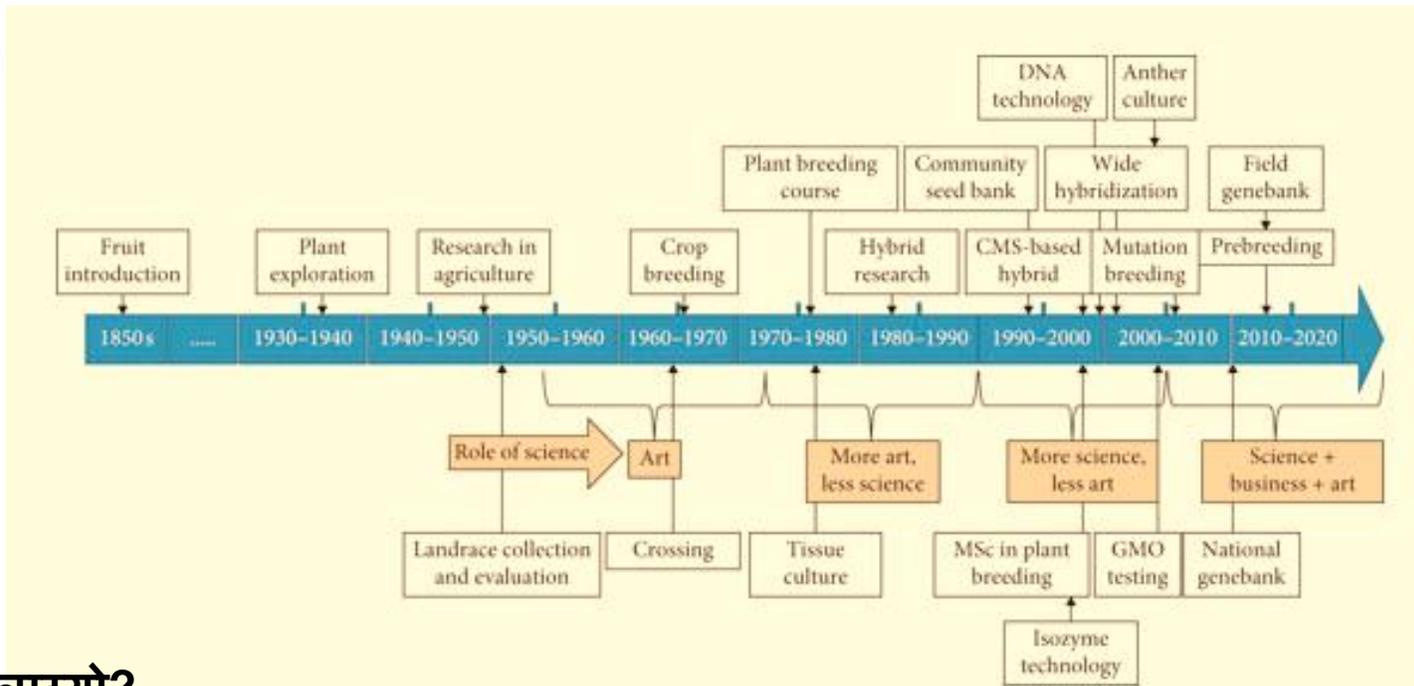




Multistakeholder Consultation Meeting on Plant Variety Protection and Farmers' Rights (PVP&FR) System in Nepal  
18 July 2024 (3:00-6:30 pm)  
SQCC and USAID Agricultural Inputs

