



Expectation and challenges: PVP in line with UPOV system

= MALAYSIA

Presented by
DEPARTMENT OF AGRICULTURE, MALAYSIA
during

The Seminar on the benefits of the UPOV System of Plant Variety Protection for Farmers and Growers

March 28, 2023
Lao Plaza Hotel, Vientiane Lao PDR

content



AGRICULTURE IN MALAYSIA

Explaining seed industry, breeding industry and the need of an efficient PVP system



THE PROCESS OF AMENDING ACT 634

Status Quo and Features in New Act



EXPECTATIONS & CHALLENGES

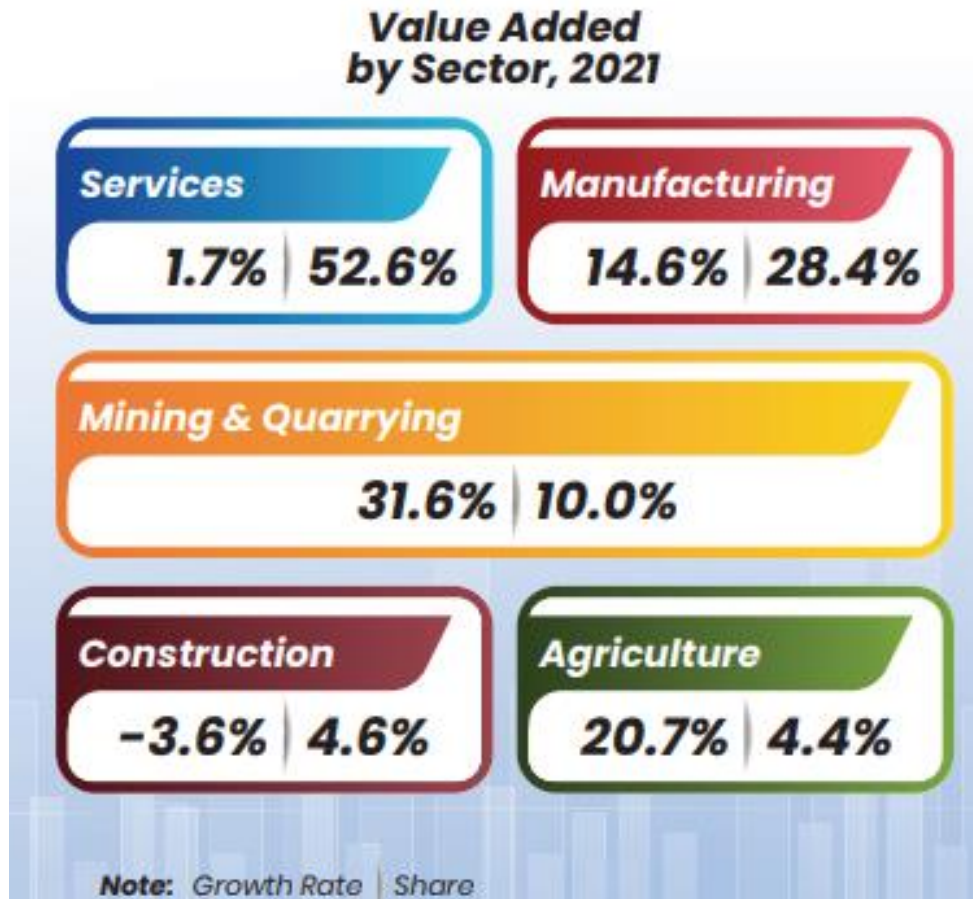
Dissecting Farmers' & Growers' Benefits with UPOV Membership



