

Governing Genetic Resources: Profit for a Few or Food for All¹

Challenges for the World Food Summit 2001²

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International Undertaking on Plant Genetic Resources

A treaty that will safeguard food security, Farmers' Rights and international agricultural research is about to be agreed by the *United Nations Food and Agriculture Organization (FAO) Conference*, which will be held at the time of the *World Food Summit - five years later* in November 2001.

Three key issues, however, are still unresolved concerning *Intellectual Property Rights*, the relationship with the *World Trade Organization* and which *crops and forages* will be included in this treaty.

This legally-binding treaty is called the *International Undertaking on Plant Genetic Resources (IU)*. It covers major food crops and forages developed in farmers' fields and stored in public gene banks. It aims to ensure the conservation, sustainable use and 'free flow' of the genetic resources of these crops and forages and, when they are used commercially, that farmers in developing countries receive a fair share of the benefits. In summary, and as written in the preamble of the new text, the IU provides the basis for a "*multilateral system for facilitated access to these genetic resources and for the fair and equitable sharing of the benefits arising from their use*".

The International Undertaking is the only international agreement which could:

- Protect the rapidly eroding genetic resources which underpin global food security, and encourage their sustainable use;
- Put pressure on governments to keep these genetic resources in the public domain, and where patents and other forms of intellectual property claims on them currently limit availability, facilitate access to these resources for present and future generations;
- Ensure the implementation of Farmers' Rights - that farmers, especially the world's smallholder farmers on whom the food security of billions of people rests, can save, use, exchange and sell seeds and other propagating materials; and

- Ensure farmers receive a reasonable share of the benefits from the commercial use of these resources.

The agreement is overdue. It is needed, not least, to counter the rapid loss of these varieties from farmers' fields – more than 90 per cent in the past century – but also to protect the genetic resources stored in, often poorly maintained, public gene banks; and to limit the increasing use of intellectual property rights (IPRs) to claim sole ownership over crop seeds and genes, which is further restricting farmers' access.

DECISIVE ISSUES

Most of the text of the IU has been agreed even though some articles, for example on '*consensus decision making*' and *Farmers' Rights* are severely flawed. However, the IU will be adopted by the FAO Conference in November only if the following three decisive issues can be resolved in time:

- the exclusion of the genetic resources covered by the IU from IPRs, keeping the resources in the public domain
- the relationship between the IU and other international agreements, most notably the *World Trade Organization (WTO)* agreement on *Trade Related Aspects of Intellectual Property Rights (TRIPs)*
- the food crops, forages and their 'wild' relatives that are to be included in the IU.

Access, IPRs and Benefit Sharing

IPR regimes create a financial incentive to displace locally adapted varieties and their genetic traits from communal ownership and exchange, threatening future development of these varieties. IPRs remove these resources from the public domain and encourage the promotion of uniform monocultures of modern varieties which contribute to genetic erosion and hence long-term genetic and food security.

Many Southern governments, supported by CSOs, believe that one of the key purposes of the IU is to keep these genetic resources for food and agriculture free of IPRs and hence any limitations to access. This exemption from IPRs should apply not only to seeds and other vegetatively

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reproducing material, but also to the genes they contain which express the special traits that farmers have bred into these crops and forages.

The seed industry argues for fewer exemptions from IPRs and would want the IU to specify that any material (e.g. varieties, genes and gene sequences) derived from material included in the IU, could be subjected to IPRs, including patents. This was the trigger for the withdrawal of support by the commercial seed industry to the draft negotiating text of the IU. At its World Seed Congress in Sun City, South Africa in May 2001 and, under pressure from the Canadian and US governments, Industry hardened its attitude against the IU, reneging on its support for the then current text on "commercial benefit sharing".

It has now been agreed that the only mandatory commercial benefit sharing will be based on forms of use of genetic resources, which restrict access to material included in the IU. This will mainly arise only if material derived from the crops and forages included in the IU can be patented. Thus, only if patents are allowed on derived material will there be mandatory commercial benefit sharing. Given this link, many communities and governments question the value of these benefits.

