

UPOV MEMBERSHIP OF VIETNAM AND STUDY ON PVP IN LAO PDR POTENTIAL IMPACT OF JOINING UPOV

NGUYEN THANH MINH - VSC, VIETNAM
Vientiane, January., 2026

OUTLINE OF THE PRESENTATION

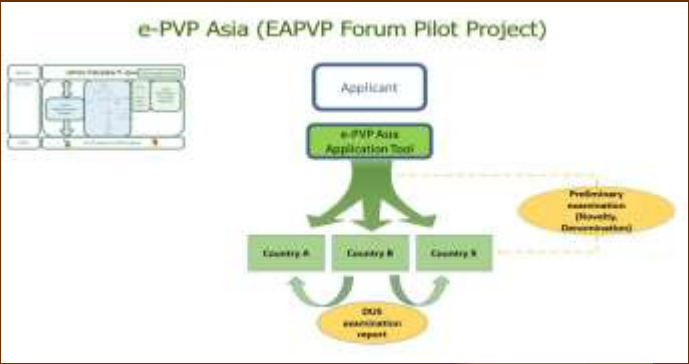
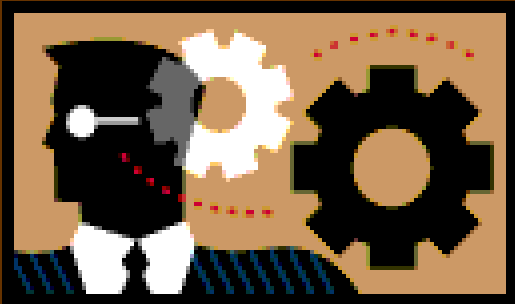
- DEVELOPMENT OF PVP SYSTEM IN VIETNAM
- THE SUCCESS OF UPOV 1991 IN VIETNAM
- PVP IN LAO FROM THE SURVEY, POTENTIAL IMPACT OF JOINING UPOV



Development of PVP system

Member of UPOV
(24th Dec, 2006)

63rd



Implementing PVP System
under UPOV Convention

2007-Now



2018 – Positive joining the Regional
cooperation Mechanism under
scope of EAPVPF by the technical
Assistance of UPOV

Establishing National
PVP system and Preparations
to join UPOV

2000-2006

With the assistance from UPOV and UPOV's Members:
Strengthening PVPO and DUS Testing agencies
Legal document: Law and Documents to detail the Law



Study the real
conception of PVP

1995-2000



➤ Establishing legal document

- ✓ Decree (2001)
- ✓ Seed Ordinance (2004)
- ✓ IP Law (2005)

➤ Technical document

- ✓ All UPOV Document on DUS are translated into Vietnamese: TG (rice/maize/soybean/Groundnut/Tomato)
- ✓ General Introduction on DUS (GI) and TGP document of UPOV
- ✓ Format of PVP application and the document concerning to the application for PVP

➤ Building facility & human resource

- ✓ To train Key persons: a group of persons who from PVPO&NCPT
- ✓ Seminar/Workshop on PVP and DUS in whole country (3/year/3 locations)

➤ Technical issues

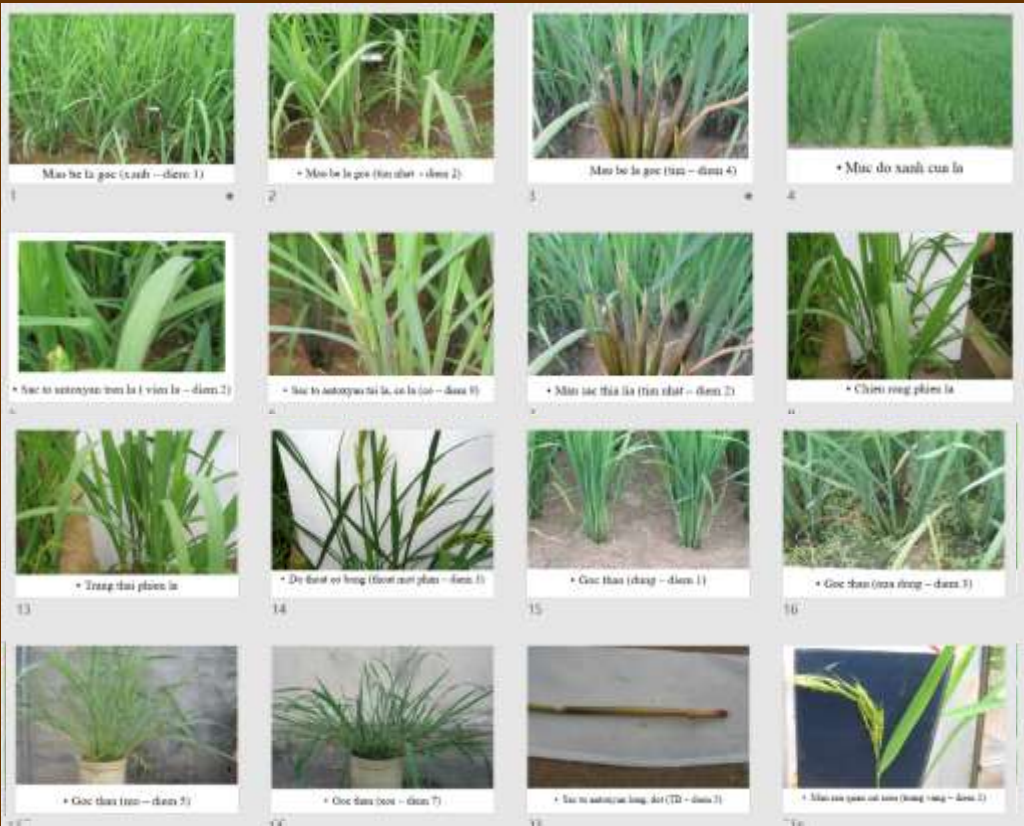
- ✓ To build the Data system of the existing varieties in Vietnam belong to 5 major crops by the cooperation with Genebank and relevant Institutes: rice/ maize/ soybean/ groundnut/ tomato)
- ✓ Practical on DUS in the field for rice and maize

Development of PVP system

Building data of existing varieties in the country (2000 – 2005)

Rice

Soybean



Maize



Tomato



Groundnut



Assistance from other Members

- The assistance from other Member to strengthen capacity of PVP system:
 - ✓ UPOV Office
 - ✓ Denmark (DANIDA)
 - ✓ USA (USAID)
 - ✓ Japan (Jica/EAPVPPF)
 - ✓ The Netherland (Naktuinbouw)
 - ✓ France (GNIS)
 - ✓ Australia (IP Office)
- The activities concentrated on:
 - ✓ Improving aware on PVP of the relevant persons (from Central Government – local authorities – farmers): Seminars/Workshops (International and National which hosted in the country)
 - ✓ Training human resource in/out country
 - ✓ Providing necessary instrument for PVPO and DUS Testing Agencies



Seminar/Workshop 2007 -2008



Seminar by cooperation with GNIS, Saigon, 2007



Workshop in HUE University, 2008



Seminar, Saigon: 12.2008 (EAPVPF)



Seminar with ASTA/USA in MARD 2007



PVP Workshop for Farmer's Group in Hoabinh province 2008



Seminar with STAR/USA project in Binhdinhh 2007

Training courses under EAPVPF (2008-2009)



Dalat: 12.2008 (EAPVPF&Australia)



TienGiang 10.2009



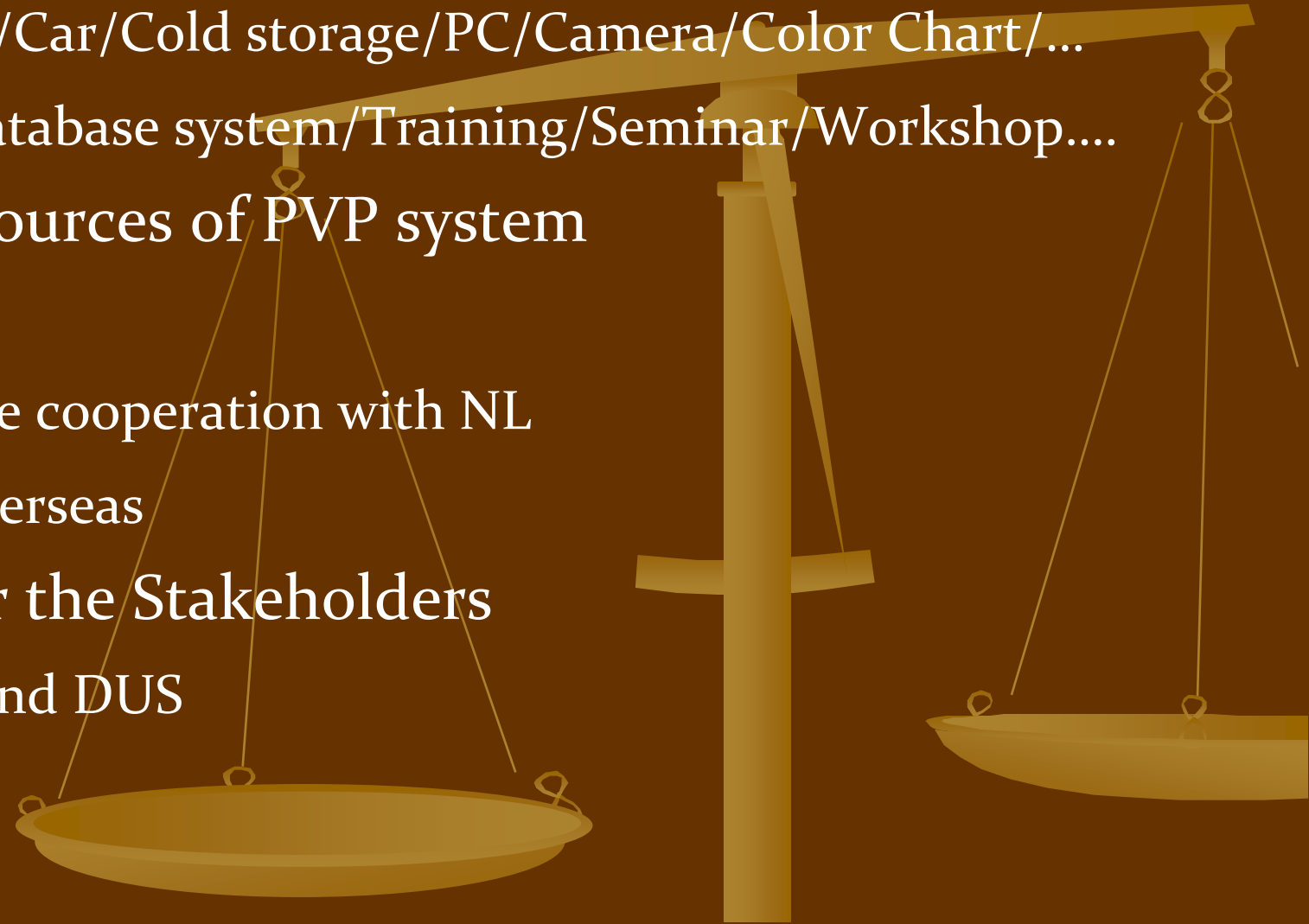
Dalat: 12.2008 (EAPVPF&Australia)



QuangNgai 11.2009

JICA Project is conducted (2010 – 2014)

- Equipment for improving infrastructure of the system
 - ✓ Hardware: Net-house/tractor/Car/Cold storage/PC/Camera/Color Chart/...
 - ✓ Software: Manual for DUS/Database system/Training/Seminar/Workshop....
- Development of Human resources of PVP system
 - ✓ Basic training courses in VN
 - ✓ Intensive courses in VN by the cooperation with NL
 - ✓ Training and study-tour in overseas
- Improving aware on PVP for the Stakeholders
 - ✓ Seminar/Workshop on PVP and DUS
 - ✓ Publications/website/...



