



**UPOV**

**MAFF**  
Ministry of Agriculture,  
Forestry and Fisheries  
農林水産省

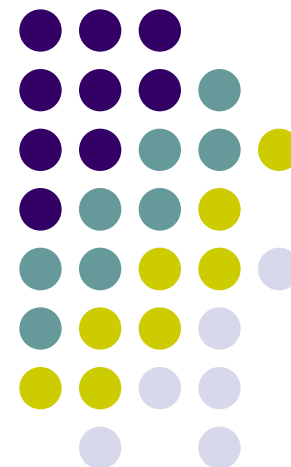


# Recent PVP Development and Challenges in Myanmar

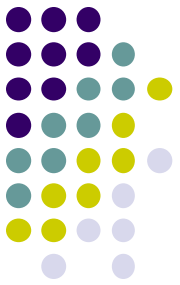
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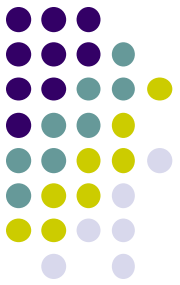
# Outlines:

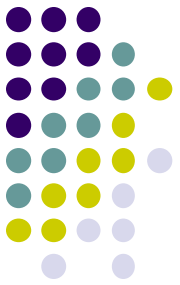


- I. Receiving & Utilization of New Plant Variety
- II. Organization Structure of DAR, *PVP*
- III. Recent Activities for PVP System Establishment
- IV. Challenges for PVP Adoption

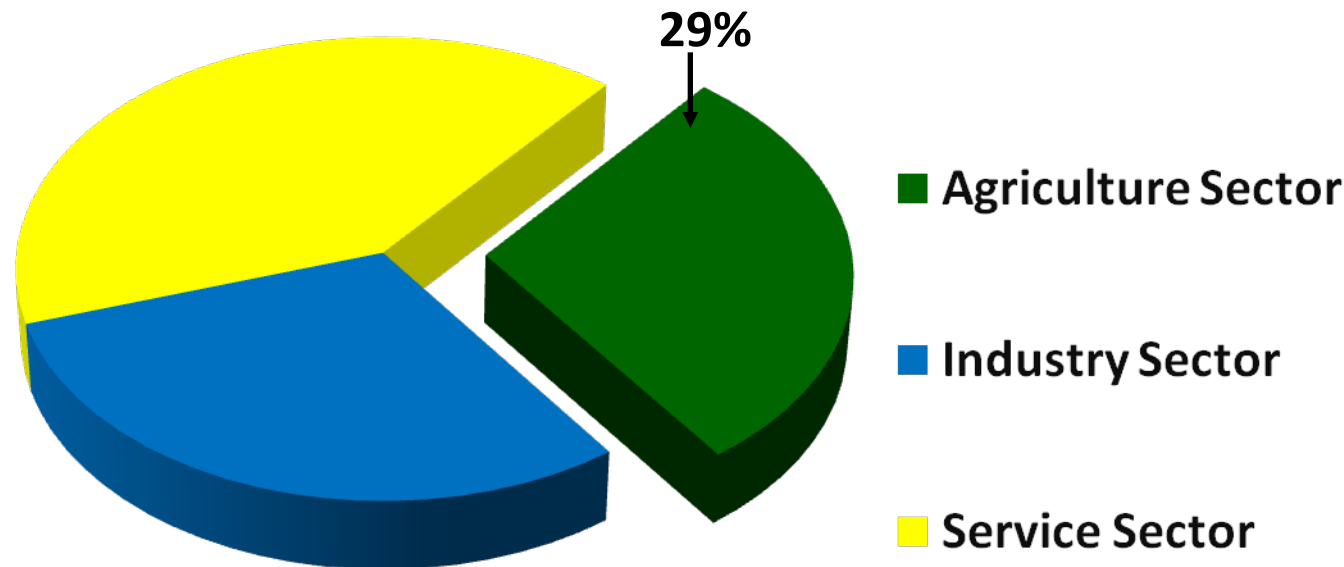
# Introduction

- ✓ **Agriculture sector is the backbone of Myanmar economy**
- ✓ **Development in agriculture sector will enhance the socio-economic development of the country**



