

CarIPI - CARIFORUM Intellectual Property Rights and Innovation

Benefits of Plant Variety Protection under the UPOV Convention

May 19 , 2022

Leontino Taveira

Head of Technical Affairs and Regional Development (Latin America, Caribbean)

UPOV

International Union for the Protection of New Varieties of Plants

Summary

- Introduction
- Importance of new plant varieties to mitigate climate change
- Plant Variety Protection: new plant varieties for economic development



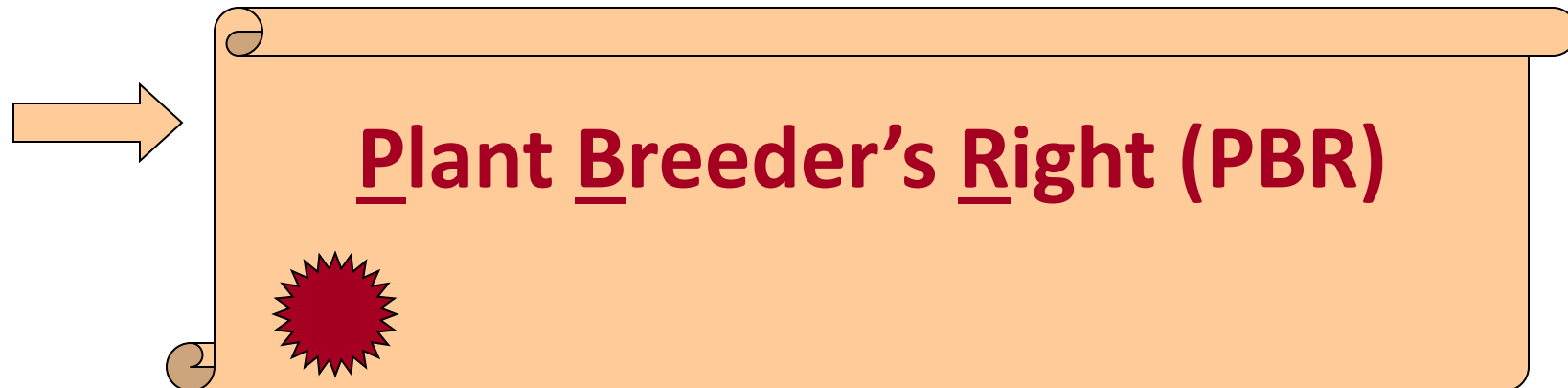
MISSION STATEMENT

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

UPOV

MISSION STATEMENT

To provide and promote
an effective system of plant variety protection...



1991 Act

Authorization of breeder required for:

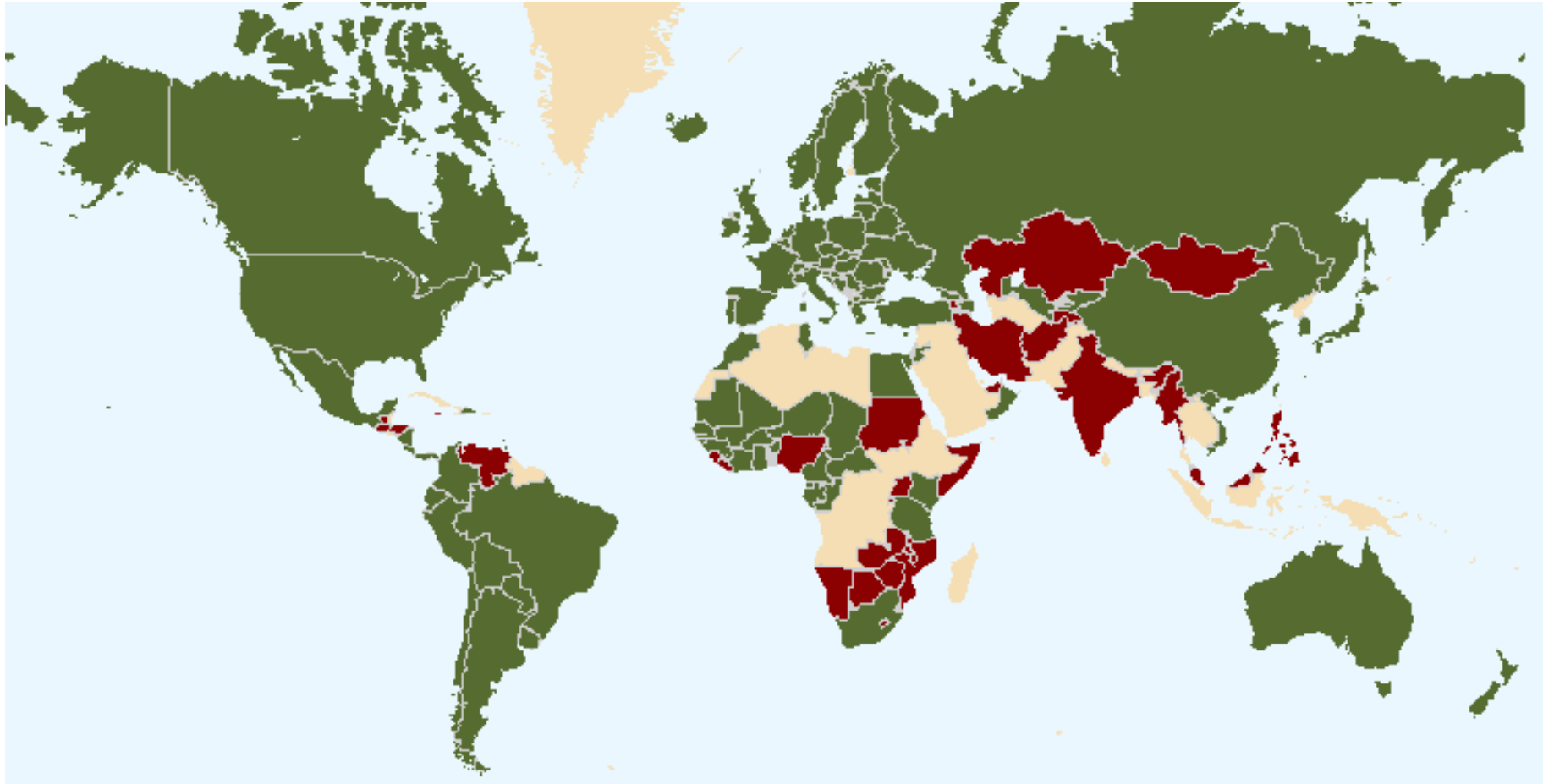
- Production or reproduction (multiplication)
- Conditioning for the purpose of propagation
- Offering for sale
- Selling or marketing
- Exporting
- Importing
- Stocking for any of the above purposes

Conditions and limitations

.... for any protected variety

78 members of UPOV

19 initiating States and 1 Organization



The boundaries shown on this map do not imply the expression of any opinion whatsoever on the part of UPOV concerning the legal status of any country or territory

Protected
plant varieties

Unprotected plant varieties

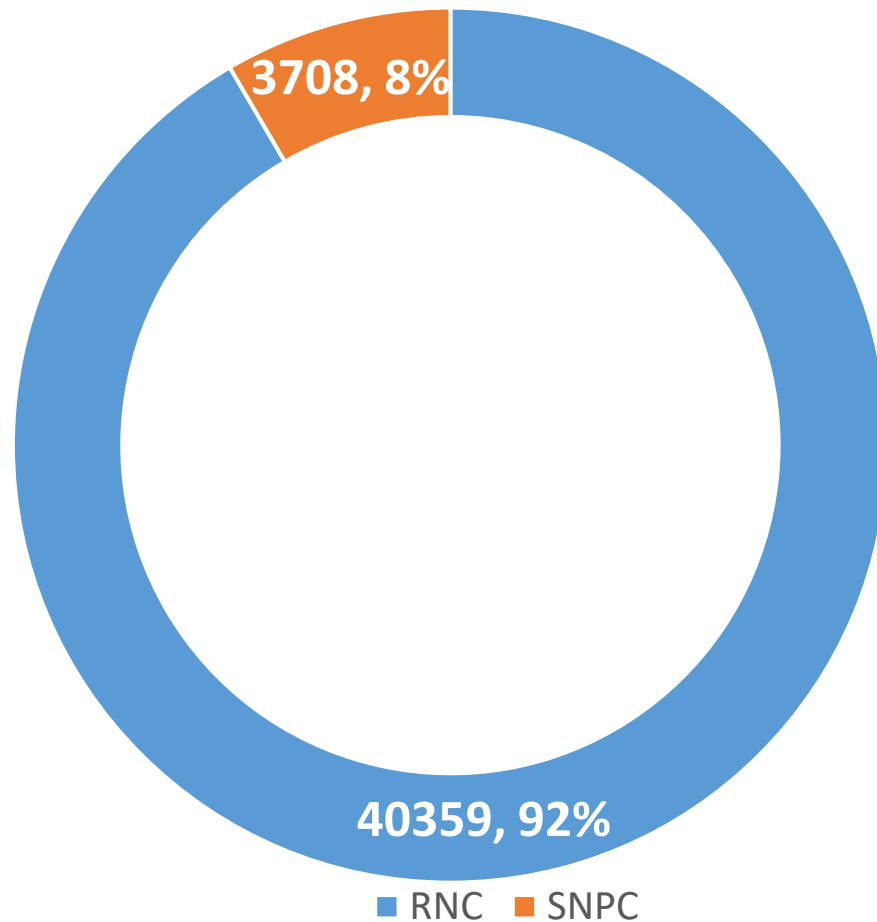
Not regulated by UPOV

**(ITPGRFA, CBD, seed marketing regulations
etc.)**

Wild populations

National Catalog (trade list) and Protected Varieties

Cultivares Registradas (RNC) vs Cultivares Protegidas (SNPC)