# Plant Variety Protection System in Nepal: Where we are? +FR

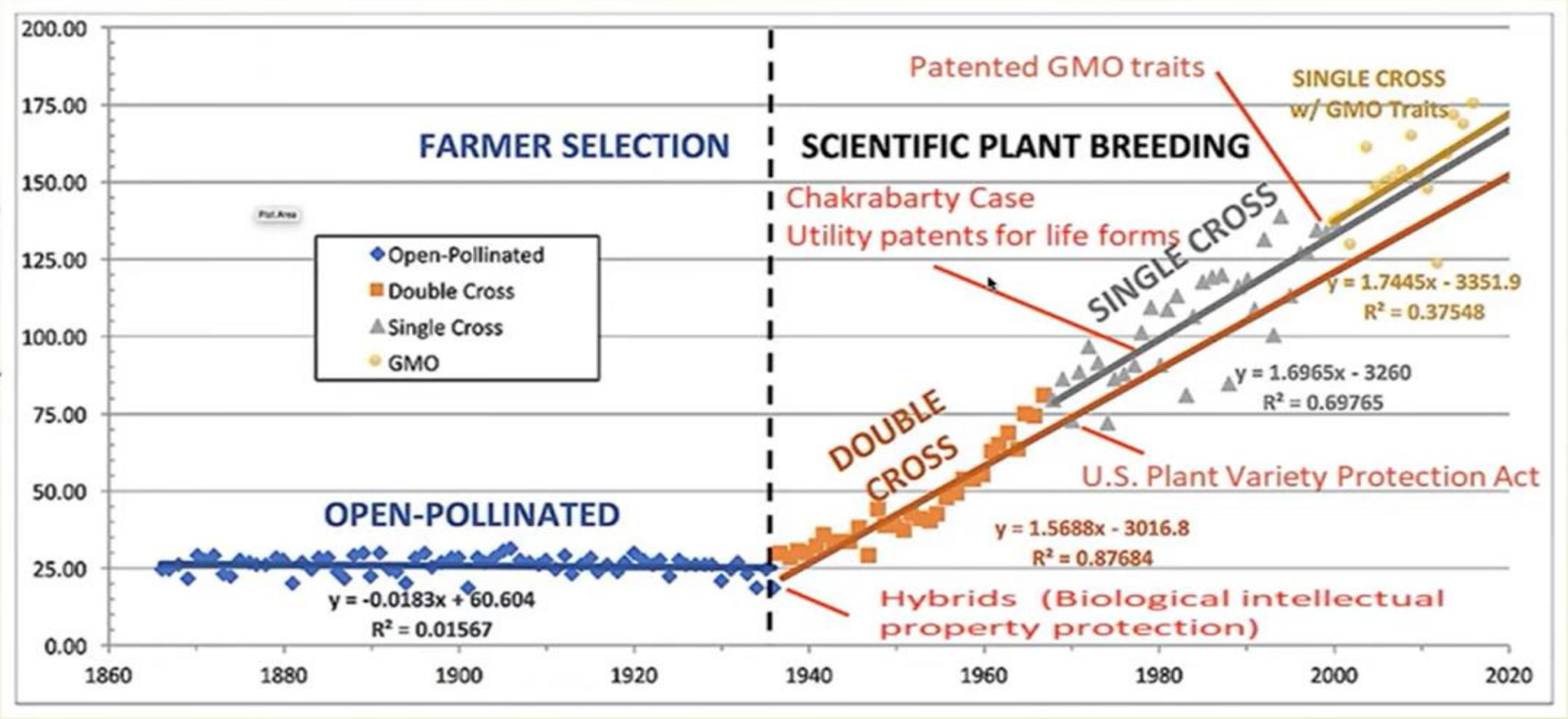


Bal Krishna Joshi  
Genetics and Plant Breeding  
National Genebank, NARC  
PBaGSoN (Plant Breeding and Genetic Society of Nepal)  
[joshibalak@yahoo.com](mailto:joshibalak@yahoo.com)

घैटोमा घाम लाग्यो?

Asexual because of not stable?  
Clone: to monopolize the marker?

# U.S. Corn Yields and PVP



Source: Trends in Corn Yields (1866 – 2016), Investment in corn research has led to yield improvements once thought unattainable

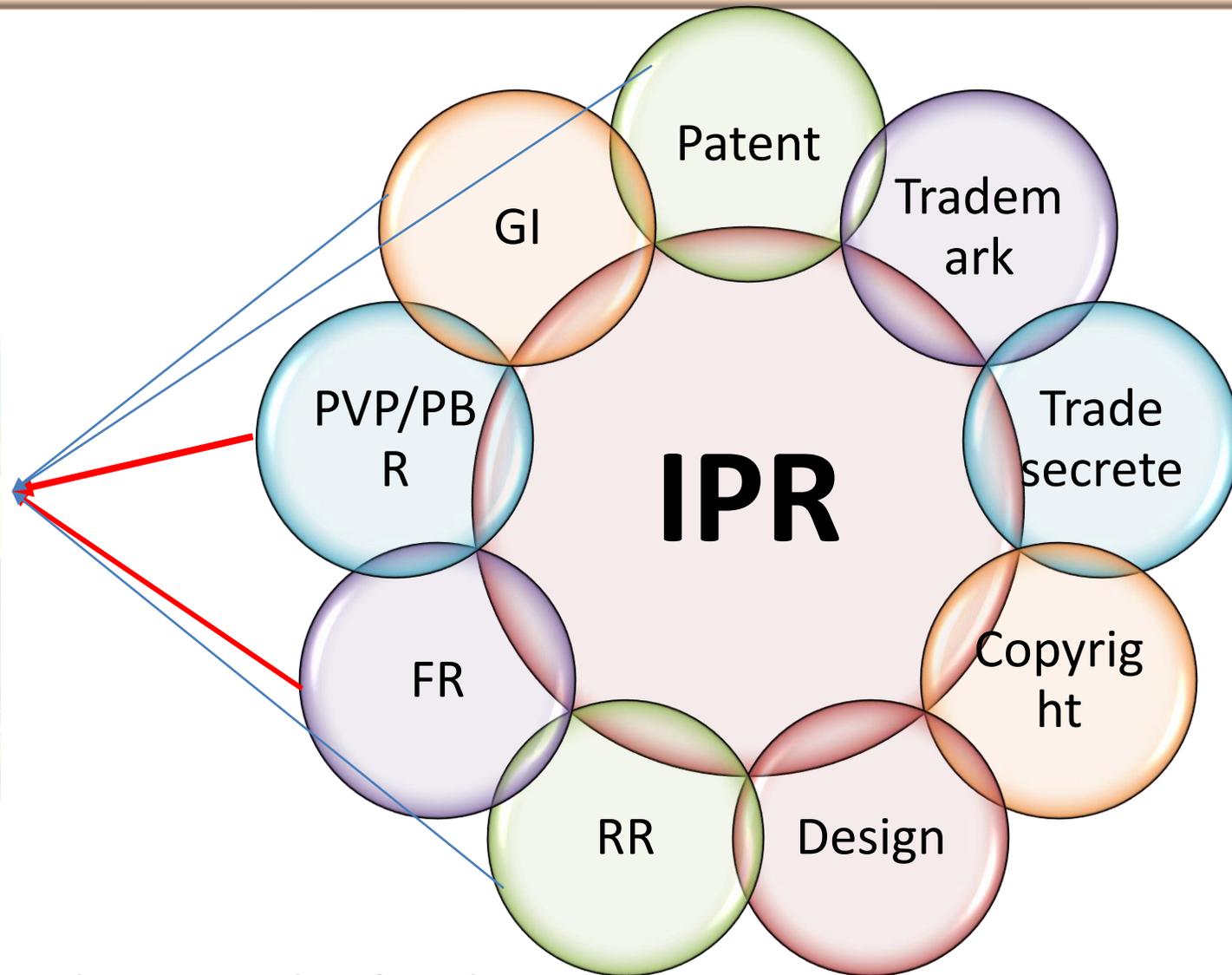
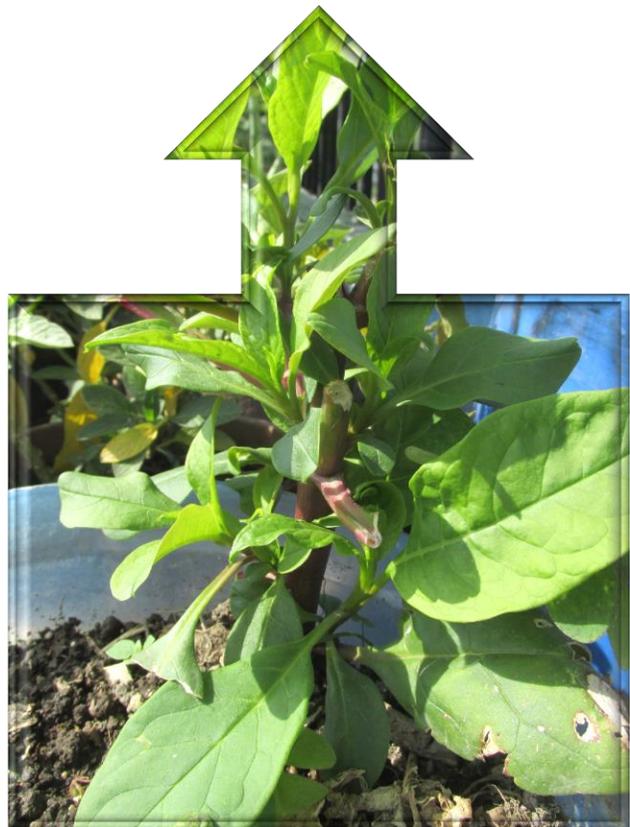


