



Rural Advancement Foundation International

BIENNIAL REPORT

September 1992 to
August 1994

President's Message: Of Pirates and Patents

"Piracy" has been an important issue since the GATT Uruguay Round began in 1986. 1994 brought new charges - as transnational enterprises accused Latin Americans of pirating pharmaceuticals, and Asians of purloining computer software. The total theft in intellectual property losses was reckoned, by industry, to be in the order of \$60 billion for U.S. firms alone. Against this backdrop, RAFI began documenting another kind of piracy, and concluded that today's Blackbeards often fly a corporate flag and seek a biological booty. From 1992 to 1994, *RAFI Communiques* reported the piracy of Africa's soapberry, Latin America's coloured cottons, and Asia's neem tree. RAFI investigations revealed that a major chemical company had acquired "species" patents granting it exclusive monopoly over all genetically engineered cotton and soybeans. For the first time in history, a monopoly had been granted on an entire food crop and on a multi-billion dollar industrial crop critical to the South's economy. Expanding their research from plants to micro-organisms, RAFI staff then compiled a unique list of patented soil samples, taken mostly by Northern drug companies from communities in the South, to produce cosmetics, anti-tumour agents, and antibiotics. By late 1993 RAFI was speculating that Bristol-Myers was India's largest landlord with absentee land - it had patented so much soil from India! Working with indigenous peoples' organizations and Swissaid, RAFI next uncovered a series of patent claims made by the U.S. Government on the "immortalized" human cell lines of indigenous people from Panama, Papua New Guinea, and the Solomon Islands.

But RAFI has not stopped at research. In late 1993, under direct RAFI pressure, the U.S. Government dropped its patent claim on a Guaymi woman from Panama. In 1994, RAFI's global publicity against the cotton species patents led both the U.S. and Indian governments to begin procedures to revoke the claim. In mid-1994, RAFI launched a legal challenge to the soybean species patent in Europe, and staff have every reason to expect success. RAFI's disclosures on pirated soil organisms led to new regulations and legislation from Mexico to India, and prompted Africa's environment ministers to pass a resolution to embargo such exports.

RAFI also began to quantify the South to North flow of crop germplasm through the Consultative Group on International Agricultural Research (CGIAR). Initial estimates suggest that the value of CGIAR gene banks to the North is \$4-5 billion a year. So RAFI acted swiftly when a World Bank initiative in mid-1994 called into question the ownership of these priceless collections. By year's end, the CGIAR and FAO had signed an agreement which put approximately 40% of the world's invaluable seed collections under UN control. Many sources credit RAFI with this success.

Of course, piracy is not new. There is a wonderful old myth that the British navy chased a Swedish botanist across the North Sea in an ill-fated attempt to regain two sacks of potatoes. The compliment was returned, or so says the myth, when the Swedish navy pursued a British frigate back across the same sea to recapture Linnaeus's botanical collection. French peasants stole potatoes from Louis XVI, and there is no record that Spanish conquistadors paid Andean farmer/breeders for their potatoes!

In October, 1995, the world will celebrate the 50th anniversary of FAO. Most will not realize that the same date marks 150 years since the onset of the Irish Potato Famine. As governments commemorate the founding of FAO in Quebec City, few will know that a short distance away lies the island upon which Irish refugees perished by the thousands. One of the cause of the Irish Potato Famine was the crop's genetic uniformity.

I am pleased to report that RAFI continues to be the Iron Butterfly of Agricultural Biodiversity. Small though RAFI is, its impact continues to expand. Biodiversity, Biotechnology, BioPolicy, and now BioPiracy will remain the core of RAFI's programme in the year ahead. Expect to hear more, too, about potatoes and food security.

Sven Hamrell, President - RAFI Board of Trustees

I. Biodiversity

Food Security and Genetic Resources

Concern for global food security has always been at the heart of RAFI's work to conserve agricultural genetic resources, and to influence agricultural research and policy. In March 1996, a World Food Summit will take place in Rome. RAFI sees the Summit as an opportunity to place the conservation and use of agricultural biodiversity at the foundation of sustainable food security strategies. In the past two years, RAFI has undertaken several practical efforts in this direction. Related policy efforts are outlined in section IV below.