* Até 31/12/2018



Vulnerability to climate change and economic impacts in the agriculture sector in Latin America and the Caribbean

Steven Prager
Ana R. Rios
Benjamin Schiek
Juliana S. Almeida
Carlos E. Gonzalez

Climate Change Division
Environment, Rural
Development and Risk
Management Division

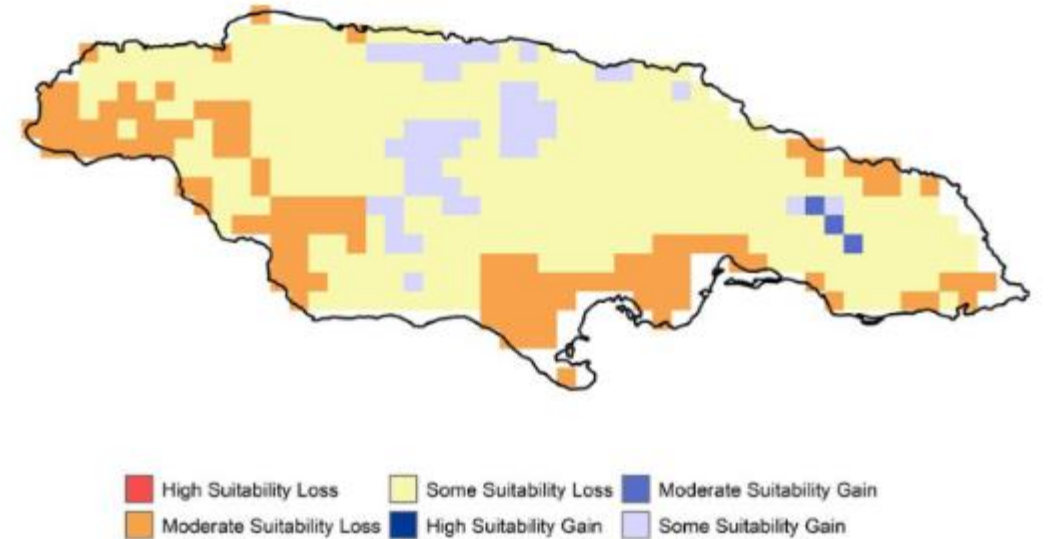
TECHNICAL NOTE N°
IDB-TN-01985

August 2020

2. Climate impacts

Jamaica is projected to become considerably drier during the summer months of March to August, (Figure 1) Rainfall is projected to increase in some parts during the remainder of the year. Meanwhile, minimum and maximum temperatures are projected to increase by 3-4°C throughout the country. This may increase the risk of agricultural droughts, especially in the rainfed systems that predominate Jamaican agriculture.

Robusta Coffee - Jamaica



Arabica Coffee - Jamaica

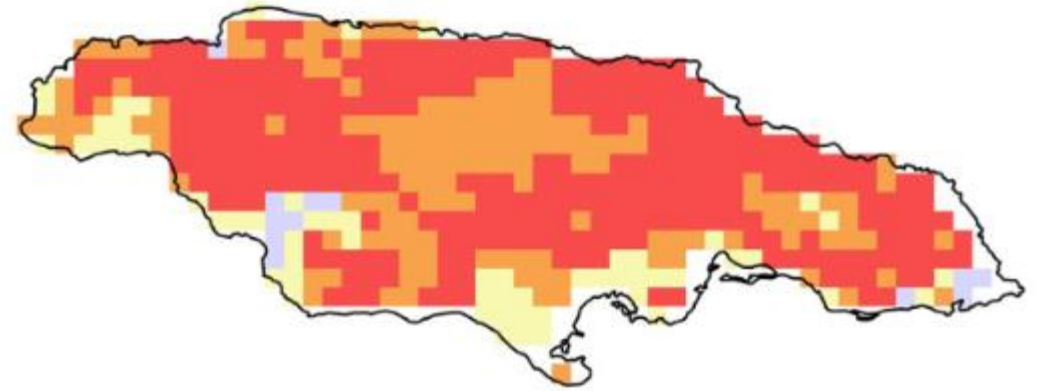
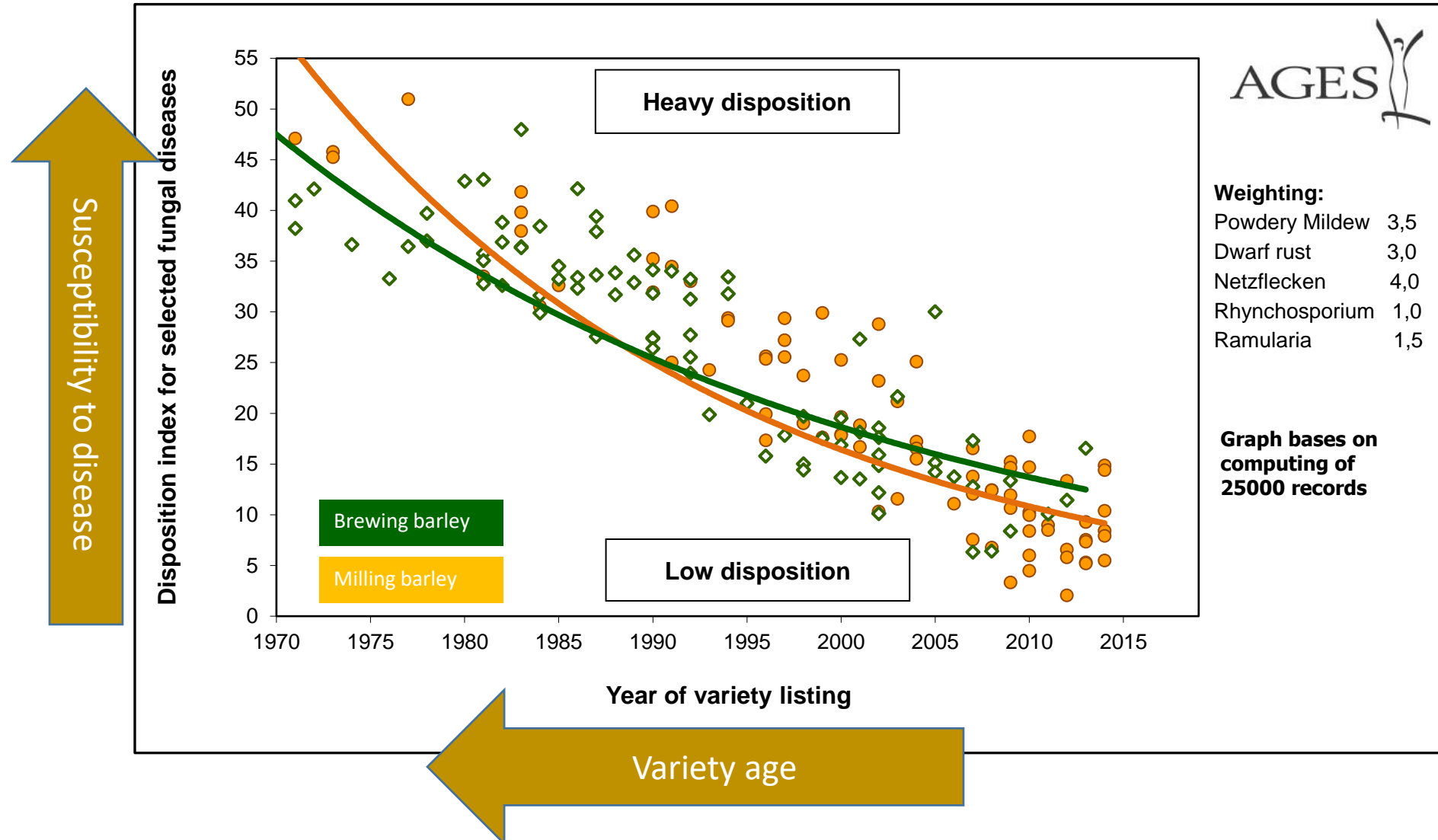


Figure 3: Projected change in suitability for coffee by 2050.



