



THE HISTORY OF PLANT VARIETY PROTECTION

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SOUTH CENTRE

US PLANT PATENTS ACT (1930)

- WHOEVER INVENTS OR DISCOVERS AND ASEXUALLY REPRODUCES ANY DISTINCT AND NEW VARIETY OF PLANT, INCLUDING CULTIVATED SPORTS, MUTANTS, HYBRIDS, AND NEWLY FOUND SEEDLINGS, OTHER THAN A TUBER PROPAGATED PLANT OR A PLANT FOUND IN AN UNCULTIVATED STATE, MAY OBTAIN A PATENT THEREFOR...

US SUPREME COURT IN *DIAMOND V. CHAKRABARTY* (1980)

- PRIOR TO 1930, TWO FACTORS WERE THOUGHT TO REMOVE PLANTS FROM PATENT PROTECTION. THE FIRST WAS THE BELIEF THAT PLANTS, EVEN THOSE ARTIFICIALLY BRED, WERE PRODUCTS OF NATURE FOR PURPOSES OF THE PATENT LAW.... THE SECOND OBSTACLE TO PATENT PROTECTION FOR PLANTS WAS THE FACT THAT PLANTS WERE THOUGHT NOT AMENABLE TO THE "WRITTEN DESCRIPTION" REQUIREMENT OF THE PATENT LAW...IN ENACTING THE PLANT PATENT ACT, CONGRESS ADDRESSED BOTH OF THESE CONCERNS. IT EXPLAINED AT LENGTH ITS BELIEF THAT THE WORK OF THE PLANT BREEDER "IN AID OF NATURE" WAS PATENTABLE INVENTION...AND IT RELAXED THE WRITTEN DESCRIPTION REQUIREMENT IN FAVOR OF "A DESCRIPTION ... AS COMPLETE AS IS REASONABLY POSSIBLE."

PLANT VARIETY PROTECTION (PVP)

- REVISION OF THE PARIS CONVENTION FOR THE PROTECTION OF INDUSTRIAL PROPERTY
- NETHERLANDS 1942, GERMANY 1953
- UPOV 1961 (12 STATES), 1978 (16 STATES), 1991 (20 STATES)

ART. 27.3(B)-TRIPS AGREEMENT (1994)

- 3. MEMBERS MAY ALSO EXCLUDE FROM PATENTABILITY:
- (B) **PLANTS AND ANIMALS OTHER THAN MICRO-ORGANISMS, AND ESSENTIALLY BIOLOGICAL PROCESSES FOR THE PRODUCTION OF PLANTS OR ANIMALS OTHER THAN NON-BIOLOGICAL AND MICROBIOLOGICAL PROCESSES. HOWEVER, MEMBERS SHALL PROVIDE FOR THE PROTECTION OF PLANT VARIETIES EITHER BY PATENTS OR BY AN EFFECTIVE *SUI GENERIS* SYSTEM OR BY ANY COMBINATION THEREOF.** THE PROVISIONS OF THIS SUBPARAGRAPH SHALL BE REVIEWED FOUR YEARS AFTER THE DATE OF ENTRY INTO FORCE OF THE WTO AGREEMENT.

TRIPS 'BIOTECH PROVISION'

ARTICLE 27.3(B)

DOES NOT REQUIRE PATENT PROTECTION FOR PLANTS

REQUIRES MEMBERS TO PROVIDE EFFECTIVE PROTECTION FOR PLANT
VARIETIES, BUT DOES NOT DETERMINE THE SYSTEM OF PROTECTION

DOES NOT REQUIRE TO JOIN UPOV OR APPLY THE UPOV MODEL

NO DEFINITION OF 'SUI GENERIS' REGIME

ARTICLE 27.3(B):AFRICAN GROUP

- ARTIFICIAL DISTINCTION BETWEEN PLANTS AND ANIMALS AND MICRO-ORGANISMS
- PLANTS AND ANIMALS, MICROORGANISMS AND ALL OTHER LIVING ORGANISMS AND THEIR PARTS, AND NATURAL PROCESSES THAT PRODUCE PLANTS, ANIMALS AND OTHER LIVING ORGANISMS SHOULD NOT BE PATENTABLE

