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THE INTERNATIONAL TREATY ON PLANT GENETIC RESOURCES
A challenge for Asia

An International Treaty on Plant Genetic Resources for Food and Agriculture has been adopted on 3 November 2001 under the auspices of the Food and Agriculture Organisation (FAO). The Treaty relates to plant genetic resources for food and agriculture, which its text defines as

> *any genetic material of plant origin of actual or potential value for food and agriculture* [Article 2].

The objective of the Treaty is the

> *conservation and sustainable use of plant genetic resources for food and agriculture and the fair and equitable sharing of the benefits arising out of their use, in harmony with the Convention on Biological Diversity (CBD), for sustainable agriculture and food security* [Article 1.1].

The global system of plant genetic resources, before CBD, was premised on the principle of "common heritage of humanity". The CBD brought genetic resources under the jurisdiction of national governments and linked the access of these genetic resources to the equitable sharing of any resulting benefits. These principles triggered the work on the development of the Treaty. The adoption of the Treaty marks the culmination of a slow and arduous process to revise the International Undertaking that had been adopted by the FAO in 1983.

Countries came to the negotiations with very different expectations:

- …those that sought protect their country's commercial interests above that of free access to plant genetic resources for food (e.g. US). When the Treaty text was put to vote for adoption, the US and Japan abstained from voting due to an article on intellectual property rights (IPRs) being ambiguous.
- …those seeking to strike bilateral deals for their genetic resources (e.g. Brazil). There are countries that would rather not place their crop germplasm for free circulation when they are valued export products, like China's soybean.
- …those endeavouring to support farmers' rights and address concerns of food security and agricultural biodiversity (e.g. India). There has been strong lobbying from the few voices representing NGOs and farmer groups globally to get these concerns addressed in the Treaty.

The Treaty will come into force once 40 governments have ratified the text. Nine countries (Burkina Faso, Central African Republic, Côte d'Ivoire, Haiti, Jordan, Mali, Mexico, Namibia, Senegal) have already signed the Treaty on 9 November 2001. No Asian countries have yet signed. The sooner the Treaty is ratified, the sooner the Governing Body of the Treaty would be formed, as it is to be constituted by governments that ratify the Treaty. The FAO's Commission on Genetic Resources for Food and Agriculture (CGFRA) is acting as the Interim Secretariat of the Treaty in the meantime.

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The Treaty is conspicuously silent about the treatment of non-parties, Article 31 merely stating that they be "encouraged" to accept this Treaty. This raises the issue, now familiar to Asian governments, about dealing with the US. The US has chosen not to adhere to the IU in the past and also shows no allegiance to international conservation instruments like the CBD.

Table 1. From UNDERTAKING to TREATY

1983	International Undertaking (IU) adopted by the FAO Conference
1983	Commission on Plant Genetic Resources (CPGR) established
1989	FAO Resolution 4/89 states plant breeders' rights not inconsistent with IU
1989	FAO Resolution 5/89 recognises Farmers' Rights
1991	FAO Resolution 3/91 recognises sovereign rights of nations on their genetic resources
1992	Agenda 21 (Chapter 14) at Rio calls for strengthening of the FAO Global System on plant genetic resources
1993	Convention on Biological Diversity (CBD) enters into force
1994	First Extraordinary Session of CPGR starts revision of IU to harmonise it with CBD
1995	CPGR's mandate expanded to be Commission on Genetic Resources for Food and Agriculture (CGFRA)
1996	FAO Leipzig International Technical Conference on plant genetic resources where 150 countries adopted the Leipzig Declaration and the Global Plan of Action
July 2001	Sixth Session of CGFRA adopted revised IU
November 2001	FAO Council considers pending issues on IU
November 2001	International Treaty adopted by the FAO Conference

Numerous Asian governments, particularly those from India, Malaysia and the Philippines were very active in the negotiations on the text. Unfortunately, few NGOs were involved in the discussions shaping the Treaty. They were concerned mostly about farmers' rights and IPR issues, which remain somewhat weak and open to interpretation as the Treaty is implemented.