Benefits in-kind and through the financial mechanism will anyway exceed those derived from this mandatory commercial benefit sharing arrangement. Other mandatory ways of sharing the benefits from the commercial use of plant genetic resources for food and agriculture, for example by the food industry, must be explored. It is estimated that the food industry's global annual turnover is in excess of \$2 trillion - all of this is based on genetic resources - and more benefits should be provided to poor farmers, who are the principal developers and managers of these resources, proportional to the massive benefits rich people get from food.

This decisive issue concerning IPRs and related to benefit sharing will probably only get resolved if the disputed text is agreed in its entirety.

Article 13 – Facilitated access to plant genetic resources for food and agriculture within the Multilateral System

13.3 (d) [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];

Many governments and CSOs would like [in the form] deleted to ensure that derived materials cannot have IPR claims made on them. Others would like [or their genetic parts or components,] deleted, which together with a weak definition of plant genetic resources for food and agriculture, would mean that restrictions for IPRs would only apply to the raw material - the seeds - covered by

the IU. But of course IPRs could not be claimed legally on this material because it is 'unimproved' and contains no 'inventive step'.

Attempts to open up the text and make it less ambiguous will more likely derail the negotiations and the IU will not get adopted in November.

There is a linked debate on the IU's definitions of "Plant genetic resources for food and agriculture" and "Genetic Material".

["Plant genetic resources for food and agriculture" means any material of plant origin, including reproductive and vegetative propagating material, containing genetic parts and components, functional units of heredity, of actual or potential value to food and agriculture.

OR

"Plant genetic resources for food and agriculture" means any material of plant origin, including reproductive and vegetative propagating material, and its genetic parts and components containing functional units of heredity of actual or potential value for food and agriculture.]

["Genetic material" means any material of plant origin containing functional units of heredity.]

Here, the dispute is the same: it is whether the IU explicitly covers the "genetic parts and components containing functional units of heredity" or only "reproductive and vegetative propagating material". Put crudely, is the IU - the International Undertaking on Plant Genetic Resources - about Seeds or Genes? But how could a treaty dealing with "Genetic Resources" not cover "Genes" and "Genetic Material". This confusion is indicative of fast changing context in which the IU has been negotiated (see below).

If the compromise text of Article 13.3(d) stands and the IU can be agreed in November, this issue of the privatisation of genetic resources will continue to dominate the first meetings of the Governing Body of the IU.

Relationship with other international agreements

Convention on Biological Diversity: Some Latin American countries, especially Brazil, fail to recognize the imperative for a multilateral system to cover the complex international composition and origin of most crop plants' genes. These countries prefer bilateral deals, within the scope of the *Convention on Biological Diversity* (CBD), despite the fact that the purpose of this renegotiation has been to bring the IU into harmony with the CBD. A lot of work is needed to try and convince governments in particular that they are dependent on a wide range of genetic resources: interdependence is a key to food security. The alternative bilateral scenario has been described by some as "Wild West wheeling-and-dealing".

World Trade Organization: Pressure from some of the *Cairn's group*, for example, Argentina and Australia, is trying to make this treaty subordinate to the *World Trade Organization* (WTO) and its agreement on Trade related Aspects of Intellectual Property Rights (TRIPs). This is part of an attempt to further weaken the IU. The European Union, among others, will insist that the IU reflects agreements negotiated elsewhere, for example in the Biosafety Protocol, to ensure that it is NOT subordinate to other agreements in general and the WTO in particular. Otherwise there will be no agreement.

The list of crops

At present, the IU only covers 35 food crops (including the *Brassica* complex which itself includes several crops from Cabbages to Rocket) and 29 forages. These represent a small proportion of the 105 food crops of importance to food security, the many others that have nutritional significance and some 18,000 forages of value to food and agriculture. *Onion, Garlic, Groundnut / Peanut, Oil Palm, Soybean, Tomato, Sugarcane and Minor Millets* are among important crops missing from the list. Without a significant expansion of the list of crops and forages, the European Union will probably not agree to the IU in November.