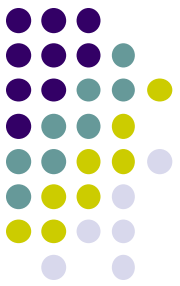
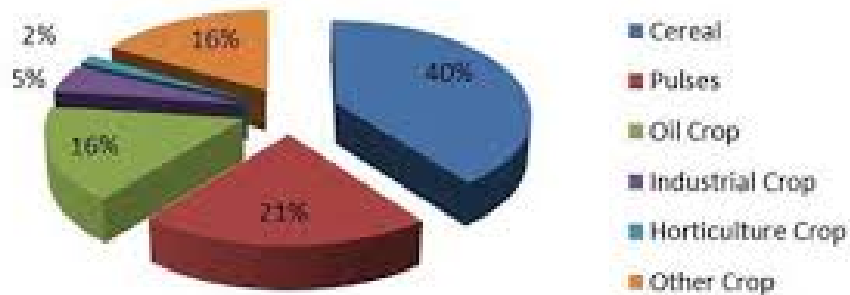


# National Gross Domestic Product (GDP)



Source: Myanmar Agriculture at a Glance (2016)

✓ Government is dedicating tremendous efforts to achieve greater progress in the agriculture sector



- ✓ Myanmar has a huge potential to become a **credible global food supplier**
- ✓ To attain this potential, Myanmar will need to intensify its agriculture and enhance **farm productivity and competitiveness**
- ✓ Myanmar Government laid down the required **Agriculture Policy**

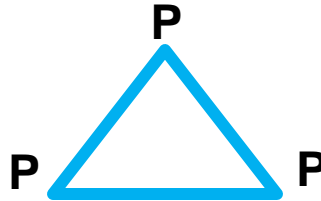
To emphasize production and utilization of high-yielding and good quality seeds

# National Seed Industry - (PVP system)

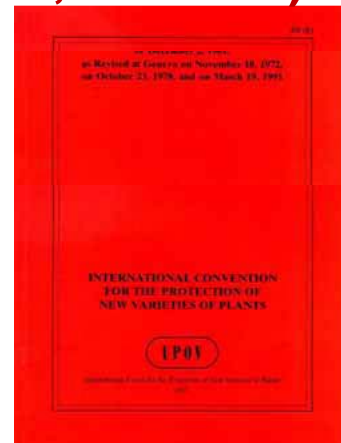
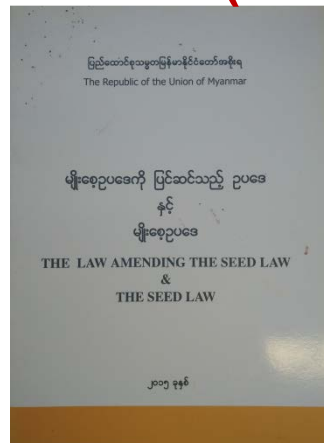
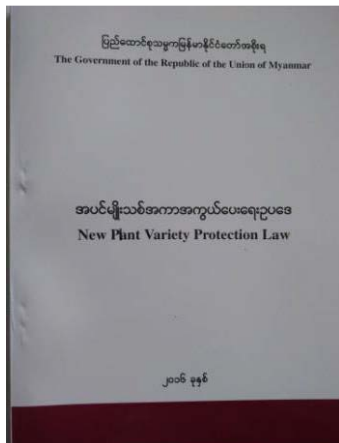
- What is PVP? How to relate with the development and utilization of New Plant Variety for our society.

- At present, the seed industry is leading role in government sector.
- Not enough (eg: about 10% of rice growing fields covered by formal seed system)

- Informal seed system



Now, government sector is encouraging private companies for increasing crop production through the control of systematic approach under **Related Laws ( Seed Law, PVP law)**



**NSC**



## II. Organization Structure of DAR, *PVP*



### VISION

Food Security and nutrition with the impact of innovative advanced crops variety and production technology research

Director  
(Admin)

Director  
(Rice &  
Other  
Cereal  
Crops)

Director  
(Oil Seed  
Crops &  
Food  
Legumes)

Director  
(Industrial  
Crops &  
Horti:)

