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Pinning the Tail on the Ostrich

The Australian PBR Scandal

UPOV Meets a Scandal 'Down Under' by Burying its Head in the Sand.

Issue: On the eve of the WTO's TRIPS Review and in the midst of other critical negotiations (and reviews) involving the Biodiversity Convention, FAO, CGIAR, and UPOV, this study of 118 Plant Breeders' Rights (PBR) claims exposes a predatory pattern of biopiracy supported by both the lead global plant "patent" convention and national legislation in several OECD countries.

Fora: When COP IV of the Biodiversity Convention convenes May 4-15 in Bratislava, Slovakia, governments will review progress made toward benefit-sharing for indigenous and other rural communities. There is no progress. Under the terms of the Nairobi Final Act, the CBD is to address Farmers' Rights and (with FAO) consider ways of protecting germplasm collected prior to the coming into force of the Convention. Again, no progress. The two major *ex-situ* leaks in the gene pool represented by botanical gardens and gene banks should be high on the CBD agenda. As the CBD winds down, the WTO TRIPS Council convenes in Geneva (May 12-13) to prepare for its review of the requirement to "protect" plant varieties. Australia and the USA (among others) are calling for plant utility patents and/or for UPOV'91 (harsh new Plant Breeders' Rights rules), despite the fact that UPOV's newest members, who are from the South, are all the recent victims of UPOV-facilitated biopiracy. From May 18-20, the WTO Ministerial meeting may have an opportunity to debate this issue. Meeting in Brazil (May 22-29) hard on the heels of the WTO, CGIAR's Mid-Term Review and the System wide Panel may debate intellectual property over CG germplasm and could seek a special status for germplasm vital to world food security. Almost as soon as CG finishes in Brasilia, the FAO Commission starts in Rome (June 8-12) where 157 governments will debate the scandal and the legal instruments necessary to safeguard Farmers' Rights and germplasm vital to world food security.

Recommendations: **1.** The Biodiversity Convention (CBD) could plug the leaky *ex-situ* collection problem by confronting the problem of botanical gardens letting industry access others' plants. The CBD should support the FAO-CGIAR Trust Agreement and the development of a permanent "cease-fire" on intellectual property claims on food security. **2.** At least for the sake of credibility, the World Trade Organization (WTO) could undertake a full investigation of biopiracy via intellectual property regimes as a preliminary to its review of the TRIPS chapter. **3.** CGIAR could press for a legally-binding intergovernmental commitment (via the WTO and FAO) to keep germplasm vital to world food security free of intellectual property monopoly. **4.** FAO could expeditiously conclude its new legally-binding International Undertaking and work with CGIAR and the WTO to ensure that germplasm vital to world food security remains in the public domain. Further, FAO could explore the entrenchment of Farmers' Rights within the framework of existing Human Rights conventions associated with the Right to Food. **5.** UPOV's member governments could commence an external review of all aspects of the convention/institution in preparation for the WTO review of TRIPS.

Of Garbanzos and Gonads

From Chickpeas at FAO to Full-Blown PBR Scandal

It was hardly a tempest in a flower pot. Australia's delegate to the December session of the FAO Commission on Genetic Resources for Food and Agriculture (CGRFA) dismissed Farmers' Rights as irrelevant stating that he couldn't see why or how farmers could be compensated for their germplasm. RAFI's observer took to the microphone arguing that Australia had benefited enormously from

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hundreds of Farmers' Varieties including chickpeas from Asia under Plant Breeders' Rights (PBR) claim in Australia. The Aussie diplomat complained that his country was being falsely accused of biopiracy and that Australia had contributed greatly to the development of chickpea research around the world. A day later, *BioTalk*, a CSO's conference journal, reported that Iranian and Indian chickpeas collected by ICRISAT (International Centre for Research in Semi-Arid Tropics, Hyderabad, India) were awaiting PBR approval in Australia. To the embarrassment of many, the Indian chickpea was "designated germplasm" - presumably protected from intellectual property claims by an FAO-ICRISAT Trust Agreement. The PBR applicant was not a transnational seed giant but Australian government agencies. The agencies vehemently denied wrongdoing and, in return, told an Indian journalist that RAFI was acting irresponsibly. A few days later, however, reeling from the public outcry and a demand from ICRISAT, the Aussies abandoned both PBR applications.