The report of the meeting in which the text of the IU was adopted contains a complex series of lists, which show that most of the important crops and forages are agreed to by most countries with only one or two countries or regions objecting. These lists are worth close examination (See the report of 6th Extraordinary meeting of the CGRFA, Appendix E, FAO 2001).

There is a potential cascade of inclusions if various countries or regions that are vetoing inclusion of one or more crops - even though in some cases these do not even originate in their territories - were to release their chosen crop. For example, if China were to include *Soya*, then India might then include *Onions* especially *Garlic, Sugar Cane* and possibly Malaysia might include *Oil Palm*. This could trigger a response from Brazil and other Latin American countries to include *Groundnut* and *Tomato* or even the *Solanaceae* complex - all the many species and their wild relatives in this family group which includes not only *Tomato* but also *Pepper, Eggplant* and *Potato* although the last two are already specifically included in the list of 35 crops. Brazil might then also include many *Forage Legumes*. In turn, this could stimulate the inclusion of all African *Forage Grasses*.

This list is important not only for food security, per se, but also to ensure that the CGIAR can continue to work on its mandate crops and continue to gain access to the wild relatives of these crops. If a crop or species is not on the list it is giving the hard-pressed CGIAR and its donors a signal that these

are no longer important - and work on the crops will cease. An example of the potential impact of this can be found in work on the *Grass Pea - Lathyrus*. This has a high level of toxicity but can grow in exceedingly hostile conditions. A programme to breed out these toxic traits could provide a new crop of possible benefit to people in marginal lands. If *Lathyrus* were not to have been on the list, work on it would cease.

High-level bilateral and inter-regional negotiations need to press for more inclusions in the list of crops and forages or else the IU will be an empty treaty and it will not be agreed in November.

Resolution of these Decisive Issues

Civil Society Organisations (CSOs) are urging governments to negotiate bilaterally over the next few months to resolve these outstanding issues so that the IU can be agreed in November. While agreement is essential, CSOs insist that the IU must not only ensure guaranteed access to the genetic resources for food and agriculture required by farmers and that Farmers' Rights are implemented, but also ensure that these resources and their "parts and components" cannot be privatised through IPR systems: genetic resources for food and agriculture should be kept in the public domain and biopiracy outlawed.

CSOs also insist that the IU must deliver benefits to farmers in developing countries, through mandatory payments and the financial mechanism, that are commensurate with the benefits humankind derives from the use plant genetic resources for food and agriculture. The food we eat comes from these resources and farmers expect a reasonable share of the benefits rich consumers derive.

After seven long years of negotiation, failure is unthinkable, but, in order to be effective, the IU must be:

- fair - a level playing field on access rules without any threat of privatisation and biopiracy
- equitable - provide reasonable benefits to poor farming communities in developing countries, and
- comprehensive - contain a full list of the crops and forages that are vital for food security.

GOVERNANCE

The IU is a profoundly important international agreement, which recognises in its preamble that "*the management of plant genetic resources for food and agriculture are at the meeting point between agriculture, the environment and commerce, and ... that there should be synergy among these sectors*". (See Diagram 1).

During its lifetime since it was first agreed as a voluntary agreement in 1983, all the rules on Intellectual Property, Trade, Access and Benefit Sharing have been re-written and new agreements on Conservation and Sustainable Use have been ratified. Consider this: the original IU was agreed before the first Life Patent was awarded and before the Uruguay Round of the General Agreement on Tariffs and Trade started. Biotechnology and the science of genetic modification was in its infancy. After the Rio treaties in 1992, the *Nairobi Final Act* in 1993, which implemented the Convention on Biological Diversity, also agreed a number of resolutions including *Resolution 3*, which called for the renegotiation of the IU in "*harmony with the CBD*". This, though, pre-dated the birth of the WTO and the Agreement on TRIPs and its controversial Article 27.3(b) on IPRs and Genetic Resources.

Later still, after the 1996 landmark agreement in Leipzig on a *Global Plan of Action on PGRFA*, Decisions on Agricultural Biodiversity by the CBD (III/11, IV/6, V/5), various FAO Conference Decisions, the alarming spread of genetically-modified crops, the debacle of the WTO Ministerial meeting in Seattle and the successful agreement of the *Biosafety Protocol*, the IU entered its final and decisive stages of negotiation under the dynamic leadership of Ambassador Gerbasi from Venezuela.