Director  
(Soil,  
Water &  
Agr:  
Engin:)

Director  
(Biotech:,  
Plant  
Genetic  
Resources  
& Plant  
Protection)

Director  
(Agro:,  
Agr:  
Economics  
&  
Statistics)

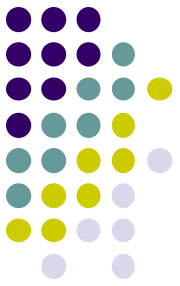
Total of 26 Sections are well set up in HEAD Quarter & 25 Satellite farms

**PVP  
Section**

⇒ Set up in 2016 May contact for BR application to  
PVP section, DAR, Yezin, Nay Pyi Taw, MYANMAR

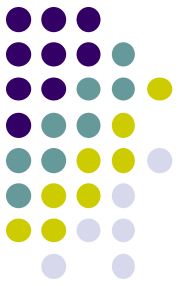


### **III. Recent Activities for PVP System Establishment (PVP Background in Myanmar)**

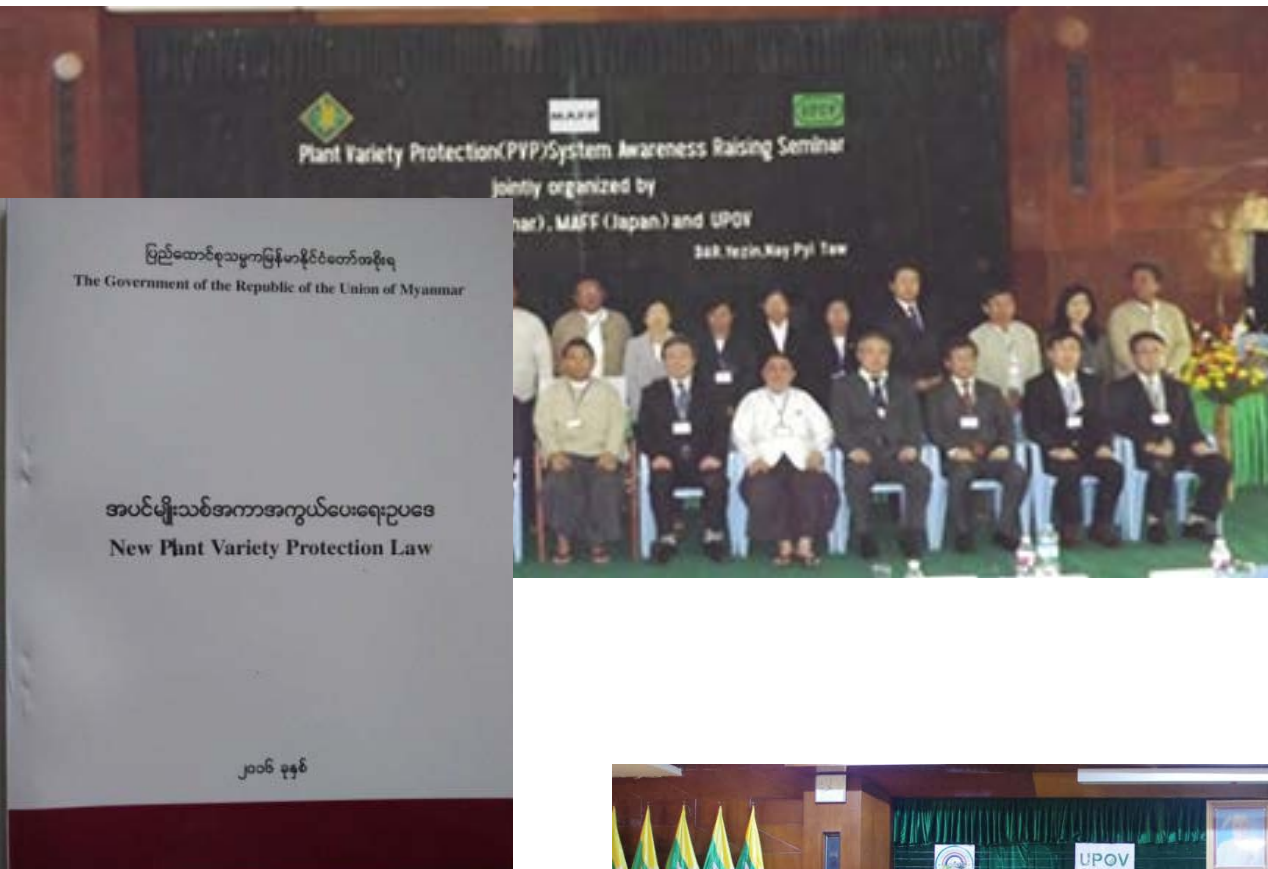
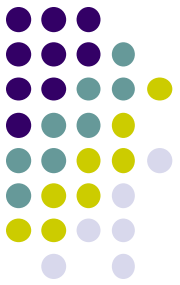