Chickpeas' Falling Sky: The chickpea scandal exposed a bevy of PBR abuses. First, the Aussie applicants had done no plant breeding. The two varieties had been bred by farmers. Second, the Aussies had signed a Material Transfer Agreement (MTA) with ICRISAT promising not to do what they did - apply for PBR certification. Third, the same MTA enjoined the Aussies from licensing the varieties to others without ICRISAT's approval. The chickpeas had not only been licensed, the licensees had advertised their impending possessions back in the region from whence they came. Indeed, the Aussies gave the chickpeas Urdu/Hindi names to encourage sales. Fourth, the agencies hid their actions from ICRISAT and then tried to pressure the centre into amending the MTA to allow PBR claims. Finally, one of the two claims was on an Indian chickpea placed under FAO Trust - a Trust Agreement prohibiting PBR approved by the FAO Commission of which Australia is a hyperactive member.

Between December and February, the dispute spread from the ownership of two humble chickpeas to the inherent injustice of Plant Breeders' Rights and patent monopolies. Working together, RAFI and the Australian organization, Heritage Seed Curators' Association (HSCA) discovered dozens of other suspect PBR claims. From Australia's PBR Office, the researchers moved onto the Internet and to the patent records of other OECD states. By April, 118 plant accessions originating in at least 36 countries appeared to have been improperly appropriated by public and private breeders in a half-dozen countries. Among RAFI's suspect list were at least 16 accessions provided by seven International Agricultural Research Centres (IARCs).

By then the tempest was wreaking havoc from Western Australia to the doors of the World Intellectual Property Organization (WIPO) in Geneva. With decisive courage, CGIAR Chair Ismail Serageldin, set aside the lamentations of the seed industry and called for a moratorium on all intellectual property claims involving any CGIAR-held germplasm under FAO Trust. FAO's Assistant Director-General, Henri Carsalade, matched the deed and proposed a joint FAO/CGIAR investigation. The scandal was put on the agenda of an extraordinary June session of the FAO Commission. The seed industry's trade association ASSINSEL, floundered between apology and apoplexy.

Who's Guarding the Chickpea Coup? When RAFI and HSCA moved beyond chickpeas, other problems became apparent. A search turned up a number of "questionable" lentil claims on material from ICRISAT's sister IARC, ICARDA (International Centre for Agricultural Research in Dry Areas, Aleppo, Syria). Once again, there was no evidence of breeding by the Australians, and, again, some of the lentils proved to be FAO Trust germplasm. What was new, however, was that some of these claims had been accepted by the PBR Office even though the absence of plant breeding was manifest. In some cases, the ICARDA variety was "trialed" (tested for distinctness) against obviously inappropriate cultivars - thereby guaranteeing approval. It began to look as though the PBR Office was either negligent or in collusion. The problem was not just abusive applications but a systemic abuse of Plant Breeders' Rights legislation.

All in the Family: The ICARDA accessions also showed that the scandal was not endemic to one "rogue" state but was a full-blown epidemic. All six Australian state governments as well as many prominent federal agencies and universities appear to have persistently participated in dubious PBR claims. One example is a forage peanut (*arachis pintoi*) shared by Brazilian scientists, under FAO Trust through CIAT (International Centre for Tropical Agriculture, Cali, Colombia), and PBR claimed by the CSIRO (Commonwealth Scientific and Industrial Research Organization), one of Australia's most prestigious research bodies. CSIRO also snatched up grasses from Kenya, Mozambique, and Tanzania in Africa; India and Pakistan in South Asia; and

Venezuela and Brazil in Latin America. State agencies in Queensland made proprietary claims on varieties from Argentina to Zimbabwe, including Cuba, Mexico, Kenya, Botswana, and others. The list goes on. In every case, there was no evidence of plant breeding, and many indications that the so-called "breeders" grabbed something from a farmer's field; made for the airport; selected the best seeds; and applied for PBR certification. Many of the written claims are charmingly frank about their lack of inventiveness. The HSCA/RAFI survey suggests that breeders felt that a passport and a plane ticket were pseudonyms for work. One CGIAR scientist (an Australian) told RAFI "there is an obvious lack of breeders' principles here."