## IPR/ background

- **Property:** Physical and Intellectual
- **Intellectual Property (IP):** **creations of the mind** such as inventions, literary, artistic works, symbols, names, designs, images etc
- **Intellectual Property Right (IPR):** the rights given to people over the creation of their minds. An exclusive right over the use of his/her creations for a certain period of time
- **The Venetian Patent Statute of March 19, 1474,** established in the Republic of Venice the first statutory patent system in Europe



# Types of IPR (>10)



Plant Variety Protection = Plant Breeders' Rights



## Why PVP and FR

- Encourage the intellectual works/ Increase performance level
- Financial benefit
- Monopolize the market
- Fair competition, quality, speed up the invention
- Recognition
- Society benefit
- Conservation of native agricultural genetic resources?
- Exclusive IP rights (exclusive monopoly), licensing, and royalties support investment in plant breeding



# International practices/systems /Global context

- Similar to patent and copyright
- Very common in private sector (PVP not FR)
- On volunteer basis
- N-DUS-D

**Pakistan**  
Plant Breeders'  
Rights Act, 2016

**Canada**  
Plant Breeders'  
Rights Act 1990

**Bangladesh**  
Plant Varieties Protection Act, 2019  
protection of the rights of breeders  
and farmers

**India**  
Plant variety  
protection and  
farmers' rights  
act 2001

**USA (PTO and PVPO)**  
Plant Variety Protection Act 1970  
Plant Breeders' Rights: 1. Plant  
variety protection, 2. plant patents,  
3. utility patents

**Japan**  
Plant Variety  
Protection  
and Seed Act  
(1998)

**Bhutan**  
Biodiversity Act of Bhutan, 2003  
Both farmers' and breeders' rights are  
recognized and protected under the Act

**UPOV (79 countries)**  
Yes: China, Japan, Korea, Vietnam, South Africa  
No: Nepal, Bhutan, India, Bangladesh, Pakistan



# Europe: Community Plant Variety Office (CPVO), <https://cpvo.europa.eu/en>



English EN

## EU Plant Variety Protection System (27 states)

Your Europe > Business > Running a business > Intellectual property

>3000 applications each year

- Home
- Dealing with customers
- Finance and funding
- Product requirements
- Human resources
- Running a business
- Selling

Last checked: 06/04/2022

## Intellectual property

- ЄС підтримує Україну
- EU stands with Ukraine

If you own intellectual property, you need to know how to manage and protect it. Check the benefits of protecting your intellectual property, the types of protection available and the procedures to follow.

- Intellectual property rights
- Patents

- Intellectual property rights
- Patents
- Trade marks
- Copyright
- Trade secrets
- Design protection
- Website domains
- Database protection
- Geographical indications



# International Union for the Protection of New Varieties of Plants (UPOV)

**UPOV's mission is to provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society.**

File Edit View History Bookmarks Tools Help

(3) Facebook x declaration for ipr - Google Sea: x upov Mission Statement x + <https://www.upov.int/about/en/>

https://www.upov.int/about/en/

Deutsch Español Français Other »

UPOV

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ABOUT UPOV MEMBERSHIP UPOV SYSTEM PVP DATA & STATISTICS MEETINGS NEWS

ABOUT UPOV

- Mission Statement
- Overview
- Organigram
- Office of UPOV
- Officers
- UPOV Convention
- Benefits of UPOV System
- COVID-19 measures for breeders
- Key Issues
- FAQs
- Publications

HOME » ABOUT UPOV »

### Mission Statement

To provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society.

▲ Top of page

**Harmonization of all countries on plant protection**

Quick Links

- Impact Study, PDF
- UPOV Collection
- Test Guidelines
- Distance Learning Course

Introduction to UPOV

Multimedia presentation

Type here to search

76°F 8:32 PM 6/12/2022



# Patents

A 'Patent' gives an inventor exclusive rights to use their invention for a limited time. These rights will prevent other parties from copying or selling the invention without the permission of the inventor.

Useful, novel/ new,  
non obvious  
  
The products of  
nature?

- **Plant Patents:** are issued for new varieties of plants which have been asexually reproduced.
- The new variety must be novel, distinct and non-obvious
- Plants discovered in nature are not patentable.
- A plant patent has the same length of term as a utility patent.

- Utility Patents
- Design Patents
- Plant Patents

- **Utility Patents:** are issued for “. . . any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.”
- Valid for twenty (20) years from the date of filing or the earliest priority date.

- **Design Patents:** are issued for novel, non-obvious, ornamental design in an article of manufacture, in other words, for its appearance.
- The term of a design patent is fourteen (14) years from the date of grant.