(Video: iStockphoto.com/SaddamStock)

Disposition for selected diseases on varieties on summer barley Pannonic (dry) climate zone of eastern Austria



Source: Austrian Agency for Health and Food Safety, 2015: Austrian descriptive list of varieties of agricultural crop species, Issue 21/2015, ISSN 1560-635X. Mr. Clemens Flamm

Delivering improved varieties to farmers, growers and consumers

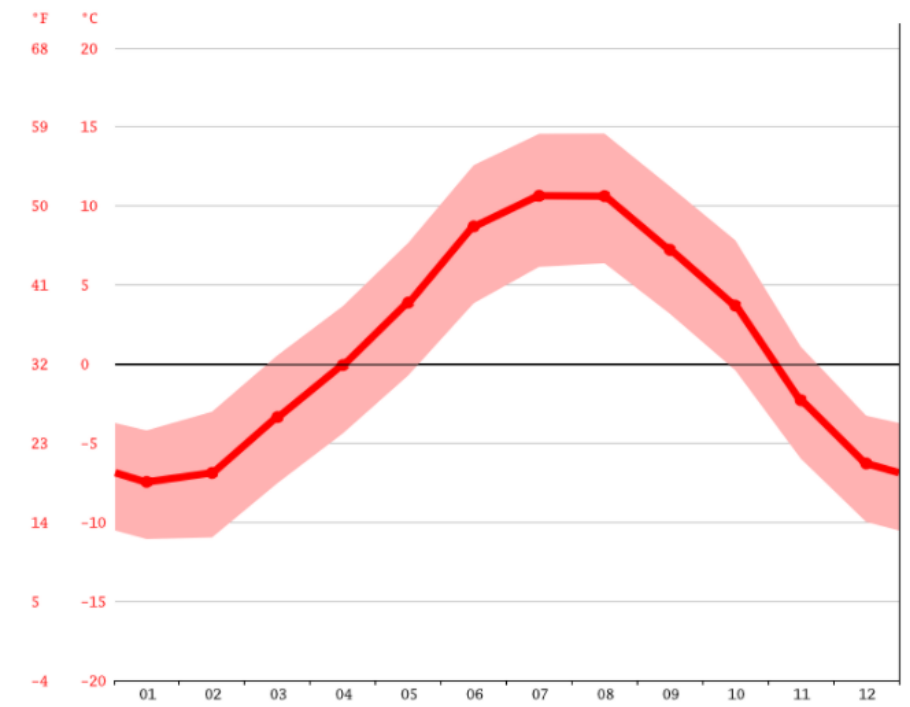


Delivering improved varieties to farmers, growers and consumers

Blueberries



AVERAGE TEMPERATURE ENGELBERG



At an average temperature of 10.7 °C | 51.2 °F, July is the hottest month of the year. In January, the average temperature is -7.5 °C | 18.6 °F. It is the lowest average temperature of the whole year.

<https://en.climate-data.org/europe/switzerland/obwalden/engelberg-108935/>

Delivering improved varieties to farmers, growers and consumers

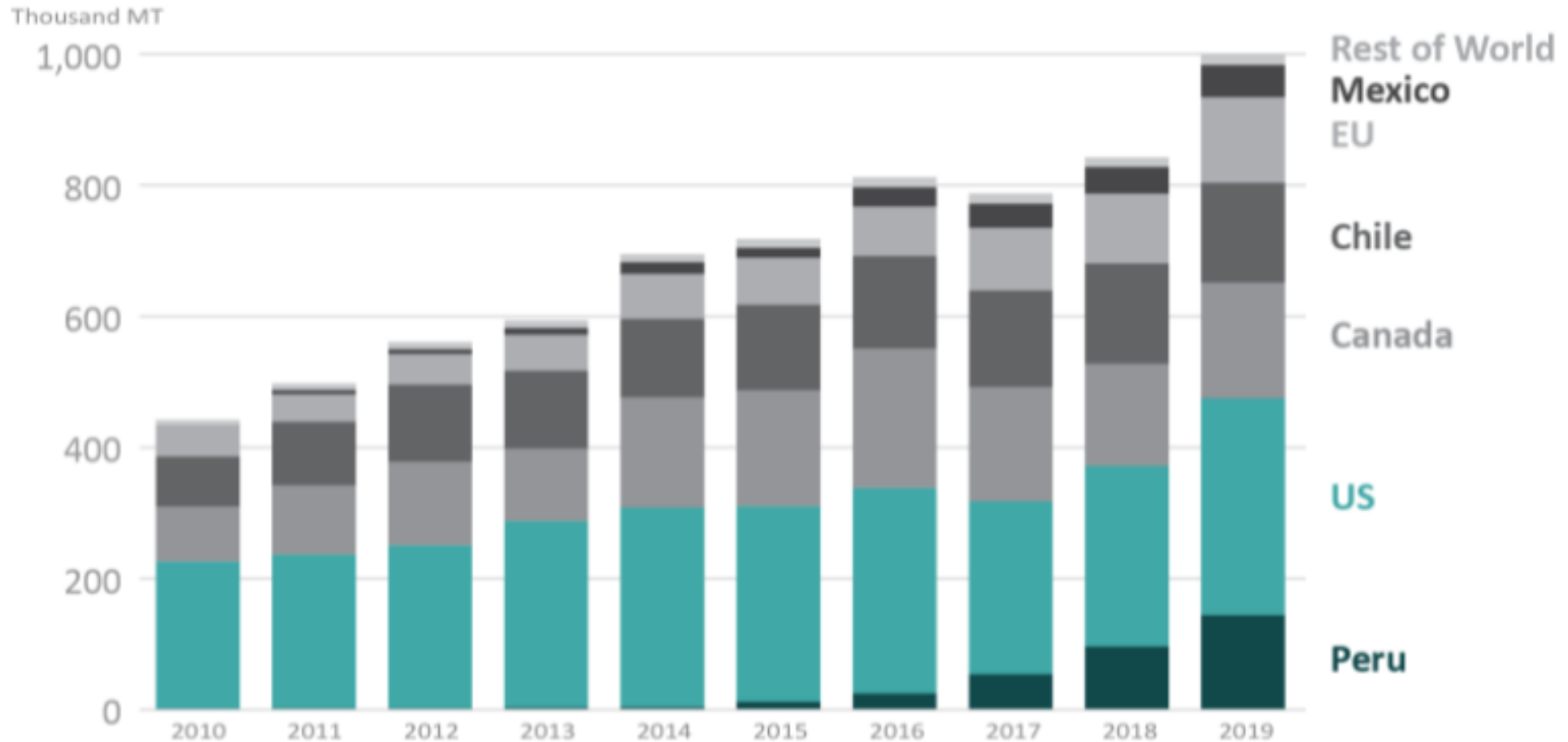
Blueberries



<https://www.bioeconomia.info/2020/07/20/peru-se-consolida-como-primer-exportador-de-arandanos/>

Development of new industry on foreign markets

Peru Accounts for Increasing Share of Rising Global Blueberry Production



Note: Chile data for 2011, 2013, 2015, 2017 are estimates

Source: USDA-Foreign Agricultural Service, Food and Agriculture Organization of the United Nations, International Blueberry Organization

<https://www.fas.usda.gov/data/spotlight-perus-fruit-sector-races-new-heights>



ARANDANOSPERU.PE

Arandanos Perú

Informativo y plataforma de negocios de berries en Perú

Inicio Berries ▾ Proveedores Compro/Vendo ▾ Publicidad Recetas ▾ Videos AgroNegociosPerú

JUNIO 17, 2021

NORMA ROJAS MARROQUIN

Perú exportó arándanos por US\$
1,000 millones y fue el principal
exportador del mundo por
segunda vez



Developing New Industries



Diversity of breeders: México

Since Mexico joined UPOV in 1997:

204 breeders

from **26** countries

have filed applications for the protection
of their new plant varieties
in Mexico

Since Mexico joined UPOV in 1997:

2,965

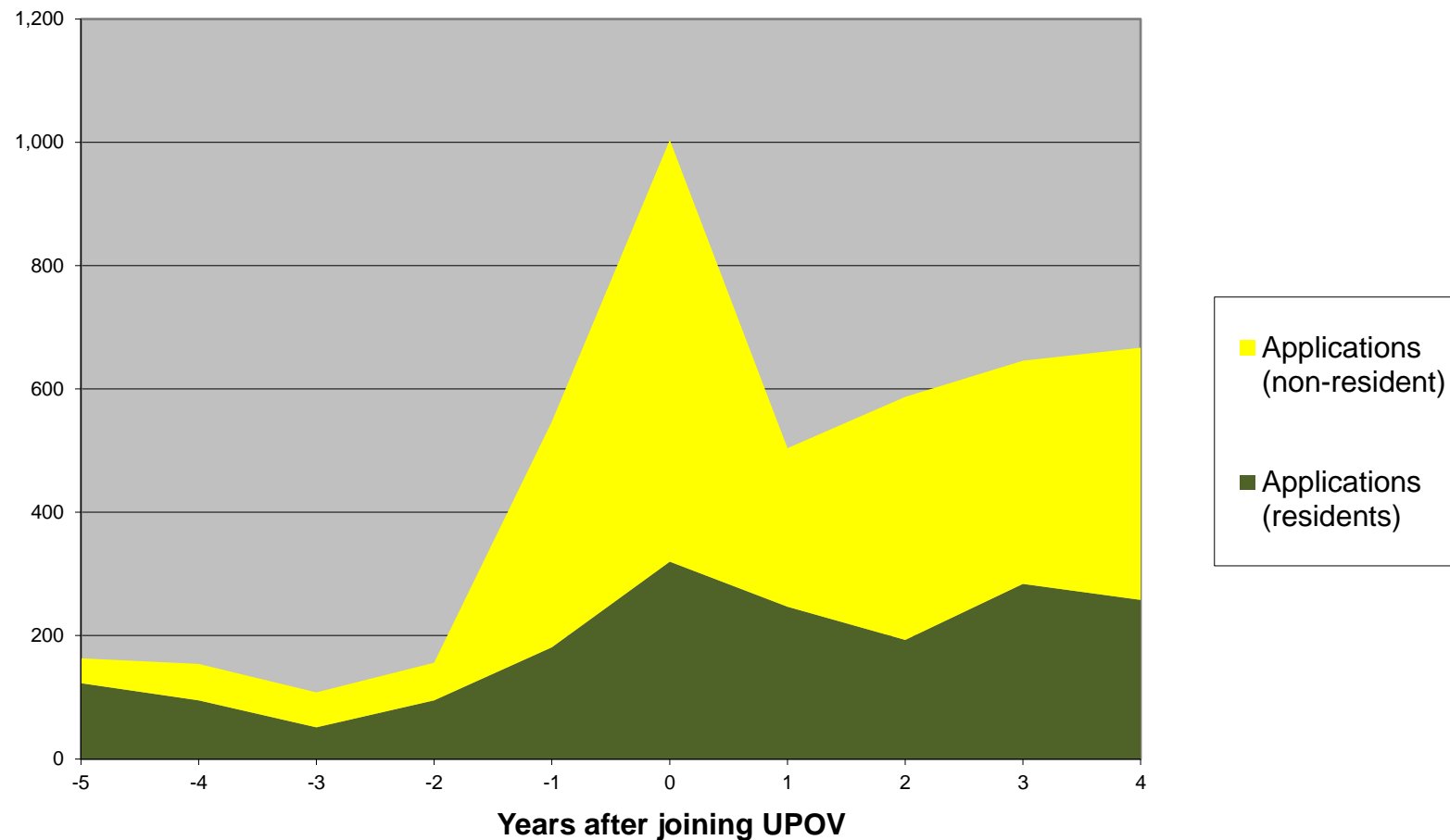
titles of protection were issued by Mexico

418

of them are now free to use
& can be grown without
the breeder's authorization

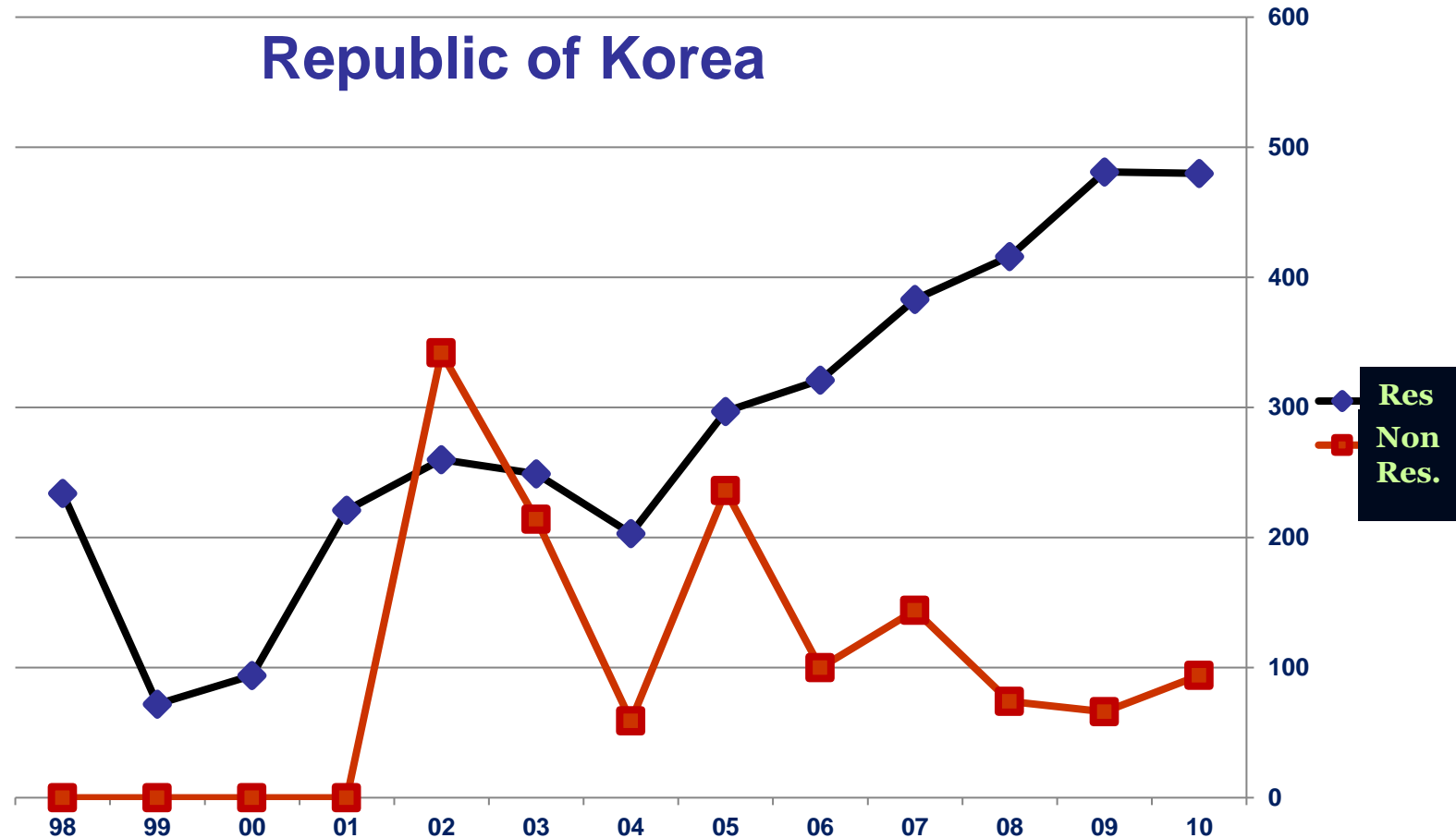
Access to foreign varieties and enhanced domestic programs