I: AGRICULTURE IN MALAYSIA

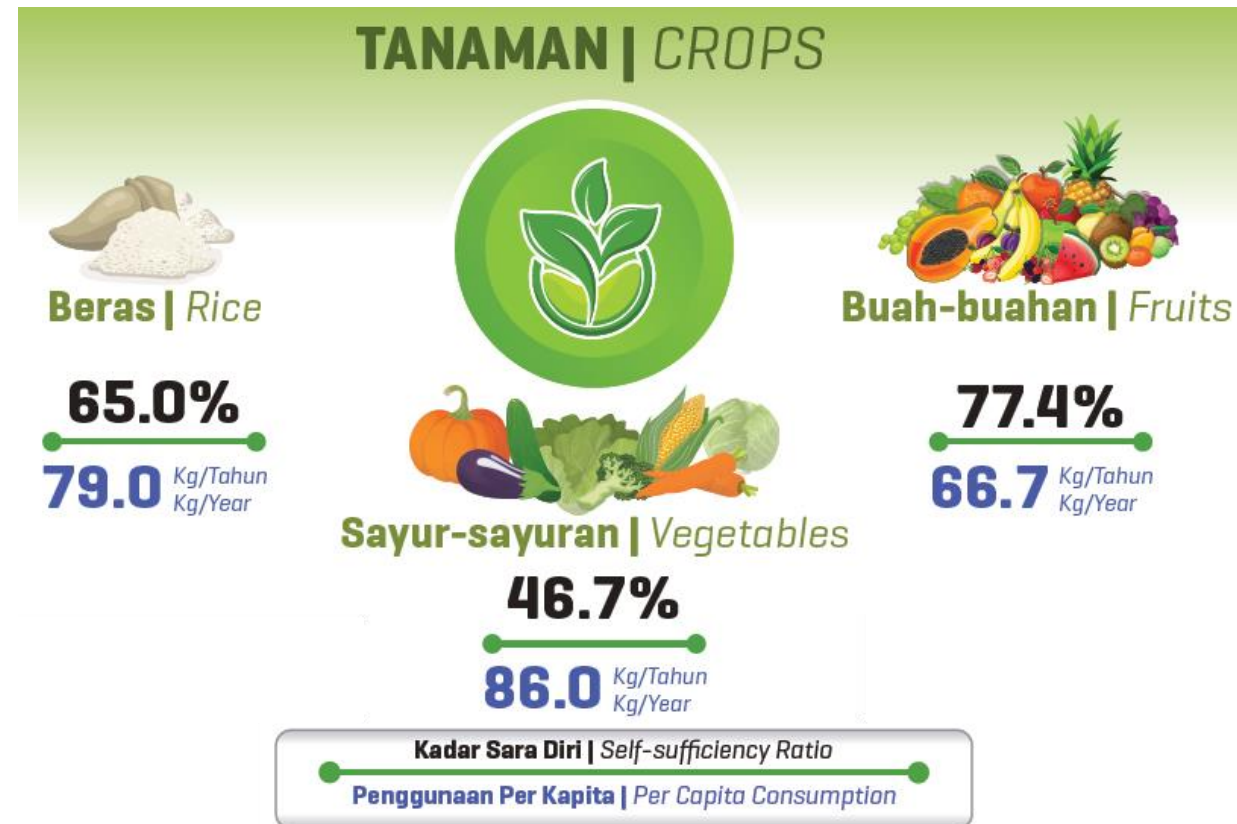


ECONOMY CONTRIBUTION (GDP BY SECTOR)



Source: Annual Economic Statistics, All Sectors, 2022, Department of Statistics Malaysia (DOSM)

SELF SUFFICIENCY LEVEL



Main Commodity Crops
— oil palm, rubber

Important Agro-food
– rice, fruits and vegetables

SEED DEMAND IN AGROFOOD CROPS

VEGETABLES

| | |
|------------------|------------|
| Cabbage | 602 kg |
| Chili | 1,867 kg |
| Chinese Broccoli | 3,125 kg |
| Okra | 13,276 kg |
| French Beans | 38,466 kg |
| Long Beans | 39,690 kg |
| Spinach | 65,553 kg |
| Water Spinach | 320,160 kg |

FRUITS

| | |
|------------|-------------|
| Pineapple | 816 unit |
| Papaya | 2,091 unit |
| Langsat | 2,706 unit |
| Mango | 3,321 unit |
| Sapodila | 6,519 unit |
| Starfruit | 15,290 unit |
| Guava | 21,250 unit |
| Mangosteen | 24,742 unit |
| Pomelo | 26,000 unit |
| Jackfruit | 63,968 unit |
| Rambutan | 70,971 unit |

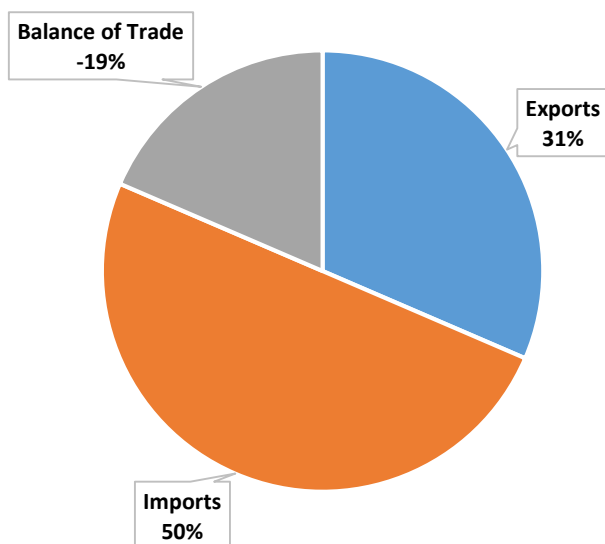
BREEDING STRENGTH & FOCUS



Breeding activities in Public Sector

| Agency | Crops |
|---|--|
| Malaysian Palm Oil Board (MPOB) | Oil Palm |
| Malaysian Rubber Board (MRB) | Rubber |
| Malaysian Cocoa Board (MCB) | Cocoa |
| Forest Research Institute of Malaysia (FRIM) | Forest Trees, Herbs |
| Malaysian Nuclear Agency (MNA) | Mutation breeding |
| Malaysian Agricultural Research & Development Institute (MARDI) | Rice, Horticultural Crops, Root Crops, Herbs, Coconut, Beverages, Kenaf, Field Crops, Underutilized crops. |