	Equipment	Station
1	Nethouse	Tu Liem
2	Tractor and other tool for soil preparation	Tu Liem Van Lam Baria
3	Equipment for DUS: Camera, RHS color chart, Ruler, Color printer, Computer ...	NCPFT, Tu Liem Station, Van Lam Station, Baria- Vungtau Station
4	Cold storage	Tu Liem Van Lam Baria – Vungtau
5	Vehicle – 2 PRADO Cars	DCP



Activities to improve the system

Equipment for DUS Test (by Jica project - Software)



Building manual for 6 crops (2012-2014):
Rice, Maize, Soybean, Tomato, Watermelon, Chrysanthemum

Making Database on PVP (2012-2014)



Application/
Examination



Data for DUS
Testing of
Candidate and
existing varieties

Data for DUS
growing Test for
the DUS Report



Discussion for making database and test of the system

Training courses by JICA& Naktuinbow Project - Software (2010 – 2013)

* Basic courses: Rice, Vanlam (Sept and Oct. 2010)/Tuliem (Nov. and Dec. 2010): Maize, Tomato, Soybean



Tuliem 11.2010



Van Lam 9.2010



Tu Liem 12.2010

* Intensive courses by JICA and NL: Vanlam (3. 2011: Cucumber, Tomato)/Tuliem (11. 2010) Chrysan, Tomato/Baria 8.2011: Chili, Anthurium



Tuliem 11.2011



Van Lam 12.2011



Van Lam 3.2011



Baria 8.2011



Training and study-tour in oversea (2010 – 2014)

* Training (Technical staffs)/Study-tour (high level)



Japan 2011



Japan 2012

* Study-visit



Thailand July 2011



Korea – October 2012

Activities to improve the system

* Cambodia – VN – Lao PDR (GNIS), 2013



* EAPVPF/UPOV Course for Members



Vanlam 2014 - Rice



TuLiem 2015 - Tomato



Baria 2016 - Maize



Quang Ngai 2017 - Watermelon

* JICA courses in Vietnam (2016 – 2019)



2016



2017



2018



2019



2020

Other training courses

Seminar for stakeholders (MARD, JICA, NL)



Hanoi 3/2012



Cantho 3/2012



IP Seminar in CanTho 12/2012



Hue 12/2012

Seminar for stakeholders (MARD, JICA, NL)