It can't happen here: Short months before, UPOV (Union for the Protection of New Varieties of Plants, Geneva) and commercial breeders would have insisted that the RAFI/HSCA roster was an impossibility. Indeed, when Australia revamped its PBR legislation in 1994, Bill Hankin, President of HSCA and a tireless researcher, warned that the legislation was an invitation to biopiracy. In a letter dated, November 18th, 1994, Australia's then Minister of Primary Industries, Bob Collins, flatly denied the risk insisting both that the PBR Office wouldn't allow it, and that breeders wouldn't bother themselves with Farmers' Varieties. Less than four years later, nobody in Australia would repeat that boast.

The full dimensions of the scandal - even in Australia - remain to be uncovered. Corporate breeders in Australia are hinting that deals are being made for lupin varieties that suggest collusion between Australian enterprises and the PBR Office intended to keep French breeders from obtaining certificates. Yet more importantly, a number of indigenous plant kinds that are obviously the property of Aboriginal communities have been successfully claimed by Aussie companies. The piracies range from medicinal plants and ornamentals to forages and sea celery that once kept Captain Cook and the early British settlers alive. Those who argue that national PBR laws protect the rights of farmers and indigenous peoples must now explain why the legislation failed so miserably even among the citizens and corporations of Australia.

The Leaky Gene Pool

The FAO-CGIAR Trust Agreement's Role

The Future of Trust: Although only a handful of the 118 suspect PBR claims may involve FAO Trust germplasm, much of the furor has rightfully focussed on these abuses. The FAO-CGIAR Trust agreements were signed amid a blaze of controversy in October, 1994. The agreement (actually a series of separate but identical texts between FAO and each CGIAR Centre with germplasm collections) acknowledged that final authority over approximately half a million seed accessions collected prior to the coming into force of the Biodiversity Convention rested with FAO. CG Centres hold the germplasm "in trust" on behalf of the international community through FAO. Article 10 of the text prohibits Centres from allowing designated germplasm to be appropriated by intellectual property claims. Unhappily, there is no obligation for governments or companies to honour the deal. For this reason, most Centres require those receiving seeds to sign Material Transfer Agreements (MTAs) promising not to expropriate Trust accessions. Thus, the joint FAO/CGIAR call for a "voluntary moratorium", was significant because the two agencies asked governments and corporations to accede to the 1994 deal.

However, the Aussie fiasco exposed several weaknesses in the agreement...

Gaps & Gaffes: First, there is no single, electronically-accessible list of all the Trust germplasm. Despite good will aplenty - and the considerable professional prowess of many scientists within the CG System - RAFI and HSCA found it difficult to confirm whether or not several Aussie claims are part of the accord. Much of the difficulty rests with the multi-decade evolution of separate Centre seed identifier codes - but some of it also points to a lack of CG coordination.

Compounding the difficulties of monitoring material is the absence of easily-constructed Internet links between the Trust germplasm, national PBR and seed certification offices, and UPOV's own electronic database. The CGIAR is in the midst of building a very sophisticated germplasm and variety pedigree system, but they have yet to merge CG data with UPOV in order to track piracy .

Missing Monitors: But the bigger problem is that neither FAO nor the CGIAR currently have the resources to adequately monitor germplasm flows. This is not a criticism. No one - including RAFI - expected the levels of abuse we are now witnessing. There are no procedures in place. There are no staff assigned to the monitoring task. If complaints are made, there is no place to go. While much of the work could be done electronically, FAO and CGIAR must come to the Commission in June with credible proposals for the management of future problems.