* In 1993, RAFI staff, Board member Dr. Melaku Worede, USC Canada, and Inter Pares launched the second phase of the **African Seeds of Survival (SoS)** programme. RAFI remains on the board of this \$2.5 million effort, which is systematically nurturing and improving endangered varieties of African folkseeds - principally wheat and sorghum. Seven-hundred Ethiopian farm families are now working to multiply and safeguard threatened seeds. Phase I of the project concluded with remarkable success. Rigorous studies now show that carefully-selected traditional seeds have out-yielded foreign varieties, with no external inputs. Phase II of the programme is now underway, spreading the impact of SoS to other parts of Africa and beyond - through training courses and publications. RAFI maintains a strong programme role in SoS, identifying people for training and work-study attachments, providing international contacts, doing policy analysis and advocacy, and helping with evaluation.

* In 1991, RAFI proposed three continental meetings among **International Agricultural Research Centres (IARCs), National Agricultural Institutions, and NGOs**, and has since facilitated much-needed interaction between these groups. Late in 1992, RAFI supported Board members Rene Salazar of SEARICE, and Sven Hamrell of the Dag Hammarskjold Foundation, in coordinating a very successful meeting in Chiang Mai, Thailand, on "Rice, Food Security, and Ecology". Twenty-five NGOs and 25 "formal sector" participants from seven

countries in SE Asia established the basis for future collaboration. In January 1993, Jean Christie represented RAFI as the only NGO to participate in a review of the five year strategy of **IRRI** - the Philippines-based International Rice Research Institute.

* During a six month period in 1993/94, Pat Mooney represented RAFI as the only NGO to contribute to a unique system-wide review by the Consultative Group on International Agricultural Research (CGIAR) of 18 institutions' policies and practices for **plant genetic resource conservation**. Far-reaching changes, proposed by Mooney as a review team member, found unanimous support.

* In 1993, RAFI's Hope Shand wrote a special publication for the UN Food and Agriculture Organization (FAO), to commemorate World Food Day. ***Harvesting Nature's Diversity*** is a popularly written booklet on the importance of plant, animal, forest, and aquatic genetic resources. It was produced in five languages, and distributed worldwide by FAO.

* An **International Code of Conduct for Germplasm Collection and Transfer**, proposed by RAFI in 1989, was adopted by the FAO Biennial Conference in November 1993. Although voluntary, the Code is a strong international guideline that has won widespread support and respect both South and North.

II. Biotechnology

RAFI was the first organization worldwide to analyze developments in the biotechnology industry, and to assess their impact on the people and economies of the South, disseminating relevant information to governments and NGOs as appropriate. These efforts continue, as illustrated by the following initiatives.

* Hope Shand continues to research and edit the *RAFI Communique*, backbone of RAFI's research and information function. It alerts Southern NGOs and policy-makers to the potential impact of new Northern-based biotechnologies. Distributed to more than 600 organizations around the world, the *Communique* is widely copied and quoted worldwide - in the popular press, scientific, and trade journals. Increasingly, RAFI links the *Communique* with specific activities and audiences, to enhance its strategic use. Eleven issues were produced during the reporting period:

* As a result of RAFI's research on the cotton and soybean "species patents", granted to or sought by Agracetus corporation in Europe and North America, and following a major study on the implications of intellectual property rights for agriculture (see below), RAFI began proceedings in the European Patent Office and in Canada, to challenge the soybean patent. With help from legal advisors on both continents, and support and encouragement from many organizations in the South, this legal challenge is expected to gain public profile in the months ahead.

* During the reporting period, RAFI spoke on the impact of biotechnology to audiences in Brisbane, Canberra, Melbourne, and Sydney, Australia; Bridgetown, Barbados; Antigonish, Ottawa, and Winnipeg, Canada; New Delhi, India; Dublin, Ireland; Nairobi, Kenya; Monterrey, Mexico; Geneva, Switzerland; Raleigh, San Francisco, and Washington, U.S.A.; and Harare, Zimbabwe.