It is unsurprising that these negotiations have been difficult, given the turbulent context in which they have been conducted.

It is now important to ensure that the IU is agreed, implemented and recognised by many organisations with which it will interact. It will influence the policies of many intergovernmental organizations, for example:

- food security policies and practice and the management of agricultural biodiversity - a role fulfilled internationally by the **FAO**;
- the conservation and sustainable use and benefit sharing mechanisms for genetic resources for food and agriculture and agricultural biodiversity - the mandate of the **CBD**; and
- alternatives to IPR systems - a different way of excluding genetic resources for food and agriculture from systems of IPRs from those provided under Article 27.3(b) of the Agreement on Trade Related aspects of Intellectual Property Rights (TRIPs) of the **WTO**.

Furthermore, this treaty could impact on:

- the implementation of the International Union for the Protection of New Varieties of Plants (**UPOV**) Convention to ensure that there is continued access to breeding material by farmers;

- the discussions in the World Intellectual Property Organization's (**WIPO**) "Intergovernmental committee on intellectual property and genetic resources, traditional knowledge and folklore" which will consider rights to genetic resources for food and agriculture;
- international agricultural research on genetic resources and agricultural biodiversity, especially through the International Agricultural Research Centres (IARCs) of the Consultative Group on International Agricultural Research (**CGIAR**), for which the IU will provide an intergovernmental forum in which their programmes can be addressed; and
- the effective use of Global Environment Facility (**GEF**) funds for the conservation and sustainable use of genetic resources for food and agriculture, including providing further funds for international agricultural research - a preferable option to corporate sector funding through a proposed endowment fund.

WORLD FOOD SUMMIT - FIVE YEARS LATER

The *World Food Summit - five years later* could provide an excellent opportunity to send clear messages about the importance of this treaty to the fourth Ministerial meeting of the *World Trade Organization* (WTO) in Doha, the sixth Conference of the Parties to the *Convention on Biological Diversity* (CBD) in The Hague and the *World Summit on Sustainable Development* (WSSD) in Johannesburg. From 2 to 13 November, in Rome, Italy, 180 governments will be responsible for the final negotiations of the IU at the FAO Conference and the *World Food Summit - Five years later* at the same time must debate and agree how it will communicate the outcome of the IU negotiations to these other intergovernmental fora.

The IU has the potential to be a prime example of responsible global governance, ensuring that those genetic resources which underpin social needs are maintained in the public domain. This agricultural biodiversity provides security against future adversity, be it from climate change, war, industrial developments, biotechnological calamities or ecosystem collapse.

As a recent briefing paper by GRAIN emphasises "*The governing body that will manage the Undertaking, and the multilateral system, should provide a political platform where issues related to crop genetic resources can be dealt with openly at the international level. Everybody, but especially farmers at the local level in need of continued access to agricultural biodiversity, stands to win from such a system.*" (IU Hanging on its Last Brackets, GRAIN, July 2001)

It is imperative that agreement is reached not only for food security and farmers' livelihoods but also

the future of the international gene banks and public agricultural research. The implementation of the 1996 Leipzig Global Plan of Action on plant genetic resources for food and agriculture equally depends on a successful outcome. Failure to reach an agreement at the FAO Conference and World Food Summit - Five years later would also damage the credibility of the FAO as it hosts this high profile summit: it is unthinkable.

The challenge for governments is simply whether the world's agricultural biodiversity is to be nurtured to provide profit for a few or food for all. The IU, while not perfect, could provide the start of an answer and the Summit, although potentially distracted by development targets, biotechnology and food aid, could be the medium to convey this good news.

For further information, official texts, CSO papers, media reports and so on, see:

UK Agricultural Biodiversity Coalition IU pages:
<http://www.ukabc.org/iu2.htm>

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Diagram 1

INTERNATIONAL UNDERTAKING: Central to the Governance of Genetic Resources for Food and Agriculture