Unconventional confusion: The Australian affair has also exposed misunderstandings and policy confusion between and among CGIAR Centres. While ICRISAT moved forcefully to defend its MTAs and the FAO Trust - despite implied threats from Aussie agencies that the Centre might be cut out of a gene mapping initiative - ICRISAT's sister agency, ICARDA, ignored the FAO Trust and agreed to allow the Aussies to claim lentils so long as the country of origin agreed. Despite blunt assurances from FAO and CGIAR, ICARDA continues to argue that they are acting in good faith under the terms of the Biodiversity Convention. Most observers - inside and outside the CG, think that the senior ICARDA staff are suffering from wounded egos and are now too embarrassed to withdraw their improper MTAs. Indeed, at least one Australian institute acknowledged the gaff and offered to drop two lentil claims. Pridefully, it seems that ICARDA doesn't want them to do this. Clearly, the CGIAR has to adopt uniform policies and MTAs. There must also be a mechanism for bringing befuddled Centres into line.

Shell Games: The June Commission will have to address the problem of FAO Trust material duplicated elsewhere. One of CIMMYT's durum wheats, for example, has been placed under PBR in New Zealand - much to CIMMYT's surprise. Is the durum Trust material? Probably so; but durum wheat is not part of the CIMMYT-FAO Trust. The responsibility for durum rests with ICARDA.

Sill more confusing is the IRRI (International Rice Research Institute, Los Baños, Philippines) rice collection duplicated for safekeeping in the United States. Virtually all of the IRRI collection is held in Trust for FAO. Nevertheless, RiceTec Inc. (whose board is chaired by Prince Hans-Adam II of Liechtenstein) has access to the U.S. collection and has both patent and PBR claims on a number of accession "derivatives". In fact, it could be that much of IRRI's basmati rice collection is involved in RiceTec's intellectual property initiative. If RiceTec is successful, the result could be a major loss in basmati exports from India and Pakistan to the USA. The livelihood (and lives) of more than 220,000 farm families in India's Punjab are at stake here. The solution should be to place all duplicates of FAO Trust material under the same provisions as applied to the original samples.

Even more complicated may be the case of IRRI's disease-resistant rice gene isolated from its accession of a so-called "wild" West African rice. Scientists at the University of California (Davis) obtained the accession from IRRI prior to the signing of the Trust agreement but applied for a patent on the profitable gene after the agreement came into force. Prior to patenting, the scientists sought both the approval of IRRI and of the Rockefeller Foundation (whose funds had supported the research). Both parties agreed to the claim. In RAFI's view, they should have said no. The FAO-IRRI Accord is not confined to "accessions" but includes all "germplasm" meaning any subset or recombination of genetic material derived from IRRI's designated list of accessions. The patent - still pending in the USA - appears to be a violation of the Accord and, if so, should be abandoned.

For some people, the manifest shortcomings of the current FAO Trust Agreement are proof that multilateralism doesn't work and that ICARDA's muddled approach is right. The theory is that all pre-Biodiversity Convention germplasm should be surrendered to the country of origin where either farmers or governments should apply for PBR. Then, the story continues, the rights-holder could take the Aussies (and others) to court for infringing on their intellectual property. Implicit in this scenario is the belief that FAO and CGIAR have plotted to usurp power from the Biodiversity Convention where (the theorists assume) crop germplasm rightfully belongs.

Supporters of this theory also tend to believe that the UN's black helicopters are poised to capture the United States and/or that the USA is using Iraq as a front to capture ICARDA's gene bank. The theory overlooks history and reality. It was the Biodiversity Convention that first demanded (at its last pre-COP meeting in Nairobi in June, 1994) and then approved (at its first COP in Nassau in November, 1994) the original Trust Agreement including Article 10 prohibiting intellectual property claims. Certainly CGIAR - but also FAO - felt under strong Convention pressure to reach agreement.

Second, the overwhelming majority of the world's agricultural germplasm is out there in the field "protected" by national sovereignty as recognized by the Biodiversity Convention. How many bilateral deals have been signed ensuring any flow of benefits to the South or to farmers? Are there any? How much has been stolen from farm bins since the Convention came into force in 1994? How would anyone know?