SEED TRADING IN MALAYSIA (IMPORT/EXPORT) 2020



We buy seeds from:

- Thailand, Vietnam, Indonesia, China, Japan, Taiwan, Hong Kong, India

We buy seeds for:

- SSR: vegetables
- Export market: flower

Source: Sistem Data Trade, Unit Perangkaan, Jabatan Pertanian

BREEDING COMPANIES IN MALAYSIA



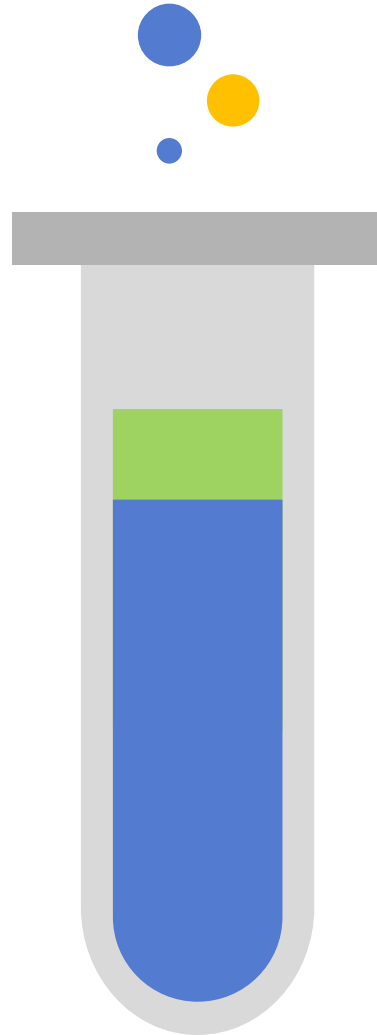
**MAIZE
VEGETABLES
MELON**

CURRENT IPR LEGISLATION IN MALAYSIA



Malaysian Intellectual Property Organisation (MyIPO)

- Trademark
- Copyright
- Trade Secret
- Patent
- Geographical Indication
- Industrial Design
- IC Layout Design



Department of Agriculture, Malaysia

- New Plant Varieties Protection and grant of Plant Breeder's Right

CURRENT LEGISLATION IN PLANT VARIETY PROTECTION

PROTECTION OF NEW PLANT VARIETIES ACT 2004 (ACT 634)

1994 – Drafting of PNPV Act

2004 – Published in Gazette

2008 – Entered into force

Protection of New Plant Varieties Regulations 2008
: forms, fee, prescribed period etc.