The crops and forages covered

The Treaty works through the creation of a Multilateral System (MLS) that would provide for facilitated access to a negotiated list of plant genetic resources and for the fair and equitable sharing of the benefits arising from their use. The MLS is an attempt to keep the listed agricultural genetic resources in free circulation, thereby providing for their conservation and sustainable use. The developing countries rich in genetic resources are encouraged to place germplasm in the MLS, in return to receive benefit sharing in the areas of information exchange, technology transfer and capacity building. *Ex-situ* collections prior to CBD, which do not come under the purview of the Convention, would now also be dealt with under the Treaty. Listed in Annex I of the Treaty (please see Appendix I) are 35 food crops and 29 forages, which would come under the MLS. The list seeks to capture those crops that are crucial for food security and also over which there is greatest interdependency amongst countries.

The low number of crops and forages included on the list has brought severe criticism from many, including some farmer groups. Also the list, some fear, would be viewed as an exhaustive one for food relevant crops. To add crops or forages to this list is a matter of "amending" the Treaty's Annex I, as per procedure detailed in Articles 23 & 24. Any Contracting Party can propose an amendment at a session of the Governing Body (once established). However, amendments to the Treaty need to be approved by all (due to the consensus clause), and therefore a single country can block any proposed amendments. The expansion of this list needs to be another priority for Asian governments.

What's in it for Asia's farmers?

In Asia, where over two-thirds of the population are small farmers or live in farming communities, the provisions on Farmer Rights' need to be carefully examined. The provisions relating to Farmers' Rights are included in PART III of the Treaty in Article 9.

PART III – FARMERS' RIGHTS

Article 9 – Farmers' Rights

9.1 The Contracting Parties recognize the enormous contribution that the local and indigenous communities and farmers of all regions of the world, particularly those in the centres of origin and crop diversity, have made and will continue to make for the conservation and development of plant genetic resources which constitute the basis of food and agriculture production throughout the world.

9.2 The Contracting Parties agree that the responsibility for realizing Farmers' Rights, as they relate to plant genetic resources for food and agriculture, rests with national governments. In accordance with their needs and priorities, each Contracting Party, should, as appropriate, and subject to its national legislation, take measures to protect and promote Farmers' Rights, including:

(a) protection of traditional knowledge relevant to plant genetic resources for food and agriculture;
(b) the right to equitably participate in sharing benefits arising from the utilization of plant genetic resources for food and agriculture; and
(c) the right to participate in making decisions, at the national level, on matters related to the conservation and sustainable use of plant genetic resources for food and agriculture.

9.3 Nothing in this Article shall be interpreted to limit any rights that farmers have to save, use, exchange and sell farm-saved seed/propagating material, subject to national law and as appropriate.

Article 9 on Farmers Rights is a weak statement and leaves responsibility to national governments, without the backing by any international mechanism or enforcement procedure. However, it is the only provision in the Treaty that addresses the issue of farmers' control over seeds. Whilst the Treaty acknowledges the farmers' right to save, use, exchange and sell farm-saved seed, this right is made subject to national legislation. However, national governments in Asia when legislating on the subject are being arm-twisted into making laws that do not adequately provide for farmers´ rights. The World Trade Organisation's (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs) obliges parties, amongst other things, to provide for patents or establish "an effective *sui generis* system" of protection for plant varieties. Virtually all Asian countries are members of WTO (see Table 3) and have to enact (plant variety protection) PVP legislation. The global corporate seed sector is aggressively pushing for the Union for the Protection of New Varieties of Plants (UPOV) as the appropriate "*sui generis*" system (see Box: UPOV – the favoured *sui generis*). In Asia, Bangladesh, China, India, Indonesia, Korea, Malaysia, Pakistan, Philippines,

Taiwan, Thailand and Vietnam already have UPOV-styled plant variety protection laws in force or are in the process of being made.

Indeed NGOs could utilise the farmers' rights provisions of the Treaty to gain greater protection for farmers in Asia. The Treaty creates space to recognise farmers' rights on their own terms, outside of intellectual property systems. This might best be done in separate legislation that PVP laws must comply with – not the other way around.

UPOV – the favoured *sui generis*

UPOV is an intergovernmental organization, comprising 50 members mostly from developed countries, which administers common rules for the recognition and protection of PVP internationally. UPOV seeks to protect the interests of commercial breeders.

UPOV-type PVP protects the interest of breeders, not farmers. Since farmers can often re-use the seed from their harvests, they are considered direct competitors of breeders who develop commercial and legally protected varieties. The way UPOV is implemented is nationally; farmers are sometimes allowed to save seed of protected varieties, but only under highly restricted conditions. This is called the "farmers' privilege". It is an exemption from the rights of the breeders but it is not a positive right for the farmers themselves.

