



WHO WILL OWN THE GENES IN OUR FOOD? Keeping free access to the world's plant genetic resources for food and agriculture

**ITDG¹ Briefing Paper on the negotiations towards an International
Undertaking on Plant Genetic Resources for Food and Agriculture**

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The issues: wouldn't it be wonderful if...

...the basic genetic resources which underpin the world's food security could always be freely available to anyone – farmers, gardeners, plant breeders – that needs them?

...the vast range of food crop and vegetable varieties, and the genes within them, could be used sustainably and conserved for future generations?

...a portion of the money we all spend on food derived from genetic resources developed mainly in the poor countries of the world went back to those countries' farmers as an incentive to continue sustainable agriculture?

...the smallholder farmers who feed the world, and conserve and manage these resources, could keep their rights to save, use, exchange and sell the seeds they grow, even those that have been privatised?

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It's possible: a once-only window of opportunity

There is an international agreement that could ensure all of those things happen – if the world's governments agree to it becoming legally-binding upon them.

It is called the International Undertaking on Plant Genetic Resources for Food and Agriculture (the IU). It has been around since 1983 as a *voluntary* agreement to which many countries have adhered. Now, **there is a chance to make it law**. The intergovernmental Commission which is responsible for the IU is currently trying to complete the negotiations which would make it internationally *legally-binding*.

What would a legally-binding IU do?

The International Undertaking is the principal international agreement which *could*:

- Protect the rapidly eroding 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 limit availability, facilitate access to these resources for current and future generations;
- Ensure 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 material in their customary manner [Farmers' Rights]
- Create benefits to farmers from the commercial use of these resources, which they have developed and conserved.

There is a detailed negotiating text which is continually being worked upon. But the negotiations have verged on collapse. *A higher level of pressure and political commitment is required if an IU with truly binding commitments is to be achieved.*

Plant genetic resources for food and agriculture: what are they and where are they?

The world's food security depends in large part on the vast range of plant varieties, and the genes they contain, which are overwhelmingly sourced from developing countries. Wheat originating from Mesopotamia, Rice from S E Asia and Maize from Central America provide more than 50% of the world's food energy supply. Together with another 6 crops², also from the South, they account for 75%.

Genebanks

Some of these resources have already been collected and stored elsewhere. Notably, there are 500,000 'accessions' stored in a network of genebanks in International Agricultural Research Centres (IARCs), many of them based in developing countries. There are other public sector genebanks and private collections. Together these represent a potential resource for commercial exploitation which biotechnology and other multinational companies would be keen to develop. At present there is a limited Accord to keep the IARC resources in the public domain. Developing countries want the whole genome of these life forms exempted from intellectual property rights; developed countries say that while the intact seed should not be available for patenting, material derived from its genes could be. As the research institutes struggle to maintain public funding, the temptation to accept private funding is growing.

'On farm'

The vast majority of the plant genetic resources used for food and agriculture, however, are where one would expect them to be – out in the fields. Most species and varieties are kept alive and developed by the smallholder farmers of developing countries who provide two thirds of the world's people with their food. The plant genetic resources form one part of the 'agricultural biodiversity'³ which the Convention on Biological Diversity, a legally-binding instrument which emerged from the Rio Earth Summit, aims to protect and conserve. The CBD also aims to ensure that any benefits arising from their use are fairly and equitably shared. It cannot achieve these aims without the active involvement of farmers in sustainable on-farm conservation.

² Millet, Sorghum, Potatoes, Sweet Potatoes, Sugar Cane, Soybeans (FAO 1996)

³ Agricultural biodiversity encompasses the variety and variability of animals, plants and micro-organisms which are necessary to sustain key functions of the agro-ecosystem, its structure and processes for, and in support of, food production and food security. (FAO, 1999)

For centuries farmers have developed this agricultural biodiversity through both their farming practice, and through their own systems of saving, using, exchanging and selling seeds. Particularly important to smallholder farmers has been the continual development and improvement of locally-adapted variants of the main food species, and it is partly this vast range of locally-adapted varieties which both ensures successful survival strategies and the maintenance of food security, and creates the wealth of biodiversity found in farmers' fields.