BOLIVIA

- TO PROHIBIT THE PATENTING OF ALL LIFE FORMS, INCLUDING PLANTS AND ANIMALS AND PARTS THEREOF, GENE SEQUENCES, MICRO-ORGANISMS AS WELL AS ALL PROCESSES INCLUDING BIOLOGICAL, MICROBIOLOGICAL AND NON-BIOLOGICAL PROCESSES FOR THE PRODUCTION OF LIFE FORMS AND PARTS THEREOF

PLANT VARIETIES: FLEXIBILITY

- 'EFFECTIVE SUI GENERIS' PROTECTION

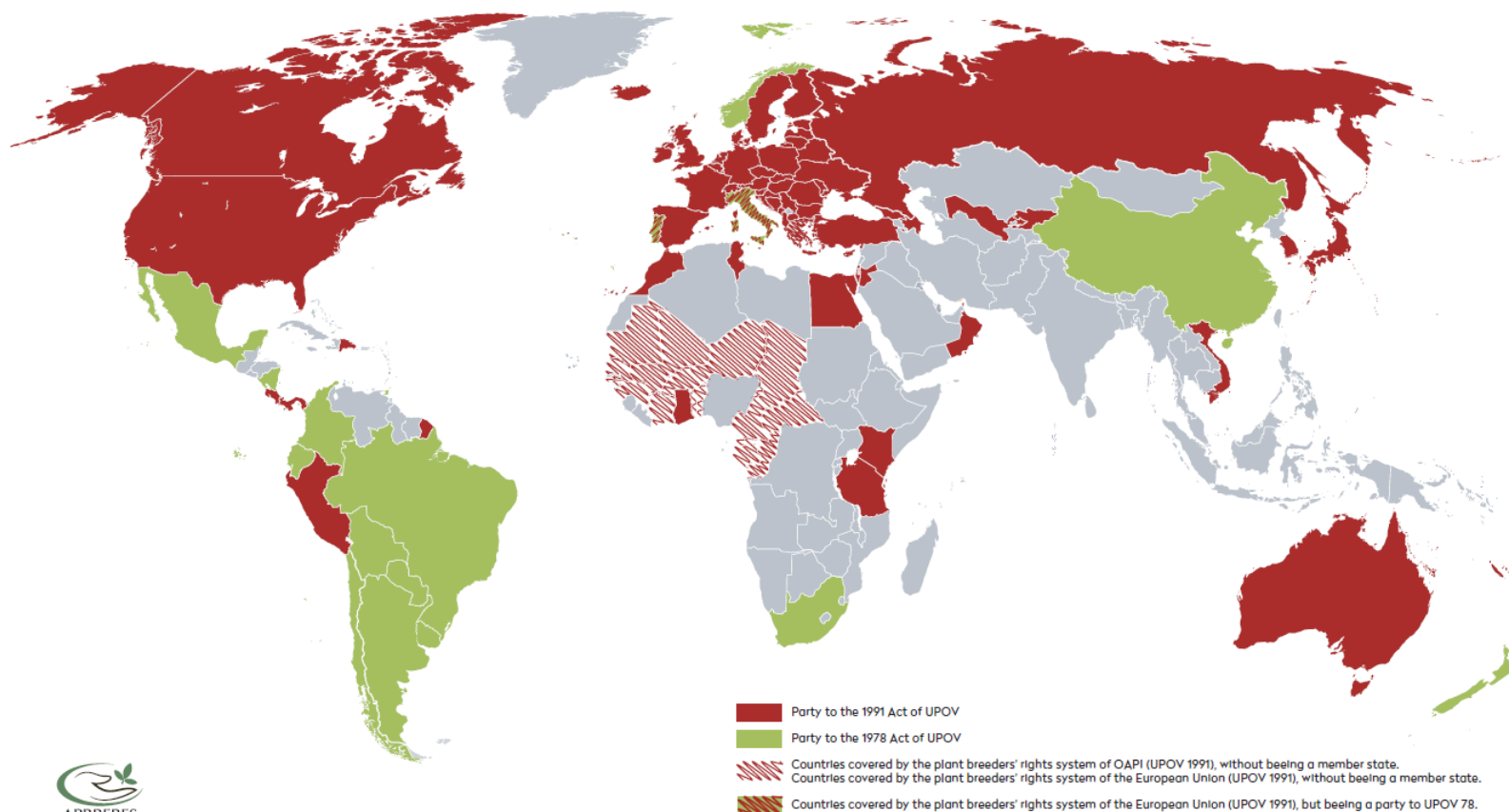
- PLANT PATENTS (E.G. USA, 1930)
- UPOV (UPOV 1978, 1991)
- ADAPTED TO LOCAL CONDITIONS (MALAYSIA, INDIA, THAILAND, ETHIOPIA, ETC.)

