Court declared its UPOV-compliant PVP law unconstitutional because it violated the Constitution and various international treaties and conventions ratified by Honduras. The ruling explicitly referred to Honduras's obligations to ensure the right to food of its population, and the right to seeds for peasants and indigenous peoples, which is enshrined in the ITPGRFA and UNDROP.<sup>47</sup>

Importantly, membership of UPOV is not a prerequisite for promoting breeding activities and supporting the development of a national seed market. Comparative data between UPOV and non-UPOV countries published in the 2019 Access to Seed Index have shown that there is no causal relationship between the UPOV system and the dynamics of the seed sector in a country.

The number of seed companies with sales, breeding and production activities in developing countries from South and Southeast Asia is shown in Table 7.

Table 7

Number of Seed Companies with Sales, Breeding and Production Activities in South and Southeast Asia

#### South and Southeast Asia - Top 10 (out of 13 countries)

	Number seed	Number seed	Number seed	Total	PVP
	companies*	companies*	companies*	presence**	System in
	with sales	with breeding	with		place
	activities	activities	production		
			activities		
India	21	18	18	57	Sui Generis
Thailand	17	11	13	41	Sui Generis
Indonesia	18	8	10	36	Sui Generis
Vietnam	18	4	8	30	UPOV 91
Philippines	15	6	7	28	Sui Generis
Bangladesh	20	3	4	27	None
Pakistan	17	2	3	22	Sui Generis
Nepal	15	1	2	18	None
Sri Lanka	16	0	1	17	None
Myanmar	12	0	3	15	Sui Generis

<sup>\*</sup>The analysis include 24 leading seed companies in South and Southeast Asia

\*\* adding up activities by seed companies (sales, breeding and production).

**Source**: "Access to Seed Index Shows: Implementation of UPOV 1991 Unnecessary For the Development of a Strong Seed Market", Policy Brief, APBREBES, https://www.apbrebes.org/news/access-seed-index-shows-implementation-upov-1991-unnecessary-development-strong-seed-market, based on figures from the Access to Seed Index 2019

<sup>&</sup>quot;Seeds in the hands of peasant farmers: a judgment in favour of food sovereignty in Honduras", https://grain.org/en/article/6809-seeds-in-the-hands-of-peasant-farmers-a-judgment-in-favour-of-food-sovereignty-in-honduras?utm\_medium=email&\_hsmi=208440985&\_hsenc=p2ANqtz-9C8NU67DjE65UqUb4IRKwYuyWMP6zhJWXlVOFuW2c8WD6xWJ2NSyvE-40hajbmATJTRTFq5T8jy\_poKSqRcy5YgCjBGg&utm\_content=208440985&utm\_source=sendpress&utm\_campaign

India, which enacted its own *sui generis* PVP law, is the most active in the selling, breeding and production of crop seeds in the South and Southeast Asian regions. It is followed by Thailand and Indonesia, which also have *sui generis* PVP laws. Vietnam, the only country in the list that has adopted the UPOV system, is only in fourth place.

## Chapter VI Conclusion

THE EAPVP Forum, presented as a platform for cooperation, actually serves as a strategic tool used by Japan and the UPOV Secretariat – backed by foreign countries and entities that benefit from the UPOV system – to gradually push SEA countries into surrendering their policy space. This pressure aims to replace diverse, nationally tailored PVP systems with the rigid, one-size-fits-all framework of UPOV 1991. As discussed extensively in this paper, the adoption of UPOV 1991 and regional harmonization on this basis will have significant negative consequences for SEA countries.

SEA countries, particularly those that are not yet UPOV members, should critically reassess their involvement in the EAPVP Forum. If they choose to continue participating, they should firmly advocate for:

- 1. Re-evaluating the Forum's long-term direction Shifting the focus away from UPOV membership towards fostering genuine collaboration among SEA countries while recognizing the sovereign right of each country to preserve the flexibility, as allowed by the TRIPS Agreement, to have and implement a national PVP system distinct from UPOV Conventions.
- 2. Promoting critical, evidence-based discussions Encouraging a more balanced and analytical approach that moves beyond the narrow assumption that UPOV membership is the key to agricultural transformation.
- 3. Engagement of diverse perspectives Opening up the Forum to allow participation of stakeholders from SEA, especially smallholder farmers, local and indigenous communities, and civil society, in the various activities of the Forum.
- 4. Independent and neutral secretariat Japan's role as the secretariat of the Forum calls into question the credibility of the Forum given Japan's conflicting commercial interests. There is an important need for an independent secretariat.
- 5. Ensuring transparency and accountability Measures that promote greater transparency and accountability of the Forum's activities.

By taking these steps, SEA countries can safeguard their national interests, ensure policy autonomy, and maintain control over their seed systems.

If meaningful reforms to democratize the Forum – particularly implementation of the measures outlined above – are not achieved, SEA countries should immediately withdraw from the Forum. Continued participation in such a flawed and imbalanced platform would only further compromise their national interests and policy sovereignty.

This paper critically examines the growing pressure on Southeast Asian (SEA) countries to adopt the rigid 1991 Convention of the International Union for the Protection of New Varieties of Plants (UPOV 1991) designed for the commercialized farming structures of industrialized nations.

It reveals how the East Asia Plant Variety Protection Forum, initiated by Japan under the guise of cooperation, has evolved into a key platform for aggressively promoting UPOV 1991 standards, sidelining national agricultural priorities and farmers' rights. Through detailed analysis, the paper exposes the commercial motivations driving this agenda and the pivotal role of developed countries and their allied entities, who stand as the primary beneficiaries of the UPOV system and regional harmonization based on it. It highlights how the Forum's pro-UPOV activities threaten to erode national sovereignty, undermine food security, and entrench a rigid, inappropriate plant variety protection (PVP) system across the region – one designed to serve the commercial interests of Japan and other developed nations, particularly the Netherlands, Germany, France and the United States.

It calls on SEA countries to critically reassess their participation in the Forum, advocate for meaningful reforms to safeguard their policy space, and, if necessary, withdraw to protect their national interests and ensure implementation of a PVP system that is aligned with domestic agricultural needs and that safeguards the interests of farmers and food sovereignty.

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