Dalat
May 2013



Thaibinh, Aug 2012

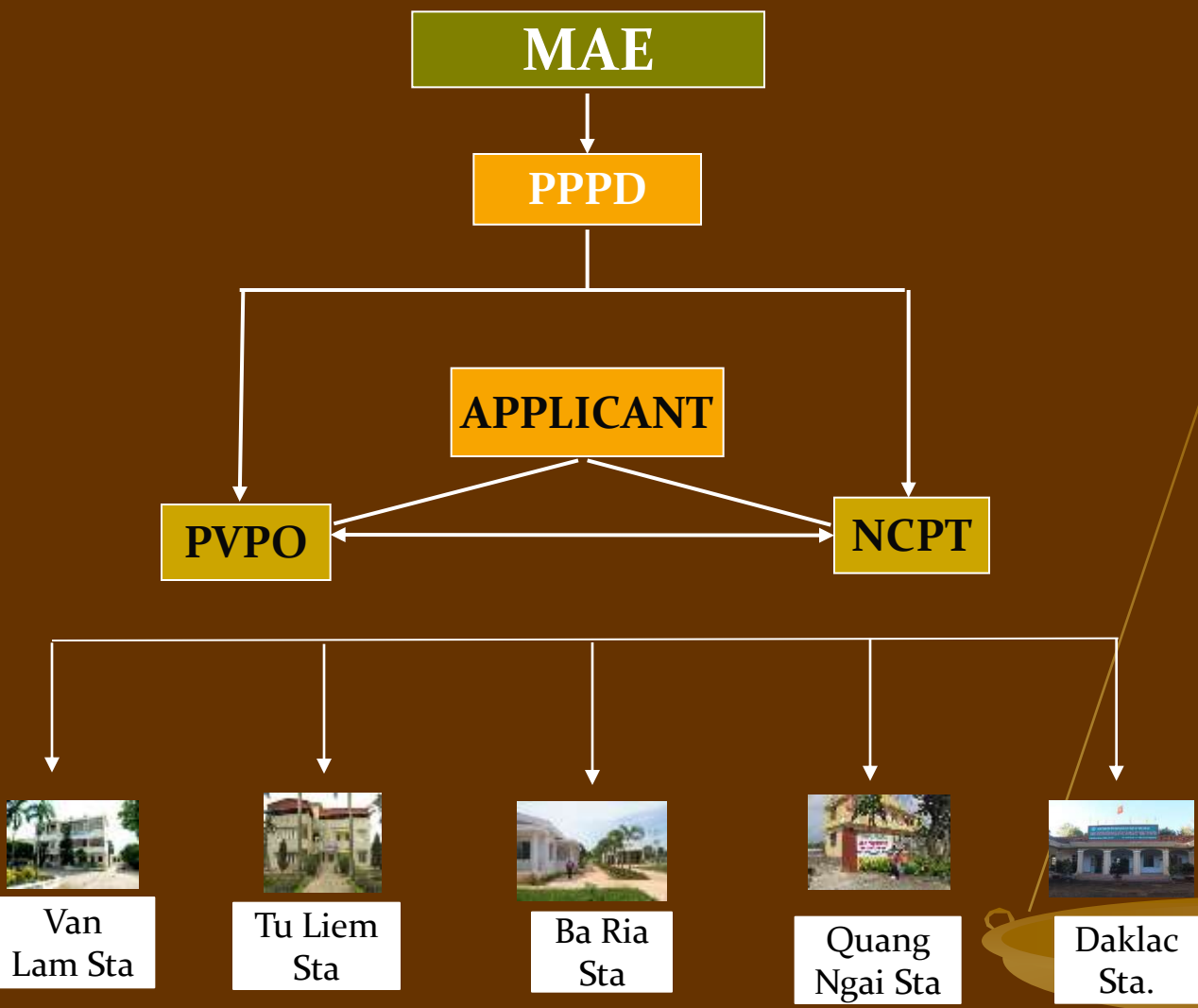


Vinh Phuc, October 2013

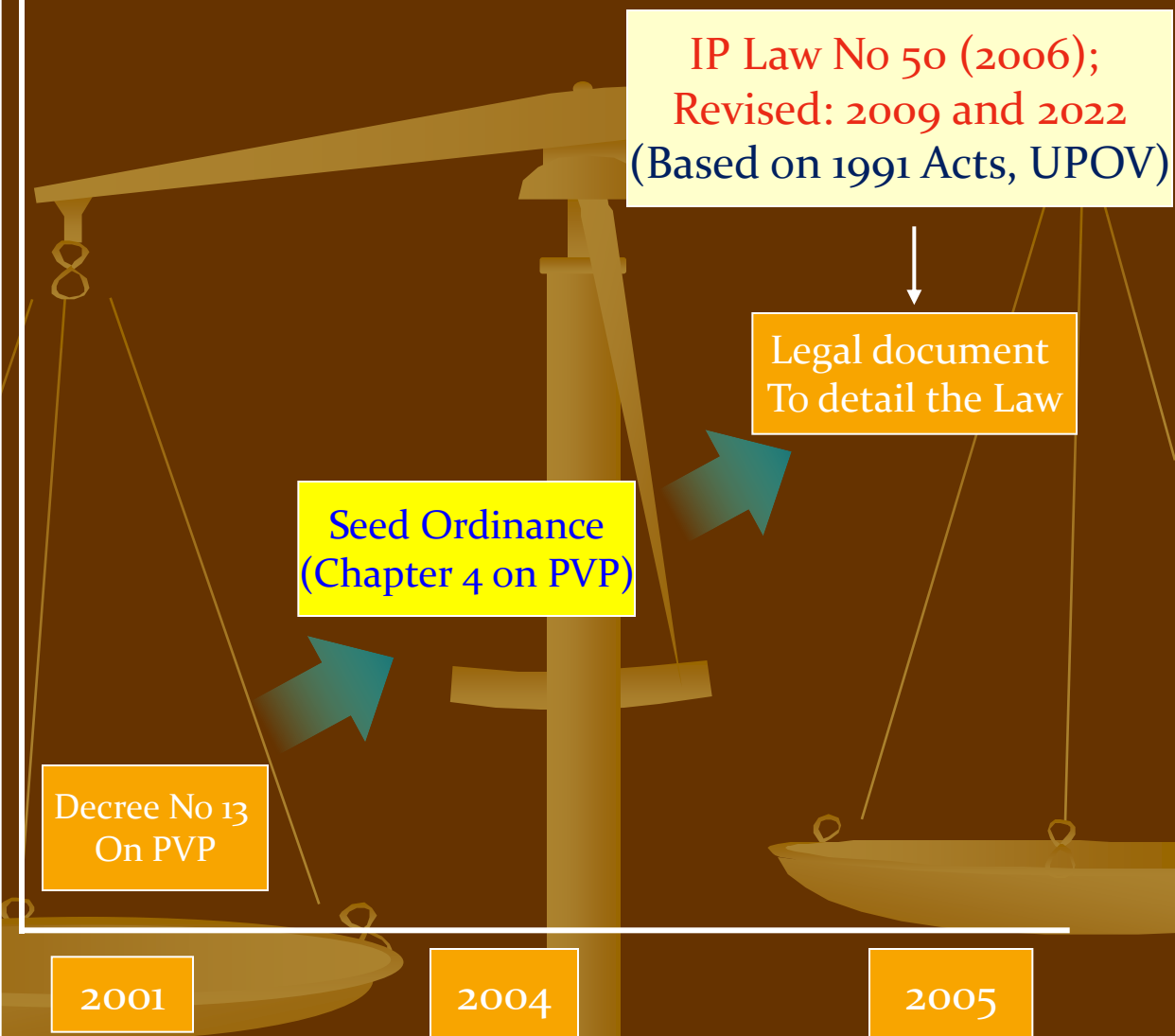


PVP system in Vietnam

IMPEMETING ORGANIZATIONS



LEGAL DOCUMENT



DUS Testing stations under NCPT



On-site inspection – Breeder's test



Documentation on DUS reports – take over



Request

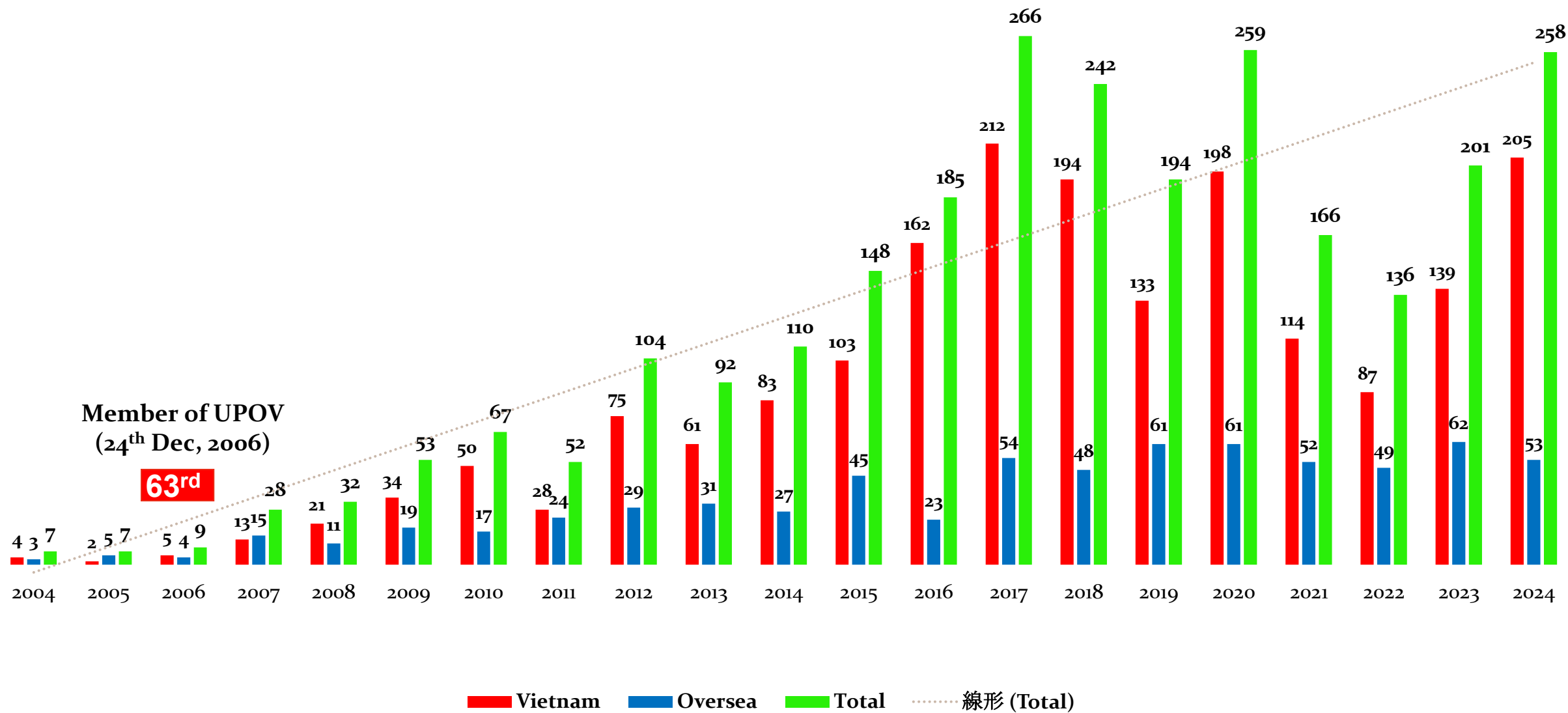


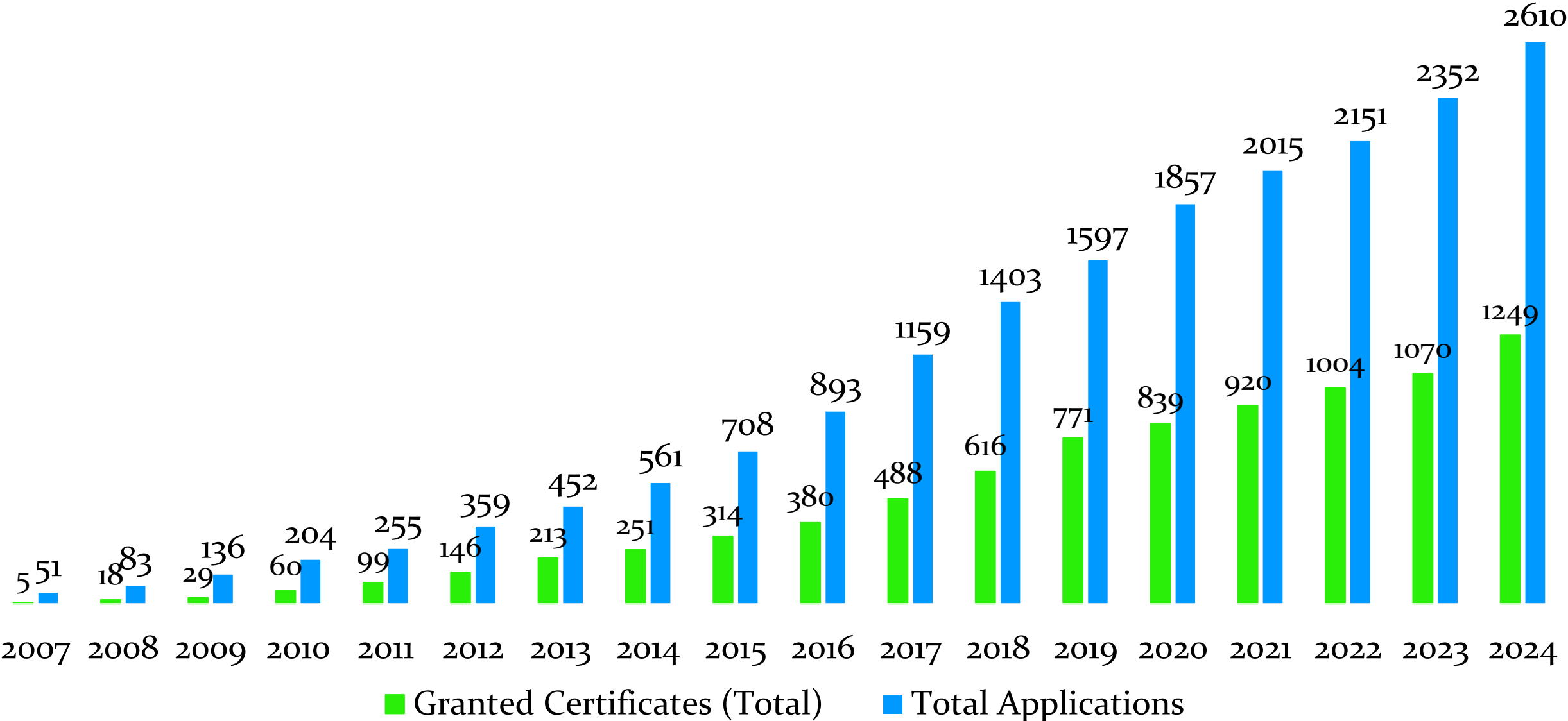
Answer request and Test report

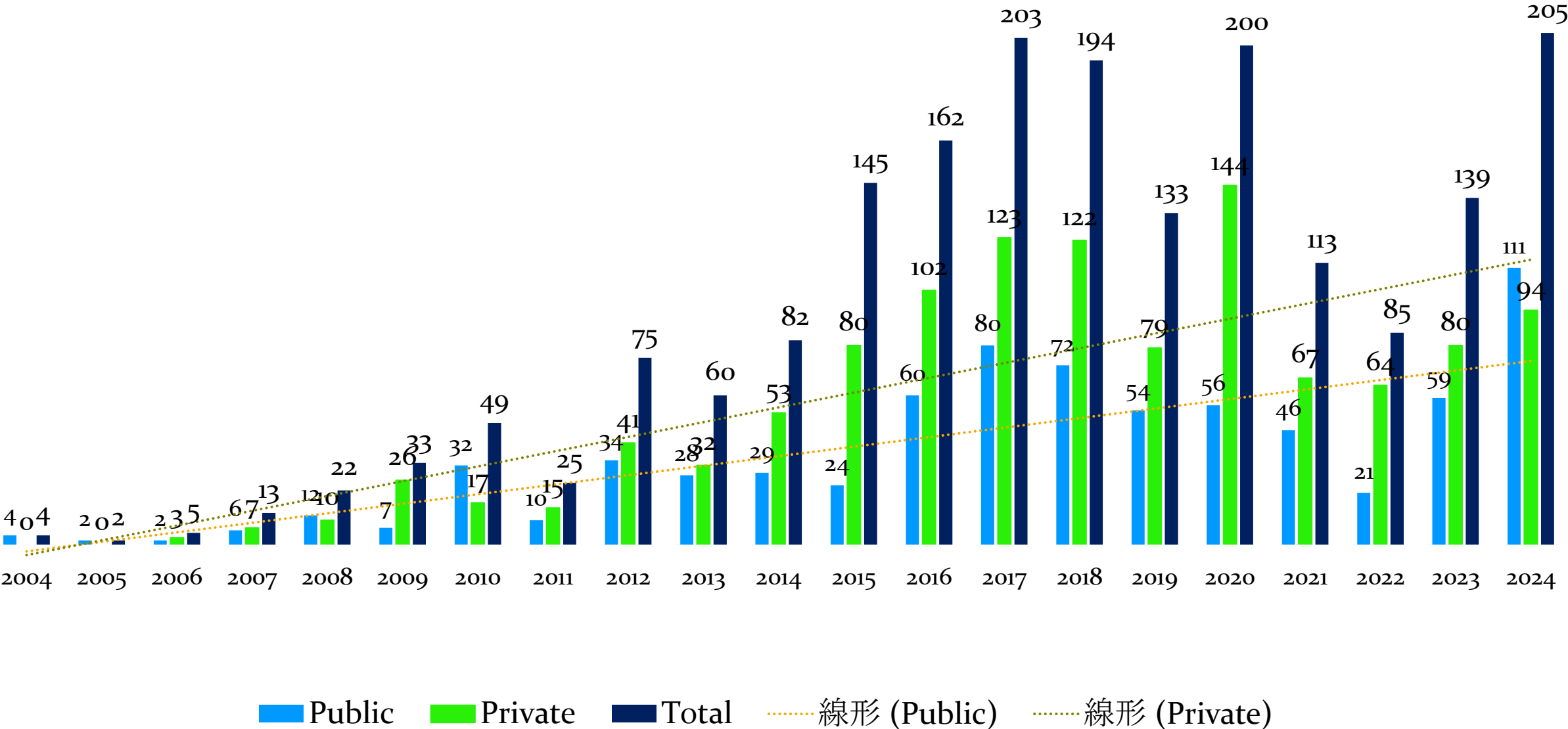


Examine of the Test report

Application in Vietnam by years (2004 - 2024)