UPOV

- 78 MEMBERS + OAPI AND EUROPEAN UNION
- OAPI-UPOV 1991: BENIN, BURKINA FASO, CAMEROON, THE CENTRAL AFRICAN REPUBLIC, CHAD, THE COMOROS, THE CONGO, CÔTE D'IVOIRE, EQUATORIAL GUINEA, GABON, GUINEA, GUINEA-BISSAU, MALI, MAURITANIA, THE NIGER, SENEGAL, TOGO.

MEMBERS OF THE INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS (UPOV)

differentiated by the Act of the Convention to which the State/Organization is party



UPOV MODEL OF PVP

EXCLUSIVE RIGHTS TO BREEDERS OF NEW PLANT VARIETIES

CONDITIONS FOR THE VARIETY TO BE PROTECTED (NDUS):

- NEW
- DISTINCT
- UNIFORM
- STABLE











Local/traditional varieties ('landraces')

- They hold valuable genetic diversity, offering resistance to pests and diseases, adaptation to diverse environments, and unique nutritional and flavor profiles. They are vital for ensuring long-term food security and supporting traditional farming practices, while also serving as a resource for plant breeding programs.
- <https://shorturl.at/MjphU>

UPOV MODEL

- IGNORES THE ROLE OF FARMERS AS BREEDERS
- IMPOSES A ONE SIZE-FITS ALL APPROACH
- PROMOTES UNIFORMITY, THREATENS FOOD SECURITY

UPOV 1978 v. 1991

1978

- Varieties of defined species/genera (up to 24)
- 15 years, 18 for grapevines/trees
- Production **for the purposes of commercial marketing**, offering for sale and marketing of propagating material of a protected variety.
- Breeders' exemption: free use a protected variety to develop a new variety if it does not require repeated use of that variety.
- Farmers' privilege: seeds can be saved, replanted and exchanged.
- No cumulative PVP and patent protection

UPOV 78 –ART 5.1

The effect of the right granted to the breeder is that his prior authorisation shall be required for **the production for purposes of commercial marketing** the offering for sale the marketing of the reproductive or vegetative propagating material, as such, of the variety.

UPOV 1978 v. 1991

1991

- Varieties of **all** species/ genera,
- 20 years, 25 for grapevines/trees
- Extended to harvested material, exporting, importing, and stocking of propagating material
- Breeders' exemption restricted (essentially derived varieties)
- Farmers' privilege is not mandatory
- Patent/PVP cumulative protection

UPOV 91-BREEDERS' EXCLUSIVE RIGHTS (ARTICLE 14)

- (a) Subject to Articles 15 and 16, the following acts in respect of the propagating material of the protected variety shall require the authorization of the breeder:
 - (i) production or reproduction (multiplication),
 - (ii) conditioning for the purpose of propagation,
 - (iii) offering for sale,
 - (iv) selling or other marketing,
 - (v) exporting,
 - (vi) importing,
 - (vii) stocking for any of the purposes mentioned in (i) to (vi), above.