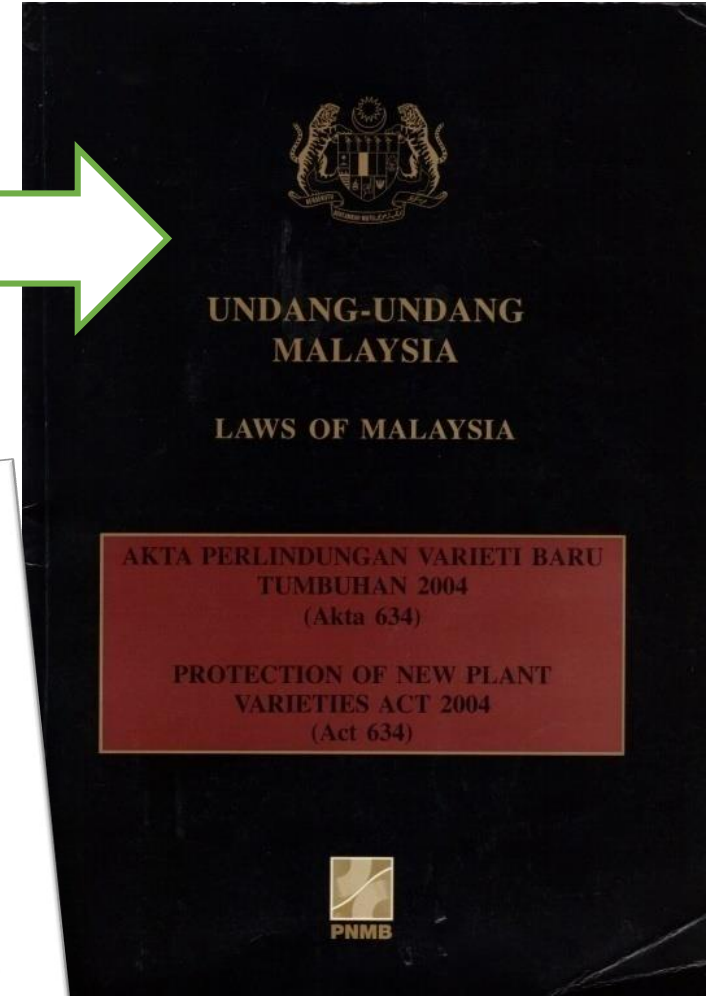
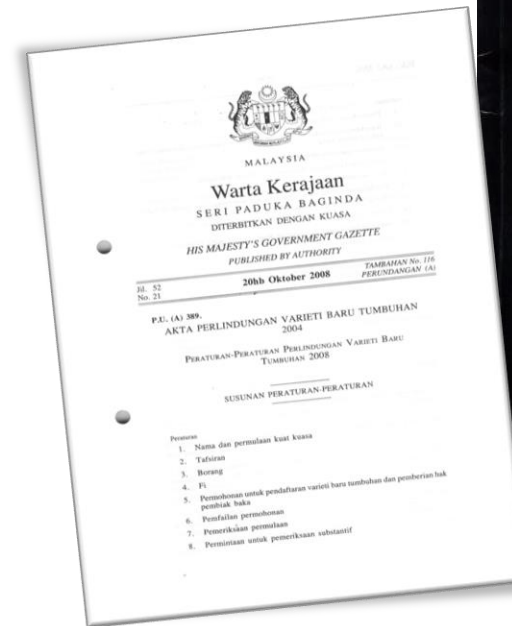
**Protection of New Plant Varieties Regulations 2008
(Prescribed Size of A Holding) 2008**
: size of small farmer's holding i.e. less than 0.2 ha

Modeled after:

- **UPOV 1978;**
- **Provision of Convention of BioDiversity (CBD);**
and
- **IPR system of reference countries e.g. India, Thailand, Japan etc.**

Sui Generis / Non UPOV Member

UPOV **PLUS**
PVP
Legislation



STATUS QUO OF ACT REVISION



May 2019 – Breeders & IP Law Agent
May 2019 – Farmers Association, individual farmers & growers
May 2019 – Non Governmental Organisations
Sep 2019 – Genetic Association & Seed Company
Oct 2019 – Top mgmt. in Department of Agriculture
Feb 2021 – Department & Agencies representing Sabah & Sarawak



2011 – 2014
Revisit Act
634 and
Study of
UPOV
Membership
(SWOT)

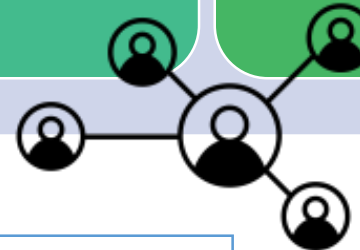
2015
Cabinet
approval for
UPOV
Accession



2015
Forming of
PNPV Bill
Drafter Team

2017
New Bill
Drafted

2018 – 2021
Stakeholders'
Consultation
Sessions



2022
Report for
*Regulatory
Impact Study
(RIS)*

2023 - 2024
Arrangement
for
Parliament
debate by
Attorney
General
Chamber

CPTPP Malaysia entered into force 29 Nov. 2022

Grace Period UPOV Membership: 4 year

By latest 28 Nov. 2026

Concurrent Activities

- Regulations and Guidelines
- Cabinet Notes
- Instrument ratification to UPOV accession