The process for introduction new variety is specialized

BEFORE PVP

Breeders

No Professional
distribution system

Farmer

No specialized
service, Difficult on
Seed Quality control

AFTER PVP

Breeders

License

Company

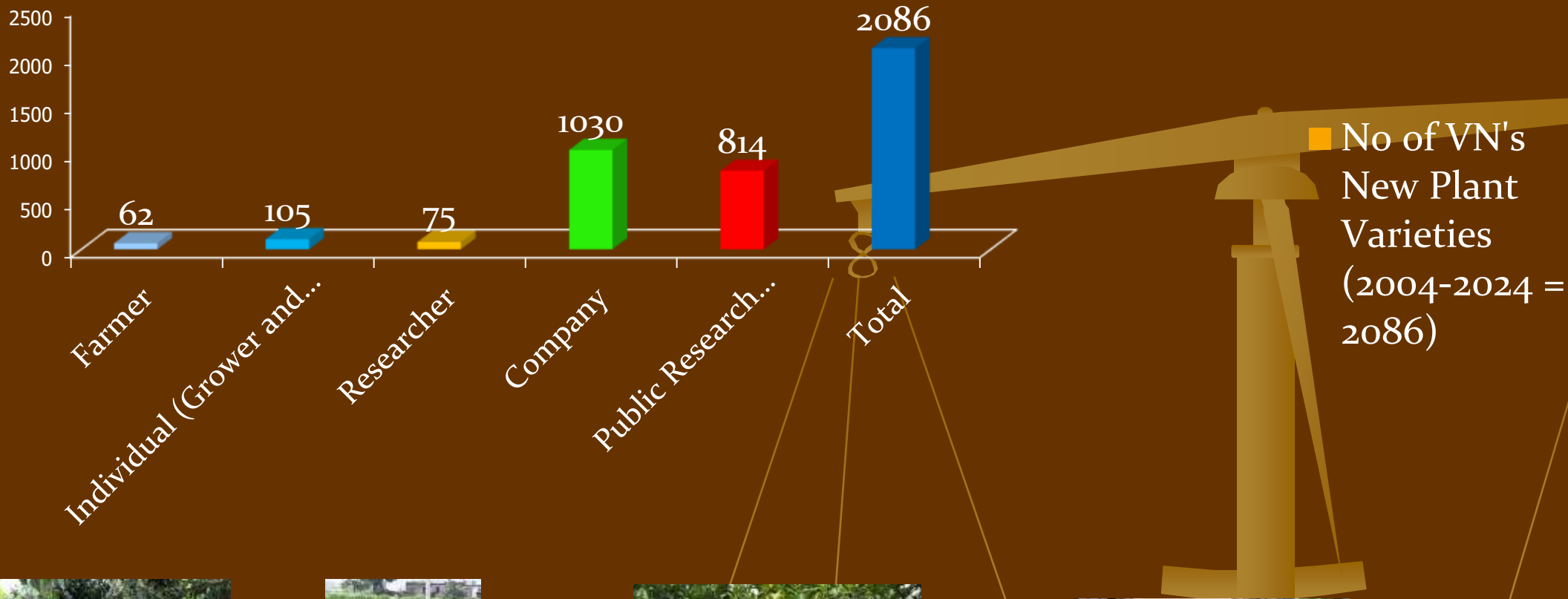
Royalty

Good professional
distribution system

Farmer

Good service for the
farmer; Better seed
quality due to
professional

All people from different sectors have chance to be Breeder



Farmer/Breeder: Rice/Longan/Pomelo...



Amateur Gardener



Retired Researcher



- Through different level as:
 - ✓ Before 2006, almost all of them were Traders only
 - ✓ When PVP is established: beginning they are licensed to exploit PBR from owner (before 2010)
 - ✓ To develop their-own breeding facility
- Now, many of them become big with very good breeding facility (**Techno-Scientific Enterprises – over 30% Members of VSTA**)
- Increasing their ability on competition in the market (domestic – global);
- To join the big policies of the Gov. on agriculture



Contributing to the success of big policies on agriculture and rural development



LAND CONSOLIDATION



FOOD VALUE CHAIN

- ✓ The participation of private sector contributing to the success of the Important Policies of the Government
- ✓ PVP ensure the Right of them thus they are assured to invest into the project



RE-ORGANIZED PATTERN CROP



SAFE CROP PRODUCTION

New good varieties from overseas

- An effective PVP system – encourage new varieties from overseas:
 - ✓ New techniques will be introduced together with new varieties
 - ✓ Opportunity for new jobs: Cultivation- Processing for exportation
 - ✓ Diversification of Crop-products for exportation/domestic users



New variety of Fruits



Primary processing flowers and fruits for exportation



New variety of Flowers



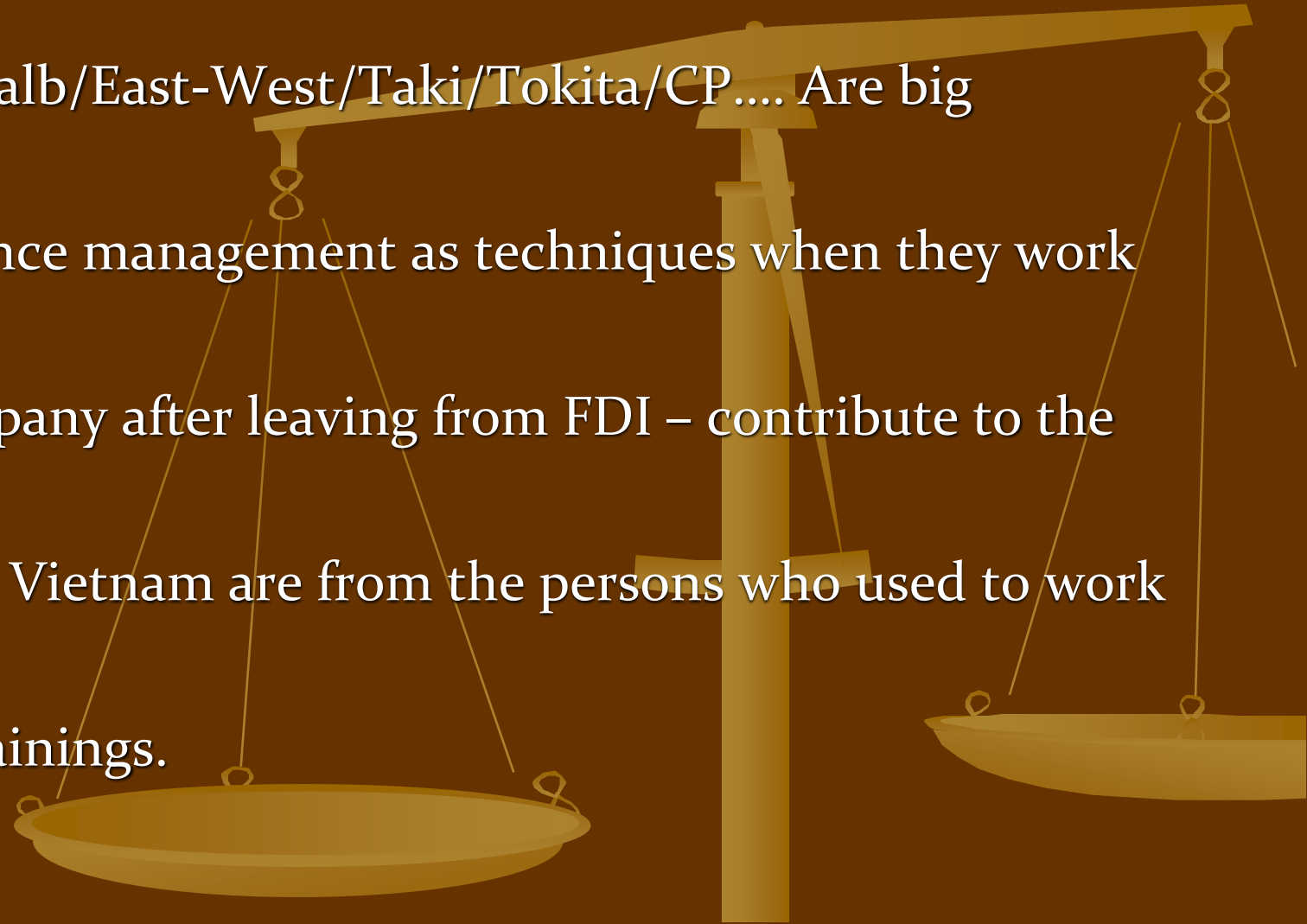
Flower/Fruit by new techniques are introduction by Breeders from overseas



New variety of Vegetable

Human resource of National Seed Industry is improved

- FDI Enterprises of Seed invested to VN when we own an effective PVP system
 - Employees are Vietnamese
- Bioseed/Syngenta/Bayer/DeKalb/East-West/Taki/Tokita/CP.... Are big companies in the world
- Employees learn a lot of advance management as techniques when they work in that companies
- They establish their own company after leaving from FDI – contribute to the National Seed Industry
- Almost the Leaders of SME in Vietnam are from the persons who used to work for FDIs mentioned above.
- This is a type of in-country trainings.



Example on benefits of Protected Varieties

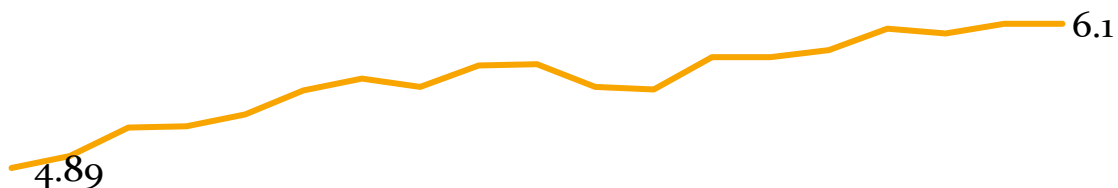
Items	Protected Varieties	Non protected varieties
Price of Seed (rice, USD/1 kg)	<u>1.42</u>	0.66
Price of commercial grain is sold by farmer (Fresh rice, USD/Ton)	<u>292.0</u>	239.1
Average income in 1 ha for farmer (rice); USD	<u>1897.0</u>	1298.0
Yield (Ton/ha)	<u>6.5</u>	5.5
Benefits from seed of protected varieties	<ul style="list-style-type: none"> ✓ Better quality, Yield ✓ Better tolerance in bad climate and diseases, insect ✓ Reduce of invest for production 	? ? ?