FARMERS' PRIVILEGE IN UPOV 91

- Art. 15.2 [Optional exception] Notwithstanding Article 14, each Contracting Party may, **within reasonable limits and subject to the safeguarding of the legitimate interests of the breeder**, restrict the breeder's right in relation to any variety in order to permit farmers to use for propagating purposes, on their own holdings, the **product of the harvest** which they have obtained by planting, **on their own holdings**, the protected variety

UPOV 78 VS. UPOV91

	1978 Act	1991 Act
Genera & species	To be determined	All
Requirement	New, Distinct, Uniform and Stable (NDUS)	New, Distinct, Uniform and Stable (NDUS)
Duration of PBRs	15 years (18 years for trees, vines)	20 years (25 years for trees, vines)
Harvested material	No	Yes
EDVs	No	Yes
“Farmers’ privilege”	Broad	Restricted

UPOV 1991

- LIMITS THE FARMERS' PRIVILEGE (SAVING, REPLANTING AND EXCHANGE OF SEEDS)
- LIMITS THE BREEDER'S EXEMPTION THROUGH THE INTRODUCTION OF 'ESSENTIALLY DERIVED VARIETIES'

Future UPOV members?

- Only UPOV 1991 can be joined
- To join, any country must get the consent of the UPOV Council before it can deposit its instrument of accession.
- The Council advises prospective countries in respect of the conformity of its laws with the provisions of the UPOV Convention.
- FTAs obligation to join UPOV 1991 (not included in EU-MERCOSUR, RCEP)

IMPACT OF UPOV 1991

- FROM A HUMAN RIGHTS PERSPECTIVE, RESTRICTIONS ON TRADITIONAL PRACTICES AND SEED MANAGEMENT SYSTEMS (E.G., BY A UPOV 91-BASED PVP LAW) ADVERSELY IMPACT ON FARMERS' RIGHTS, CULTURAL RIGHTS, MINORITY RIGHTS, INDIGENOUS PEOPLES' RIGHTS, WOMEN'S RIGHTS, AS WELL AS ON BIODIVERSITY AND THE RIGHT TO FOOD.
- BERNE DECLARATION, *OWNING SEEDS, ACCESSING FOOD: A HUMAN RIGHTS IMPACT ASSESSMENT OF UPOV 1991 BASED ON CASE STUDIES IN KENYA, PERU AND THE PHILIPPINES* (2014), AVAILABLE AT [HTTPS://WWW.BERNEDECLARATION.CH/FILEADMIN/FILES/DOCUMENTS/SAATGUT/2014_07_10_OWNING_SEED_-_ACCESSING_FOOD_REPORT_DEF.PDF](https://www.bernedeclaration.ch/fileadmin/files/documents/saatgut/2014_07_10_OWNING_SEED_-_ACCESSING_FOOD_REPORT_DEF.PDF), 7.

UPOV 1991...

- *WILL PROMOTE FOREIGN DIRECT INVESTMENT IN PLANT BREEDING*
- FOR A FOREIGN INVESTOR, UPOV 78 OR A SUI GENERIS REGIME PROVIDING ADEQUATE PROTECTION FOR ITS NEW PLANT VARIETIES IS PROBABLY AS GOOD AS A UPOV-STYLE REGIME WHEN IT COMES TO DECIDING WHERE TO INVEST.

UPOV 1991...

- *WILL PERMIT PLANT VARIETIES DEVELOPED IN THE COUNTRY TO BE EASILY PROTECTED IN OTHER COUNTRIES:*
- BUT REGISTRATION HAS NO INTERNATIONAL EFFECT.

UPOV 1978 members

- Argentina, Bolivia, Brazil, Chile, China, Colombia, Ecuador, Italy, Mexico, New Zealand, Nicaragua, Norway, Paraguay, Portugal, South Africa, Trinidad and Tobago and Uruguay
- 17/80 UPOV members

UPOV 78 v. UPOV 91 applications

- At the end of 2023, 195.356 PVP titles were in force worldwide.
- More than half (56%) of all new applications filed worldwide were filed in China, and 96% of these were granted to Chinese residents. These results show that over 60% of the new applications submitted worldwide were filed in countries that are members of UPOV 78.
- <https://www.apbrebes.org/sites/default/files/2024-11/APBREBES%20Report%20on%20the%20UPOV%20Session%202024%20final.pdf>
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LIMITS TO PATENT PROTECTION OF PLANTS