# Period of Protection

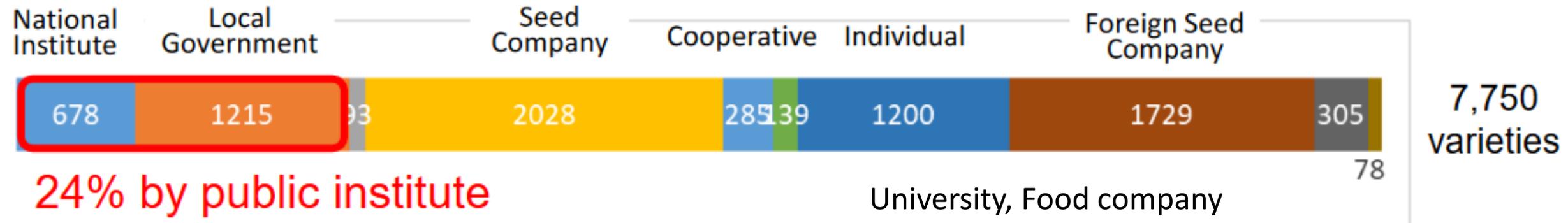
<b>PATENT</b>	: 20 years (renewed every year)	<b>7</b>
<b>PLANT VARIETIES</b>	: 18 years, 15 years (renewed after 6 <sup>th</sup> year/9 <sup>th</sup> year)	
<b>GEORAPHICAL INDICATIONS</b>	: No limit(renewed every 10 <sup>th</sup> year)	
<b>TRADEMARK</b>	: No limit (renewed every 10 <sup>th</sup> year)	<b>7</b>
<b>COPYRIGHT</b>	: Life time of the author plus 60 years /60 years from the date of publication)	<b>Life+50 yrs</b>
<b>INDUSTRIAL DESIGNS</b>	: 10 +5 year(renewed after 10 <sup>th</sup> year)	<b>5</b>



# Total Protected Varieties

PVPO, USDA: receives approximately 500 applications per year and More than 445 certificates are issued annually

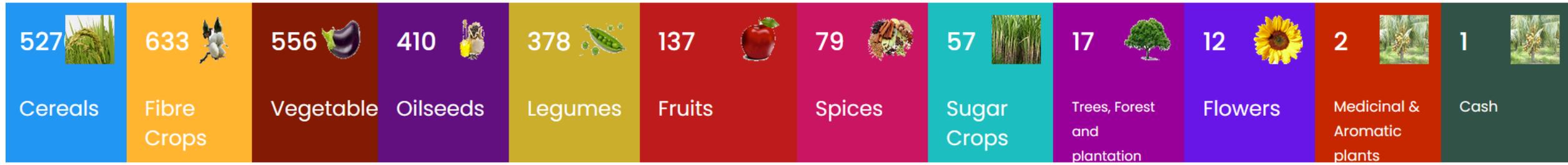
## Japan



## India

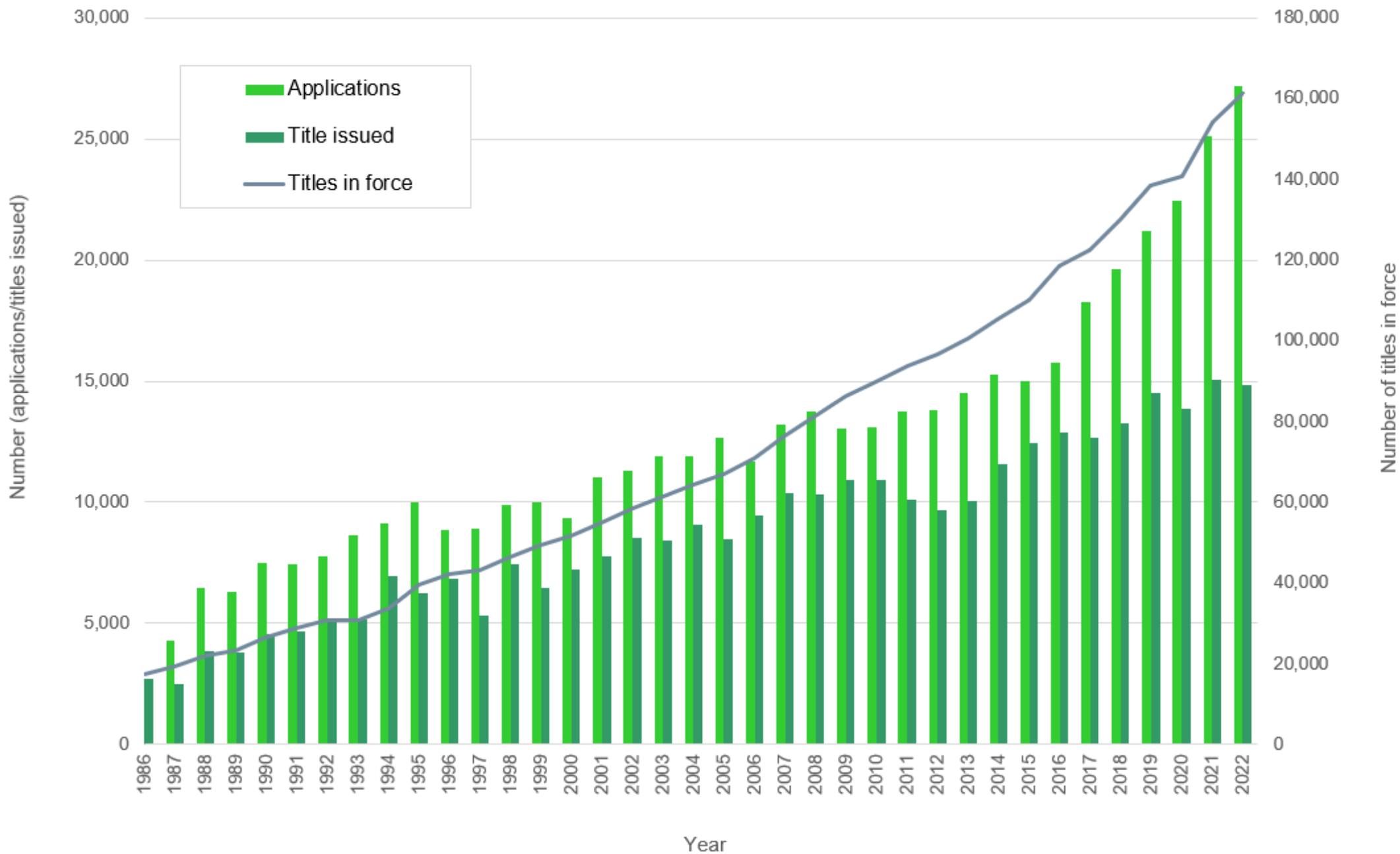
7552 Certificates issued crop group-wise as on 10.07.2024