STATUS OF GRANTED PBR IN MALAYSIA

YEAR 2008 - 2022

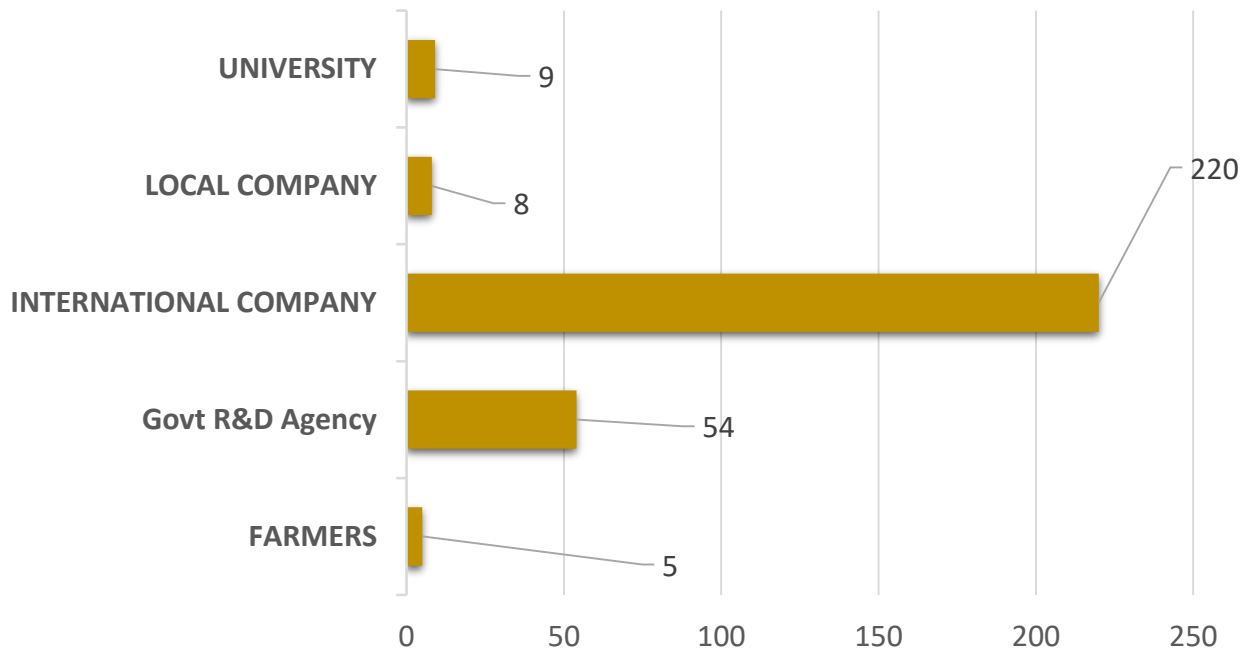


550
APPLICATIONS

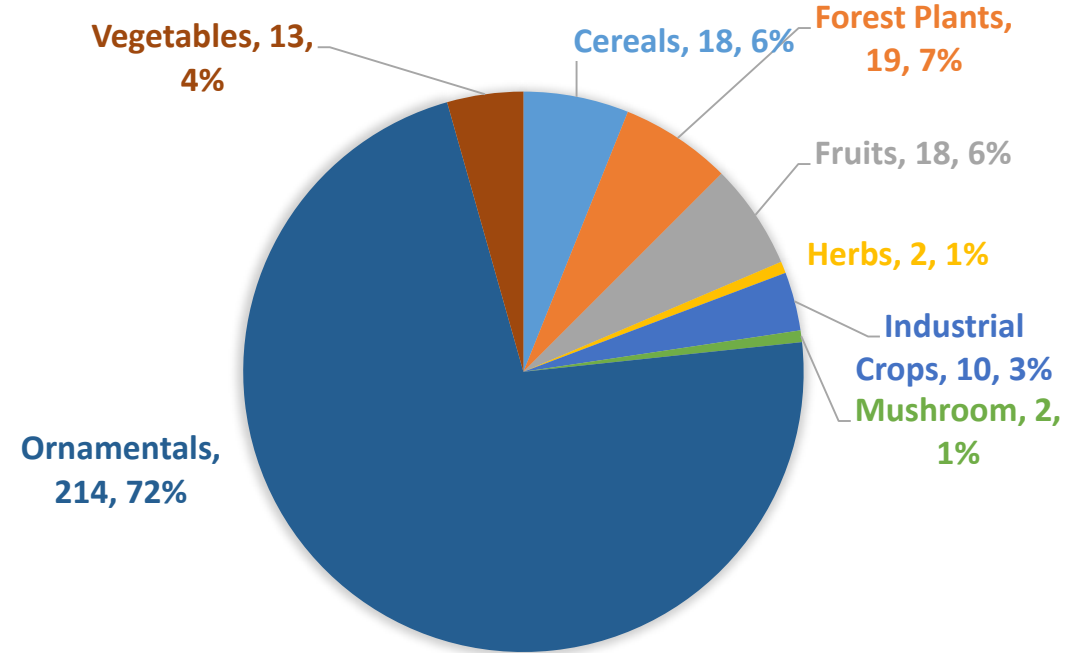
296
GRANTED



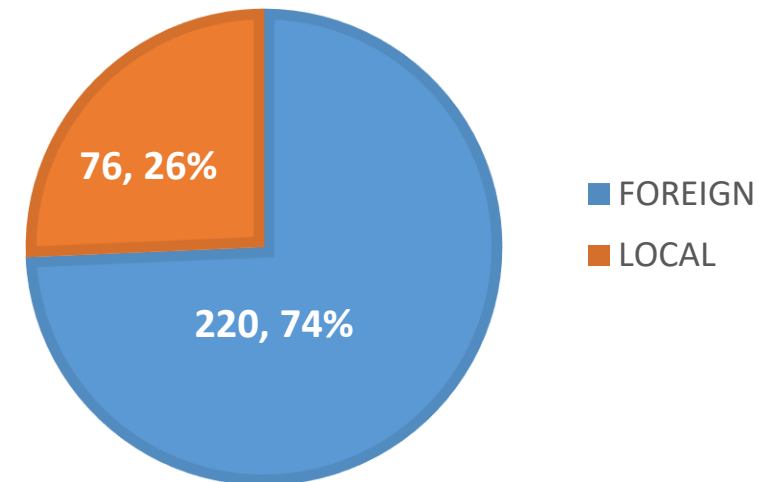
NUMBER OF PBR BY TYPES OF BREEDER



NUMBER OF PBR BY TYPES OF CROP



NUMBER OF GRANTED PBR



AGROFOOD FARMERS / GROWERS IN MALAYSIA

AGROFOOD CROPS



Self Subsistence Farmers

- Mainly grow rice; Some root crops
- Non-Commercial, Seed Saving Practices



Smallholder Farmers / Growers

- Mainly grow rice; Others: Flowers/ Root crops / Fruits/ Vegetables
- Commercial, small lot, Seed Saving Practices or seed buying



Medium Domestic Farmers / Growers

- Rice, Fruits, Vegetables, Flowers
- Commercial, Seed buying











Exporting Farmers / Growers

- Mainly Flowers and vegetables
- Commercial, Licensing activities

AGROFOOD CROPS

FARMERS / GROWERS


| | | |
|---|--------------|---------|
|  | Rice | 190,093 |
|  | Vegetables | 46,092 |
|  | Fruits | 146,225 |
|  | Cash Crops | 12,466 |
|  | Spice | 4,240 |
|  | Herbs | 1,432 |
|  | Coconut | 63,048 |
|  | Floriculture | 2,529 |

COMMODITY CROPS

Smallholder : 970, 789

 Kelapa Sawit/ Oil Palm

 Getah/ Rubber

 Kayu-kayan/ Timber

 Koko/ Cocoa

 Lada/ Pepper

 Tembakau/ Tobacco

WHY JOINING UPOV?