Latin America Countries acceding to UPOV between 1994 & 2000



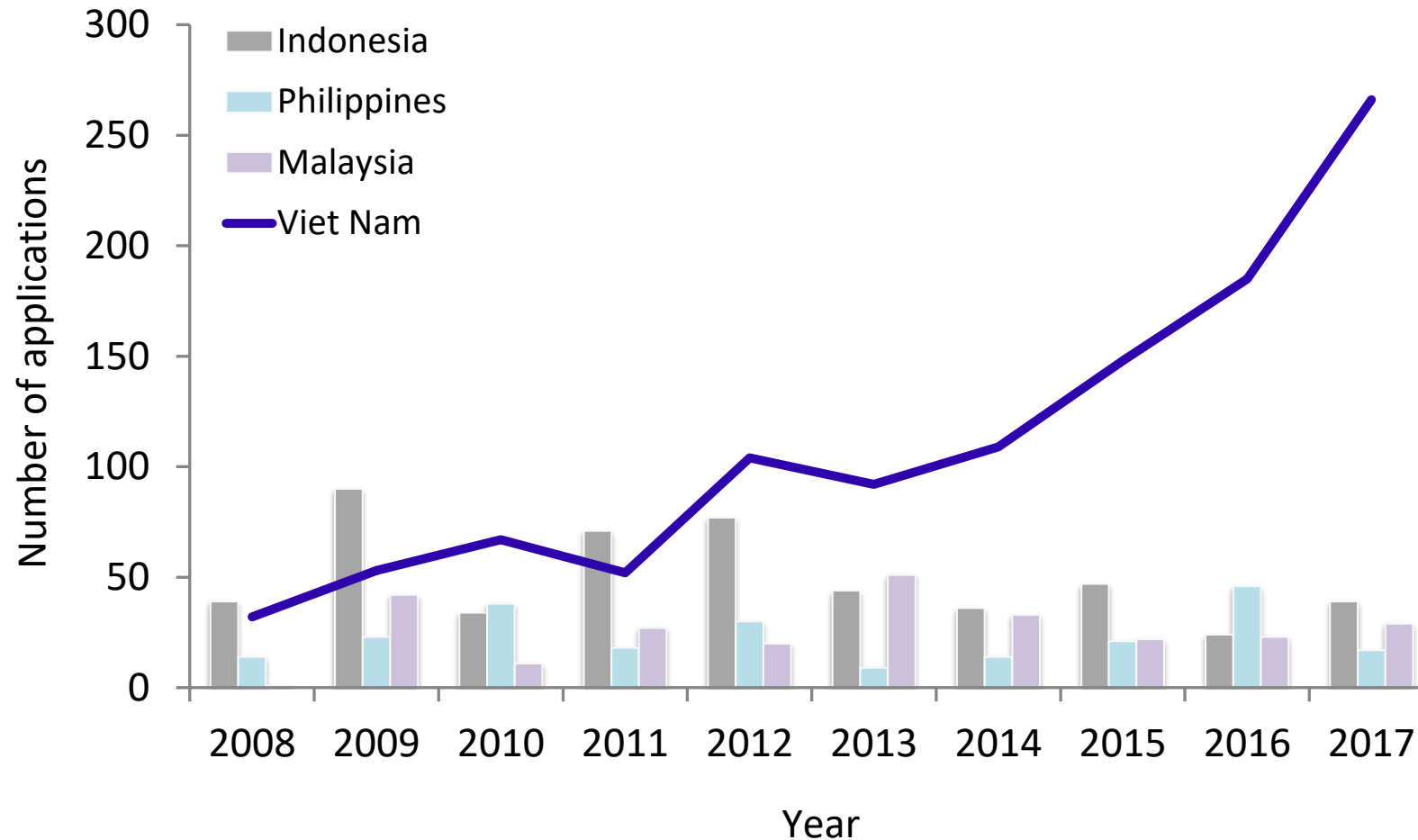
Access to foreign varieties and enhanced domestic programs

Application Ratio of Residents/Non Res.



Dr. CHO, Il Ho (Symposium on Plant Variety Protection - Future Strategy for Enhancing the Effectiveness of the PVP System, Seoul July 13, 2011)

Applications for Plant Breeders' Rights



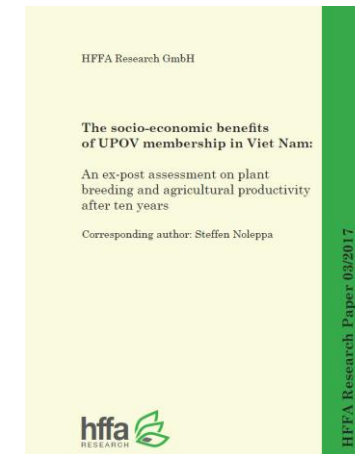
1. Erizal Jamal, Director, Center for Plant Variety Protection & Agriculture Permits, Indonesia. 10th East Asia Plant Variety Protection Forum Meeting
2. Dr. Mary Ann P. Sayoc, President, Philippine Seed Industry Association. National Seminar on Benefit of The Plant Variety Protection System, Philippines (11th EAPVP), August 2, 2018
3. Sri Ikarostika Rahayu Binti Muhammad Ghazi. Department Of Agriculture, Malaysia. National Seminar on Benefit of The Plant Variety Protection System, Philippines (11th EAPVP), August 2, 2018
4. Nguyen Thanh Minh, PVPO, Mard/Viet Nam. National Seminar on Benefit of The Plant Variety Protection System, Philippines (11th EAPVP), August 2, 2018

STUDY in VIET NAM*

Annual land productivity developments since Viet Nam joined
UPOV in 2006 in

Rice, Corn (maize) and Sweet Potatoes

- **1995-2005:** increase in yield mainly through increased level of inputs – no detectable increase due to plant breeding
- **2006-2016:** annual land productivity increase due to plant breeding
 - **Rice** **1.7 %**
 - **Corn** **2.1 %**
 - **Sweet potatoes** **3.1 %**



STUDY in VIET NAM

Annual value added:

- Arable farming \$2.3 billion
- Horticulture \$1.0 billion
- Floriculture \$ 0.2 billion

- GDP added upstream/downstream (value chains)
\$1.5 billion

TOTAL ADDED: \$5 billion

(> 2.5% GDP)

Impact of PVP in Kenya

Simon M. Maina,
Head, Seed Certification and Plant Variety Protection,
Kenya Plant Health Inspectorate Service (KEPHIS)
(website: www.kephis.org)

March 2021

Cut Flower Industry

- The Kenyan floriculture market was valued at USD 861.6 million in 2018, and is projected to register an annual growth of 4.7% during the forecast period (2020-2025).
- In the year 2020, 142,477.8 MT of fresh flowers valued at USD 1.09 billion was produced in Kenya.



Impact of PVP in Kenya

Simon M. Maina,
Head, Seed Certification and Plant Variety Protection,
Kenya Plant Health Inspectorate Service (KEPHIS)
(website: www.kephis.org)

March 2021

Employment creation

- It is estimated that the floriculture industry employs over 150,000 people directly and more than 500,000 indirectly who supply goods and services



Uruguayan public research: using PVP to maximize public good





UPOV

www.upov.int

upov.mail@upov.int

leontino.taveira@upov.int

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CarIPI - CARIFORUM Intellectual Property Rights and Innovation

How to operate the system – E-PVP

May 19 , 2022

Leontino Taveira

Head of Technical Affairs and Regional Development (Latin America, Caribbean)

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International Union for the Protection of New Varieties of Plants

Summary

- Guidance and support for examination of varieties
(cooperation for “DUS” examination)
- The E-PVP system: services to members (operating the system)
 - UPOV PRISMA online application tool
 - Electronic PVP office administration system

CONDITIONS FOR GRANTING A BREEDER'S RIGHT

Criteria to be satisfied

- **NOVELTY**
 - **DISTINCTNESS**
 - **UNIFORMITY**
 - **STABILITY**
 - **VARIETY DENOMINATION**
 - **FORMALITIES**
 - **PAYMENT OF FEES**
- } “DUS”

Nature of the DUS Examination

The “DUS Test” (field trial)





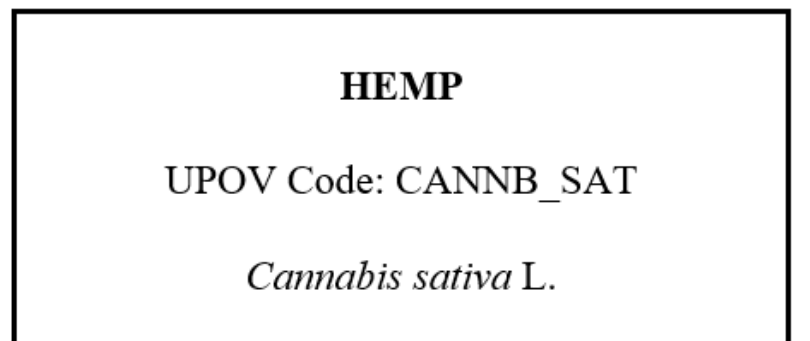
TG/276/1

ORIGINAL: English

DATE: 2012-03-28

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA



GUIDELINES

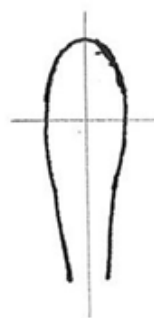
FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

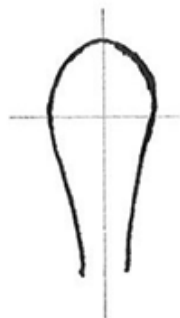
1.	0003	Cotyledon: shape					n: forma
(+)	VG		<ul style="list-style-type: none"> When (growth stage) How (method of observation and additional explanations) What (type of characteristic) 				
QN	C	narrow obovate				strecha	Fibrimon 1
		medium obovate	obovale moyen	mittel verkehrt eiförmig	oboval media		Epsilon 68 2
		broad obovate	obovale large	breit verkehrt eiförmig	oboval ancha		Futura 75 3