* In 1989 RAFI and Latin American NGOs had proposed a Code of Conduct on Biotechnology to the FAO. It has been tabled, to be revised and discussed again in 1995. With many other NGOs, RAFI has carried the issue of Biosafety to the Convention on Biological Diversity, where it has received considerable South/North support.

New RAFI Communiques

- * *Emerging Technologies for Potato*, September/October 1992
- * *Rice Biotechnology*, November 1992
- * *Endod: A case study of the use of African indigenous technology to address global health and environmental problems*, March 1993
- * *Patents, Indigenous Peoples and Human Genetic Diversity*, May 1993
- * *Biotechnology Company will sell bio-engineered human proteins to infant formula manufacturers*, June 1993
- * *Control of Cotton: The patenting of Transgenic Cotton*, July/August 1993
- * *Bio-Piracy: The Story of Natural Coloured Cottons of the Americas*, November 1993
- * *Communique Updates*, December 1993
- * *The Patenting of Human Genetic Material*, January/February 1994
- * *"Species" Patent on Transgenic Soybeans Granted to Transnational Giant - W.R. Grace*, March/April 1994
- * *"Gene Boutiques" Stake Claim to Human Genome*, May/June 1994

III. BioPiracy

Checking the Brain Drain of Indigenous Knowledge

In 1992 RAFI extended its research on biodiversity to include medicinal plants and in 1993 RAFI began to analyse newly-available data on microbial genetic resources, and unearthed startling information about the patenting of human genetic material. On analysing this new information, RAFI became increasingly alarmed that Southern genetic resources, and indigenous knowledge about them, were being appropriated and patented in the North, without recognition or compensation. "BioPiracy" has become the dominant area of RAFI research and action in the past year. For instance:

* In November 1993, RAFI's Pat Mooney completed a study for the United Nations Development Programme (UNDP), on the implications of intellectual property rights for indigenous peoples. This study became the basis for RAFI's work on BioPiracy. It includes a review of trends in life patenting and "bioprospecting", and RAFI's analysis of human and microbial genetic resources. It outlines alternative action strategies for the consideration of indigenous peoples' organizations and UNDP. In late 1994, UNDP published the report in English and Spanish, under the title ***Conserving Indigenous Knowledge: Integrating Two Systems of Innovation***. In mid-1994, indigenous peoples' organizations, RAFI, and the UNDP, began to plan follow-through programmes in Latin America, Asia, and the Pacific.

* The May 1993 ***RAFI Communiqué***, and subsequent research on patents and microbial genetic resources, drew RAFI into a growing controversy over human patenting. In July 1993, RAFI discovered that the U.S. Government had applied for a patent on the cell line of a Guaymi Indian woman from Panama. After a hurried meeting with the Guaymi General Congress in September 1993 in Panama, and with support from the World Council of Indigenous People, the World Council of Churches, and a growing number of organizations worldwide, the Guaymi and RAFI worked together to oppose the patent. In October 1993, Jean Christie of RAFI accompanied two Guaymi people to Geneva, to protest the patent claim at a meeting of the Biodiversity Convention, and at the GATT Secretariat. Soon

after, the European Green Party introduced an emergency resolution in the European Parliament, protesting the claim, calling for a halt to the Human Genome Diversity Project, and for a European prohibition on human patenting. Faced with mounting pressure, the U.S. government withdrew its claim within weeks. RAFI's work on the larger issue of human patenting continues. RAFI's research on indigenous knowledge and human patenting resulted in a UNDP request for Hope Shand of RAFI to participate in the UN Conference on Human Rights in Vienna, in June 1993.

* In 1993 RAFI began a unique **North/South analysis of microbial genetic resources** (viruses, bacteria, and fungi) housed in the USA. The study included a country-by-country review of Southern microbial materials not covered by the Biodiversity Convention, and subject to U.S. patent claim.