- EUROPEAN PATENT CONVENTION (1973): EXCLUSION OF 'PLANT VARIETIES' AND OF ESSENTIALLY BIOLOGICAL PROCESSES
- UPOV 1978: NON-ACCUMULATION OF PATENTS AND PVP

POSSIBLE EXCLUSIONS FROM PATENTABILITY

- PLANTS (FOUND IN NATURE, GENETICALLY MODIFIED)
- PLANT VARIETIES
- PARTS AND COMPONENTS OF PLANTS (?)
- ESSENTIALLY BIOLOGICAL PROCESSES

PLANT-RELATED PATENTS

- DNA SEQUENCES (COMPLETE OR PARTIAL GENES)
- PROMOTERS
- ENHANCERS
- TRANSIT PEPTIDES
- INDIVIDUAL EXONS
- CLONING VECTORS
- EXPRESSION VECTORS
- AMINO ACID SEQUENCES (PROTEINS)
- NUCLEIC ACID PROBES
- ISOLATED HOST CELLS TRANSFORMED WITH EXPRESSION VECTORS
- MODIFIED PLANTS

PVP	Patents
Entire genome	Genes, gene constructs, cells, processes of obtention, etc.
NDUS	Novelty, inventive step, ind. applicability (utility)
Farmers' privilege (right to save and re-plant)	Exception is possible (e.g. France, Germany, etc.)
Breeder's exemption (mandatory, including commercialization if not an EDV)	Optional, only research and breeding (e.g Switzerland, Germany, France)
15-20 years	20 years

THE STATUS OF PATENTING PLANTS IN THE GLOBAL SOUTH



OXFAM



SOUTH
CENTRE

UN RAPPORTEUR ON THE RIGHT TO FOOD

- THE EXPANSION OF IPRS CAN CONSTITUTE AN OBSTACLE TO THE ADOPTION OF POLICIES THAT ENCOURAGE THE MAINTENANCE OF AGROBIODIVERSITY AND RELIANCE ON FARMERS' VARIETIES. IPRS REWARD AND ENCOURAGE STANDARDIZATION AND HOMOGENEITY, WHEN WHAT SHOULD BE REWARDED IS AGROBIODIVERSITY, PARTICULARLY IN THE FACE OF THE EMERGING THREAT OF CLIMATE CHANGE AND OF THE NEED, THEREFORE, TO BUILD RESISTANCE BY ENCOURAGING FARMERS TO RELY ON A DIVERSITY OF CROPS.

UN RAPPORTEUR ON THE RIGHT TO FOOD

- THE STRENGTHENING OF BREEDERS' RIGHTS IN THE UPOV 1991 CONVENTION IS ALSO A CONCERN.... DEVELOPING COUNTRIES SHOULD DESIGN SUI GENERIS FORMS OF PROTECTION OF PLANT VARIETIES THAT ALLOW THESE SYSTEMS TO FLOURISH, EVEN IF IT MEANS ADOPTING NON-UPOV COMPLIANT LEGISLATION, IF THEY DO JOIN UPOV, THEY SHOULD USE ALL FLEXIBILITIES AVAILABLE TO THEM.

UN RAPPORTEUR ON THE RIGHT TO FOOD

DONORS AND IGOS SHOULD SUPPORT DEVELOPING COUNTRIES TO ESTABLISH A REGIME FOR THE PROTECTION OF IPRS WHICH SUITS THEIR DEVELOPMENT NEEDS AND IS BASED ON HUMAN RIGHTS:

1. BY REFRAINING FROM IMPOSING ON THESE COUNTRIES THE CONDITION THAT THEY GO BEYOND THE MINIMUM REQUIREMENTS OF TRIPS, PARTICULARLY TRIPS PLUS PROVISIONS IN FTAS
2. BY ENCOURAGING THE PROVISION OF TECHNICAL ADVICE TO DEVELOPING COUNTRIES THAT FACILITATES THE ADOPTION OF *SUI GENERIS* SYSTEMS FOR THE PROTECTION OF PLANT VARIETIES