* Source: VINA Seed Corporation (report on Dec. 2021): World Price 380 – 400 USD/ton)

Success of UPOV 1991

Productivity and quality are improved by new varieties

Rice Yield (Ton/ha), GSO



New varieties of Rice, Corn and Sweet potato contributed 8% of the agricultural GDP of Vietnam – PVP encourage to create of new Var
(*“An ex-post assessment on plant breeding and agriculture productivity after ten years”*, HFFA Research GmbH,

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024



ST25: Best quality in the world – 2019; 2023 and 2025



➤ Exported price is higher in the global market (nearly 3 times compare to the normal rice) – Farmer's income increased by using new varieties with high quality.

Breeding new var.: Improved by adding material

Father/Mother
(Protected Var.
from oversea)

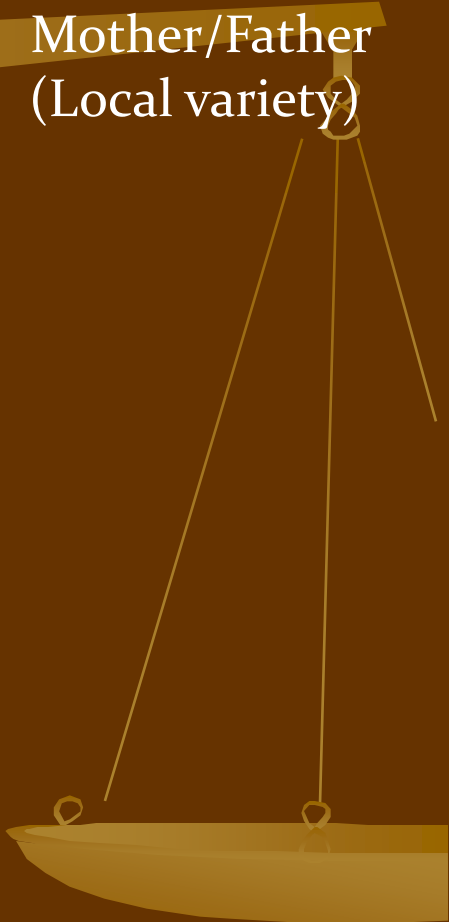


Mother/Father
(Local variety)

X



New variety



- Contribute to the conservation of PGR and Livelihood for ethnic minorities in mountainous rural areas
 - ✓ New varieties from wild species which are declined



Production of medicinal plants by ethnic minorities



NEW RICE FOR CLIMATE CHANGES



Drought tolerance



Flood tolerance



Bacterial leaf blight



Rice blast disease



Salty tolerance Rice



- Diversify the products for Customers
 - ✓ Functional Food
 - ✓ Medicinal plants
- Adaptability in an Inconvenience Environment when climate changes
 - Sustainable agriculture – Food security
 - ✓ Drought/Flooded/Salinization by sea level increase.
 - ✓ Diseases/insects tolerance varieties

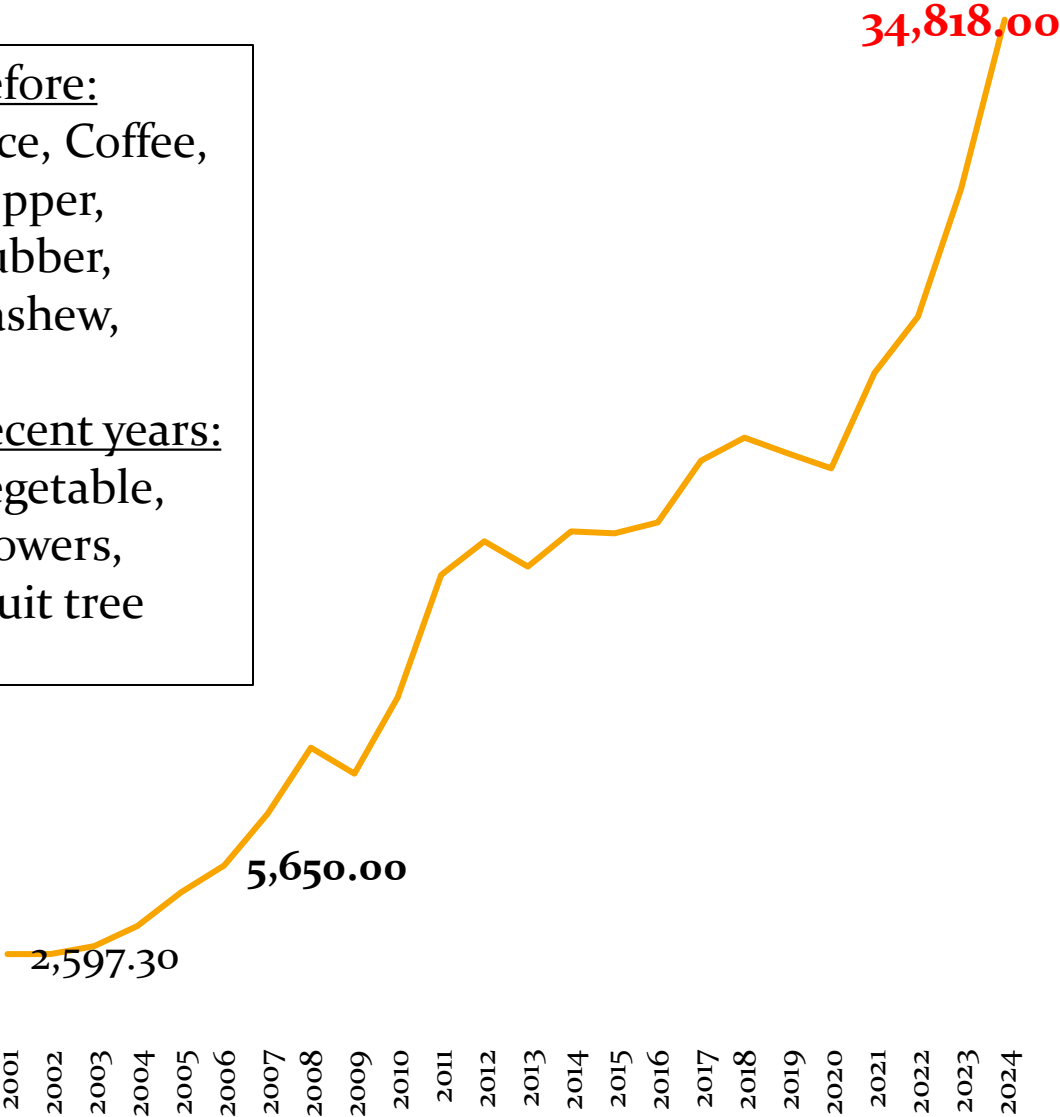


Success of UPOV 1991

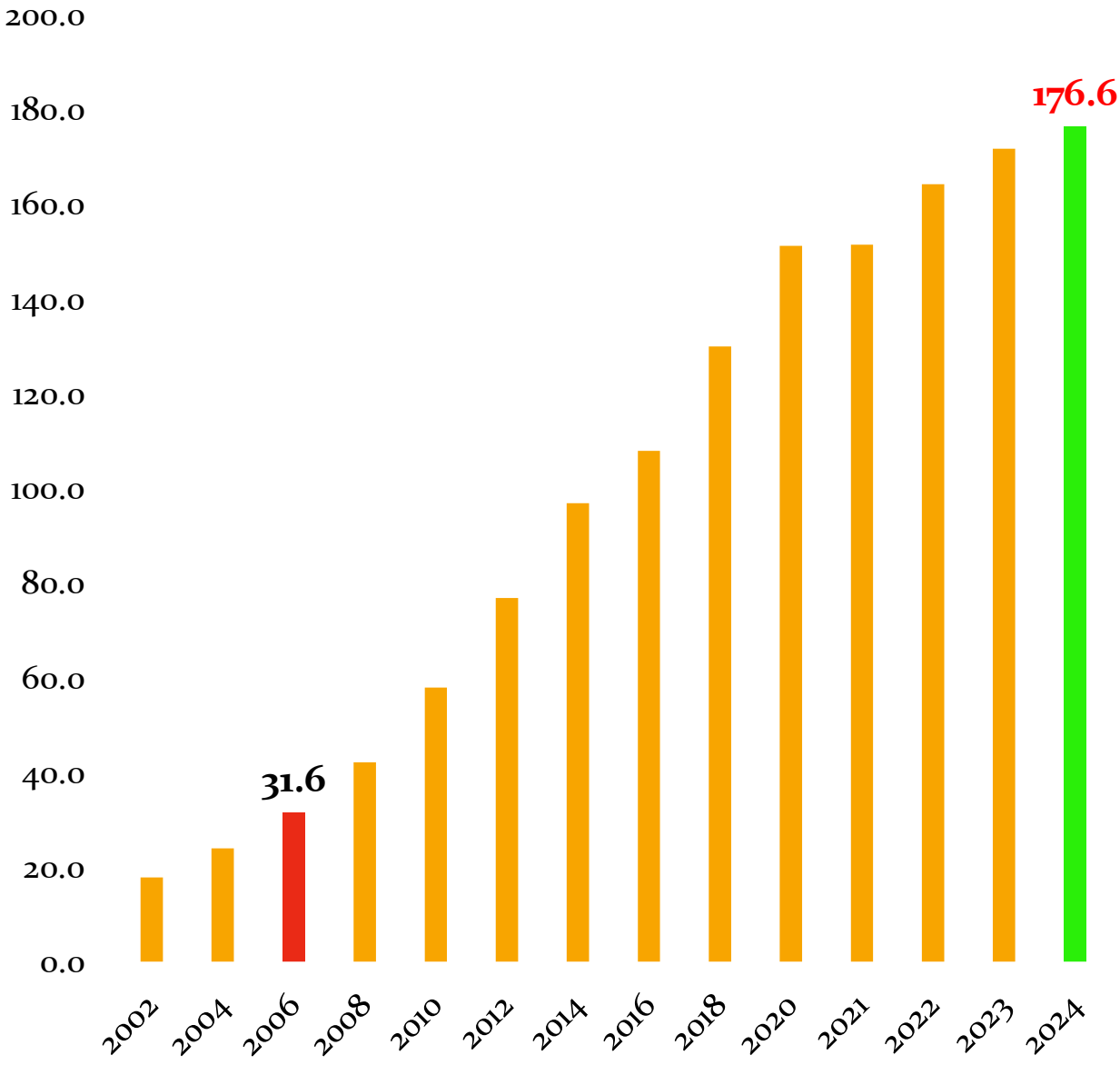
Export value of Crop Products (Million USD), GSO

