UNIVERSITY OF HOHENHEIM

International legislation for plant genetic resources

3502-470 Plant Genetic Resources

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Overview

Historical trends in Intellectual Property Legislation

The International Treaty of Plant Genetic Resources

The Standard Material Transfer Agreement

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What is the goal of an Intellectual Property legislation?

- Incentive to develop new technologies by providing financial returns on investments
- Inventor gets exclusive rights for a period of time
- Society gets a stimulus for further technological development by competition through publication (disclosure) of inventions

Some historical developments since 1989

- New technologies: Biotechnology
- Growing importance of private sector: Food, pharmaceutical and seed companies
- New markets: Globalization of world economy, former communist countries open up
- New free-trade agreements
- New international treaties

Convention on Biological diversity (CBD)

Convention on Biological Diversity

Article 1: Goals

- Conservation of biological diversity
- Sustainable use of its components
- Fair and equitable sharing of benefits from biodiversity
- Appropriate access and transfer of relevant technology

Convention on Biological diversity (CBD)

Article 15

- Confirmed principle of sovereign rights of states over their natural resources
- Includes potential legislation

Articles 16 and 17

- Liensing of proprietary technology
- Sharing of research and development results
- Training
- Protection

Trade-related Intellectual Property rights (TRIPS)

Goal

Obligation of members of WTO to provide patents for both products and process inventions in all field of technology, provided they are

- new
- involve an inventive step
- are capable of an industrial application

Trade-related Intellectual Property rights (TRIPS)

Patents (or some other form of protection)

Should be available and patent rights may be exercised without discrimination as to place of invention, field of technology, and whether products are imported or produced locally.

- Term: 20 years
- Possibility to exclude plant and animal patents, and patents on essential biological processes
- Burden of proof in patent infringement trials on manufacturer and not owner of patent

Key terms in plant variety protection

Farmer's exemption

Farmers have the right to maintain to store seeds for their own use.

Breeder's exemption

Breeders are allowed to use registered varieties as sources of initial variation to create new varieties.

Revisions of plant variety protection

Plant variety protection (PVP)

National legislations and international treaty (UPOV convention): first 1961, current version: 1978, most recent modifications: 1991

Limit farmer's exemption

Right to save seed to plant future crops and sell seeds, but now only the saving of seeds is allowed

Historical trends in Intellectual Property Legislation

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Background

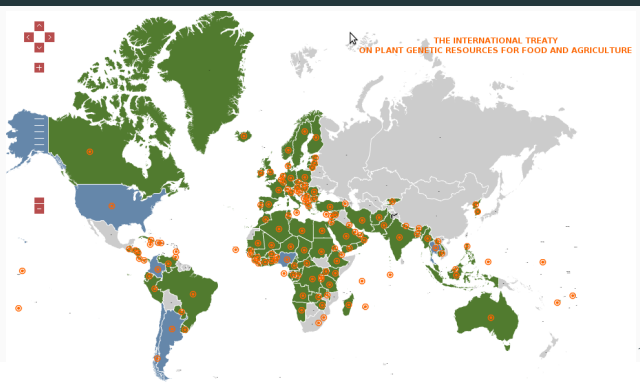
- 1992: Convention on Biological Diversity (CBD)
- Special agreement for agricultural crops:
  International Treaty on Plant Genetic Resources for Food and Agriculture
- Abbreviations: ITPGRFA, Plant Treaty, International Treaty
- Responsibility for the treaty: FAO

The International Treaty
ON PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE

History of the Plant Treaty

- Seven years of negotiations after the resolution 7/93 of 1993
- Aim: Define a CBD conform, multilateral use of plant genetic resources for food and agriculture (PGRFA)
- Effective as from 29 June 2004
- 123 signatory states including DE, FR, EU and USA
- Signed (ratified) by DE, FR, EU, later by USA but not China

History of the Plant Treaty



www.planttreaty.org

Content of the plant treaty

Subject matter:

Plant genetic resources for food and agriculture: Any genetic material of plant origin of actual or potential value for food and agriculture

Multilateral system:

To facilitate access to plant genetic resources for food and agriculture, and to share, in a fair and equitable way, the benefits arising from the utilization of these resources, on a complementary and mutually reinforcing basis.

Content of the plant treaty

Article 12.2

The Contracting Parties agree to take the necessary legal or other appropriate measures to provide access to other Contracting Parties through the Multilateral System.

Article 12.3d (Conditions for access)

Recipients shall not claim any intellectual property or other rights that limit the facilitated access to the plant genetic resources for food and agriculture, or their genetic parts or components, in the form received from the Multilateral System.

Content of the plant treaty

- Article 2.4: Facilitate the access to plant genetic material under the terms and conditions of the

  Standard Material Transfer Agreement (SMTA)

- Resolution 1/2006 of the Governing Body (16 June 2006)
- SMTA comprises ten articles and four annexes

Species included into the ITPGRFA

- The list of species covered by the Treaty is given in Annex 1
- They are included in the multilateral system of protection
- Contains all major crops and some minor crops
- See: `http://www.planttreaty.org/content/crops-and-forages-annex-1`
- **Question:** What about species that are not included in Annex 1?