Farmer: 4069





# Total application filed, titles issued and titles in force



# Rationale: National Legislation



**Nagoya Protocol**, National Environment policy 2019

The right to food and food sovereignty Act, Multisectoral nutrition plan II 2018-22

Zero hunger challenge national action plan 2016-25

- नेपालको संबिधान, धारा २५ मा सम्पत्तिको हक अन्तर्गत बौद्धिक सम्पत्तिलाई मौलिक हकको रूपमा व्यवस्था
- औद्योगिक नीति, २०६७ र वाणीज्य नीति २०७२ मा बौद्धिक सम्पत्ति संरक्षणको व्यवस्था

Food and nutritional security plan of action 2013

**ITPGRFA-2004** 2009

**Biotechnology policy** 2006

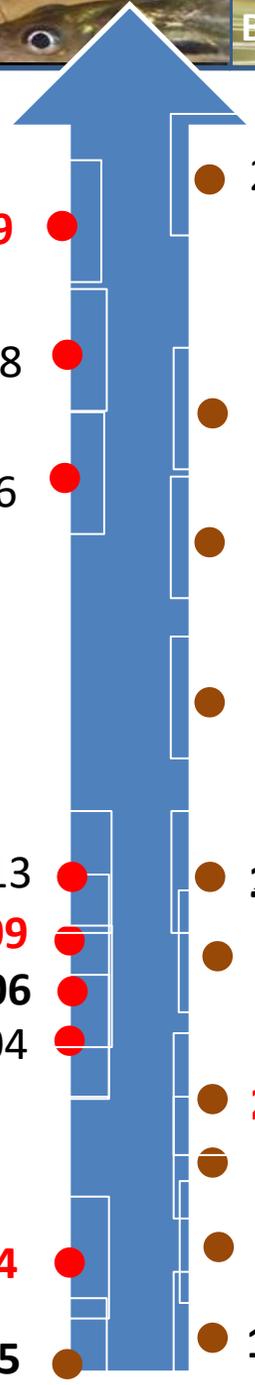
National nutritional policy and strategy 2004

**TRIPS/WTO-1995**

**CBD-1992 (community rights)** 1994

UPOV 1961 x

Patent 1965



2020 Second Nationally Determined Contribution (NDC) 2021-2030

**2017 IPR Policy**; ITPGRFA-MLS Implementation Strategy and Action Plan (IMISAP)

2015 Community Seed Bank Establishment Operational Guidelines, **Agriculture Development Strategy (FR)**

2014 National Biodiversity Strategy and Action Plan 2014-2020, **Agro-biodiversity Policy 1<sup>st</sup> amendment (FR)**

**2013 National Seed Vision 2013-2025**

2008 Community Seed Bank Program Implementation Guidelines, Seed Act 1988 (Amendment)

**2002 Copyright act**

1999 National Seed Policy (rights over the seeds)

**1997 WIPO-1967**

**1988 Seed Act (2<sup>nd</sup> amendment 2022) (ownership cert)**



# TRIPS

## Trade Related aspects of Intellectual Property Rights (TRIPS)

- It is an international agreement administered by the World Trade Organization (WTO) that sets down minimum standards for many forms of Intellectual Property (IP) regulations for all the members of WTO.
- The TRIPS agreement introduced intellectual property law into the international trading system for the first time and remains the most comprehensive international agreement on intellectual property to date.

Following are the Intellectual Property Rights that are covered under TRIPs

- 1) Patents;
- 2) New plant varieties;
- 3) Geographical indications;
- 4) Trademarks;
- 5) Copy right;
- 6) Industrial designs.





# WIPO: <https://www.wipo.int/about-wipo/en/>

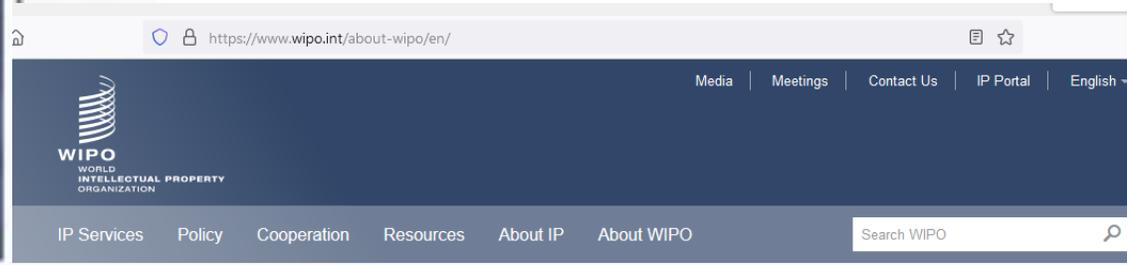
## World Intellectual Property Organization (WIPO)

193 member states

"The agreement to establish the World Intellectual Property Organization" was signed at Stockholm in 1967 and came into force in 1970.

There are three major functions of WIPO :

- 1.Registration activities
- 2.Promotion of inter-governmental cooperation
3. Promotion of substantive activities



### Inside WIPO

#### What is WIPO?

WIPO is the global forum for intellectual property (IP) services, policy, information and cooperation. We are a self-funding agency of the United Nations, with 193 member states.