Before:
Rice, Coffee,
Pepper,
Rubber,
Cashew,





Recent years:
Vegetable,
Flowers,
Fruit tree








Income of Rural area (USD/month/person)



The result of survey in Lao PDR (15 – 23rd December 2025)

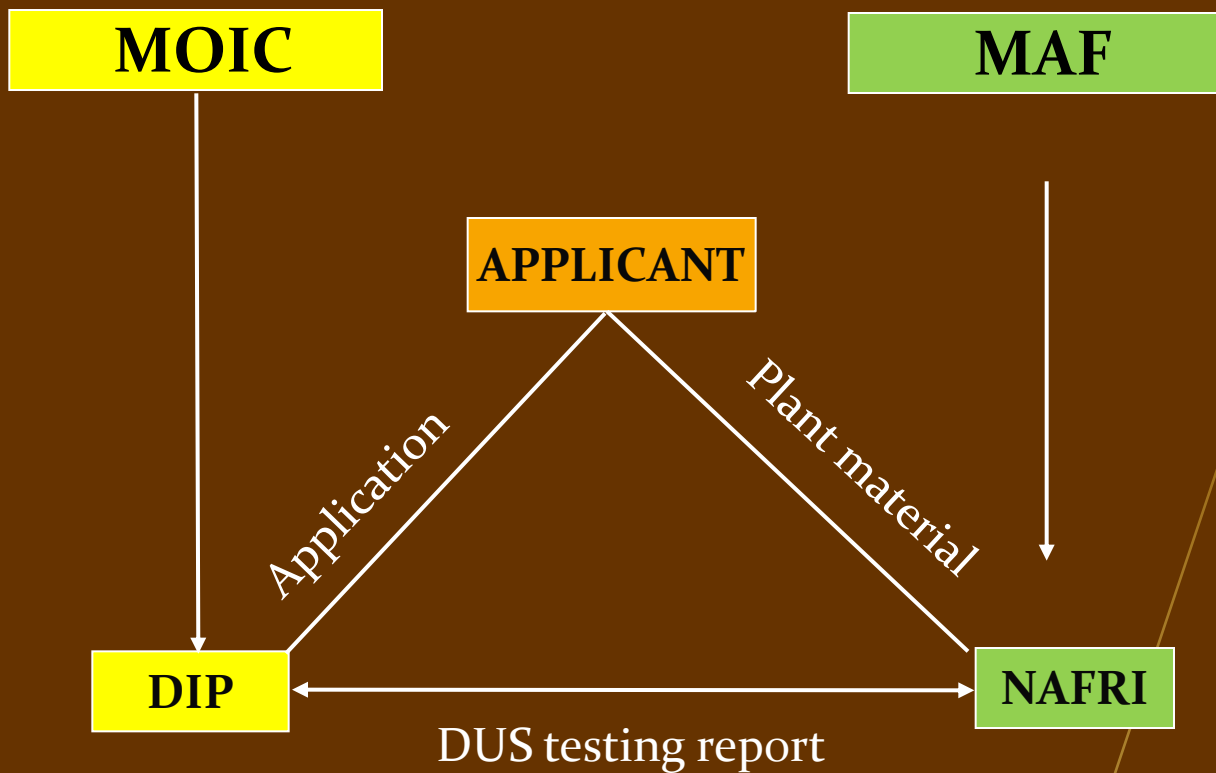
Time	Organizations	Participants	
15.12.25 Morning	National Agriculture Food Research Institute (NAFRI)	Mr. Vilaphune, Deputy Director General Ms. Setovanh Panthavongsa, DDG Mr. Sivieng Kleh, Director of Rice Research Center, NAFRI Mr. Thong Khoun, Director of Vegetable and Horticulture Center, NAFRI Ms. Phlavanh Boutsavath, Researcher	 
Afternoon (13.00 – 14.30)	Genebank (NAFRI) (13.00-14.30)	Mr. Khemkham Hongphady - Researcher Mr. Keo Oudone – Researcher	  
(15.00-17.00)	DOA/MAF	Mr. Vanthieng, Deputy Director General Some Members of Agronomy Division of the Department	
16.12.25 Morning	IP agent: Tilleke&Gibbins Co.Ltd	Ms. Patthama Chainok, Director of Vientiane Office Ms. Saithong Rattana, Associate of the Office	 
Afternoon	PVPO, DIP	Ms. Villomphone and her colleagues of PVP Division	
17.12	Travel to Kham Muon Province		

The result of survey in Lao PDR (15 – 23rd December 2025)

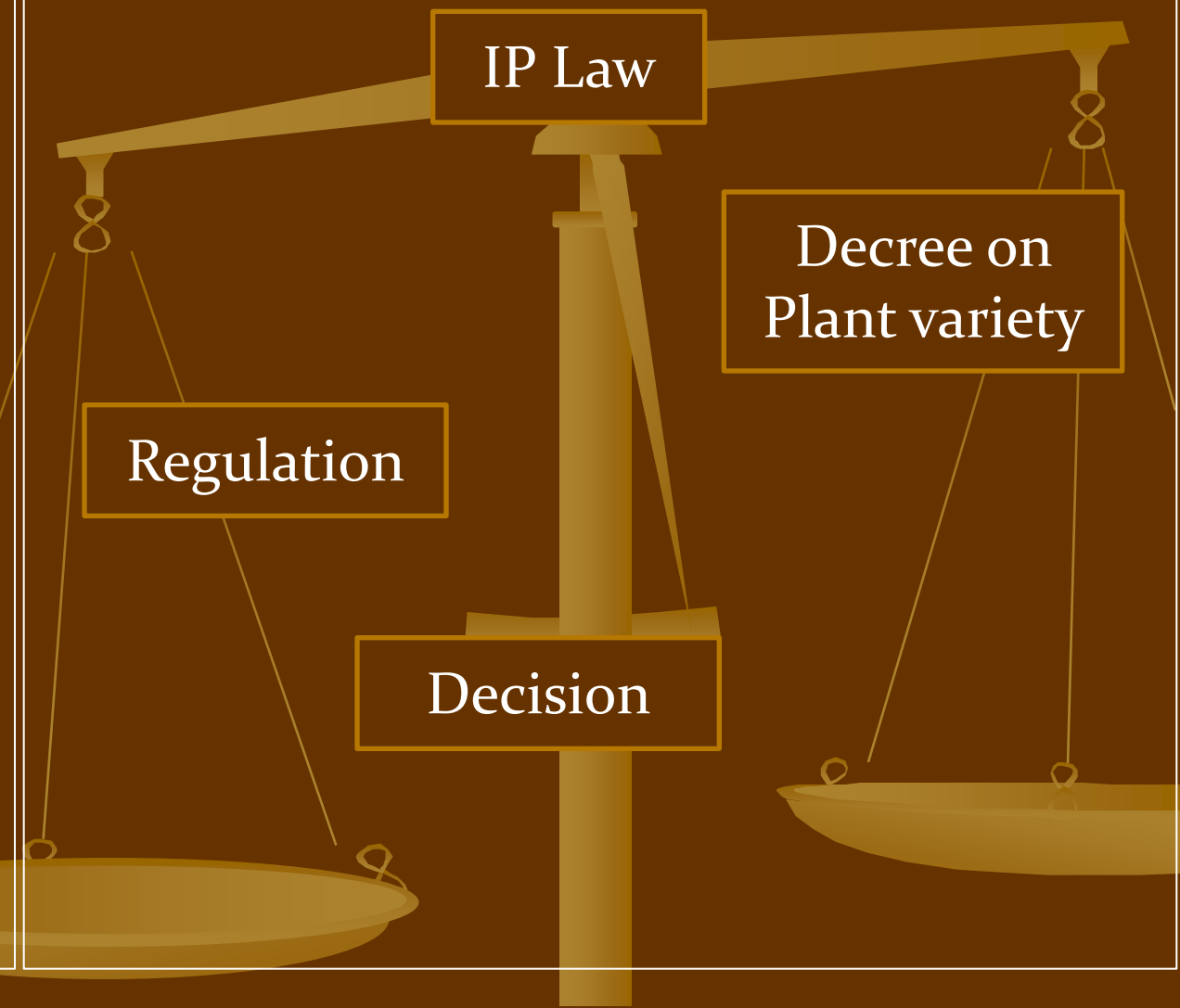
Time	Organizations	Participants	
18.12.25 Morning	Department of Agriculture, Forestry and Environment of Kham Muon province	Production Division, Department of Agriculture, Forestry and Environment of Kham Muon province Mr. Onkeo: Vice Director of the Crop Production Division Ms. Ukeo, Officer of the division	
Afternoon			
	Back to Vientiane		
19.12 Morning 9.30 -11.00	Production Division, Department of Agriculture, Forestry and Environment of Luong Prabang province	Ms. Sudalak, Vice Director of Crop	
Afternoon	production area&Market		
20.12.25	Back to Vientiane		
22&23/12/25	Department of Intellectual Property (DIP)/MOIC	<p>Greeting and explain the purpose of Survey to Mr. Xaysomphet Norasing Director General of DIP Meeting with Mr. Saybandith – DDG of DIP and all officers of PVPO: Report on the result of the meetings with other organizations (NAFRI/DOA/Province/IP agent...)</p> <p>Working in PVPO of DIP: Discuss more on the matter concerning to PVP under UPOV Convention and experience of Vietnam</p>	  

