



In Search of Common Ground

## **FREQUENTLY UNASKED QUESTIONS ABOUT THE INTERNATIONAL UNDERTAKING ON PLANT GENETIC RESOURCES**

### **ISSUE**

The Biodiversity Convention adopted at the Rio Earth Summit almost ten years ago reaffirmed national sovereignty over genetic resources. But Rio left unresolved the status of genetic resources collected before the treaty, the unique problem of crop germplasm critical to world food security, and the central role of Farmers' Rights. Now, the unresolved issues from Rio have come home to roost in Rome. Sovereignty, security, benefit sharing, the role of public science, and private monopolies seem to be in conflict. The search for common ground is being conducted through an obscure but vital International Undertaking at FAO. The little teapot tempest is also threatening to dominate the World Food Summit this November. If the negotiations collapse as some predict, food security, farmers, and the hungry will suffer terribly.

### **ECONOMIC CONSIDERATIONS**

Beyond calculation. Failure is unthinkable.

### **POLICY IMPLICATIONS**

Negotiations on the revised Undertaking at FAO will profoundly affect the world's ability to respond to climate change. Failure will lead to a rapid reduction in the exchange of plant breeding stocks between countries and institutions. Agricultural research will be severely damaged. The future of the CGIAR's (Consultative Group on International Agricultural Research) 16 centre, \$340 million annual budget, and a half million seed samples along with the CGIAR's work on 30 food crops is also threatened.

### **FORA**

The FAO Commission on Genetic Resources for Food and Agriculture and the Contact Group meeting in Spoleto, Italy, April 22 to 28, 2001. Depending on progress, the Undertaking should be endorsed at the World Food Summit Five Years Later ("Food Fifth"?), November 9-15 in Rome, and success or failure will swing back full circle to the Rio +10 Heads of State conference in South Africa, 2002.



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**CALL FOR CLIMATE CHANGE:** If the burning public environmental issue is global warming, the “hot topic” for poor farmers is access to agricultural biodiversity. Crop genetic diversity makes it possible for farmers to feed people and to develop new plant varieties capable of managing climate change. The International Undertaking on Plant Genetic Resources at FAO is intended to become a legally binding treaty to ensure the conservation, exchange, and enhancement of crop genetic resources as the best way to address climate change as it affects food security. The negotiations are close to collapse. Ongoing for six years now, the last two years within a 40 country Contact Group – battle fatigue is grinding diplomats down. At the heart of the revised Undertaking lies a multilateral system (MLS) that would assure “facilitated (or, perhaps more appropriately, “mutual”) access”, within its membership, to

an annexed list of food crops. Despite endless deliberations, senior policymakers, the media, and the public are unaware of the issues involved or their importance to world food security. At the invitation of the chair, RAFI has had the unique opportunity, guided by civil society organizations, to participate in the Contact Group discussions. This paper attempts to address ten unasked questions governments and farmers should know about the draft treaty. Before these questions can be resolved however, there will need to be a climate change in the negotiations.

Each of the ten unasked questions (grouped in four parts) is introduced with the issue followed by a summary of the debate and concluding with red herrings – a possibly arcane oxymoron for “diversionary arguments”, and our bottom line analysis.

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## QUESTIONS FOR THE MULTILATERAL SYSTEM

### 1. WHO BENEFITS FROM A MULTILATERAL SYSTEM?

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#### ISSUE

Within the Undertaking rests a plan for a multilateral system for facilitated access to an annexed set of food crops. The North wants just about every species anyone ever thought to eat. Although Africa and Asia seem willing to consider a longer list, some Latin American states – led by Brazil and Colombia – are pressing for a very restricted list of largely non-South American crops of commercial interest (surprise, surprise) to Brazil and Colombia. Does this mean that a multilateral system would be a better deal for the North than for the South?

#### DEBATE

Some in the South argue that nothing should be placed in facilitated access that has potential commercial value and/or that is not overwhelmingly beneficial to the country offering the germplasm. The North assumes

that a relatively unencumbered flow of germplasm creates a healthier agricultural research environment and that crops should be excluded only when there is “clear and present opportunity” for imminent commercialization.

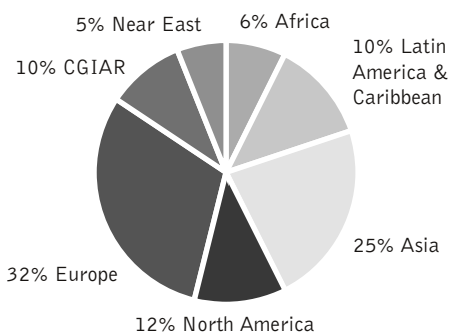
The defensive “minimalist” approach comes from the assumption that:

- There’s a lot of money to be made from specific varieties or genes in common crops;
- Whether there is money or not, others shouldn’t profit from or patent farmers’ varieties.

Reward/revenge is not the right therapy for food security. The starting point must be what is best for poor people. Keeping yams off the Undertaking list in the hope that

## WHO'S GOT SEEDS? WHO WANTS THEM?

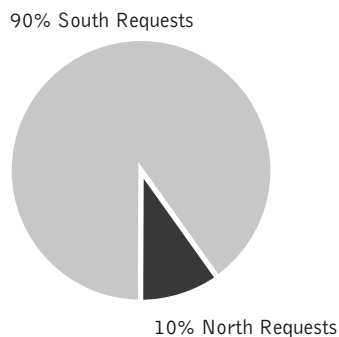
### EX SITU SEEDS: WHO'S GOT THEM?



North America, Europe, and Japan hold about two-thirds of the world's crop germplasm in ex situ genebanks. Only six percent of the less than seven million stored seed samples are held in Africa, and Latin America has barely 10%.

These figures under-estimate the actual concentration. The CGIAR's 11 genebanks are estimated to contain 35-40% of the world's unduplicated accessions. A large percentage of the South's germplasm has already been duplicated in the North or at IARCS (International Agricultural Research Centres). North genebanks have also been the backup repositories for CGIAR collections.

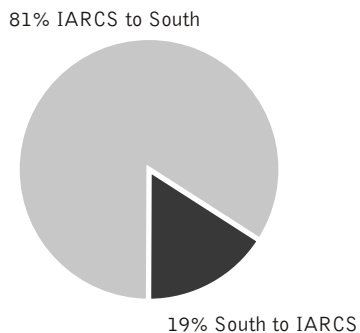
### CGIAR EX SITU SEEDS: WHO WANTS THEM?



Who's asking for genebank materials? We don't have a complete picture, but the CGIAR has persuasive evidence that only 10% of all the seed requests it receives come from the North.