8.2 Explanations for individual characteristics

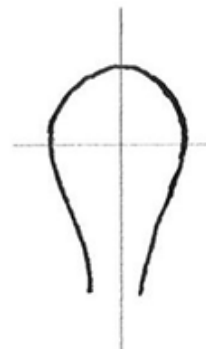
Ad. 1: Cotyledon: shape



1
narrow obovate



2
medium obovate

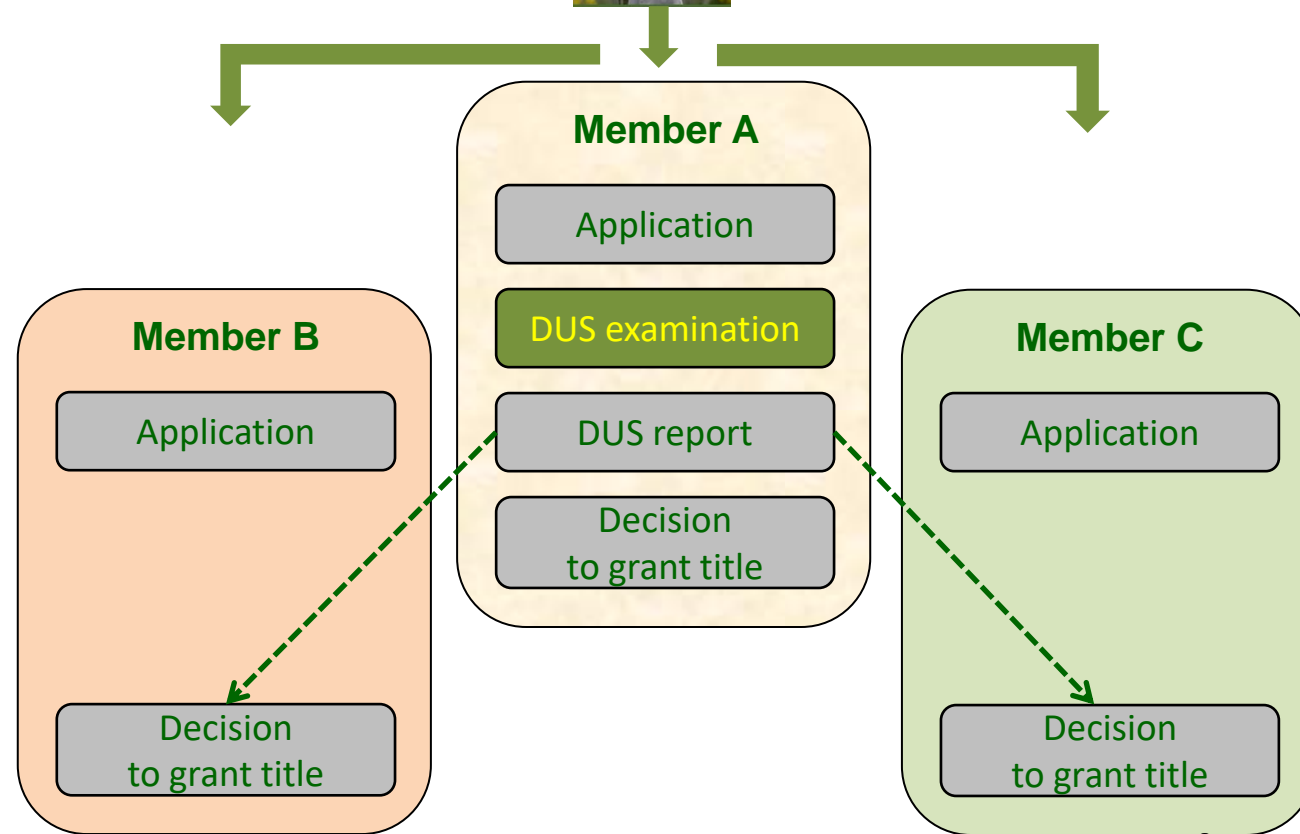


3
broad obovate

Cooperation between Authorities

Cooperation between Authorities can involve:

- **use of existing DUS Test Reports** from other Authorities



UPOV Model administrative agreement (TGP/5): 350 CHF (prior application)

Cooperation with Breeders

DUS Testing in Cooperation with Breeders

- is always under the **control of the Authority**
- can involve the applicant in all aspects of conducting the DUS Test but will always result in a **decision being taken by the Authority**



