

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

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

June 2001

### **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?

## **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 crops<sup>1</sup>, 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.

---

<sup>1</sup> Millet, Sorghum, Potatoes, Sweet Potatoes, Sugar Cane, Soybeans (FAO 1996)

### *'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'<sup>2</sup> 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.

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.

---

<sup>2</sup> 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)

### *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?**

The future of the IU is in jeopardy. This is a critical moment.

If governments cannot redouble their resolve to achieve progress when they meet at the UN Food and Agriculture Organisation, Rome, from 25 to 20 June, the IU will be dead in the water – killed by US insistence that nothing should interfere with the primacy of the WTO and with the rights of US corporations to patent and privatise genetic resources.

There is a negotiating text for the International Undertaking which has been taken forward by a Contact Group of 41 countries. But limited progress has been achieved in three meetings since November 2001, as the US has repeatedly tried to re-open already agreed text.

The Contact Group is now finished. Governments will have to decide the next steps. Civil society pressure from across the world is essential to urge governments to keep the IU on track, and to raise objections to the US approach.

Around 70 European NGOs lobbied the EU agriculture and environment ministers in February 2001; while in May 2001 329 civil society organisations from 59 countries sent a joint letter to the Contact Group. The momentum of protest must be raised even further in June.

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 Tewolde 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?**

ITDG and its NGO partners are preparing to lobby governments in Rome. There will be a strong NGO presence. A new sign-on letter is being produced and the media is being targeted.

Organisations which wish to add their voice to the campaign for Seeds for All should consider:

- signing the joint letter to the 160 governments meeting in Rome. To sign, follow this link: <http://www.ukabc.org/iu3b.htm#3>
- directly pressurising agriculture and environment ministers in your own country – write and seek meetings in advance of 25 June
- placing letters and statements in your national media
- following the progress of the NGO lobby via the website <http://ukabc.org/>

## Appendix: 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 rural livelihoods 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. For example, 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.

### **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**

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.

## ITDG's position with regard to the International Undertaking

### **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 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](http://www.fao.org)

UK Agricultural Biodiversity Coalition of the UK Food Group: [www.ukabc.org](http://www.ukabc.org)

Rural Advancement Foundation International (RAFI): [www.rafi.org](http://www.rafi.org)

Genetic Resources Action International (GRAIN): [www.grain.org](http://www.grain.org)