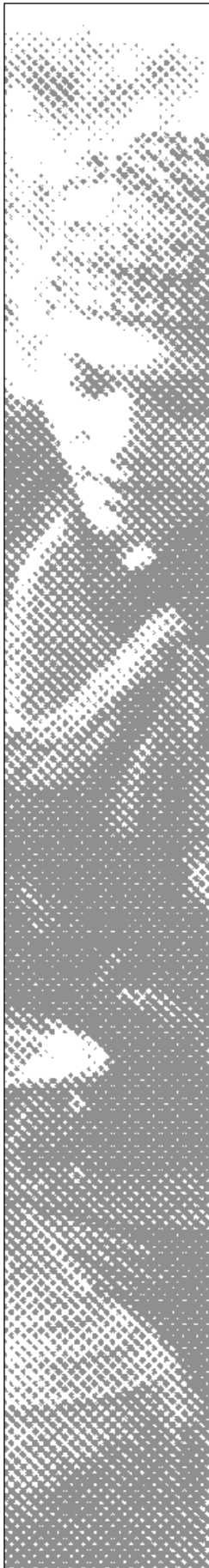
In one survey of germplasm exchanges between IARCS and 15 South countries over a period of years, it was found that four-fifths of all transactions were from IARCS to the South. In sum, the major users of a multilateral system will likely be poor farmers and public researchers.

### GERMPLASM FLOWS FOR 15 SOUTHERN COUNTRIES (1972-1991)



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Yam.com will make the NASDAQ – or for the sake of retribution (to keep others from rampant yam patenting) is just silly. If a government thinks excluding yams will attract venture capital, the poor will have a millennium to wait for new research.

Others argue that there are two reasons to place crops on the list:

- The world's most important crops are so ubiquitous that their exclusion benefits no one and hurts everyone.
- Orphan crops should be included because they are important to resource-stressed farmers.

The classic example cited is *Lathyrus*, a last ditch famine food that causes paralysis. Consumed in desperation by starving people from the Horn of Africa to South Asia, the exchange of germplasm among scientists in order to breed out the toxic trait could be a boon to the world's poorest. Might *Lathyrus* contain a genetic trait for drought-tolerance that is valuable for other crops? Yes. And its incorporation into other drought-stressed food crops – so long as they remain in the public domain – could be beneficial.

Some delegations maintain that the Undertaking can begin with a short list and then simply expand as time proves its merits. Not so fast. If Brazil and the USA have their

way (one wanting barely enough crops to cook a weak soup and the other wanting the kitchen sink), any change to the list will require "consensus" (meaning every country has a veto). Even if consensus is not required, many governments may have to return to their parliaments to add or delete crops. The best time to make a good grocery list is now.

### RED HERRINGS

- **Repatriation** – The outstanding issue (from the Rio Earth Summit) of pre-CBD material should, some say, lead to the repatriation of that material to the countries of origin. This is like ordering Noah to unload his Ark back in the lands that once were.
- **Bilateral deals are best** – This amounts to walking away from the multilateral UN system in favour of bilateral bidding wars – with the likelihood that there will either be no bidders or that the bid will be "fixed".

### BOTTOM LINE

The multilateral system will be of primary benefit to the poor and to poor countries with finite research and genebank resources. Forcing farmers and other researchers to reduce their options and kneecap their access to diversity is irresponsible. It is the flip side of intellectual property monopoly and equally immoral.

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## 2. WHO BENEFITS FROM "FACILITATED ACCESS"?

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### ISSUE

The assumption behind the Multilateral System is that governments will give either "free" or "cost recovery" access to all publicly held germplasm of all agreed crops both in situ and ex situ (except where the material is under active breeding). Some negotiators find the term "mutual access" more accurate.

### DEBATE

Seen from the North: More than three-

quarters of the world's crop germplasm currently stored in genebanks is either in the North or in CGIAR Centres' facilities. Almost all of that material moves "freely" between countries and from the public to the private sector (rarely the other way around). Broadly speaking, the North's interest in the South's germplasm (banked or otherwise) is low. The best stored, best documented, and most accessible germplasm is already within reach. While the South may have unique and invaluable material, commercial interest in it

is negligible. Companies rarely have a long-term view of their mission or needs. They also suffer from a misplaced confidence that genetic engineering will allow them to re-arrange genetic material when and as needed. The North is wrong, but its myopia renders it unwilling to commit resources to germplasm conservation, and therefore uninterested in the whole IU (International Undertaking) debate. Wrong though it is, it is conceivable that the North could “coast” for a hundred years or more on the germplasm they already control. It is also possible that a disaster could destroy its food supply for one or more crops at any time.

The Southern Exposure: By far the most valuable germplasm for the South’s poor farmers is that which is already in the field. If that seed is lost it cannot be satisfactorily replaced by imports. Arguably, the South – like the North – has no urgent need of foreign breeding material. Arguably, the South – like the North – has access to its own donated materials now in IARC genebanks.

Why bother? So, if both South and North could consider themselves “gene independent”, why bother with facilitated access? Four reasons:

- If there is no formal agreement, the status quo will collapse and germplasm exchange barriers will rise still higher in all parts of the world.
- In the absence of an agreement, it will be harder for the CGIAR Centres to do their work, find funding, and maintain their existing exchange system.
- Without agreement and goodwill, financial support for germplasm conservation and enhancement will actually decline rather than increase. Agricultural development programmes will be downsized or abandoned.
- The free flow of exotic germplasm – which has propelled progress in agriculture for 12,000 years – will end, and the poor (farmers and consumers) will be left by their governments to experiment in the development of an agricultural system devoid of diversity.

New Zealand’s Zero Sum Genes: The privacy of private banks does pose a special problem for a country like New Zealand which reportedly has actually privatized its genebanks. If the government cannot guarantee access to any crop germplasm, it is difficult to see why other countries would share seeds with them. It is even more difficult to understand why New Zealand remains in the negotiations and why it is one of the least reasonable countries at the table – sometimes rivalling Australia for unpopularity.