* With a growing body of unpublished research, RAFI launched its ***Occasional Paper Series*** in mid 1994, to disseminate RAFI works-in-progress. Two issues were published during the reporting period:

- ***The Benefits of Biodiversity: 100+ Examples of the Contribution by Indigenous and Rural Communities in the South to Development in the North***, vol 1, no. 1, March 1994

- ***Microbial BioPiracy: An Initial Analysis of Microbial Genetic Resources Originating in the South, and Held in the North***, vol. 1, no. 2, July 1994.

IV. BioPolicy

Strengthening the Multilateral Framework

In all its programmes, RAFI works to make the link between policy and practice. Some efforts, however, focus specifically on creating, or changing national and international policies. For instance:

* In late 1992, in response to breathtaking changes in the area of "life patenting", RAFI proposed that a group of key individuals from diverse backgrounds be struck to develop non-consensus policy options on intellectual property and agriculture, for government and institutional decision makers. With funds from Australia, Canada, The Netherlands, Sweden, and Switzerland, "**The Crucible Project**" took shape. Starting in April 1993, meetings were held in Rome, Uppsala, Ottawa, and Bern, chaired by Dr. Geoff Hawtin, Director General of the International Plant Genetic Resources Institute. The Crucible debates were attended by 28 leading thinkers from governments, industry, scientific institutes, and NGOs - South and North. Sven Hamrell, Erskine Childers, Amir Jamal, Camila Montecinos, and Rene Salazar from RAFI's Board took part, as did RAFI staff. (Beverly Cross managed the meetings, and Pat Mooney undertook research and negotiated the final report). *People, Plants and Patents* was published in English in June 1994, by Canada's International Development Research Centre, and has been widely circulated to policy-makers in both the South and the North. Later in 1994, the report was published in French and Spanish. Japanese and Swedish translations are being discussed.

* **The FAO's Fourth Technical Conference on Plant Genetic Resources** will be the functional sequel to the "Earth Summit" on matters of crop diversity, and the first meeting since the 1992 conference to deal practically with funding for agricultural genetic resources. The Conference, to be held in Leipzig, Germany in June, 1996, will receive the first *State of the World Report on Plant Genetic Resources*, and will adopt a *Global Plan of Action*. RAFI proposed the conference process in 1990, and is actively cooperating with FAO and other NGOs in the negotiations

surrounding the *Plan of Action* and related financial mechanisms. RAFI staff were in Rome several times between 1992 and 1994 for consultations, and in April 1993 participated in a meeting of FAO's Commission on Plant Genetic Resources, where Conference plans were adopted.

* In modern science, indigenous knowledge is often viewed as accidental, rather than as a dynamic system of investigation and discovery. RAFI believes that community innovation complements institutional innovation, and that both are needed to tackle agricultural problems and the loss of biodiversity worldwide. In 1991, an international group met in Oslo to prepare a cooperative research and development approach to community germplasm conservation and enhancement. The group included NGO representatives such as RAFI, GRAIN, CLADES, SEARICE, SoS, and COMMUTECH; and formal research institutes from Ethiopia, the Netherlands, and Norway. Among the group were Camila Montecinos, Rene Salazar, and Melaku Worede, of RAFI's Board. The four-year, \$4 million **Community Biodiversity Development and Conservation Project (CBDC)** became operational in 1994. CBDC will document indigenous innovation, and will analyse how formal and informal research systems interact, in the South and North. As a member of the steering committee, RAFI drafted the protocol that governs all relations among partners, and with GRAIN, will assess the policy implications of the study. Camila Montecinos (now retired from the RAFI board) is coordinating the project globally.

* Late in 1992, the United Nations Environment Programme set up four expert panels to develop positions on aspects of the **Biodiversity Convention**. Ken Shipley represented RAFI as the only South-supporting NGO invited to panel rounds in Nairobi and Montreal.