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs DEA

Federal Office for Agriculture FOAG

Certification, Plant Protection and Plant Variety Rights Section

UPOV Webinar

19. April 2021



**How to organize DUS examination and international cooperation
Experience in Switzerland**



PVP in Switzerland in a nutshell

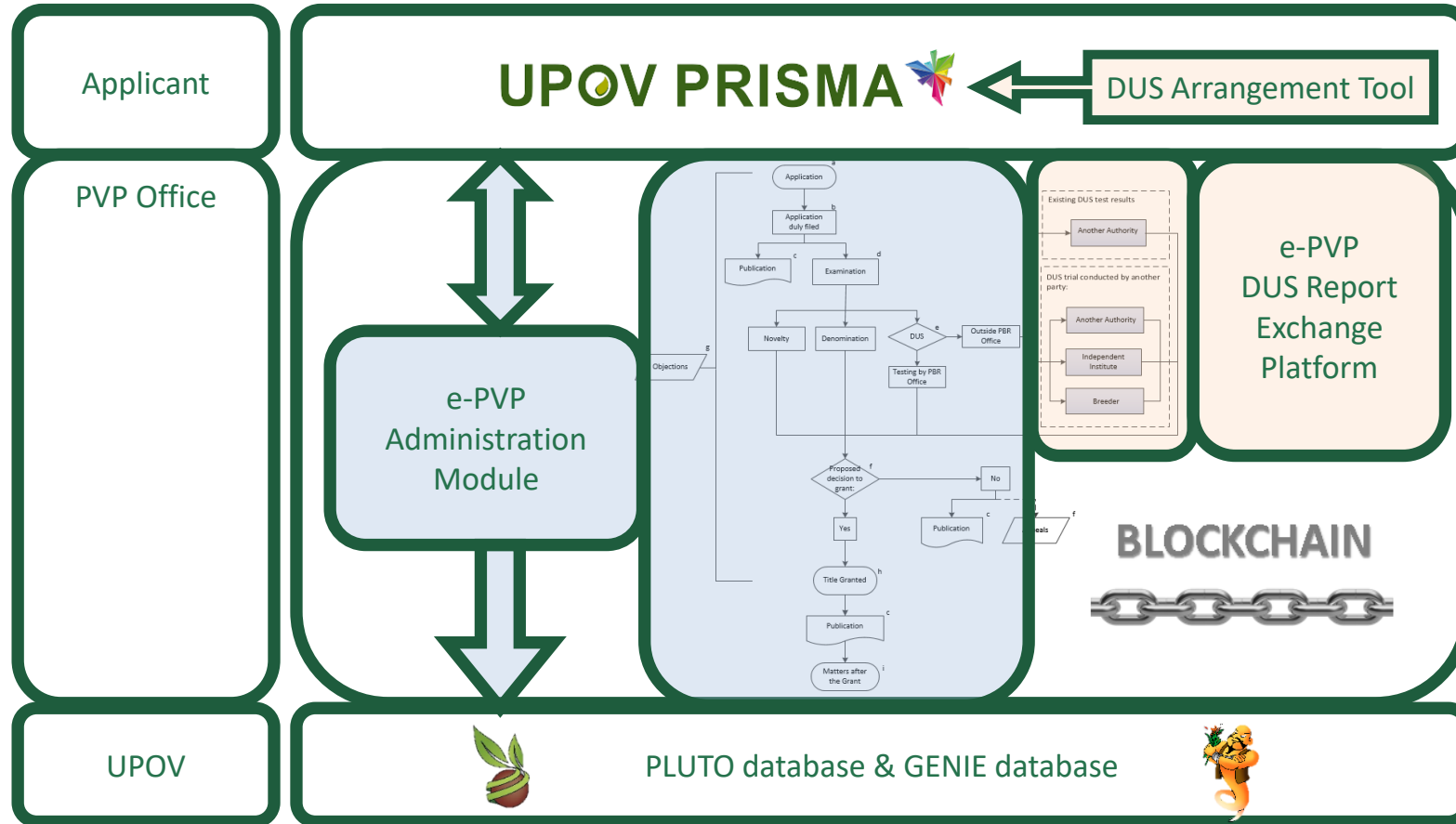




No verification of the DUS reports



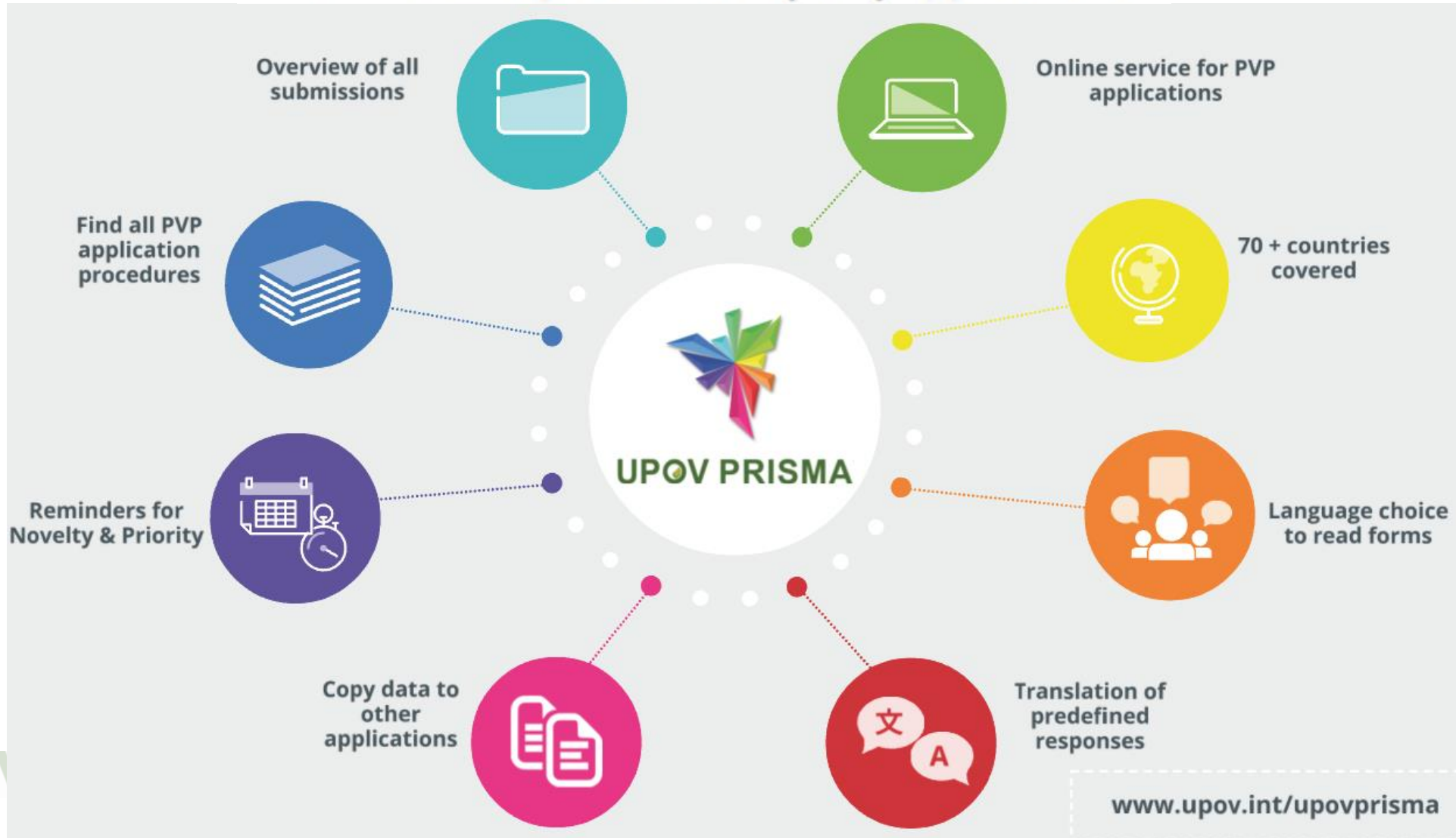
Services to members operating the system: e-PVP

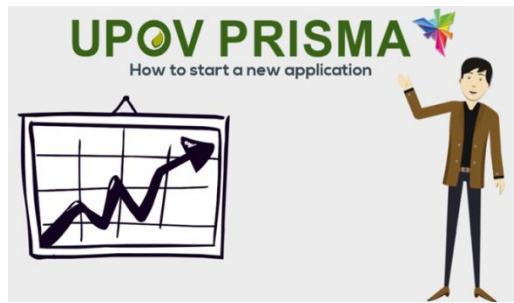


UPOV PRISMA

The on-line service for making

Plant Variety Protection (PVP) applications





How to start a NEW application

1. Select Crop/Species
2. Select UPOV member
3. Select language

UPOV PRISMA + Applications Edit Agent Profile Manage user role PVP office procedure Welcome Hani Madhour English Logout

New Application Settings

Fill in the new application for a new species or crop, or search for existing species or crop

1. Select Crop/Species
 Crop/species with previous applications Search all crop/species
Rosa L. (Rose: TG/11)

2. Select Authority
KENYA

3. Select Language for answers
Application Form: English Technical Questionnaire: English

4. Upload Existing Data (ZIP)



4. Complete the form
5. Submit

UPOV PRISMA + Applications Edit Agent Profile Manage user role PVP office procedure Welcome Hani Madhour English Logout

Authority	KENYA	Proposed Variety Denomination	
Crop/Species	Rosa L.	Breeder's Variety Reference	
Language for answers	English	Own reference	DEMO ROSE

1. Application Form

- 1. APPLICANTS
- 1. BREEDER(S)
- 1. DENOMINATION
- 1. OTHER APPLICATIONS
- 1. PRIORITY CLAIM
- 1. NOVELTY



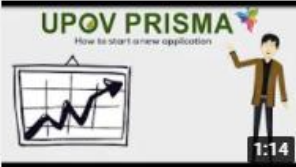
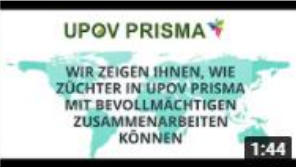



















2. Technical Questionnaire

- 1. BREEDING SCHEME
- 1. VARIETY CHARACTERISTICS
- 1. VARIETY COMPARISON
- 1. PLANT MATERIAL INFORMATION
- 1. ADDITIONAL INFORMATION