Since UPOV leaves discretion on farmers' privilege to individual states, it is for farmers in Asian countries to insist with their governments that a mere "farmers' privilege" provision in a UPOV-styled law does not adequately guarantee farmers' rights.

More broadly, for the interest of farmers the Treaty requires its member governments to

> *promote or support, as appropriate, farmers and local communities' efforts to manage and conserve on-farm their plant genetic resources for food and agriculture* [Article 5.1(c)].

In its mandate to promote the sustainable use of plant genetic resources, there is also the obligation to promote,

> *as appropriate, plant breeding efforts which, with the participation of farmers, particularly in developing countries, strengthen the capacity to develop varieties particularly adapted to social, economic and ecological conditions, including in marginal areas* [Article 6.2(c)].

Likewise in Articles 13.3 and 18.5, the Treaty expressly states that benefits arising from the use of plant genetic resources for food and agriculture that are shared under the Multilateral System should flow to farmers in all countries, "especially in developing countries" and that priority will be given to the implementation of agreed plans and programmes "for farmers in developing countries".

The intellectual property muddle

In the Treaty the access to plant genetic resources from the Multilateral System is provided to recipients on the condition among others, that they

> *…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* [Article 12.3(d)]

This is perhaps one of the most controversial articles in the Treaty. Article 12.3(d) implies that genetic material from the Multilateral System can be patented (or restrict access through IPRs) if they have been modified in some way. The words "in the form received" suggest that IPRs on modified parts and components of the listed crops and forages would be permitted, since after modification the genetic resources would no longer be in the same form as in which they were received. The serious implications of such a wording are further heightened by the fact that certain countries in the North allow patents for mere isolation of a gene from a plant leave aside substantial modification. Thus, the lack of a clear ban on patents or any other IPRs on crops for food and fodder is troublesome to farmers' and civil society organisations.

The Treaty envisages the commercialisation of plant genetic resources in the context of benefit sharing, but does not mention IPRs as the basis for benefit sharing, as the biotech industry would have liked. The industry, and particularly ASSINSEL, does not support the treaty as the IPR provisions are ambiguous and there is a lack of reference to contractual agreements for access and benefit sharing. The industry hints that there will be no sharing of monetary and other benefits of commercialisation until provisions for patents are made in the text of the Treaty. In a world where agri**culture** is fast becoming agri**business** Asian farmers are pitted against agricultural exports from countries in the North. And it is through IPRs that these countries would seek to acquire and retain control over the market.

New rules for international genebanks

The Treaty has provided an opportunity to revisit agreements between the FAO and the Consultative Group on International Agricultural Research (CGIAR). The CGIAR system [with its 16 International Agricultural Research Centres (IARCs), see Table 2] holds the world's largest collections of plant genetic resources outside their natural habitat, which includes both farmers' varieties and improved varieties.

Table 2. The CGIAR IARCs

1	CIAT International Centre for Tropical Agriculture
2	CIFOR Centre for International Forestry Research
3	CIMMYT International Centre for the Improvement of Maize and Wheat
4	CIP International Potato Centre
5	ICARDA International Centre for Agricultural Research in the Dry Areas
6	ICLARM International Centre for Living Aquatic Resources Management
7	ICRAF International Centre for Research in Agro forestry
8	ICRISAT International Crops Research Institute for the Semi-Arid Tropics
9	IFPRI International Food Policy Research Institute
10	IWMI International Water Management Institute
11	IITA International Institute of Tropical Agriculture
12	ILRI International Livestock Research Institute
13	IPGRI International Plant Genetic Resources Institute
14	IRRI International Rice Research Institute
15	ISNAR International Service for National Agricultural Research
16	WARDA West Africa Rice Development Association

In 1989 the Commission on Plant Genetic Resources had called for the setting up of an internationally coordinated network of gene banks under the FAO – the International Network of *Ex Situ* Germplasm Collections. In 1994, the Centres of the CGIAR signed agreements with the FAO, placing most of the collections in this International Network. Through these agreements the Centres are bound to hold designated germplasm "in trust for the benefit of the international community", and "not to claim ownership, or seek intellectual property rights over the designated germplasm and related information".