Thirdly, since the Rio Earth Summit, RAFI and other Civil Society Organizations have released information on literally hundreds of cases of biopiracy (usually high-value pharmaceutical

plants, soils or animals) involving more than 60 countries and every world region. In most cases, the specific stories were transmitted to the appropriate governments with sufficient information for the authorities to take action. Other than in India and the Solomon Islands, there are almost no instances where governments have acted to defend their national self-interest. In fact, the only example in the world where the biopiracy of agricultural germplasm is being systematically opposed and PBR claims are being overturned is through the FAO-CGIAR Trust Agreement. The South's interests have been better defended in the past few months than ever in the history of PBR. In fact, the Trust's germplasm lists (though less than perfect) were what made it possible to follow the trail of abuses through the maze of PBR Office claims from country to country. Most importantly, though understaffed and overwhelmed by unanticipated demands, the CG's System-wide Genetic Resources Programme (SGRP) in Rome undertook much of the leg work once problems became known.

Is it possible to strengthen the Trust Agreement - allocate more funds and staff to improve the databases and monitoring functions - and still call for the repatriation of pre-CBD germplasm? Possibly; but unlikely. Why would the international community service bilateral germplasm transactions, especially those that secure private sector profits? Today's intergovernmental bodies expect countries and companies to pay for services out of their profits.

Then, too, there is the awkward question of the vast quantity of CG germplasm without passport data. Dozens of the cases studied by RAFI and HSCA merely suggest that the accession comes from the "Mediterranean", "North Africa", the "Indian Subcontinent", or "Latin America". One Aussie gene bank director - caught with unexplainable PBR claims - began to modify accession records, changing information for several PBR-claimed varieties. How will bilateral approaches help here?

Perhaps the central question, however, is whether national governments and/or farming communities could or should take the time and money necessary to claim each of their crop accessions. Not only is the cost exorbitant but the potential financial returns are negligible. Of still greater concern is the capacity of countries and communities to defend their claims through litigation. Even if FAO and CGIAR sometimes look and act like "The Gang That Couldn't Shoot Straight", the Aussie scandal makes clear that farmers and single countries need the protection afforded by a strong multilateral Trust Agreement embedded in a legally-binding FAO International Undertaking.

From DUS to DUST

UPOV's Rules - Unruly, Unworldly, and Unethical

The very boldness of the Australian biopiracies promoted an outsider's view that the scandal was solely 'Down Under'. Looking down upon the Palais des Nations in Geneva a half a world away stands the shiny glass tower of WIPO. WIPO is the UN agency responsible for intellectual property. The energetic new Director-General of WIPO, Dr. Kamil Idris, is also the Secretary-General of UPOV - the intergovernmental convention that sets the global framework for national PBR legislation. Idris is the first new WIPO boss almost since the discovery of electricity and his appointment ends one of the longest reigns of terror in UN history. According to UN delegates in Geneva, he has come at the right time. Ultimately, the "failure of breeders' principles" stops at WIPO's door. For the past two decades, WIPO and its subsidiary conventions such as UPOV, have maintained a stoic silence as the world around them has raged over the inefficacy of life patenting and the indecency of biopiracy. While parallel debates in FAO or UNESCO have encouraged study, debate, and institutional action, WIPO and UPOV have adopted a passive-aggressive pro-monopoly posture and confined themselves to bean counting.

But the chickpea tempest points to fundamental failures in intellectual property conventions; an incapacity to monitor monopolies; an unwillingness to address institutionalized usury; and even failure to protect the integrity of plant breeding as an honourable (and vital) profession.

When the UPOV Council convenes in Geneva for its fleeting show of democracy on October 28th this year, governments, farmers, and breeders should have questions to ask. Why is it that UPOV doesn't monitor inappropriate variety evaluation programmes? How can UPOV allow its new member, South Africa, to pay royalties on varieties it could have obtained for free? Why does UPOV not stop governments giving so-called "exclusive licenses" on varieties they neither bred nor own? Why doesn't UPOV investigate the piracy of plant varieties from other new member countries like Argentina, Brazil, Colombia, Mexico, and Kenya by misguided institutions in Australia and New Zealand? How can UPOV stand quietly by while enterprises pretend they have

bred varieties they have only acquired from CGIAR Centres? Where are UPOV's databases, monitoring systems and response protocols for the piracy of indigenous knowledge?