### RED HERRINGS

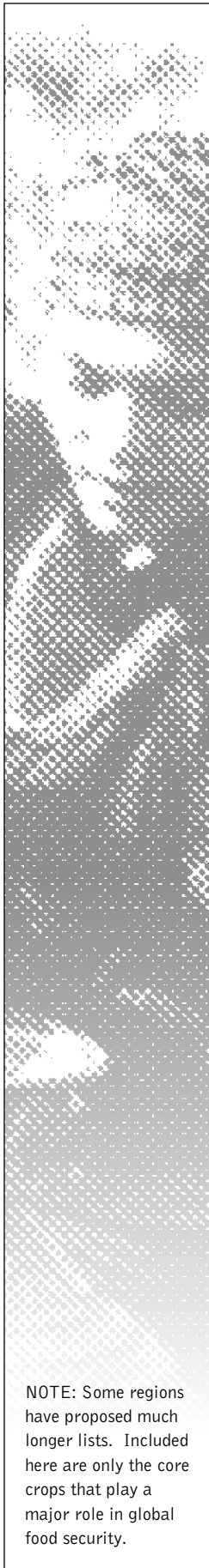
- Private collections must be included – The State of the World Report on Plant Genetic Resources concluded that less than two percent of banked germplasm rests in the private sector. Most of this material involves industrial, beverage, or ornamental species that are not essential to food security. Mergers have led most seed companies to jettison their limited collections. Most rely heavily on access to public genebanks. A case in point is Seminis (Grupo Pulsar) of Mexico, which controls 20% of the commercial vegetable seed market worldwide and announced last year that it would slash its variety list by one-quarter. (see RAFI Genotypes, “Earmarked for Extinction,” July 17 2000).
- Farmers’ research – The draft Undertaking permits both commercial breeders and farmers to deny access to germplasm that is under development. This acknowledges the simple reality that we will not be able to get public or private breeders to give away active breeding material they hope to soon place in the market – but the same clause also allows farmers to refuse access to their fields on the equal grounds that their seeds are also in the process of development.

### BOTTOM LINE

If for no other reason than that the North’s policymakers don’t know what is good for them, the IU will benefit the South as much (or more) than the North.



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## FACILITATING FAMINE

REGIONAL ACCEPTANCE OF MAJOR FOOD CROPS FOR "FACILITATED ACCESS"

AFRICA	ASIA PACIFIC	LATIN AMERICA & CARIBBEAN	NORTH AMERICA	EUROPE	TYPE OF CROP
1	1	1	1	1	Rice *
1	1	1	1	1	Maize *
1	1	1	1	1	Wheat *
	1	1	1	1	Barley
1	1		1	1	Pearl Millet
1	1		1	1	Finger Millet
	1		1	1	Minor Millets
1	1	1	1	1	Sorghum *
	1		1	1	Groundnut
		1	1	1	Cowpea
1		1	1	1	Beans (Phaseolus)
	1	1	1	1	Lentil
		1	1	1	Soybean
1	1	1	1	1	Potato *
	1		1	1	Sweet Potato
			1	1	Yam
1		1	1	1	Cassava
	1	1	1	1	Banana/Plantain
			1	1	Faba Bean
	1		1	1	Chickpea
			1	1	Pigeon Pea
	1	1	1	1	Pea
		1	1	1	Rye
			(no data)	1	Triticale
	1	1	1	1	Oats
			1	1	Grass Pea (Lathyrus)
	(clover)		1	1	Forage Crops

1 = Crops proposed for inclusion. \* = Crops accepted by all regions.

NOTE: Some regions have proposed much longer lists. Included here are only the core crops that play a major role in global food security.



## WHO NEEDS TERMINATOR?

REGIONS AGREE ON ONLY 5 CROPS FOR "FACILITATED ACCESS"

Although more than 105 food plants contribute significantly to the food security of people in one or more countries, IU negotiators have come up with only five crops that every region agrees should receive "facilitated access". These five crops are: rice, wheat, maize, potato, and sorghum.

In February 2001, the FAO Nutrition Division provided an advance copy of its study of the major food crops and their regional importance. The five generally accepted crops – although important – contribute less than half of the food requirements in any region for five key nutritional criteria (energy, protein, lipids, iron, and vitamin A).

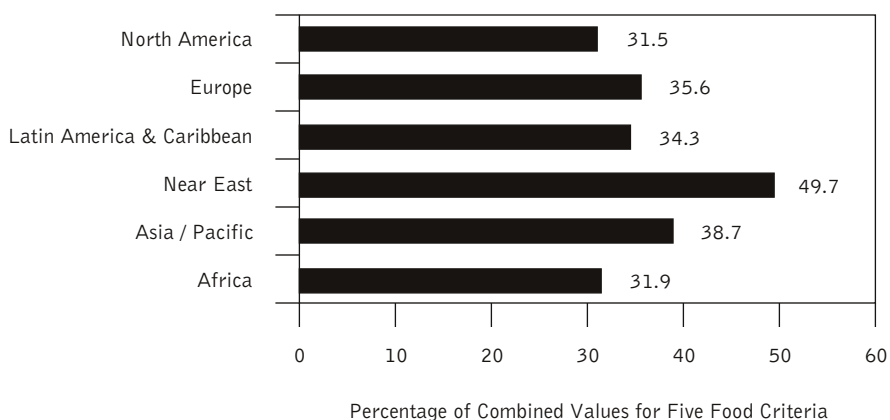
Of South regions, Africa fares worst (potatoes are not significant for the region)

with less than a third of its needs met by the crops. The Near East does best, but even this region obtains less than half of its requirements from the five crops.

The North also does poorly. North America actually fares worse than Africa (sorghum is not a big nutrition factor), but that region obtains much more of its dietary needs from livestock and fish than Africa and, regardless, a third of the teenagers in the region are obese.

If this list is not expanded to at least the most important food crops for poor people, then governments will stand accused at the World Food Summit this November for facilitating famine not strengthening food security. Who needs to be concerned about Terminator Technology when governments do this to their own people?

PERCENT CONTRIBUTION OF 5 CROPS TO REGIONAL FOOD SECURITY



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### 3. HOW SHOULD THE GERmplasm FLOW/BENEFITS BE MONITORED?

#### ISSUE

Does the MLS involve high transaction costs? How can governments (particularly the South) be assured that the flow of germplasm will be within the parameters of the Undertaking? Will companies or governments cheat by withholding germplasm – or shipping stocks to non-parties without the appropriate protocols?

#### DEBATE

There are three kinds of monitoring under discussion. The differences between them, however, are much less than many expect.

**Germplasm:** Operating on a crop (bulk) basis rather than a “designated material” (sample by sample) approach, there is no need to monitor germplasm flows among IU members. For some crops, there also may be no need to monitor flows to outsiders. Where there is a need, standardized MTAs should work satisfactorily. However, for CGIAR banks and many institutions through SINGER and other crop data networks accessible on the web, it will be possible for anyone with Internet access to see how much of what is moving where. While such monitoring will not meet any regulatory need, it will prove helpful to win political and practical support for the MLS and might serve to encourage governments to review the crop lists dedicated to facilitated access.