Our mission is to lead the development of a balanced and effective international IP system that enables innovation and creativity for the benefit of all. Our mandate, governing bodies and procedures are set out in the WIPO Convention which



Video: WIPO in three minutes





# ITPGRFA, Farmers' Rights and Traditional Knowledge

- The ITPGRFA specifies that “**recipients shall not claim any intellectual property or other rights** that limit the facilitated access to the PGRFA or their genetic parts or components in the form received from MLS”
- Access and Benefit Sharing (ABS) mechanism
- **Treaty Art. 9 – Farmers’ Rights**

Parties should take measures to protect and promote Farmers’ Rights, including:

  - protection of traditional knowledge relevant to PGRFA
  - the right to equitably participate in sharing benefits arising from the utilization of PGRFA
  - the right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of PGRFA
- **Nagoya Protocol provisions on TK**
  - Parties shall take measures ... that TK associated with GR ... is accessed with **PIC** and that **MAT** are established with the knowledge holders (Art. 7 NP)
  - Art. 12 NP obliges Parties to set up **meaningful procedures** for obtaining PIC and negotiating MAT with ILCs and to provide support to communities in this regard.





# राष्ट्रिय वौद्धिक सम्पत्ति नीति, २०७३ (National Intellectual Property Policy, 2017)

- (ख) पेटेण्ट नीति (कानून)
- (ङ) भौगोलिक संकेत नीति (कानून)
- (च) वनस्पतिका प्रजाति संरक्षण समन्धी नीति (कानून)
- (झ) परम्परागत तथा मौलिकज्ञान समन्धी नीति (अभिलेखीकरण, विधुतिय पुस्तकालय)
- (ट) जैविक विविधता तथा आनुवंशिक स्रोतको बौद्धिक सम्पत्ति सम्बद्ध पक्ष समन्धी नीति (पशुपन्क्ष, किरा, शुक्ष्म जीवाणु... ब्यवस्था)





# बालिको जातीय विकास: दिमागी खेल



तर आधार: किसान



- सयौं जातहरुको अध्ययन
- १२ बर्ष (१-२०)
- घाम/ पानि/ हिलो/ धुलो

- दिमाग
- बिस्लेषण
- खर्च
- तौर तरिका निकाल्ने

नयाँ, फाइदाजनक, काम लाग्ने



सजिलै निस्कदैन

प्रकृतिमा भन्दा फरक



- Plant breeding (the foundation of agriculture) is an expensive, time consuming, resources intensive and highly specialized
- Costs range \$10K-10M per variety
- New varieties can easily be stolen, reproduced and sold without permission or fair compensation to the breeder

Development cost (fixed cost) very high

Reproduction cost (marginal cost) very low

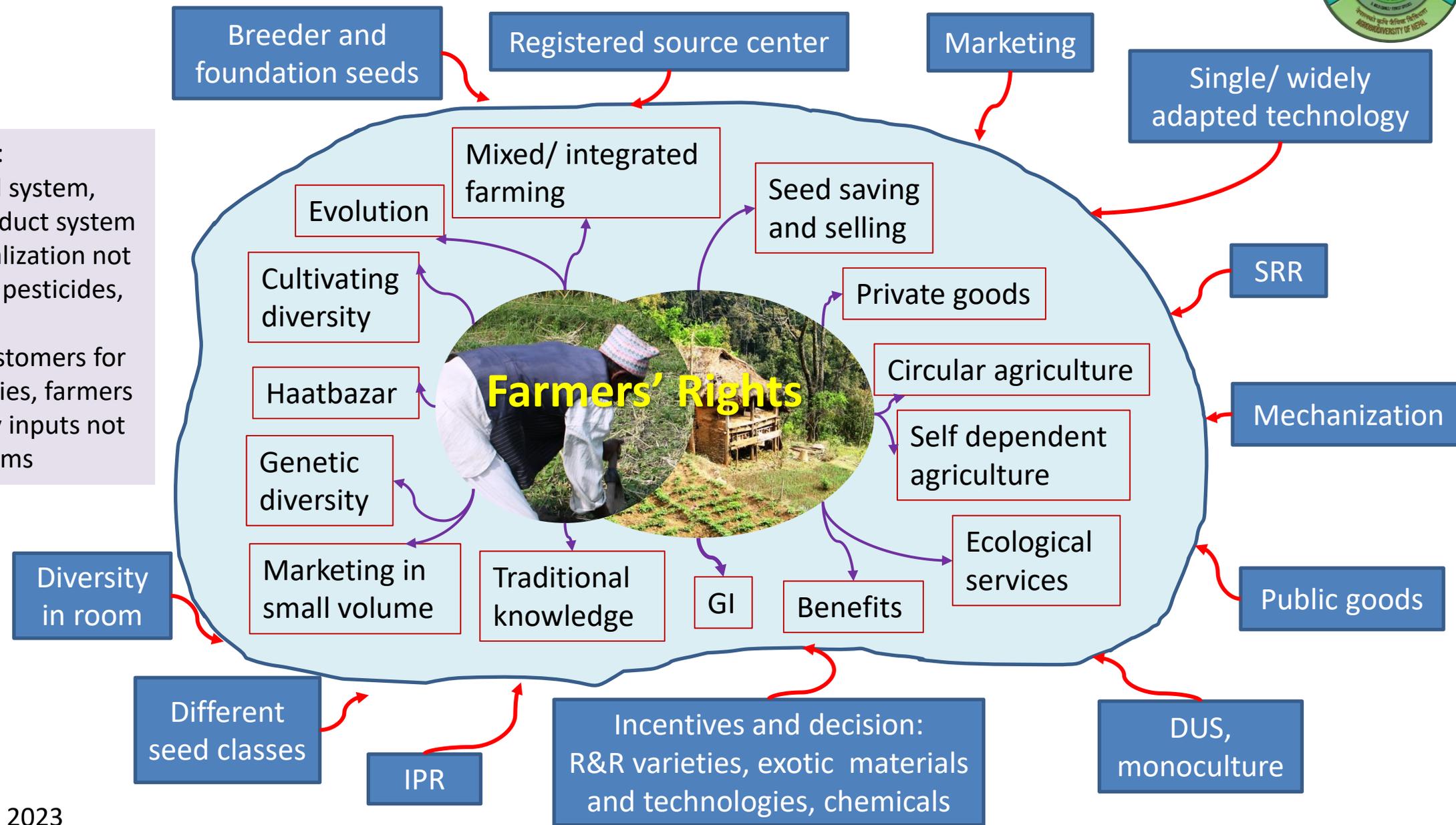
How breeders' rights can be protected?