Finding answers is all the more important now because FAO and CGIAR are reviewing their Trust arrangements and there are related elements of the new International Undertaking - especially Farmers' Rights - that may come up for discussion in Rome in June. Of yet greater concern is the pressure from UPOV to make its onerous 1991 Convention obligatory under the WTO when the TRIPS (Trade-related Intellectual Property) chapter comes up for review shortly.

A PBR too Far? Rather than push poor countries and even poorer farmers into the western model of intellectual property monopolies, governments should be demanding an investigation of UPOV and of Plant Breeders' Rights around the world. The Australian scandal shows that UPOV's Convention is predatory legislation legitimating the right of commercial interests to prey upon the knowledge of indigenous farming communities. Institutions are able to make claims without undertaking genuine plant breeding and PBR Offices are failing to test claimed varieties against the original germplasm samples. FAO and the CGIAR acted. UPOV buried its head still deeper in the sand. Now that there is an External Review of CGIAR, it is time for governments to launch an External Review of UPOV and national experiences with PBR legislation. Rather than the USA calling for WTO members to adopt patents or UPOV '91 in TRIPS, the world should be launching a full-scale inquiry into the workings of UPOV since it began in 1961.

UPOV rules require that PBR claims meet the so-called "DUS" criteria ("Distinct", "Uniform" and "Stable"). However, UPOV has no capacity to ensure that its rules are obeyed. There is no requirement that the applicant actually breed the variety. It is also impossible to meet the standard intellectual property requirement of "absolute world novelty" since no one knows what the world has to offer. The Australian experience clearly shows that PBR monopolies are available even when they are Distinct, Uniform, Stable, and Stolen....

Among the varieties under PBR claim in Australia is an Ecuadorian faba bean sent by ICARDA and now awaiting a second PBR certificate in South Africa. The literature gives no evidence of breeding activity. The original germplasm was already available to South Africa's farmers - royalty-free - from ICARDA.

Taking License: Perhaps most surprising are cases where public agencies obtain international public domain germplasm and then tender the samples - even without applying for PBR - for exclusive license to local enterprises. The Lentil Company (Australia), for example, won some of ICARDA's free lentils from the State of Victoria and then, - convinced it was acting in good faith, advertised their new-found property for sale. Not to be outdone, agencies in New Zealand have similarly given red lentils from ICARDA to local companies, allowing them to advertise that they have "exclusive license" to the varieties.

"Breeders' Principles" In the course of our investigations, RAFI and HSCA talked to many plant breeders. Perhaps the most repeated and surprising comment - from public and private breeders alike - was that it was "okay" for some to claim the work of others because "at least the varieties were being put to use". This tacit acquiescence to piracy is deeply disturbing. Intellectual property over plants was originally intended to reward plant breeders and to encourage plant breeding. There has never been a problem getting good varieties into the hands of farmers. African farmers acquired maize and cassava from the Americas and spread them from one end of their continent to the other within a couple of generations. Sweet potatoes made their way from the Philippines and China to the highlands of New Guinea in barely a hundred years. If a system intended to reward innovation has become a system to reward piracy, plant breeders have a problem. The solution to the "Aussie" scandal is not for the world's breeders to turn into ostriches.

From DUS to Doing

Possible Fora for Intergovernmental Action

4-15 May	Conference of the Parties to the Convention on Biological Diversity, Bratislava;
12-13 May	World Trade Organization Council for TRIPS, Geneva;
18-20 May	Ministerial meeting of the WTO, Geneva;
22-29 May	CGIAR Mid-Term and External Reviews, Rio and Brasilia;
8-12 June	FAO Commission on Genetic Resources for Food and Agriculture, Rome;
17-18 Sept.	WTO TRIPS Council
26-30 Oct.	CGIAR International Centres' Week, Washington;
28 Oct.	UPOV Council, Geneva.
17-18 Nov.	WTO Council on Agriculture