**“In trust” germplasm:** Problems could arise over the CGIAR lists of “designated germplasm.” The signed accord between FAO and each of 11 Centres assures that designated materials must be made universally available based on a common MTA. Unless amended, it would be a violation of that agreement – approved by the FAO Commission members – to exclude non-members of the revised Undertaking. Whether the Governing Body has the legal (or moral) right to prevent IARCs from (in a painful but probable scenario) refusing to

repatriate “in trust” seeds to a Non-IU Member country donor remains to be explored.

**Benefits:** Depending on the outcome of negotiations, governments may want to monitor three different value flows:

- Direct contributions to a financial facility established by the IU (monitoring here would be straightforward);
- Indirect support to germplasm conservation and enhancement via public and nonprofit aid and development initiatives (where the information would be volunteered and independently evaluated by all parties – also on the Internet);
- Commercial profits linked to listed crops (readily traceable under PBR/PVP and patent regimes whenever a grant is made associated with one of the crops in the system).

For good governance and transparency, it is also possible to link SINGER and crop network databases to WIPO/UPOV databases to more clearly follow the use of facilitated germplasm.

#### RED HERRINGS

- High transaction costs are involved – Only if specific genes have to be tracked.
- There will be high legal costs – to track MTAs with non-member institutes/countries. This depends on the rules for non-members but the distinctions are likely to be modest. Most non-signatory states (the USA?) will be scrupulous in observing the rules. Rogue states (Australia?) will develop a reputation for non-compliance and be eventually barred from access.

#### BOTTOM LINE

The real question is: how high could costs soar before they match the phenomenal transaction costs involved in bilateral contracts, or more simply, in the absence of a multilateral system? Monitoring will be



either automatic or unnecessary. Some OECD governments seem dedicated to complicating this issue. It is not rocket science. Public sector institutions that appear to be grumbling about such costs

should take the time to calculate the spending involved if the negotiations throw the world into bilateral case-by-case negotiations.

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## QUESTIONS ABOUT BENEFIT-SHARING

### 4. WHY IS THERE SO LITTLE MONEY ON THE TABLE?

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#### ISSUE

Hopes of large sums of new money were squashed in the aftermath of the Rio Earth Summit. Now, the prevailing wisdom is that – contrary to safety and sanity – there is little funding to be found. During the Clinton Administration, the U.S. delegation squirreled away \$20-30 million. European governments were scrambling for a match. Now, the U.S. money must be considered unlikely (more for political than practical reasons) and the Europeans are still not forthcoming. But is the hard economic reality of six years ago – when the negotiations began – still the same today? Really? Despite the recent downturn in financial markets, many OECD states are looking rather affluent.

#### DEBATE

There is no clarity on why there is so little money. Some South governments continue to believe that the OECD's denial of financial responsibility is mysterious and malicious. They are right that there exists a profound disconnect between the value of agricultural biodiversity on the one hand, and the North's willingness to pay for it on the other. There are a lot of very awful reasons why this is so:

- Neither OECD policymakers nor consumers easily correlate "food" with "agriculture" making it hard for them to connect the dots to the central importance of plant germplasm for food security.
- The multi-billion dollar benefit for the North every year is diffused throughout the economy with no single sector reaping the

reward. Seed companies do not benefit as much as food processors, and retailers gain less than consumers. Assigning value along the way is far from easy.

- The value is also diffused over time. In any single year (or decade), the actual value of germplasm flows could be negligible. Cumulatively, access to farmers' fields is of incalculable importance to everyone's food security, but the occasions where we are able to precisely identify the value are rare.

The North's myopia should not be so surprising. These are, after all, the same policy-makers who responded too slowly to blood supply scandals and the Mad Cow Disease, not to mention acid rain and climate change, If they can't see their forests rotting, it's hard to believe they'll see their genes. Southern governments also show little interest in agriculture or farmers. The long and miserable decline in public funding for agricultural research in the North is paralleled very accurately in the South.

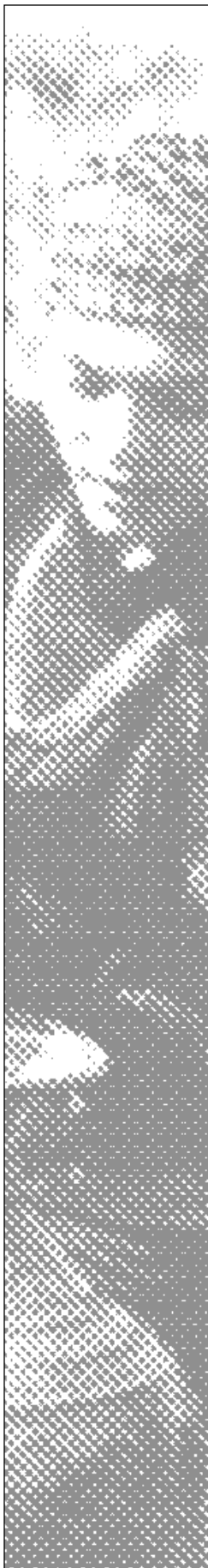
#### RED HERRINGS

- **No money no deal** – Money is only one part of the issue. The task at hand is to ensure that poor farmers are able to exchange seed and that they have access to whatever material they consider useful.
- **No money** – This was a better argument in 1996 than it is today. Daimler Chrysler may be laying off workers, and Microsoft's hiring may have slowed, but OECD countries are in much better economic shape than they were five years ago.



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### BOTTOM LINE

Renewed pressure on the financial front is not inappropriate. There will not be much but there could be some. Tactically, the South would do well to demand the creation of an endowment fund for critical global and regional genebanks (in situ and ex situ) and a

mechanism supporting technology exchanges. There is also little doubt that many OECD states are increasing their bilateral support for plant genetic resources and pressure here should continue. The best mechanism for funding remains the UN assessment model.