# Farmers are slowly losing their rights?



- FR that promotes:
- Localized seed system, globalized product system
  - Product formalization not inputs (seeds, pesticides, fertilizers)
  - Farmers as customers for many companies, farmers produce many inputs not only edible items





## National context and Nepal's initiatives

- Many policy and strategy talked about IPR (PVP&FR) and ABS
- Informal IPR (PVP&FR) and ABS
- Individual exercise: NARC, Jugu Community
- Not any IPR to agricultural technology, process, products and genotypes (except by business person)
- Does not have any legal mechanism for variety protection
- Seed regulation: Ownership certificate, registration, release
- 85-100% exotic varieties then how PVP works



# IPR Focal Point in Nepal

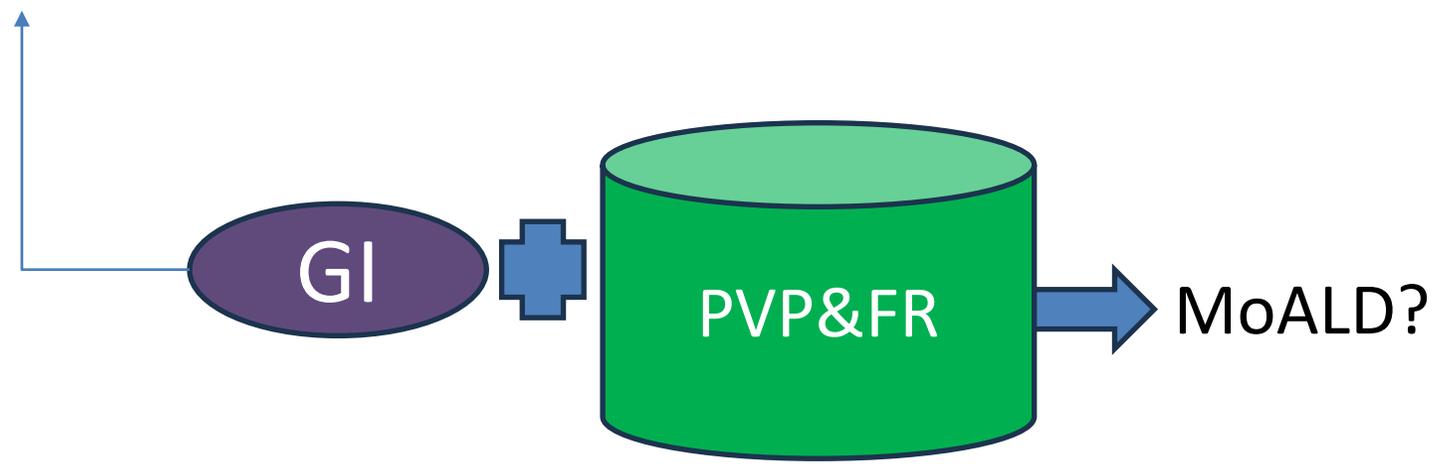
Government of Nepal  
 Ministry of Industry  
**Department of Industries**

Industrial Property  
 Patent, Design and Trademark  
<http://iponepal.gov.np/>

all international  
 organization /institution  
 including WIPO

Government of Nepal  
 Ministry of Culture, Tourism and Civil Aviation  
**Nepal Copyright Registrar's Office**

Copyright  
<https://www.nepalcopyright.gov.np/>





# Action track of PVP&FR initiatives in Nepal

## First draft

- Being member of WTO in 2004, Nepal is obligated to initiate “the drafting of the Plant Variety Protection Act”
- PVP in Nepal: *sui generis system (a special kind)*
- The first PVP draft bill in 2004-2005 (**PVP&FR 2005**)

## 2<sup>nd</sup> draft

- Revisions to the draft between 2006 to 2011 (2<sup>nd</sup> **PVP&FR 2008**), by MoALD, NARC, SQCC, SAWTEE, LIBIRD, and CEPREAD

## 3<sup>rd</sup> draft

- Technical Working Team (9 members) formed for Revision of PVP&FR 2008 in 2016
- Consultative visit to India in Jan 2017 for revision of PVP&FR 2008 (2065)
- Consultation meeting organized 5 times from 2015-2019
- Consultancy work in 2019
- **3<sup>rd</sup> PVP&FR 2018 (2075)**



# Major provisions in PVP&FR

## Breeders' Rights

- Breeders' rights as in UPOV, but subject to certain exemptions
- Varieties that have the characteristics of DUS and that have been registered under this law
- Rights granted to the breeders of a new variety
- Rights of breeders: production, sale, marketing, distribution, export and import
- **Researchers rights: free and complete access to protected materials for researches use**

## Farmers' Rights

- Farmers' rights to save, exchange, use/reuse (sow/resow), share, and sell, get benefit sharing, and to revocation and compensation
- Farmers' rights over farmers varieties as well as over protected varieties
- The role of farmers recognized in the definitions of breeders as well as farmers
- A farmer could be an individual or a community, and can establish and register a farmers' organization
- To have a decision making role
- Right over tradition knowledge
- The right to register plant varieties without paying any fee, the right to prior informed consent, and the right to know about the use of their varieties for research and development/bioprospecting