Private versus public property: the need for a binding international agreement to keep plant genetic resources in the public domain

The diversity of plant genetic resources for food and agriculture, and Farmers' Rights to use and benefit from them, are under threat from three major trends.

Loss of agricultural biodiversity

There has been an accelerating rate of species and variety loss during this century. More than 75% of crop and vegetable varieties have been lost from farmers' fields in the past century with losses increasing at 2% per year (RAFI).

Among the factors causing loss of agricultural biodiversity have been: the movement towards industrial farming models, including mono-cultures and the replacement of local varieties with a small number of dominant commercial strains; climate change; the marginalisation of smallholder farmers to less productive land; changes in the nature of the markets for smallholder farmers' produce; and the slim survival margins of farmers, who are tremendously vulnerable to shocks arising from price changes, drought and conflict.

Private ownership and control

Intellectual property rights and law, previously seen to apply to mechanical invention, have been extended to include forms of life, allowing private companies and research institutes to patent, own and control them. This has led to 'biopiracy' – what many developing countries see as the theft of their genetic resources by private actors from developed countries operating on the profit motive. Biopiracy is now one of the most contentious issues in development and in North-South relations.

Intellectual property rights in this area are governed by Article 27.3(b) of the World Trade Organisation's agreement on Trade Related Aspects of Intellectual Property (TRIPS). This has helped to bring the rules-based system of world trade into fundamental conflict with the aims of protecting the environment and ensuring food security which are upheld in other international instruments, particularly the legally-binding CBD.

Genetic engineering for food and agriculture

The trends above – loss of agricultural biodiversity and the private ownership and control of plant genetic resources – have been given new and dynamic impetus by the advent of modern biotechnology. The genetic engineering of plant organisms is currently a private science being developed and controlled by profit-making research companies and by multinational companies which also own the handful of seed companies who control most of the world's commercial seed varieties. These companies, under a slogan of 'feeding the world', have a natural interest both in owning and exploiting plant genetic material derived from developing countries, and in replacing farmers' own local varieties with commercial genetically engineered products and their associated inputs.

The IU, access and benefit-sharing

The International Undertaking can be an important countervailing force to the threats described above. Although very detailed negotiations about its exact text are continuing, in broad outline the IU could:

- **Reduce conflict over WTO/TRIPS.** Both the general rules on agriculture, and the specific article on intellectual property rights, were due to be reopened in the new round of WTO negotiations which the Seattle meeting sought to start. The negotiations were halted by international protest focusing on unfair terms of trade on agriculture and the possibility of an extension to TRIPS in particular. **The IU could pave the way for the exemption of an entire category - genetic resources for food and agriculture - from TRIPS, and from other forms of intellectual property claims --** if it became a legally-binding part of the CBD.

- **Ensure access for all.** The objective of the IU is to ensure that plant genetic resources for food and agriculture are 'explored, collected, conserved, evaluated, utilized and *made available* for plant breeding and scientific purposes' – based on the guiding principle that these resources should be **"preserved... and freely available for use, for the benefit of present and future generations"**. This requires that all who need to, including the farmers of developing countries (who are the principal plant breeders of the world), should continue to have access to the germplasm – in other words, that it should remain in the public domain and cannot be privatised [Article 11]. It will then establish a mechanism for multilateral access to the resources which will reduce 'biopiracy' [Article 13].
- **Ensure that farmers reap the benefits.** As noted above, farmers' ability to survive and prosper through the on-farm conservation and management of agricultural biodiversity is extremely fragile. Article 14 proposes benefits to farmers and others in return for allowing multilateral access to the resources which they have developed. The benefits may include returning information and knowledge, and the technology with which to exploit it, to those who helped originate the resources. Importantly, however, they also include **financial benefits from the commercial use** of plant genetic resources for food and agriculture. For the first time this would set up a direct link between the consumption of food products, and the productive activities of farmers who manage the genetic resources. Basically, food industries would pay a voluntary levy. If this extends to include the food retail industries, as the UK would like, then **an additional part of the price paid for food in a Western supermarket would return to the primary producers and managers of the raw material.**
- **Protect Farmers' Rights.** Farmers' Rights, formally backed by the Food and Agriculture Organisation of the United Nations (FAO) which also facilitates the IU negotiations, include the right to save, use, exchange their seed. Farmers' centuries-old traditions and practices of communal ownership, access and exchange to plant genetic resources for food and agriculture depend on unwritten and 'customary' rules. These require protection from regimes of intellectual property rights – and the IU, if sufficiently 'farmer-friendly' could provide that protection.