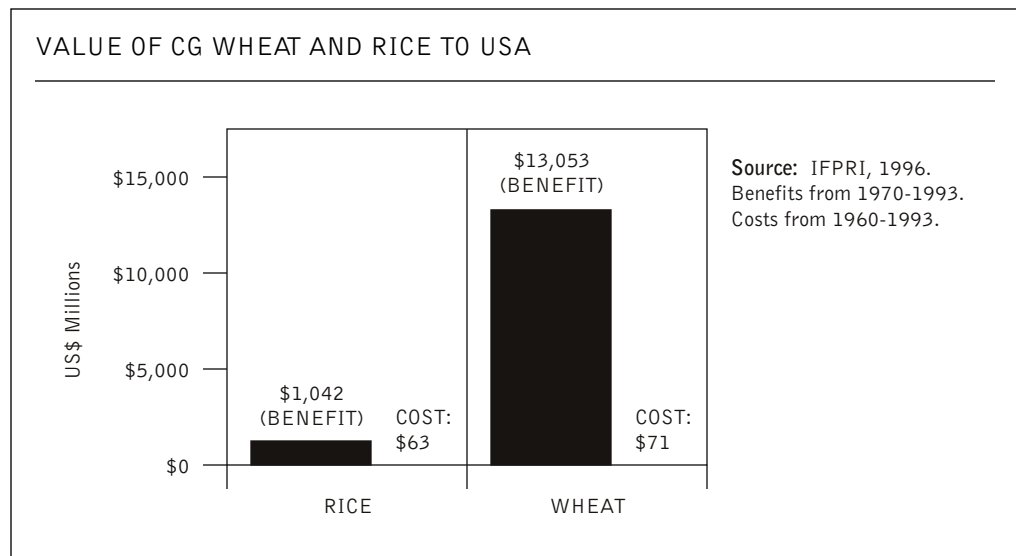
### GENE BANK "KICKBACKS"

"Water, water everywhere and not a drop to drink!" The saying runs as true for seed money as it does for H<sub>2</sub>O. The documentation of the value of the South's crop seed to the North is no less true today than when RAFI first began chronicling the "kickbacks" flowing north almost a quarter-century ago. In 1996, the International Food Policy Research Institute (IFPRI) studied the value of CG (Consultative Group) wheat and rice to the USA, and concluded that the return on investments (aid contributions) for rice was \$17 for every \$1 of aid money. The return on wheat was \$190 to \$1. Several years ago, RAFI estimated that the annual contribution of CGIAR germplasm and research to the North was about \$5 billion.

Figures provided by CG Centres show that the private sector's interest in CG material is low compared to the public sector's use. Of all germplasm flowing to the South from the CG, probably less than 10% flows to southern companies. While the proportion of germplasm flowing from the CG to the North that goes to companies is higher – perhaps 20-25% for the main cereals, the North's share of all CG flows is only 10% of total movement. In 1996, FAO estimated that only 2% of all ex situ germplasm was held by corporations. This estimate does square with CGIAR reports on company interest in their accessions.

**Bottom line:** Plant germplasm is invaluable. Assigning value is hard and unnecessary if the UN assessment formula is used.

VALUE OF CG WHEAT AND RICE TO USA



Source: IFPRI, 1996.  
Benefits from 1970-1993.  
Costs from 1960-1993.

## GENE BANK "KICKBACKS" (continued from page 10)

### PRIVATE SECTOR PORTION OF STORED PLANT GERMPLASM IN 1996



### INDICATORS OF THE SOUTH'S ROLE IN US AGRICULTURE

CROP	ORIGIN	\$ PER ANNUM
Tomato	Andes	\$5 Million
Sorghum	Ethiopia / Sudan	\$12 Million
Maize	Latin America	\$20 Million
Wheat	Turkey	\$50 Million
Bean	Latin America	\$60 Million
Rice	Asia	\$126 Million
Barley	Ethiopia	\$150 Million
Soybean	Korea	\$500 Million
Wheat	South	\$500 Million

## 5. IS THE CGIAR A BENEFIT OR A BENEFICIARY?

### ISSUE

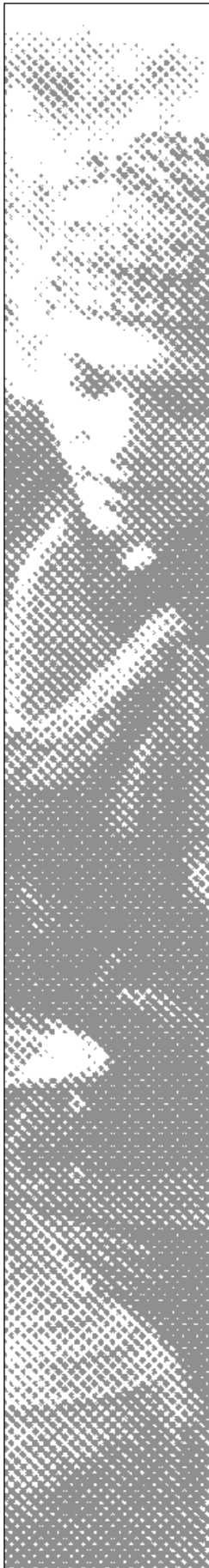
With limited hopes for new money, all eyes are on the CGIAR. The IARCS receive every year a sum equal to that identified by the Leipzig Global Plan of Action for the conservation and enhancement of crop germplasm. The North says that the CGIAR

is a major "benefit" (that they pay for) to the South. Some in the South see the CGIAR as a "beneficiary" of aid from the South with the benefits showing up in the North. Both sides may have a point. Many CSOs argue that the benefits would improve if the CG's governance were better.



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## DEBATE

With over half a million banked seed samples, an annual budget of over \$340 million, and a compliment of several hundred scientists scattered over 16 research institutes, the CGIAR embodies germplasm conservation and enhancement. Currently going through a restructuring process, the CGIAR has serious governance/identity problems. CSO's have three major concerns about the CGIAR:

- Research is too high-tech and not enough wide-tech; working at farmers rather than with farmers.
- Governance is North dominated.
- Legal status is, at best ambiguous and without doubt, susceptible to pressure.

Although the CGIAR passionately denies the science community's criticism, it tends to be rather mute on the other two points.

**IU benefits for the CG:** A team of wild horses couldn't stop the CGIAR from signing onto almost any Undertaking approved by a majority of governments. If the facilitated access list is shorter than the crops they are working on, the IARCS may not be able to finance their research nor move genebank and nursery stock material around the world. They also believe (quite correctly) that a longer crop list is in the best interests of the poor. During the negotiations, the CGIAR has presented impressive data showing that the flow of germplasm to and from their banks is heavily in favour of developing countries. This is important information that RAFI believes has not been fully absorbed by all delegations.

**Missing pieces:** However, there are three kinds of information the CGIAR has not provided because they have not seen it as important. It is.

- **Legal control of the banks:** Each international centre has a legal personality. However, ultimate legal control over genebank facilities and accessions differs with each centre, and could result in the host country becoming the "owner" of the bank. This is critical. Signatories to the

Undertaking should be able to exercise full legal responsibility over the material they hold. New Zealand may have a similar problem with its privatized seed banks.