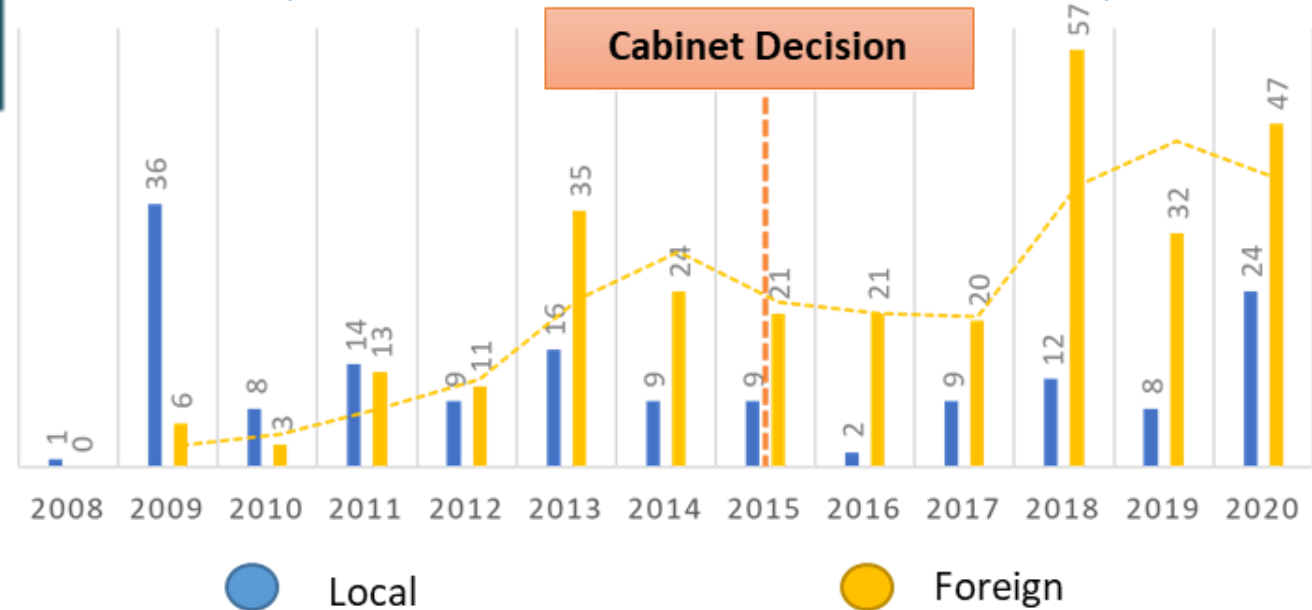
FARMERS' BENEFITS

1. Easier access to improved varieties of crops.

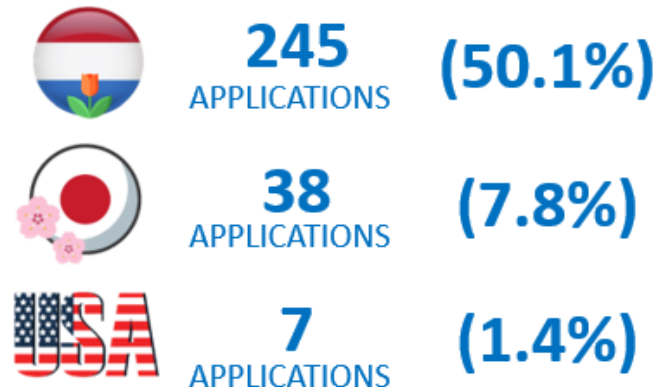
- Domestic breeding focus: Oil Palm, Cacao, Rubber, Rice
- Produce for Export: Vegetables, Cut Flowers
- Malaysian farmers are business oriented, bold to try new things

| | Crop | Seed demand |
|---|----------------------|---|
| 1 | Rice | 100% local produced |
| 2 | Fruits | - Mostly vegetatively propagated - Local variety - Watermelon (100% imported seeds) |
| 3 | Vegetables | 95% imported seeds |
| 4 | Field crop | - Mostly locally produced (sweet potatoes, cassava, yam & ginger) - Maize (mostly imported hybrid seeds) |
| 5 | Forage & cover crops | Mostly imported seeds |
| 6 | Flowers | Mostly imported seeds, grown for foreign market |

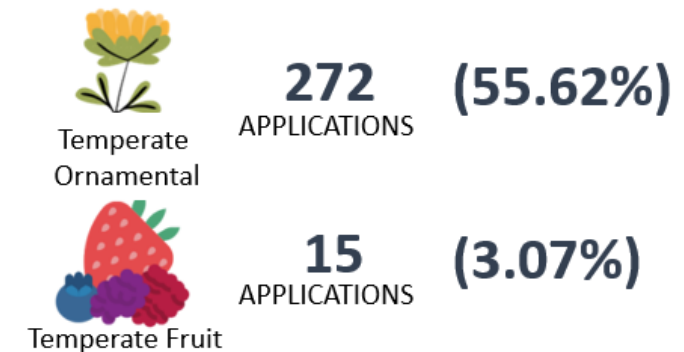
NUMBER OF APPLICATIONS (BEFORE & AFTER DECISION OF JOINING UPOV)



Foreign Applications



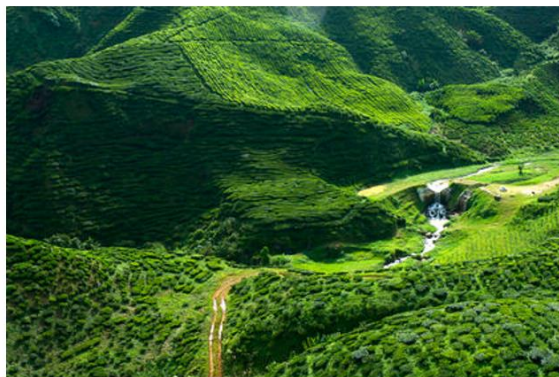
CROP CATEGORIES (FOREIGN APPLICATIONS)



WHY JOINING UPOV?

2. Better access to global market

- new varieties come with market
- favour environment for growing
- For example: Cameron Highlands provide sub-temperate climate all year round. 300 ha farmland produces Chrysanthemum for domestic and export markets.



3. Creating new opportunity

- Trying new crops types and varieties

Lemon Myrtle



Gentian flower



Pink Poinsettia



[Call for more seed companies to invest in Malaysia](#)

Last update: 25/11/2019

KUALA LUMPUR, Nov 25 -- More seed companies should come to Malaysia and seek opportunities for research collaboration as well as produce seeds, said Agriculture and Agro-based Industry Minister Datuk Seri Salahuddin Ayub.

He said there are now only one local and one foreign seed production company based in the country.

"Most of the other local companies here are seed traders, and Malaysia is known as a transit country for the import and export of seeds due to our strategic location," he said when opening the 2019 Asian Seed Congress here today.