The IU negotiations: what's happening?

There is a negotiating text for the International Undertaking which is currently being worked on. A Contact Group of countries has been taking it forward. It achieved substantial progress on a number of contentious issues regarding access and benefit-sharing at a meeting in August.

However, the negotiating process almost collapsed at the Contact Group's most recent meeting in Switzerland. A number of countries reneged on the text agreed in August and sought to re-open it, on the grounds of interference with WTO/TRIPs. WTO and intellectual property lawyers were called in to provide clarification, failed to do so, and the meeting ran out of time. Complete failure was only averted when the Council of the UN Food and Agriculture Organisation (FAO) which oversees the negotiations instructed the Contact Group to meet again, probably in February 2001.

If the Contact Group is able to finalise a basic negotiating text it will then be up to the intergovernmental Commission on Genetic Resources for Food and Agriculture to convene a final negotiating conference. This conference was initially due to happen in November 2000 so the process is becoming significantly delayed now June 2001 at the earliest.

The conference would aim to agree a final text to be remitted to the FAO Conference in 2001 and thence to the next Conference of the Parties to the Convention on Biological Diversity (CBD/COP VI) in 2002, for acceptance as a Protocol to the Convention – similar to the recently-adopted Biosafety Protocol.

There remain significant areas of the text which can be improved to:

- strengthen the benefits to farmers,
- secure exemption from intellectual property rights,
- extend the consumer-producer linkage,
- guarantee Farmers' Rights
- agree the list of crops to be included in the agreement

But there is now a bigger issue at stake – achieving the completion of the process. The bottom line position of ITDG and other pro-farmer organisations, and of developing country negotiators, is that any legally-binding IU, however imperfect, should be championed as a first, fundamental and practical step for a positive and more equitable system for sustaining life on the planet.

Dr Tewelde Debre Egziabher, the Ethiopian Negotiator and leader of the African Group, said recently: "The IU is a crucial agreement for us and the majority of the South because it will be legally binding on all countries and will ensure that none can register Intellectual Property Rights on our farmers' crop varieties: it will recognise our Farmers' Rights. It will also facilitate everybody's continued access to crop varieties the world over and provide us with long overdue benefits from the commercial use of these varieties in plant breeding, for industry and for food. We hope that the EU will increase pressure on its OECD allies to secure this agreement"

What is to be done? The UK and the EU

Within the IU negotiations, the European Union acts as a single negotiating bloc on behalf of its member states. In general the EU can play a highly significant role as an 'honest broker' between those countries, mainly from the developing world, who are pushing for the strongest possible agreement, and other countries such as the United States which try to protect the interests of commercial concerns and the primacy of intellectual property rights under the WTO.

There is, however, a serious problem. In order to progress common positions, the EU has tended to move at a speed of its own which does not match the urgent requirements of this once-only window of opportunity for an agreement. Ambassador Gerbasi, the chair of the Contact Group underlined this urgency at the conclusion of the August meeting when he "impressed upon the group that this was the last chance to move forward"⁴. This was further reinforced at the FAO Council meeting in November 2000 at which he said that the only way to conclude the negotiations relatively rapidly will be through political commitment to conclude by a fixed date, not subject to more changes. Because of this, those countries that participate in the negotiation process will need to send delegations at a sufficiently high political level that allows them to take decisions at the negotiating table itself.