- **Real benefits to the North:** While the vast majority of genebank accessions and nursery trial samples flow from the Centres to the South, the reasons for the North's lower volume interest should be made clear:
  - Over the last few decades, the North has obtained large quantities of germplasm from IARC banks and has been re-using this material. (There is a higher incidence of repeat requests from South institutes because of storage/security problems.)
  - Duplicate samples were often sent to North genebanks by the Centres at the time of collection and in general, North genebanks were made the designated "back-up" repositories for CGIAR material.
  - With more material at hand and more sophisticated labs, the North (including companies) "cherry-picks" IARC genebanks for very specific samples whereas the South "bulk orders".
  - Data has been produced by CGIAR and the Australian and U.S. Governments, showing that CG research provided billions of dollars of benefits to these countries. Those figures have not been included in the information provided to the IU negotiations.
- **Policy ambiguities:** There are areas of policy ambiguity within the CGIAR itself and between the CGIAR and FAO that need resolution. It is likely that these issues cannot be resolved without a revised Undertaking, but the problem areas should be identified.

**What to do?** The CGIAR is already discussing major restructuring options. The FAO-CGIAR Trust Agreements come up for renewal in 2002. In the course of IU negotiations and in the Commission (CGRFA), governments could express their views. A strong message won't be ignored. Elements of the message could include:

- IARC genebanks and accessions must become the legal property of either the Governing Body (bearing in mind crop coverage, membership, and Trust

obligations.)

- Funding to maintain the IARC genebanks that presently goes to individual IARCS through CGIAR should go instead to the IU Governing Body for the same purpose.
- Governments should agree to work toward the establishment of an endowment that would guarantee the permanent and secure storage of key international and regional collections.
- IARCs should be regionalized, with half the trustees from the region and half outside the region. Strong global commodity IARCs could be contracted for their services by other regions. (Please see RAFI's Occasional Paper: "In Search of Firmer Ground", October 2000, for an elaboration of this issue.)

## RED HERRINGS

- The CGIAR is already a "benefit" – After 30 years, if the CGIAR needs to argue this point, it is not the benefit it should be.
- The CGIAR has to be "invited", not "pressured" – It's being made an offer it can't refuse.

## BOTTOM LINE

The CGIAR is the prize. A well-crafted Undertaking will make the System a major benefit and a de facto arm of the Governing Body. At the same time, the CGIAR will benefit from a politically and financially secure relationship that continues to give them enormous flexibility.

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## 6. IS THE PRIVATE SECTOR'S ROYALTY-SHARING PROPOSAL "BENEFIT SHARING"?

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### ISSUE

This is the famous (within the Contact Group) Article 14.2. (d)(iv). The seed industry has proposed to pay a small percentage of their patent royalty revenues into a fund under the IU. Payment would take place (in the industry's opinion) every time a patent removed germplasm from the public domain comes from one of the "facilitated access" crop lists.

### DEBATE

Of course, public domain genes – in the view of the G77 and China (and CSOs) – must never be removed from public access. Corridor wisdom holds that very little money is involved but most parties welcome the symbolism of the industry proposal as modified (and strengthened) by Norway. Others fear that the scheme is a Trojan Horse for stronger IP regimes in the South.

**Money on the table:** Although RAFI is critical of the proposal on principle, the "principal" might prove larger than originally expected. Rumours have suggested

a figure of \$1 to \$5 million for an industry with annual revenues of around \$27,000 million. Around the time of the original industry proposal, however, the U.S. Patent Office held only 745 plant variety (biotech) patents. In February 2001, the number had skyrocketed to more than 8,100 varietal patents. Were the share of royalties on all of the relevant patents to be paid annually, (as is reasonable), then the sums involved could grow exponentially over the 20-year period of conventional patent protection.

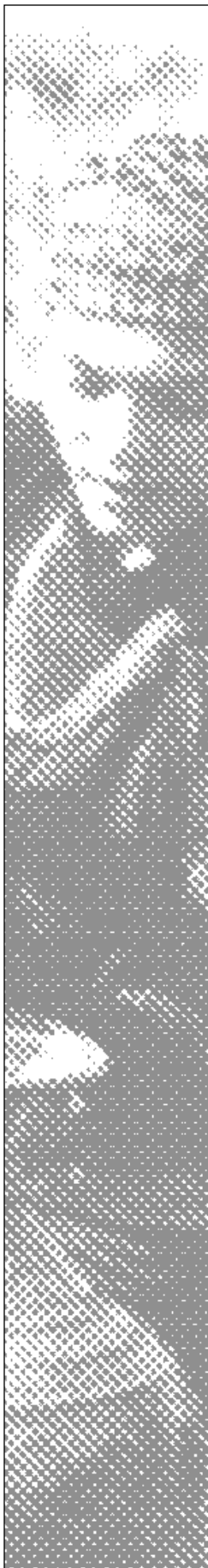
**Dying to gain:** There are some interesting arguments put forward by the G77 and China, the EU, Japan, and Norway:

- Even if the sums are marginal, for the first time it implies that corporations should pay for germplasm.
- It embarrasses OECD governments into finding new money.
- It amounts to a possibly unique international tax on corporate wealth.
- It imposes an "environmental" constraint on intellectual property and the TRIPS Agreement.



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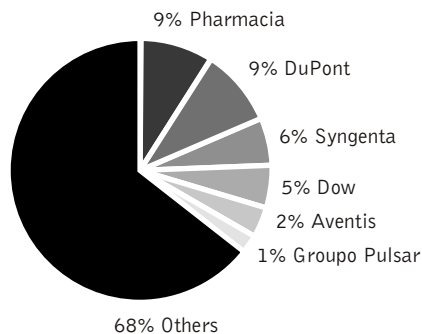


**Dying to stop:** Who's against the proposal? The USA, Canada, Australia, and New Zealand all claim that their companies are uncomfortable with the idea. ASSINSEL, the seed association representing these very companies says this is not true. Most observers believe that the U.S. delegation to

the talks is incapable of getting the attention of the interdepartmental bodies that need to sign-off on the deal, and are therefore stalling for time. Others fear that the U.S. Trade Representative and State Department have perceived the precedents involved and are hostile.