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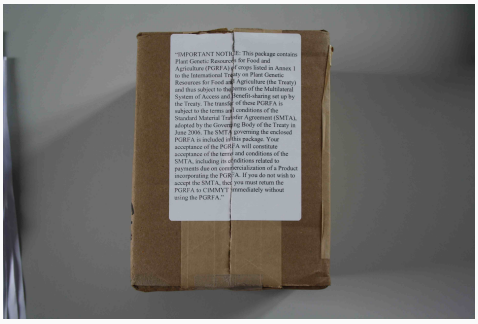
STMA: General dispositions

Article 1: Parties

- **Provider** and **Recipient** in case of signature
- **Shrink wrap:** Acceptance of MTA via acceptance of the material
- **Click wrap:** Acceptance of the MTA via mouse click

Receiving seeds unter the treaty



Receiving seeds unter the treaty

STMA: General dispositions

Article 2: Definitions:

- **Available without restriction:** a Product is considered to be available without restriction to others for further research and breeding when it is available for research and breeding without any legal or contractual obligations, or technological restrictions, that would preclude using it in the manner specified in the Treaty
- **Product:** Plant genetic Resources for Food and Agriculture ready for commercialization in contrast to Plant Genetic Resources for Food and Agriculture under Development

SMTA: General dispositions

- Article 3: Subject matter, to define in Annex 1
- Article 4: General dispositions. Governing body determines the third party beneficiary, which is the FAO

SMTA: Obligations of the provider

- The provider grants access to
  - plant genetic resources
  - its **passport data**
- Respects intellectual property rights
- Notifies the governing body

SMTA: Obligations of the recipient

- Use only for purposes of food and agriculture
- Do not use for non-food/feed industrial uses
- Make non-confidential biological data and material and material available to the multilateral system:
  - under the conditions of the MTA
  - and the notification of the governing body

SMTA: Obligations of the recipient

- Commercialization of a product that is not available without restriction:

  Flat rate licence fee of 1.1% of sales - 30% to FAO (exhaustive)
- Licensing of a product that has been developed on the basis of plant genetic material of the multilateral system:

  Flat rate licence fee of 1.1% of sales to FAO (exhaustive)
- Option to reduced payments:

  Flat rate licence fee of 0.5% of the licence fee to FAO (non exhaustive)

Benefit-sharing fund of the ITPGRFA

- Established in 2008
- Licensing fees are paid into this fund
- Additional money has been paid into this fund by governments
- Projects between farmers, breeders and scientists to conserve plant genetic resources are funded.
- More information: `http://www.planttreaty.org/content/benefit-sharing-fund-brief`

SMTA: Effects on research

The SMTA is a compromise between free access to plant genetic resources (“open source biology”) and intellectual property

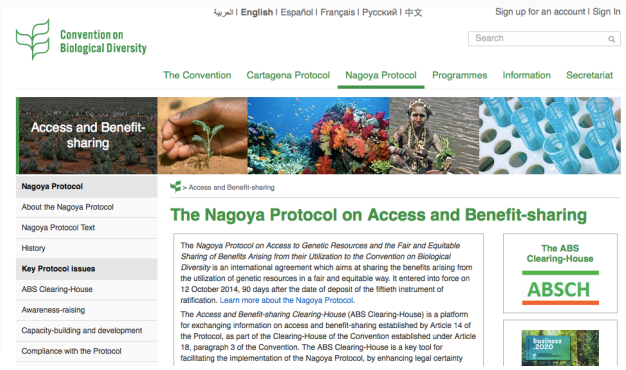
Universities:

- Access to plant genetic resources and its biological data
- But: obligation to inform governing body

Seed industry:

- Access to plant genetic resources and its biological data
- Legal certainty and dispute settlement mechanism
- But: flat rate licence fee, obligation to inform governing body

Nagoya Protcol



Nagoya Protocol

- Became effective 12 October 2014
- Regulates exchange of any biodiversity
- Does not cover plants included in ITPGRFA
- Requires a bilateral agreement for the exchange of biodiversity
- Requires the implementation of measures for benefit sharing

Further Reading

Plant Treaty

- Official website of the International Treaty on Plant Genetic Ressources for Food and Agriculture: `www.planttreaty.org`
- Moore and Tymowski (2005)

Further Reading

SMTA

- Instructions of the International Rice Research Institute (IRRI): `www.irri.org/grc/requests/StandardMTA.htm`
- Guide for the CGIAR Centres' Use of the Standard Material Transfer Agreement, 2009: `http://sgrp.cgiar.org/?q=node/668`

References i

Moore G, Tymowski W (2005) Explanatory Guide to the International Treaty on Plant Genetic Resources for Food and Agriculture. Tech. Rep. 57, IUCN - The World Conservation Union, URL `https://portals.iucn.org/library/sites/library/files/documents/EPLP-057.pdf`