Internationally harmonised Plant Variety Protection system is required in Seed trading

WHY JOINING UPOV?

4. Enable competitiveness

- more choices of varieties to grow
- = less competitiveness within / amongst with more choices
- = better opportunity to compete in global market

| Crop | Planting standard | Planting area (ha) | Total demand |
|------------|--------------------|--------------------|------------------------|
| Cabbage | 200g/ha | 4,845 | 0.97 ton |
| Tomato | 200g/ha | 2,831 | 0.57 ton |
| Watermelon | 250g/ha | 11,032 | 2.76 ton |
| Maize | 10kg/ha | 9,720 | 97.20 ton |
| Pineapple | 40,000 suckers/ ha | 10,580 | 423.2 million suckers |
| Banana | 1,600 plantlet/ha | 27,085 | 43.3 million plantlets |

5. Save cost and time in farming operation.

- use of superior varieties
- reduce landuse, chemical inputs
- development of sustainable agriculture

6. Technology transfer to growers.

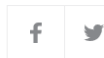
- introduction of new varieties included technology transfer in package
- transforming small farmers to advanced farmers

APAC NOVEMBER 12, 2018 / 9:47 PM / UPDATED 4 YEARS AGO

Millions of small Asian farmers miss out on seeds resilient to climate change: study

By Thin Lei Win, Thomson Reuters Foundation

3 MIN READ



ROME (Thomson Reuters Foundation) - Millions of smallholder farmers in South and Southeast Asia are missing out on new, resilient seeds that could improve their yields in the face of climate change, according to an index published on Monday.

The 24 top seed companies fail to reach four-fifths of the region's 170 million smallholder farmers for reasons such as poor infrastructure, high prices and lack of training, the Access to Seeds Index found.

WHY JOINING UPOV?



LOCAL BREEDERS' BENEFITS (INCLUDING FARMER BREEDERS)

1. Easier access to improved varieties of crops & Plant Genetic Resources for breeding
→ Enable further breeding locally.
2. Increase in number and diversity of local breeders

3. **Enable competitiveness**
→ Local breeders have to compete to stay significant in business
4. **Creating business opportunities.**
→ Local varieties are easy to access international market
→ benefit from cross protection in UPOV member countries.
→ for important crops : oil palm, rubber, pepper etc.



Public Research Agency (MARDI)



International Seed Company



University



Farmer's Breeder



A farmer breeder, Mr Ng with his pitaya variety 'Pink Dragon Sunlike'

喜阳粉红龙果与CH68龙珠果品种比较

| | 喜阳粉红龙果 | CH68龙珠果 |
|--------|--------|---------|
| 花芽形状 | 扁圆 | 圆 |
| 花芽顶端形 | 截平 | 尖 |
| 花芽颜色 | 黄青色 | 中红色 |
| 花芽花被长度 | 短 | 中等 |
| 花芽花柱长度 | 短至中等 | 中等 |
| 果肉颜色 | 粉红 | 紫红 |



THREATS IN JOINING UPOV?



Farmer's Perception & Concerns

1. All crops will be under protection.
2. Breeder's right is only for professional breeders.

No more FSS

No more choices
Nothing to grow

No seed exchange
for ritual & cultural
purposes

All seed usage
subjected for
royalty payment.



INCREASE OF SEED PRICE



FARMER'S RIGHT IN
EXCHANGING SEEDS WILL
BE HINDERED



ETHNIC CULTURE WILL BE
AFFECTED



FARMER'S SEED SAVING
CULTURE WILL BE
PROHIBITED

IMPACT



Without an internationally harmonised PVP system



Breeding industry is not rewarding in investment



Limited varieties are developed for farmers



FARMERS

- i. rely to old or common varieties**
- ii. limited choices of superior varieties**
- iii. only used second class varieties that have reduced popularity of a country (less competitiveness)**
- iii. not able to enjoy benefit brought by a superior varieties (disease resistance / low input requirement)**
- iv. smuggling of new varieties (expose to phytosanitary issues).**

NEW FEATURES IN PVP BILL



Same protection period for variety bred, or discovered and developed by a farmer, local community or indigenous people.



Agricultural Crop List for Breeder's Limitation on Farm Saved Seeds



Introduction of **Annual Right Maintenance Fee**

CONCLUSION

1. More opportunities will be easily achieved by joining UPOV.
2. Competitiveness among breeder will become active if Malaysia join UPOV. Farmers can obtain high-quality seeds.
3. Business-oriented farmers
4. Influx of superior varieties from overseas
5. Diversify breeders
6. Increase production and competitiveness of agriculture sector in the country



TERIMA KASIH

FURTHER INFORMATION :



<http://www.doa.gov.my>
<http://pvpbkkt.doa.gov.my>



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