## WHO WILL "DIE FOR" 14.2. (D) (IV)?

ALL U.S. PLANT BIOTECH PATENTS IN 1998 (TOTAL=3092)

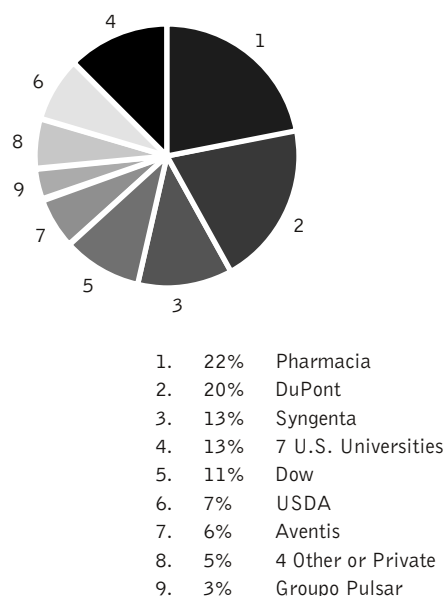


Who will pay for 14.2. (d)(iv)?

According to a survey by UC Berkley Ph.D. candidate Gregory Grath, only 30 research bodies had 15 or more plant biotech patents in December 1998. Collectively, the 30 institutes had one-third (1,370) of all (3,092) such patents granted by the USA (to nationals or foreigners).

If the Undertaking were only to consider the entities with 15 or more patents, the scene is still more concentrated. The top 6 private companies held three-quarters of that group's 1370 patents. Indeed, all 30 institutes were either Gene Giants, U.S. universities, or the USDA. None of the significant 30 are from Australia, Canada, or New Zealand – making their opposition to 14.2. (d)(iv) more confusing.

TOP PLANT BIOTECH INSTITUTES WITH 15 OR MORE U.S. PATENTS IN 1998 (TOTAL=1370)



How many patents are involved?

According to Grath, in 1998 there were only 745 U.S. issued biotech patents for plant varieties. However, Grath tells RAFI that the growth is exponential and that by the time the Commission's Contact Group met in early February, the number of plant variety claims had soared to over 8,100.

There is a second "exponential growth" to be considered here. Back in 1990, the total value of licenses based on U.S. patents (all descriptions) was \$15

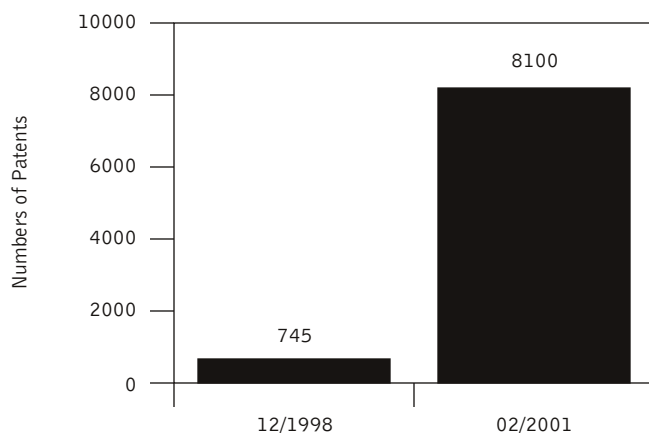


**WHO WILL “DIE FOR” 14.2 (D) (IV)?** (continued from page 14)

billion. By 1998, license revenues had leaped to \$100 billion, and are expected to top \$500 billion by 2005. Logically, the industry should pay annual fees to the

Undertaking. Combining the acceleration in plant biotech patenting with the 20-year period of patent protection, the sums involved could be significant.

U.S. BIOTECH PLANT VARIETY PATENT GROWTH



Rumour has it that public sector institutes (universities, etc.) don't like it because of the tracking/transaction costs. (If so, we are probably talking about two or three grouchy grumblers with limited clout.)

**RED HERRINGS**

- **Good corporate citizenship** – This deal has nothing to do with “best practices,” but a lot to do with smoke and mirrors.
- **This is to “die for”** – No, it's not. If this becomes the “make or break” issue for the Undertaking, then the quality of the Undertaking is already too low.

**BOTTOM LINE**

We don't like the deal. The seed industry gets cheap publicity and the illusion that intellectual property can benefit the poor. This argument will hit home with less-involved South governments, who will be

more sympathetic to gene patenting. At best, industry will put some millions of dollars into the common coffer. However, as long as the South remains firm that “facilitated access” material cannot be removed from the public domain (the 13.2. (d) from clause), there will be minuscule sums of money on the table. The political gains (taxes and WTO) are dubious under optimum circumstances, and with Europe and the South in a mood to compromise in order to keep the USA and Canada on their side – likely to be watered down before the Undertaking becomes law. RAFI believes there is no reason to tie payments to patents. The best funding mechanism continues to be the standard UN titling model. At the very least, industry should sever the patent connection and pay a percentage of their annual profits associated with those crops that are part of the multilateral system.



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## QUESTIONS ABOUT RIGHTS

### 7. WHAT ABOUT INTELLECTUAL PROPERTY?

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#### ISSUE

Article 13.2 (d*ie*). This is by far the toughest issue facing the Undertaking. There is no way that OECD countries will accept the Undertaking if their nationals are prevented from taking out intellectual property rights on material derived from Annex 1 (facilitated access list) germplasm. There is also no way that an Undertaking should be accepted that removes Annex 1 germplasm from the public domain through intellectual property applications. As everyone recognizes however, these are not two solitudes. If a plant variety is derived from facilitated germplasm and placed under Plant Breeders' Rights (PBR), the original material is still universally accessible in the public domain. If a gene is isolated and purified from facilitated germplasm, and placed under patent, the original gene in its original form is still accessible through conventional breeding and/or through alternative biotech processes. It would help however if the research exemption rules were clarified and liberalized under WIPO.

#### DEBATE

Of course, most South governments do not recognize patents on germplasm or on plant varieties. Under international law, they are not obligated to honour such patents accepted in other countries and have no restrictions on how they can use this patented material.

While a compromise is diplomatically conceivable, CSOs including RAFI are

opposed to any initiative that gives ground to an intellectual property regime. Since an ambiguous compromise is likely to raise the anxiety level of some companies and their governments, it is also very possible that delegates will sidestep definitional aspects of the issue, and leave the final negotiation to the Governing Body on the theory that its members will be more progressive.

**French farce:** The position of France warrants special comment. Even as France withdrew its support of the EU patent directive – insisting that it goes too far in permitting the patenting of life, other European governments expressed private frustration with France's patent posture in the IU negotiations. From all reports, there is a serious disconnect between what is being advanced in Rome, and pressed in Brussels. Maybe it's time for Paris to step in?

#### RED HERRINGS

- **Make or break** – This does not have to be true. The Governing Body can resolve the issue after the Undertaking is in force.

#### BOTTOM LINE

Government negotiating at FAO has no right to remove farmers' seeds from the public domain. Although there will be some ambiguities to be sorted out later, the Undertaking must state unequivocally that facilitated access germplasm, including the parts and components thereof, must remain accessible in the public domain.