- ⇒ **1994** - A party to the Convention of Biodiversity
- ⇒ **1995** - WTO's member
  - Aware of importance of PVP system and Intellectual Property Rights
- ⇒ **2004** - Participated to the UPOV- INGER Workshop
- ⇒ **2006** - Participated to conduct DUS test (INGER)

# PVP Background in Myanmar



- ⇒ **2007** - Member of EAPVP Forum
- ⇒ **2009** - PVP TWG started to organize with 10 members in DAR
- ⇒ **2003 - now** - joined PVP related Trainings, Workshops and Seminars



**1<sup>st</sup> time PVP system awareness seminar jointly organized by UPOV, MAFF Japan, MOAI Myanmar at 2012**

**2<sup>nd</sup> time PVP system awareness seminar jointly organized by UPOV, MAFF Japan, USPTO, MOALI Myanmar at 2016**



# Objectives of Myanmar PVP Law

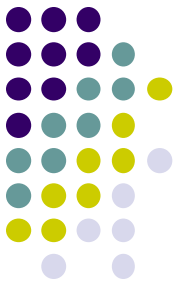


- to protect of the rights of breeders of new plant varieties
- to develop the activities of plant breeding
- to encourage investments in and development of the breeding of new plant varieties in both public and private sectors
- to assist the agricultural sector development by producing and cultivation of the new improved varieties

**44 articles – PVP law**







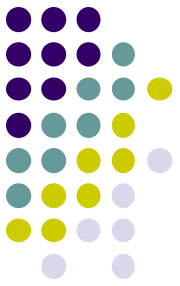
**1<sup>st</sup> time PVP law amendment meeting with UPOV lawyer in Myanmar at 2016**



**2<sup>nd</sup> time PVP law amendment meeting with UPOV lawyer in Myanmar at 2017**



**In country training for PVP system implementation jointly organized by Naktuinbouw Variety Testing Department and Wageningen University, the Netherlands and DAR, MOALI, Myanmar at January 2017**







# Practical Exercise



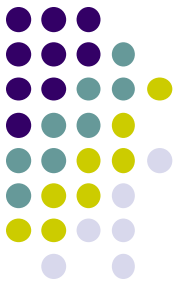


# Field Visit

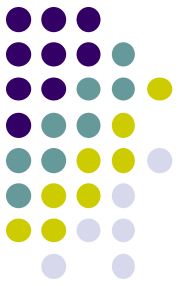




# Visiting Lecture from Japan, Korea & Vietnam



# PVP knowledge Sharing training



**PVP Section  
Staffs**

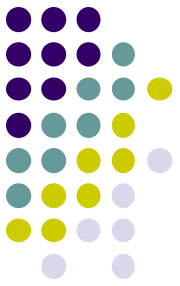
**July 2017**

**DAR, Myanmar**

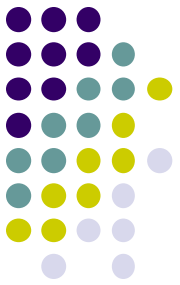
**20-DAR Crop  
Specialization  
Staffs**



# IV. Challenges for PVP Adoption



# Policy Constraints



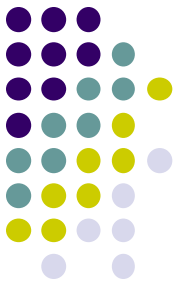
- 👉 Weakness in clearer policies for sector, crops , varieties with priorities
- 👉 Intellectual properties rights not well enforced
- 👉 Weakness in market-driver policy
- 👉 Weakness in clear policy on variety accreditation and registration
- 👉 Insufficient budget allocation to Research and Development
- 👉 Credit provision to producers for seed production