THANK YOU! *RAFI extends a sincere thank you to all funders for the 1992 - 1994 period.
Without your support, none of the activities reported here would have happened!*

* Agricultural Missions, USA * Australian Centre for International Agricultural Research * Canadian Catholic Organization for Development and Peace * Canadian International Development Agency (INGO and Multilateral) * Canadian Lutheran World Relief * Community Biodiversity Development and Conservation Programme * Consultative Group on International Agricultural Research * CS Fund, USA * Dag Hammarskjold Foundation, Sweden * Directorate General for International Cooperation, The Netherlands * GORTA - Irish Freedom from Hunger * Inter Pares, Canada * International Development Research Centre, Canada * International Plant Genetic Resources Institute * Jessie Smith Noyes Foundation, USA * Right Livelihood Foundation, Sweden * Ruth Mott Foundation, USA * Swedish Agency for Research Cooperation with Developing Countries * Swiss Development Corporation * United Church of Canada * United Nations Development Programme * United Nations Environment Programme * United Nations Food and Agriculture Organization * USC Canada * World Council of Churches

RAFI BOARD OF TRUSTEES

* **Sven Hamrell**, Uppsala, Sweden: RAFI President; Director of Dag Hammarskjold Foundation for 30 years; Founding President, RAFI Board of Trustees; Board member, RAFI-USA * **Tim Brodhead**, Montreal, Canada: RAFI Treasurer; Vice President and Chief Operating Officer, J. W. McConnell Foundation; past Executive Director, Canadian Council for International Cooperation * **Erna Bennett**, Katoomba, Australia: plant geneticist and journalist; founder of FAO's Crop Ecology Unit in the 1960s * **Erskine Childers**, Roosevelt Island, USA: former senior officer of United Nations Development Programme; co-author of the Leadership Series on the future of the UN System * **Anwar Fazal**, Penang, Malaysia: Past President of International Organization of Consumers' Unions; Founding Director of its Asia and Pacific Office * **Amir Jamal**, Dar-es-Salaam, Tanzania: Diplomat and acknowledged "Dean" of the Group of 77 Ambassadors to the United Nations in Geneva * **Camila Montecinos**, Santiago, Chile (retired in 1993): BioPolicy coordinator for CLADES; training coordinator in Latin America on genetic resource conservation, biotechnology and intellectual property * **Dan Pollitt**, Bethesda, USA: retired Kenan Professor of Law, University of North Carolina, Chapel Hill; long-time activist and Board member, American Civil Liberties Union; founding member, RAFI-USA * **Rene Salazar**, Manila, Philippines: long-time community organizer; coordinator of SEARICE network on genetic conservation and use * **Ursula Schulz-Dornburg**, Hanover, Germany: photographer and artist; jury member, Right Livelihood Award * **Helen Vinton**, New Iberia, USA: Board President, Southern Research and Development Corporation, USA; founding Board member, RAFI-USA * **Kathryn Waller**, Savannah, USA: Executive Director, Rural Advancement Fund/National Sharecroppers Fund, 1978-89; founder and Director, North Carolina Hunger Coalition; founding President, RAFI-USA * **Melaku Worede**, Addis Ababa, Ethiopia: Director Ethiopian Gene Bank, 1977-93; recipient, Right Livelihood Award, 1989, for pioneering work in genetic conservation and improvement; scientific advisor African Seeds of Survival.

RAFI STAFF

* **Pat Mooney** - Executive Director * **Jean Christie** - Director of International Liaison * **Ken Shipley** - Director of Operations
* **Beverly Cross** - Office Manager

RAFI-USA: * **Hope Shand** - Director of Research * **Kathy Zaumseil** - Administrative Support

RAFI (The Rural Advancement Foundation International) is an international non-governmental organization, headquartered in Ottawa, Canada, and governed by an international Board of Trustees. RAFI is dedicated to the conservation and sustainable improvement of agricultural biodiversity, and to the socially responsible development of technologies useful to rural societies. RAFI is concerned about the loss of genetic diversity - especially in agriculture - and about the impact of intellectual property rights on agriculture and world food security.

RAFI's audited financial statement is available on request.

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