It is therefore crucial that the EU, led by the Swedish Presidency in 2001, must reinvigorate the process and back a common position, seeking an agreement that is strong on binding commitments. It should then give its negotiators political backing, and a mandate to negotiate at the table without continually returning to their domestic departments and the Council of Ministers.

The UK government can play a key role in pushing forwards the EU position and negotiating approach. The UK's involvement is led by the Ministry for Agriculture, Food and Fisheries (MAFF), in close liaison with the Department for the Environment, Transport and the Regions (DETR) and the Department for International Development (DFID). While the UK has adopted some positive positions, it has listened more to industry than to developing countries, and this balance must be redressed.

Finally, in the UK and in Europe alike, while it is appropriate that agriculture ministries are leading, this is about agriculture in its environmental context and environment ministers should line up strongly behind the process.

ITDG and the International Undertaking

ITDG is an international charity which specialises in helping people to use technology for practical answers to poverty. This is technology which draws on the experience of poor women and men, and feeds it; which recognises their potential, and releases it; which respects their environment, and nurtures it; which builds on their past, to sustain the future.

In ITDG's food production programmes in three continents of the developing world, we work with the participation of local communities to develop technologies for sustainable agriculture – based securely on the knowledge and practice of smallholder farmers, mainly women, and helping them to conserve and manage agricultural biodiversity.

ITDG has therefore engaged strongly with the international processes which are able to safeguard agricultural biodiversity and protect Farmers' Rights. Most recently, ITDG organised a powerful lobby at the fifth Conference of the Parties to the Convention on Biological Diversity (CBD/COP V) held in Nairobi in May 2000. The lobby consisted both of non-governmental organisations, and of our grassroots farmer partners, who came to the policy table to put their demands directly to 2 000 delegates from 174 governments.

⁴ Earth Negotiations Bulletin, 4 September 2000

Partly as a result of pressure from ITDG and its partners, COP V of the CBD:

- adopted a strengthened programme of work on agricultural biodiversity which fully recognised smallholder farmers' role in its conservation and sustainable use;
- **called upon the FAO and all relevant parties swiftly to conclude negotiations on a farmer-friendly International Undertaking**

COP V also adopted the Biosafety Protocol, legally regulating the transfer of GMOs between countries, to which more than 60 countries signed up in Nairobi.

ITDG is now working with its worldwide network of partner organisations to ensure the IU is completed, and that key sections are strengthened in the final text. It is also in discussion with the relevant departments of the UK government with regard to the latter's role within the EU bloc.

ITDG's position with regard to the International Undertaking

ITDG's position with regard to the IU negotiations is available in 'Seeds for All', a joint position paper with the Berne Declaration which has been widely circulated to NGOs around the world, together with a Call for Action to mobilise pressure on their governments around the IU.

In summary, ITDG wants:

- Clear political commitment to complete the IU negotiations and its subsequent implementation – especially from the European Union, and within it the UK, and the agriculture and environment ministers
- The IU to be the predominant international agreement on plant genetic resources for food and agriculture (PGRFA) -- and as such to influence changes in WTO rules, where these conflict
- The exemption of PGRFA from all forms of intellectual property rights – meaning not only the intact material, but also the germplasm and genes it contains – once the IU comes into force
- An internationally-enforced obligation to implement Farmers' Rights in all countries
- Access arrangements to cover all the varieties of all the crops covered by the IU including those on farms, in research institutes, and in public and private collections
- Legally-binding benefit-sharing from the use of any resources that are currently privatised, and a direct consumer-producer link through contributions from the food industry

For more information

FAO: www.fao.org

UK Agricultural Biodiversity Coalition of the UK Food Group: www.ukabc.org

Rural Advancement Foundation International (RAFI): www.rafi.org

Genetic Resources Action International (GRAIN): www.grain.org

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