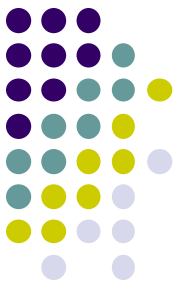




# Institutional Development

- ↪ Implementation enforcement of laws and regulations (seed law, PVP law) from local government to grass-root level
- ↪ Needs to promote capacity building (Institution, HRD)
- ↪ Establishment of seed industry associations
- ↪ PVP certification system enhancement
- ↪ Community seed bank, farmer groups and seed accreditation
- ↪ Institutionalization of farmers participatory seed development and production
- ↪ Strengthen International collaboration for Research and Development





# Infrastructure and Facilities

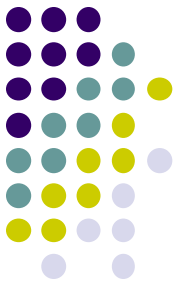
- ★ Advanced seed and grain quality laboratory
- ★ DUS test station
- ★ Equipment : Advanced equipment for plant  
DUS testing
- ★ Molecular DNA laboratory for EDV case
- ★ Seed health facilities
- ★ Data Management facilities



Tests	Results / Resultats / Resultados / Ergebnisse				
Leukocytes/Leucocytes Leucocitos/Leukozyten	neg.	trace	++ 70	+++ 120	+++ 500 WBC/ $\mu$ L
Nitrite/Nitritos Nitrit	neg.	trace	pink		
Urobilinogen/Urobilinogène Urobilinógeno	0.1 +normal 1.0	2.0	4.0	6.0	8.0 mg/dL
Protein/Protéines Proteínas	neg.	trace	+500.0	+++1000.0	++++2000.0 mg/dL
pH	5	6	7	8	9
Blood/Sang Sangre/Sut	neg.	hemolysis trace	++ 80	+++ 200 Non Hemolytic	+++ 80 RBC/ $\mu$ L
S.G/Densité Densidad/Spec.Gew.	1.020	1.025	1.030	1.035	1.040
Ketones/Cétones Cetonas/Ketonkörper	neg.	<100.0	+150.0	+++500.0	+++1000.0 mg/dL
Bilirubin/Bilirubine Bilirubina	neg.	<1.0	+	++	+++
Glucose/Glucose	neg.	<100.0	250.0	500.0	1000.0 mg/dL

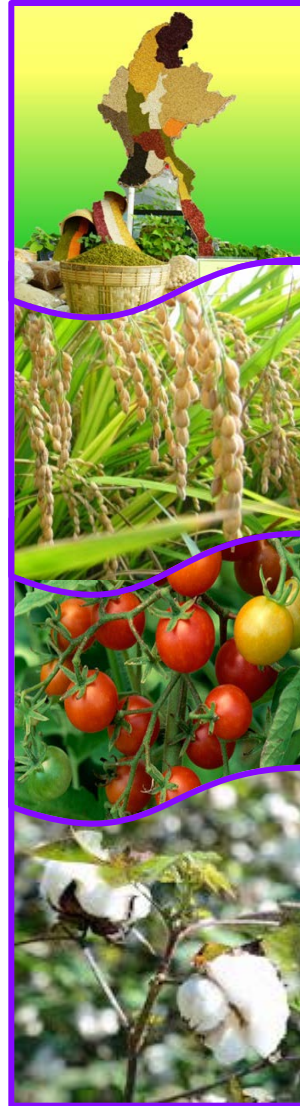


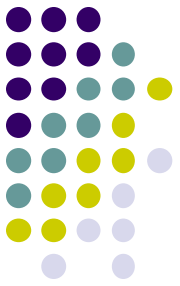
# Conclusion



Specify of the technical skills of PVP  
staffs for DUS testing and PVP  
Administrative knowledge

It is need to support through strong collaboration  
with international & through **higher level  
awareness** for harmonized PVP system.





# Thank You