### 8. ARE FARMERS' RIGHTS PROTECTED?

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#### ISSUE

Farmers' Rights were kneecapped two years ago with the sudden chapeau text on IU

Article 15 that made all aspects of the subsequent text subordinate to national legislation. Nothing now remains as an

international human right. This step is potentially tragic, and was entirely unnecessary. "Diplomacy wisdom" dictates that once accepted, text cannot be revisited. Not this time. Although we were never going to get much out of Farmers' Rights in the Undertaking, the current language is an insult to farmers – and a shame to southern negotiators – that they should not be allowed to sidestep under any circumstances. Either the text is re-opened in an extraordinary session of the Commission (as is already planned), or the Commission should introduce Farmers' Rights formally into the review of the "Right to Food" underway in the Office of the UN High Commissioner for Human Rights.

#### DEBATE

The North argues that Farmers' Rights can be dealt with at the national level in harmony with other legislation. In general, CSOs and

the South have argued that Farmers' Rights transcend national law, and are a kind of Human Right.

#### RED HERRINGS

- **National implementation** – Human rights are above national law.
- **Breaking diplomatic protocol** – Since the Contact Group has signed off on Farmers' Rights, many argue that it should not be allowed back again. This may be true for the Contact Group, but it is not true for the whole Commission. Diplomatic niceties are not as important as Human Rights.

#### BOTTOM LINE

Farmers' Rights are Human Rights. IU negotiators do not have the right to surrender them. CSOs must defend Human Rights without qualification. Article 15 must be renegotiated.

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## QUESTIONS OF STRATEGY

### 9. WHO IS "IN" AND WHO IS "OUT"?

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#### ISSUE

Encouragingly, most delegations (if not always their governments back home) see the importance of a "deal". Barring acts of sabotage or insanity (neither to be ruled out), most countries will sign on.

#### DEBATE

**"In" the South:** The Canadian delegation would probably insist that Brazil's behaviour during six years of negotiations is prima-facie proof that Mad Cow Disease is pandemic in Brasilia. Given the sophistication of the diplomats involved, it must be accepted, however, that the reversals, rudeness, and ruthlessness are strategic. Such tactics would become a country that had chips to bargain with. Brazil has little agricultural biodiversity that anybody else wants. Outside "facilitated

access"; Brazilian delegates may need to seek culinary asylum the next time they are in Italy. For incomprehensible reasons, Bogota appears to be marching doggedly to Brazilia's drums. Their fellow G77 allies are growing tired of the tune.

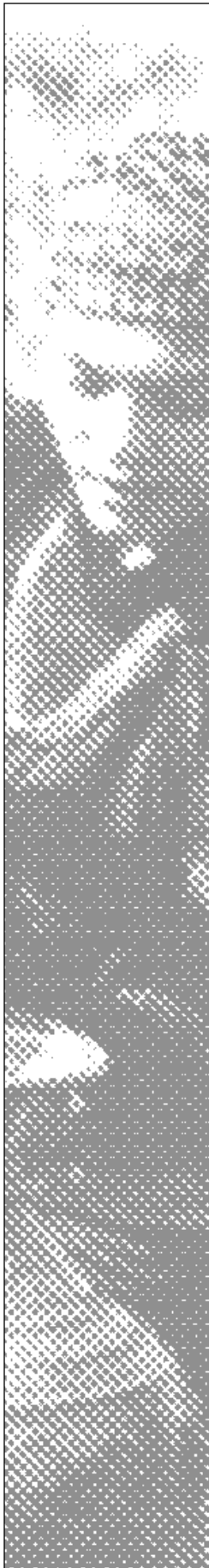
Common sense prevails throughout Africa and Asia, as well as the rest of Latin America. Ethiopia, Angola, Malaysia, India, and the Philippines have a clear sense of purpose and direction.

**"In" the North:** Australia has made itself the "Woody Allen" of partnership – so unpopular with everybody that probably nobody would join a "club" allowing the Aussies to be members. Despite refreshing goodwill and sensitivity from its delegation, the new administration in Washington makes



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it unlikely that the USA will join. Will Canada join if the U.S. does not? Yes, as Canada did with the Convention on Biological Diversity. Can there be an Undertaking without Uncle Sam? Absolutely. The chronically challenged – “Americans” will do what they always do – tag along in the corridors, adhere to the spirit and substance of the rules, and join a decade late.

So, those “in” are the G77 and China, and Europe along with Canada and Japan. (France is also “in” once it gets its signals straight.) It would be a wasteful diplomatic mistake to try to accommodate the Australian or U.S. positions (or Canada’s as a “front” for the U.S. position).

## 10. WHAT IS THE BOTTOM LINE?

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### ISSUE

Negotiators fear (some hope) that if the Undertaking is not concluded during 2001, it will die and never be resuscitated. Are we having a “near-death experience”? Is there no viable “plan B”?

### DEBATE

If the Undertaking can be clearly seen to protect the poor and assure farmers of improved access to breeding material over the long haul, then it should be signed. In order of priority/importance (but not to suggest that some can be sacrificed):

- The IU should provide mutual (“facilitated”) access to at least 30 major food crops.
- It should guarantee that varieties and the parts and components thereof, as they are found in the crop collections, remain in the public domain.
- Farmers’ Rights should be identified as a Human Right to be incorporated into the

### RED HERRINGS

- **The USA will withdraw its support from CGIAR** – Not connected. Rumours are everywhere that the USA will be out of CGIAR within three years, along with the World Bank. Frankly, neither move is firm or final. The problem is getting U.S. attention – not concern for its retaliation.

### BOTTOM LINE

The “bottoms” on the line are those of the six countries whose antics threaten world food security. If they continue to block consensus, their bottoms should be removed from the negotiations.

Right to Food with all the rights now proposed at the national level and without restriction by national legislation.

- There should be an agreement to work toward an endowment for (at least) internationally and regionally important in situ and ex situ genebanks.

### RED HERRINGS

- **Plan B** – There is no Plan B. Delegates are having enough trouble with Plan A.

### BOTTOM LINE

There is a rule of international negotiation that the more protracted the process, the more likely those with the most power will be able to whittle away at the resolve of those with the least power. If an agreement cannot be reached this year, the IU negotiations should be abandoned. The risk of a damaging agreement will be greater than the perils of failure.



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RAFI (The Rural Advancement Foundation International) is an international non-governmental organization which conducts research on agricultural biodiversity, biotechnology, and intellectual property.

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