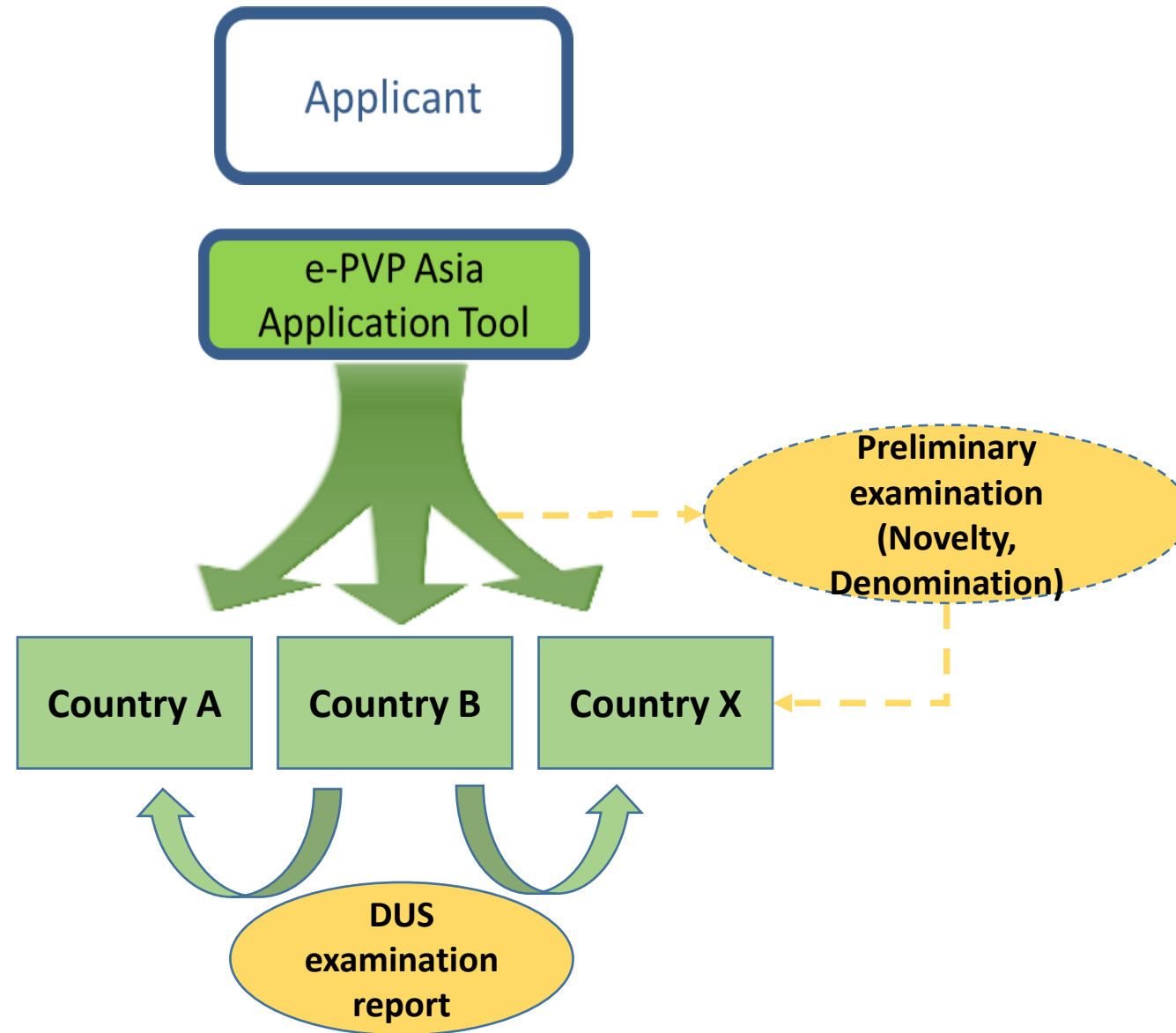
3. Declaration And Signature

- 1. DECLARATION AND SIGNATURE
- 1. ATTACHMENTS

<https://www.youtube.com/user/upov/videos>

 <p>UPOV PRISMA Cómo iniciar una nueva solicitud</p> <p>1:16</p>	 <p>UPOV PRISMA Comment créer une nouvelle...</p> <p>1:14</p>	 <p>UPOV PRISMA How to start a new application</p> <p>1:14</p>	 <p>UPOV PRISMA 看一看育种者能够如何与代理人一同在UPOV PRISMA中工作</p> <p>1:47</p>	 <p>UPOV PRISMA WIR ZEIGEN IHNEN, WIE ZÜCHTER IN UPOV PRISMA MIT BEVOLLMÄCHTIGTEN ZUSAMMENARBEITEN KÖNNEN</p> <p>1:44</p>	 <p>UPOV PRISMA EN UPOV PRISMA, LOS OBTENTORES PUEDEN TRABAJAR CON AGENTES</p> <p>1:44</p>
<p>UPOV PRISMA: Cómo iniciar una nueva solicitud</p> <p>11 views • 6 months ago</p>	<p>UPOV PRISMA - Comment créer une nouvelle...</p> <p>8 views • 6 months ago</p>	<p>UPOV PRISMA - How to start a new application</p> <p>32 views • 6 months ago</p>	<p>看一看育种者能够如何与代理人一同在UPOV PRISMA中...</p> <p>5 views • 6 months ago</p>	<p>Wir zeigen Ihnen, wie Züchter in UPOV PRISMA...</p> <p>No views • 6 months ago</p>	<p>UPOV PRISMA - Cómo los obtentores pueden trabajar...</p> <p>16 views • 6 months ago</p>
 <p>UPOV PRISMA DÉCOUVREZ COMMENT LES OBTENNEURS PEUVENT TRAVAILLER AVEC DES REPRÉSENTANTS DANS UPOV PRISMA</p> <p>1:44</p>	 <p>UPOV PRISMA SEE HOW BREEDERS CAN WORK WITH AGENTS IN UPOV PRISMA</p> <p>1:44</p>	 <p>UPOV PRISMA 各司其职——分清UPOV PRISMA中的不同身份 代理人</p> <p>1:46</p>	 <p>UPOV PRISMA Wer ist wer? Die Rollen im UPOV PRISMA</p> <p>1:48</p>	 <p>UPOV PRISMA ¿Quién es quién? Conocer bien las funciones en UPOV PRISMA</p> <p>1:48</p>	 <p>UPOV PRISMA Qui fait quoi? Bien comprendre les rôles dans UPOV PRISMA</p> <p>1:48</p>
<p>UPOV PRISMA - Comment les obtenteurs peuvent...</p> <p>6 views • 6 months ago</p>	<p>UPOV PRISMA - How breeders can work with...</p> <p>8 views • 6 months ago</p>	<p>各司其职代理人——分清UPOV PRISMA中的不同身份</p> <p>2 views • 6 months ago</p>	<p>Wer ist wer BEVOLLMÄCHTIGTER - Di...</p> <p>2 views • 6 months ago</p>	<p>UPOV PRISMA - Quién es quién AGENTE -conocer...</p> <p>9 views • 6 months ago</p>	<p>UPOV PRISMA - Qui fait quoi: REPRÉSENTANT? Bie...</p> <p>4 views • 6 months ago</p>
 <p>UPOV PRISMA Who's Who - getting the roles right in UPOV PRISMA</p> <p>1:46</p>	 <p>UPOV PRISMA 我们深知，在保护植物新品种保护制度中并非易事，其是共同。</p> <p>1:11</p>	 <p>UPOV PRISMA Wir verstehen, wie schwierig und erhellend es ist, Ihre Pflanzensorten an all Ihre Zielmärkte zu schicken.</p> <p>1:16</p>	 <p>UPOV PRISMA Somos conscientes de que proteger sus variedades vegetales en todos los mercados que le interesan es difícil y lleva mucho tiempo.</p> <p>1:20</p>	 <p>UPOV PRISMA Nous savons combien il est long et difficile de faire protéger vos variétés végétales dans tous vos marchés cibles.</p> <p>1:16</p>	 <p>UPOV PRISMA We understand how difficult and time-consuming it is to protect your plant varieties in all your target markets.</p> <p>1:11</p>
<p>UPOV PRISMA - Who's who AGENT -getting the roles...</p> <p>10 views • 6 months ago</p>	<p>UPOV PRISMA 概览——它是什么? 如何工作?</p> <p>3 views • 6 months ago</p>	<p>ÜBERBLICK ÜBER UPOV PRISMA - was ist es und...</p> <p>7 views • 6 months ago</p>	<p>Aspectos generales de UPOV PRISMA: ¿qué es y...</p> <p>25 views • 6 months ago</p>	<p>APERÇU D'UPOV PRISMA - De quoi s'agit-il? Comment...</p> <p>2 views • 6 months ago</p>	<p>UPOV PRISMA Overview - what is it and how does it...</p> <p>19 views • 6 months ago</p>
 <p>UPOV PRISMA 代理人如何在UPOV PRISMA上工作</p> <p>1:26</p>	 <p>UPOV PRISMA WIE BEVOLLMÄCHTIGTE IN UPOV PRISMA ARBEITEN</p> <p>1:30</p>	 <p>UPOV PRISMA CÓMO TRABAJAN LOS AGENTES EN UPOV PRISMA</p> <p>1:26</p>	 <p>UPOV PRISMA COMMENT LES REPRÉSENTANTS TRAVAILLENT DANS UPOV PRISMA</p> <p>1:25</p>	 <p>UPOV PRISMA HOW AGENTS WORK IN UPOV PRISMA</p> <p>1:22</p>	 <p>UPOV PRISMA 各司其职——分清UPOV PRISMA中的不同身份</p> <p>1:47</p>
<p>代理人如何在UPOV PRISMA上工作</p> <p>No views • 6 months ago</p>	<p>Wie Bevollmächtigte in UPOV PRISMA arbeiten</p> <p>1 view • 6 months ago</p>	<p>UPOV PRISMA - Cómo trabajan los Agentes en...</p> <p>4 views • 6 months ago</p>	<p>UPOV PRISMA - Comment les Représentants travaille...</p> <p>No views • 6 months ago</p>	<p>UPOV PRISMA - How agents work in UPOV PRISMA</p> <p>2 views • 6 months ago</p>	<p>各司其职——分清UPOV PRISMA中的不同身份</p> <p>4 views • 6 months ago</p>

Example: the e-PVP Asia (EAPVP Forum Pilot Project)



UPOV membership

- opportunities for support and cooperation with UPOV members:
 - Dominican Republic;
 - Saint Vincent and the Grenadines

Reducing the resources a country would need to operate a PVP system compared to not becoming a UPOV member

UPOV Distance Learning Courses

Code	Course	Session	Study period	Registration period
DL-205	Introduction to the UPOV System of Plant Variety Protection under the UPOV Convention	Session 1	09-Mar to 13-Apr 2022	10-Jan to 13-Feb 2022
		Session 2	12-Oct to 16-Nov 2022	01-Aug to 11-Sep 2022
DL-305A	Administration of Plant Breeders' Rights (Part A of DL-305 course: Examination of applications for plant breeders' rights)	Session 1	09-Mar to 13-Apr 2022	10-Jan to 13-Feb 2022
		Session 2	12-Oct to 16-Nov 2022	01-Aug to 11-Sep 2022
DL-305B	DUS Examination (Part B of DL-305 course: Examination of applications for plant breeders' rights)	Session 1	09-Mar to 13-Apr 2022	10-Jan to 13-Feb 2022
		Session 2	12-Oct to 16-Nov 2022	01-Aug to 11-Sep 2022
DL-305	Examination of applications for plant breeders' rights	Session 1	09-Mar to 13-Apr 2022	10-Jan to 13-Feb 2022
		Session 2	12-Oct to 16-Nov 2022	01-Aug to 11-Sep 2022

The UPOV Courses are hosted on the WIPO eLearning Center.



<https://www.upov.int/resource/en/training.html>



UPOV

www.upov.int

upov.mail@upov.int

leontino.taveira@upov.int

UPOV