## Some issues

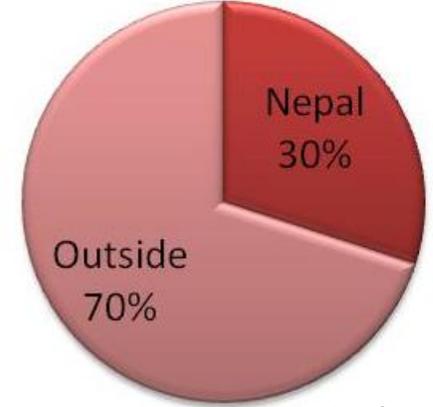
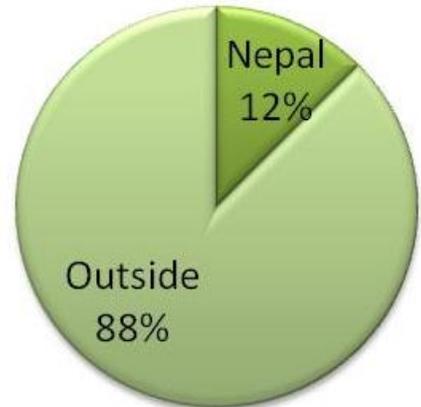
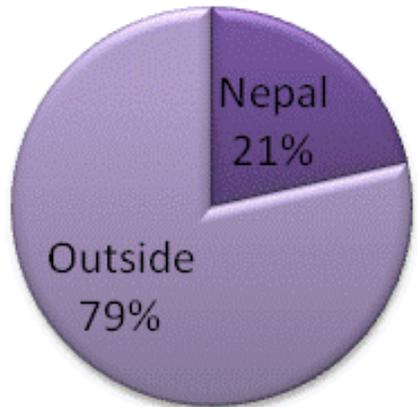
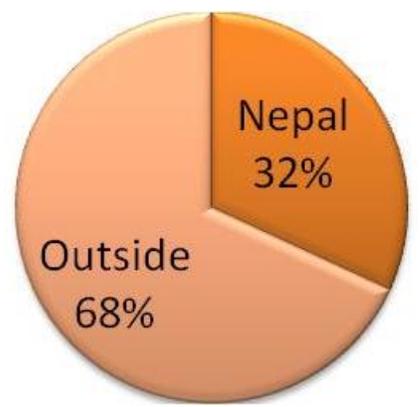
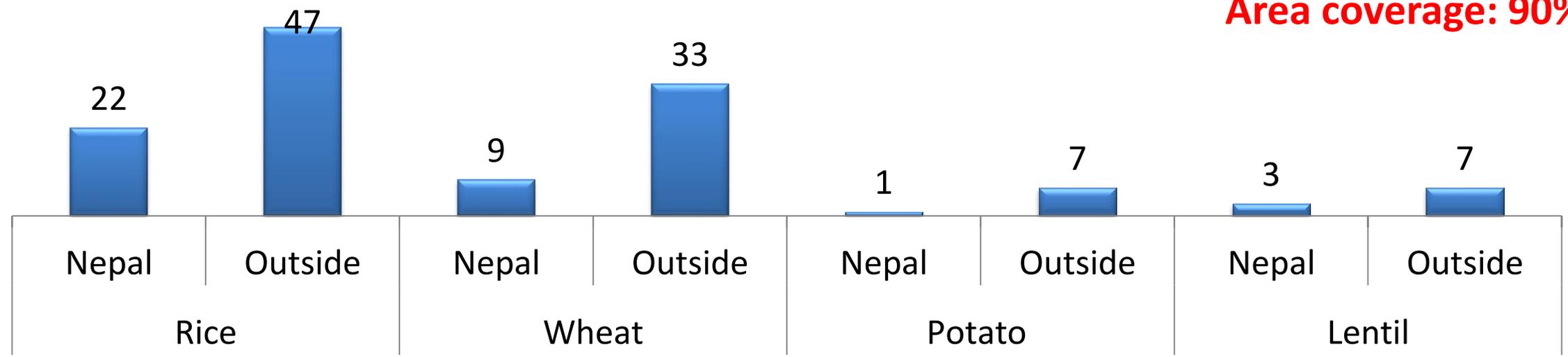
- Separate or combine PVP and FR?
- PVP or plant breeders' rights
- Agrobiodiversity and IPR
- Investment (only few companies), public breeder to private company (biopiracy)
- Public and private institute based breeders, individual breeders
- ABS and IPR
- Benefit to community/ farmers who provided the germplasm
- Farmers as primary knowledge generator
- R conflict R (RcR)
- Evolution/ functioning of seed companies due to breeder's efforts
- Enforcement and monitoring
- Patenting of genes, microorganisms, biological processes, and components of plants
- Geo coverage of IPR (province, national)
- PVP in research and education
- Farmer to farmer seed exchange



# Issues: How many varieties are eligible?

Slow poison for IPR (not eligible for introduced genotypes/ techs)

**Area coverage: 90%**





## How to move ahead (way forward) activities

1. Case study, empirical evidence generation
2. Preparing briefing paper and sharing widely
3. **Awareness and capacity enhancement at mass scale**
4. **Policy dialogue, debate**
5. Scoping the rights of farmers and breeders
6. Review and survey (global and national)
7. **FGD and KIS**
8. **Interaction workshop at local, province and national level**
9. Observation and interaction with neighboring countries (eg India visit)
10. Legal authority and journal



## Steps

1. Consent from cabinet to formulate PVP and FR
  2. Consultancy service/ group of experts for finalizing PVP and FR- Draft I and other activities as mentioned in above slide?
  3. Consultation meetings/ workshops and get feedback
  4. Revise draft I based on suggestions from meetings= Draft-II
  5. Exposure visit
  6. Revise draft II based on suggestion from visit = Draft-III
  7. Submit final PVP and FR Bill to MoALD
- Responsible organization/ designated office to prepare the draft?



## References

- IPR POLICY
- IPR ACT
- COPY RIGHT ACT
- AGROBIO POLICY
- SEED ACT
- SEED POLICY
- SEED VISION
- BIOTECH POLICY
- Draft
  - PVP&FR
  - ABS
  - ACU
- WIPO
- CBD
  - NAGOYA PROTOCOL
- ITPGRFA
- UPOV
- TRIPS
- Gauchan 2011, 2008, 2016
- Sah et al 2016
- Ale et al 2073BS
- Gauchan and Joshi 2019
- Kshetri 2013
- Panthee et al 2023



Thank you all  
SQCC  
Dr Rudra Shrestha

**Rights for  
invention and  
bringing smile  
in farming  
communities?**





## Additional points for discussion