PVP system in Lao PDR

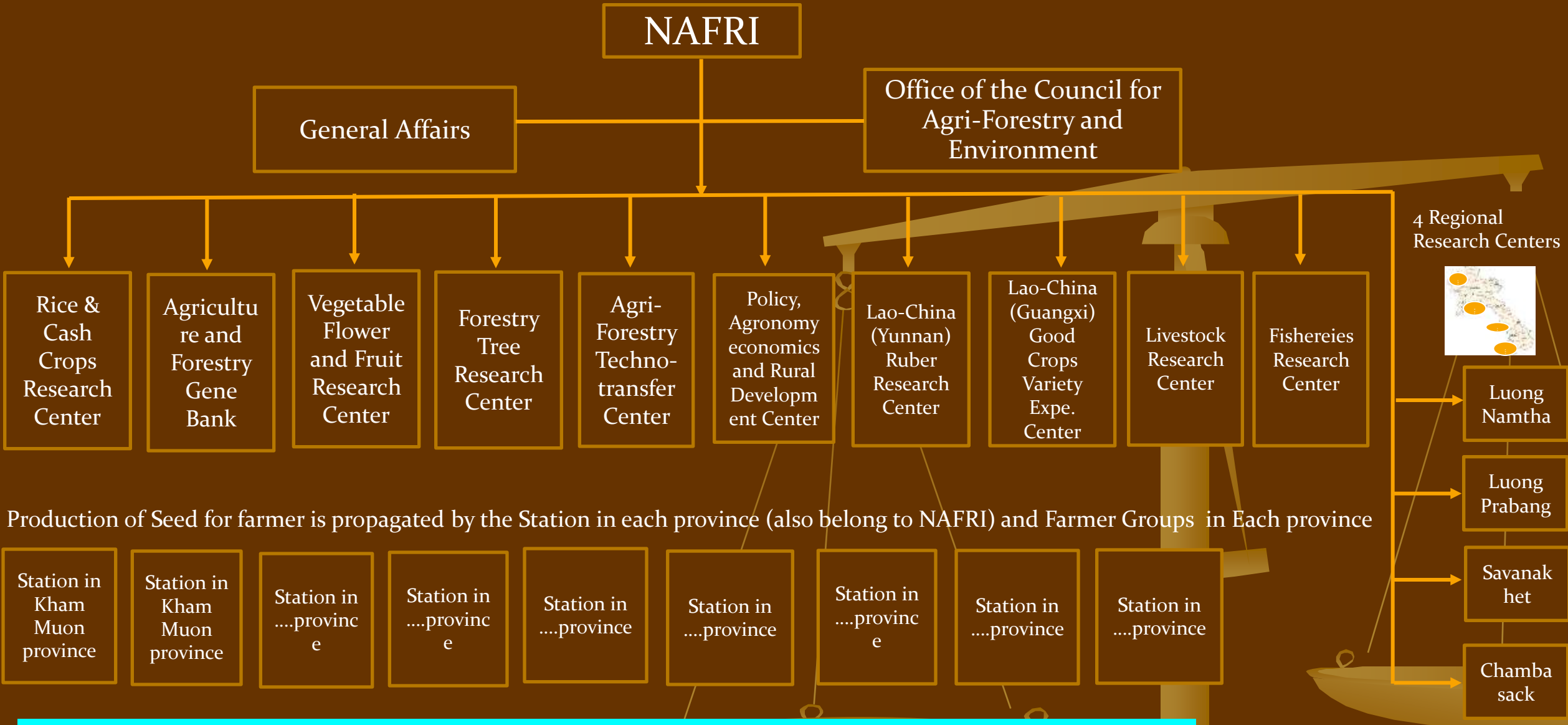
IMPLEMENTING ORGANIZATIONS



LEGAL DOCUMENT

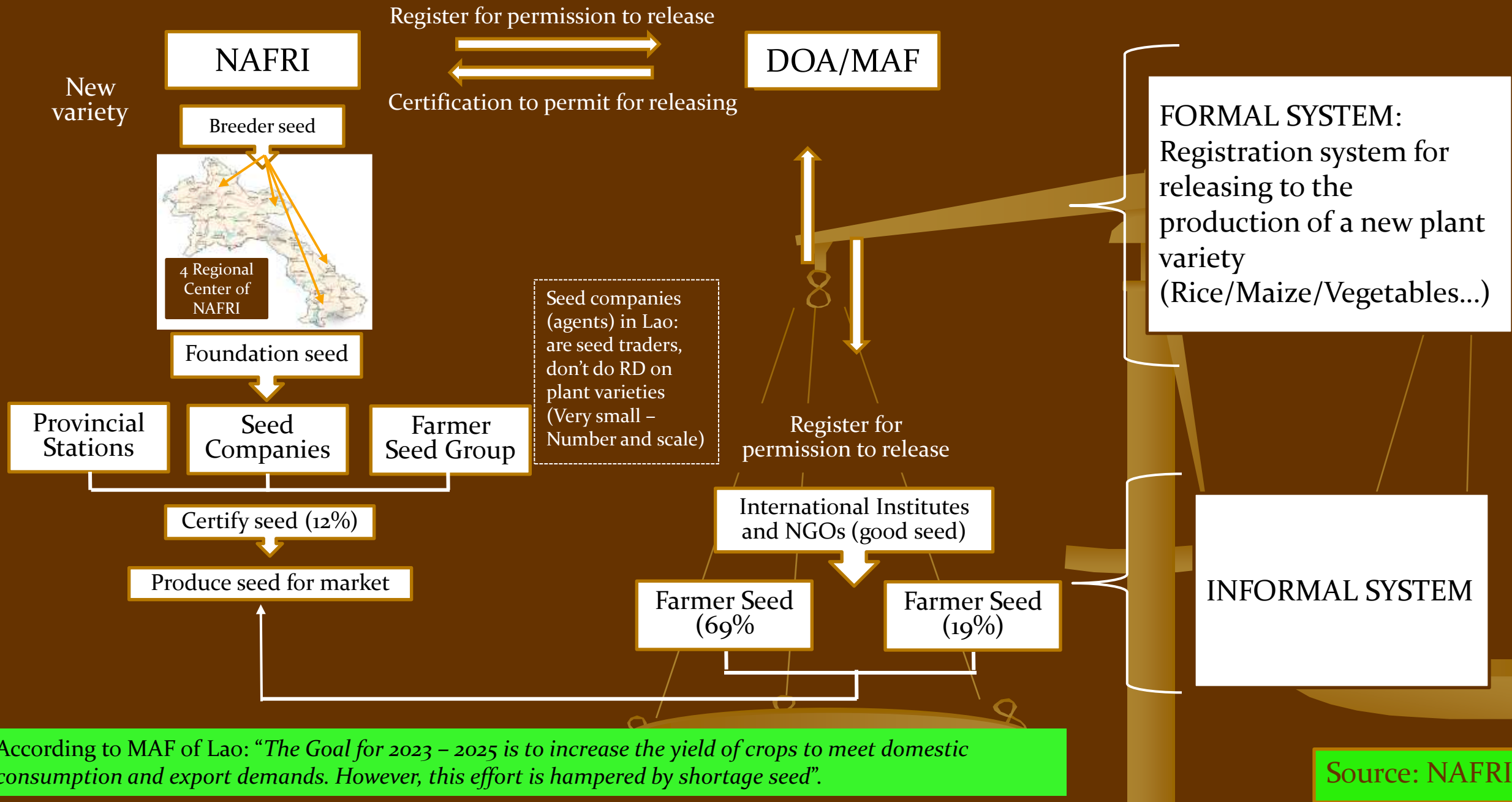


System on the R&D of Plant Varieties in Lao (NAFRI)



* Note: The Number of new plant varieties are from NAFRI (Have not any variety file for PVP yet):
- 15 (2015-2020); and 29 (2020-2025).

Chain from breeding to introduce a new plant variety to the production



Conclusions on Lao's situation from the Survey

- System for management of Seed is same as in Vietnam
 - ✓ The current registration to release new varieties for production and trade
 - ✓ PVP system for PBR
- Situation of PVP and R&D in Lao is similar to Vietnam before 2006 (Joined UPOV):
Institutes – Research Centers – Stations (from Central Government – Province)

VIETNAM (before 2006)

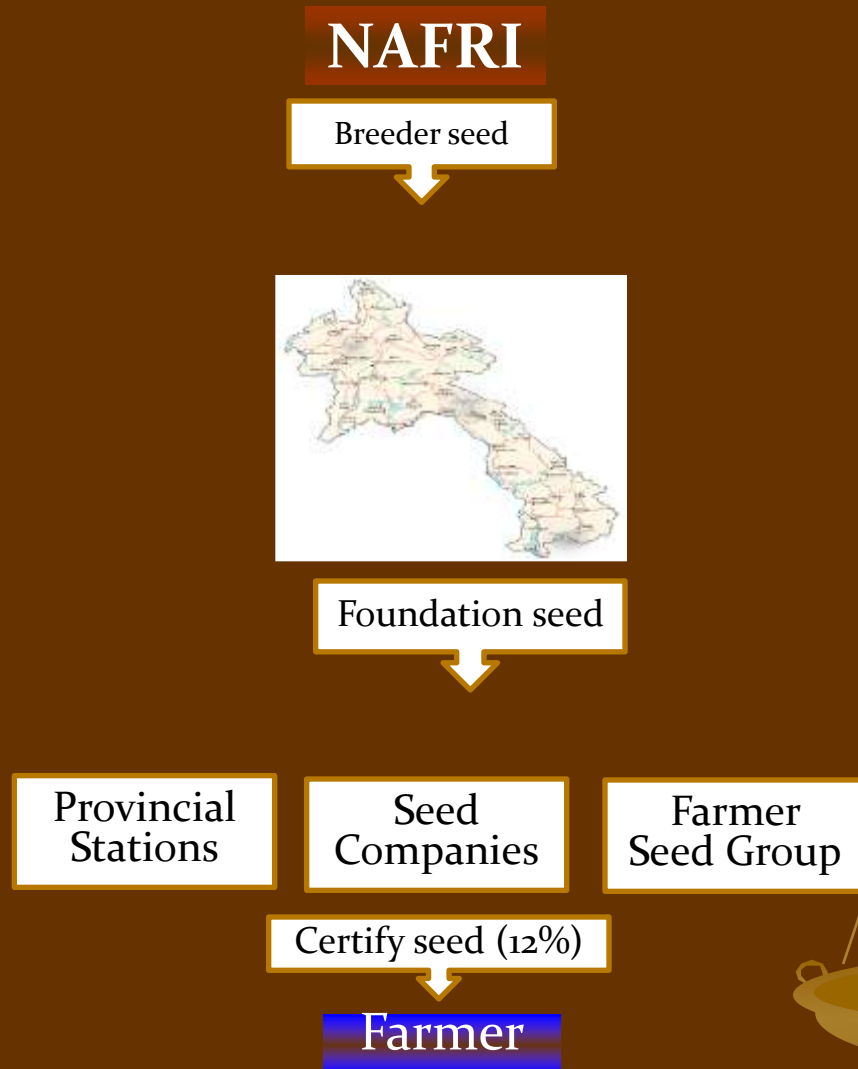
- ✓ 14 applications for PVP (0 granted)
- ✓ R&D on Plant varieties is Public
- ✓ Private sector is SME and they are Traders only
- ✓ Seed provided by formal system: 15 – 18%
- ✓ New varieties (1995 – 2005): 222
- ✓ Popular crops: Rice, Maize, Soybean, Groundnut, Tomato.
- ✓ Aware on PVP: Limited - authorities only

LAO PDR (until 2026)