More importantly, the Governing Body of the Treaty, not later than its second session, is mandated to amend the Material Transfer Agreements (MTAs) currently in use pursuant to the agreements between the IARCs and the FAO. The revision of MTAs is of critical importance to countries in Asia. Late last year it was discovered that a US plant geneticist had obtained the seeds of the original strain of the famed Thai Jasmine rice, Khao Dok Mali (KDM) 105, from the Philippines-based CGIAR centre - International Rice Research Institute (IRRI). But no Material Transfer Agreement (MTA) was drawn up or signed in that process, despite international obligations on IRRI to enforce this. There is therefore a need to deal with situations such as these where germplasm provided by an IARC has been "leaked out" for research and development to Northern scientists with a complete disregard of the MTAs. The Treaty provides an opportunity to plug such leaks with more rigorous MTA requirements. Bio-rich countries such as Asia can insist on a detailed system of monitoring and tracking alongside the MTAs when granting "facilitated access" to genetic resources.

Conclusion

The International Treaty on Plant Genetic Resources is a compromise; IPRs on genetic resources have not been excluded, there is no guarantee against the commercialisation of the genetic resources and there is no clarity on benefit sharing from commercial use. Nonetheless, the Treaty brings together several of the issues faced by Asian farmers and governments alike, stemming from the privatisation and loss of genetic diversity. Issues relating to farmers' rights, intellectual property rights and international agricultural research can all be dealt with at the international level through the space the Treaty provides. Progressive positions taken by countries in the Treaty would also work well for instance to define their strategies to counter TRIPs or UPOV measures.

Table 3. The Asian Membership

Country	FAO Membership with effect from	CGRFA Member	Have adhered to Undertaking	CBD Membership with effect from	WTO Membership with effect from
Bangladesh	12 November 1973	X	X	3 May 1994	1 January 1995
Bhutan	7 November 1981			25 August 1995	
Cambodia	11 November 1950	X		9 February 1995	
China	16 October 1945	X		5 January 1993	11 December 2001
India	16 October 1945	X	X	18 February 1994	1 January 1995
Indonesia	28 November 1949	X		23 August 1994	1 January 1995
Korea	25 November 1949	X	X	3 October 1994	1 January 1995
Laos	21 November 1951			20 September 1996	
Malaysia	9 November 1957	X		24 June 1994	1 January 1995
Maldives	8 November 1971	X		9 November 1992	31 May 1995
Myanmar	11 September 1947	X		25 November 1994	1 January 1995
Nepal	21 November 1951	X	X	23 November 1993	
Pakistan	7 September 1947	X		26 July 1994	1 January 1995
Philippines	16 October 1945	X	X	8 October 1993	1 January 1995
Sri Lanka	21 May 1948	X	X	23 March 1994	1 January 1995
Taiwan					1 January 2002
Thailand	27 August 1947	X			1 January 1995
Vietnam	11 November 1950			16 November 1994	

Appendix I

List of crops covered under the Multilateral System (as contained in Annex I of the Treaty)

Food Crops	Forages
1. Apple	LEGUME FORAGES
2. Asparagus	Astragalus
3. Banana/plantain	Canavalia
4. Barley	Coronilla
5. Beans	Hedysarium
6. Beet	Lathyrus
7. Brassica complex	Lespedeza
8. Breadfruit	Lotus
9. Carrot	Lupinus
10. Cassava	Medicago
11. Chickpea	Melilotus
12. Citrus	Onobrychis
13. Coconut	Ornithopus
14. Cowpea	Prosopis
15. Eggplant	Pueraria
16. Faba bean/vetch	Trifolium
17. Finger millet	
18. Grass pea	GRASS FORAGES
19. Lentil	Andropogon
20. Maize	Agropyron
21. Major aroids	Agrostis
22. Oat	Alopecurus
23. Pea	Arrenatherum
24. Pearl millet	Dactylis
25. Pigeon pea	Festuca
26. Potato	Lolium
27. Rice	Phalaris
28. Rye	Phleum
29. Sorghum	Poa
30. Strawberry	Tripsacum
31. Sunflower	
32. Sweet potato	OTHER FORAGES
33. Triticale	Atriplex
34. Wheat	Salsola
35. Yam	

Appendix II

For more information:

www.grain.org
www.ukabc.org
www.itdg.org
www.fao.org
www.etcgroup.org/documents/trans_treaty_dec2001.pdf

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