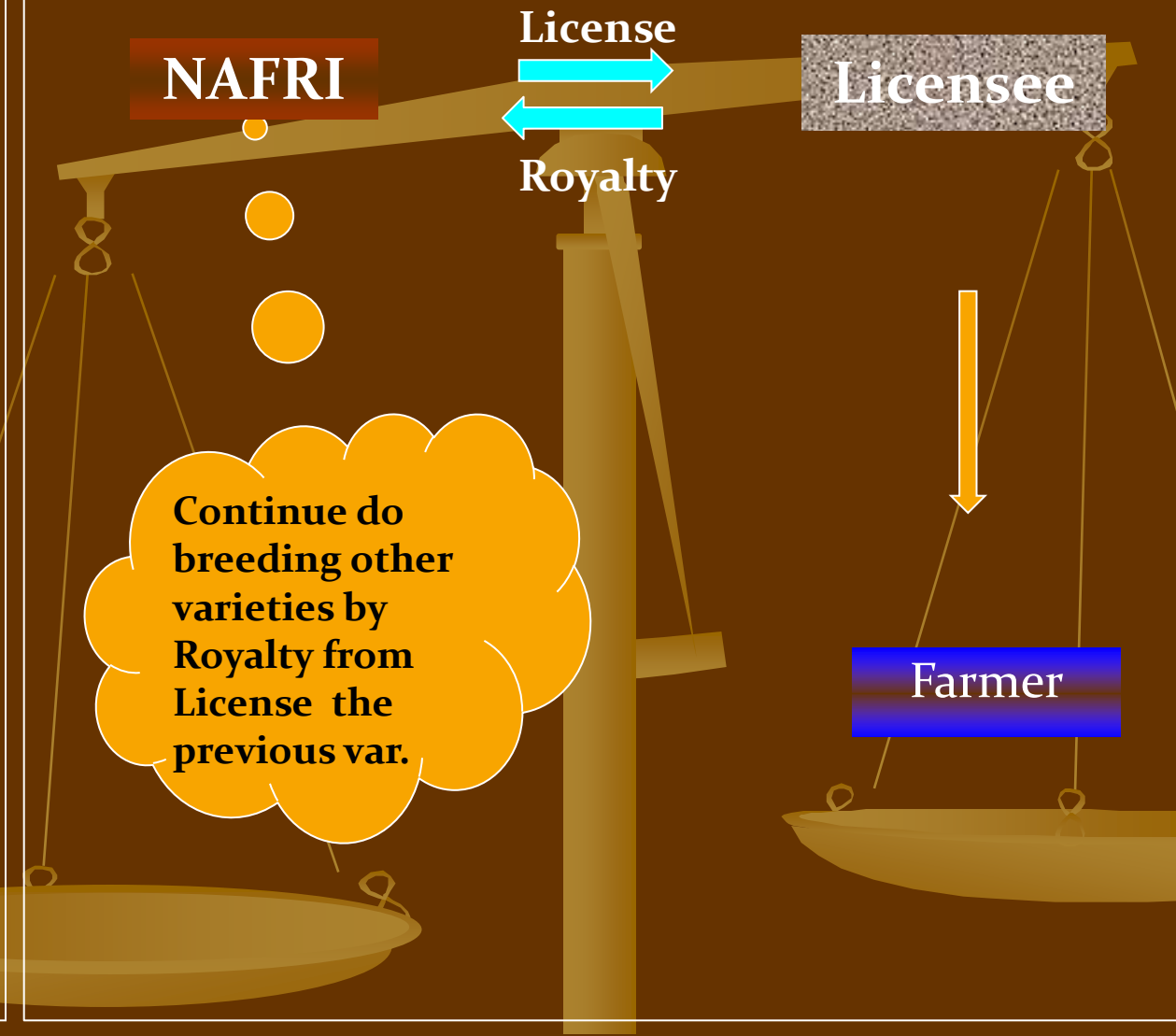
- ✓ 12 applications for PVP (5 granted)
- ✓ R&D on Plant varieties is Public
- ✓ Private sector is small and they are Traders only
- ✓ Seed provided by formal system: 12%
- ✓ New varieties (2015 – 225): 61 varieties
- ✓ Popular crops: Rice, Maize, Beans, Tomato.
- ✓ Aware on PVP: Limited – Authorities only

PBR Exploitation in Lao after join UPOV:
Important factor for many new plant varieties are bred

CURRENT SEED DISTRIBUTION SYSTEM IN LAO



AFTER BEING UPOV MEMBER



Profit/ha for rice in Kham Muon and Luong Prabang

Province	Yield (Kg/ha)	Price is sold by Farmer (kip/kg)	Total revenue - Highest (kip/ha)	Total cost (kip/ha)	Profit (Kip/ha)	In USD (21,710 kip/1 usd)	Season
Kham Muon	4,000 – 4,500	6,000 – 7,500	33,750.000	19,000.000	14,750.000	679.4	Summer
	5,000 – 5,500	6,000 – 7,500	41,250.000	21,000.000	20,250.000	932.8	Spring
Luong Prabang	4.000	6,000 – 7,500	30,000.000	18,000.000	12,000.000	552.7	Summer
	4,500	6,000 – 7,500	33,750.000	20,000.000	13,750.000	633.3	Spring
Notes	<p>❖ Source: Data mentioned on the table are from Department of Agriculture and Forestry of Kham Muon and Luong Prabang provinces</p> <p>The Cost includes: Material input (seed, fertilizer, plant protection chemical...), labor, soil preparation The cost in spring season is 2,000,000 kip/ha higher than summer due to irrigation Varieties: Local and promotion varieties According to the data from VINASEED of Vietnam: Vietnamese Farmer get profit 46% higher when they used protected rice variety (1897,0 USD for protected varieties and 1298,0 USD for non-protected varieties - 2021)</p>						

VIETNAM	Items	Protected Varieties	Non protected varieties
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China: Gross Production Value of Apple, Grape, Tomato and Strawberry (1000 USD)



Source: FAO

Applications in China after they become UPOV's Member:

- ✓ Apple: 203
- ✓ Grape: 89
- ✓ Strawberry: 78
- ✓ Tomato: 248

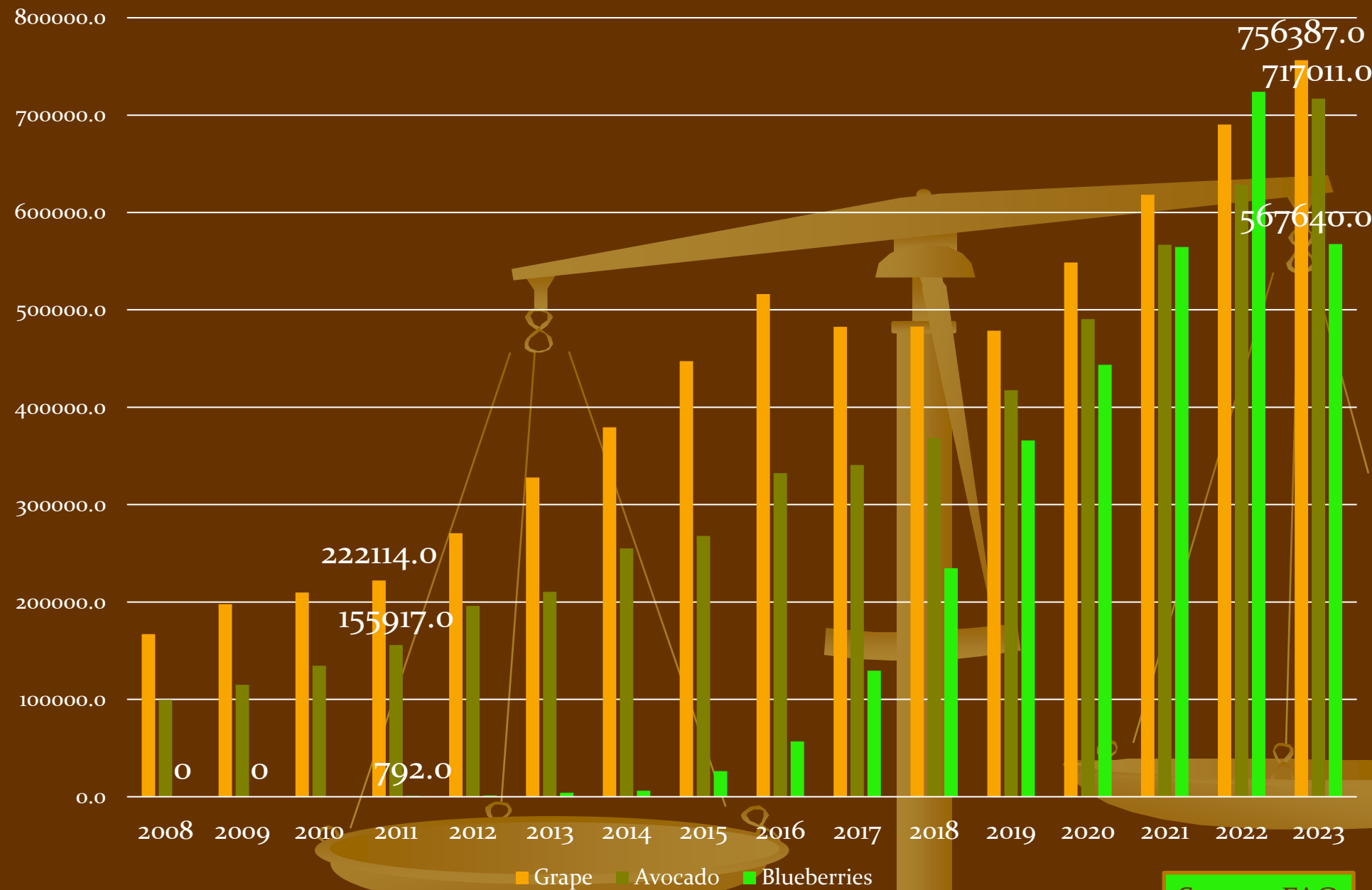
❖ Source: From UPOV

Gross Production Value of some fruit crops in Peru (1000 USD)

No Applications for Grape, Avocado and Blueberries in Peru after they join UPOV on 2011:

- ✓ Grape: 124
- ✓ Avocado: 18
- ✓ Blueberries: 158

❖ *Source: From UPOV*



Source: FAO

Ability for being of UPOV Member (by comparison with Vietnam)

LAO PDR

- ✓ Time to access UPOV conception until now: 23 years (2003-2026)
- ✓ Capacity for Technical examination: Established
- ✓ Situation on agriculture: 85% is food crops
- ✓ Export: More than 70 fresh/products of crops during 2020 – 2025 (FAO data)
- ✓ Income/Person: over 2,100 USD (2025)
- ✓ UPOV Family: 100 Members

VIETNAM

- ✓ Time to access UPOV conception to join: 11 years (1995-2006)
- ✓ Capacity for Technical examination: Established
- ✓ Situation on agriculture: 80% is food crops
- ✓ Export: Less than 30 fresh/products of crops during 2000 – 2005 (FAO data)
- ✓ Income/Person: 640 USD (2005)
- ✓ UPOV Family: 62 Members

✓ **Detail information:**

- Vietnam Seed Service
support Centre (VSC)
- Room 314, A2 Build. No1B
Bacson str. Ngocha, Badinh
Hanoi – VIETNAM
- email:
minh_pvp@yahoo.com
Mobi: +84912232151

