Front cover (background): Farmer with maize.

Photo: Mikkel Ostergaard, Panos Pictures
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Foreword

It is a great pleasure for me to present the Global Forum for Agricultural Research’s (GFAR) first corporate annual report – and indeed to introduce the Global Forum itself, especially to readers not yet familiar with our work. Founded in 1996, GFAR is a diverse community of regional and world organizations dedicated to harnessing agricultural research for human development, a better environment and the alleviation of poverty.

In this document, we highlight the activities undertaken by the GFAR family during the year 2003, especially our global partnership programmes and the work of the five regional fora and the GFAR Secretariat.

Issuing this first annual report has been quite a challenge. It should be seen as a first step by the Secretariat towards highlighting the Global Forum’s work and in raising awareness of the GFAR concept and approach to addressing the multidimensional problems faced by global agricultural research. We hope this initiative will lead to better recognition of GFAR’s role in shaping the global agenda for agricultural research for development (ARD).

Two key events occurred in 2002–2003. The first was the arrival of Dr Ola Smith as the new Executive Secretary in December 2002, after an interim period in which leadership was given by Dr. Jean-François Giovannetti. The second event was GFAR’s second triennial conference in May 2003, in Dakar, Senegal.

Dr Smith, who brings to GFAR a wealth of agricultural research and development (R&D) experience from a double perspective, both South and North, has managed to mobilize our stakeholders to face the global challenges of ARD. I would like to underscore the key role that he played, along with Dr Rodney Cooke as Chair of the Donor Support Group, to strengthen donor confidence in the Global Forum’s work. During its statutory meetings in Nairobi in October 2003, GFAR convened what turned out to be a highly successful meeting of the Donor Support Group. New partners were present and great expectations, consistent with the perspective of our new Business Plan, were underlined.
In this context, I wish to thank the Canadian Government for its multi-year commitment to GFAR, as well as other old friends and contributors, such as Italy, France, the Netherlands and the European Commission.

The GFAR 2003 Conference in Dakar was an historic event for the Forum. It was our first conference to be held in the South, and its success can in many ways be attributed to the commitment and role so ably played by Senegal. The hosting of the meeting by an African country was a strong, clear symbol, making explicit the need for innovative partnerships to deal with regional and inter-regional issues through the New Partnership for Africa’s Development (NEPAD) initiative. A summary report was produced very quickly and distributed to participants. Full conference proceedings in English were also published and distributed to stakeholders. The Secretariat is preparing French and Spanish versions, which will soon be available and widely shared.

The conference offered the opportunity for a range of consultations, including face-to-face discussion, at various levels, within and among the various constituencies. The Secretariat took the initiative to organize a poster session, which drew attention to innovative partnerships at the grass roots. That session, few would argue, was among the most interesting on the conference agenda. I wish to thank all those stakeholders who, collectively, sent the Secretariat more than 50 case studies. These stimulated insightful and truly bottom-up discussion.

Due to the importance of civil society organizations (CSOs) in efforts to advance ARD, the Secretariat convened a two-day pre-conference workshop to pave the way for effective participation in Dakar by these groups. The workshop, which brought together more than 50 participants from the five regional fora, resulted in a joint statement by the CSO representatives. They reiterated their strong commitment to building partnerships with other GFAR stakeholders – partnerships that will strengthen global and regional research agendas.

I would like to re-emphasize GFAR’s commitment to support the ‘less vocal’ members of our family, those stakeholders who may also have less experience with, and fewer resources for, participating in a global dialogue on ARD. A significant event in this respect was the election, during the statutory annual meeting in Nairobi in October 2003, of Monika Kapiriri, representative of an NGO group from the South, to the position of GFAR Vice Chair. Mrs Kapiriri’s election opens the door to stronger CSO involvement in defining the global ARD agenda.

It is not easy to report on the work of the Secretariat. Its vital role of facilitation – that of quietly shepherding research partnerships, helping people share knowledge, and taking care of logistical matters – is often played out behind the scenes. A challenge for the future, then, is for us also to report on those activities which, consistent with GFAR
principles of decentralization and subsidiarity, are led by the stakeholders themselves. Recalling that neither GFAR nor its Secretariat is an implementing agency, I invite all stakeholders to suggest ways to improve our global communication and to produce more informative and comprehensive annual reports in the years to come.

May God bless you all.

Mohammad H. Roozitalab
GFAR Chair
Maps and compasses: charting a course through 2003

The road from Manila to Nairobi

The journey from Manila to Nairobi was a long one. It took us a whole year to navigate what was sometimes a smooth road, sometimes a rough one, sometimes a rewarding journey and sometimes frustrating. But here we are at our destination in one piece, ready to give you a feedback on what we accomplished or could not accomplish, and the lessons learnt along the way, so that we may do better next time.

We started the journey armed with two essentials – a route map and a compass. The map showed the point of departure and the destination, with all the stops in between and the nature of the tasks to be performed at each stop. This was the Secretariat work plan, presented to you and endorsed by you in Manila. The other element indispensable to our journey was the mandate you gave us, which spells out clearly the limits of our responsibilities. This mandate, our compass, kept us on track.

The route map consisted of concrete actions the Secretariat was expected to carry out. These were all linked directly to the four components of the GFAR Business Plan: development of a global information and communication system for agricultural research for development (ARD); strategic thinking on ARD issues; promotion of research partnerships; and institutional support to GFAR stakeholders.

The mandate you provided limited us to playing the following roles:

• Guardian of institutional memory and coordinator
• Facilitator, enabling GFAR stakeholders to implement the Business Plan
• Pro-active promoter or catalyst for information and communication management (ICM), to ensure that GFAR stakeholders and others working in ARD are linked and communicate with each other.

In reviewing our stewardship during 2003, and guided by both route map and compass, we were able to group our accomplishments under four headings:

• Facilitating systems governance operations
• Engaging and interacting with stakeholders
Facilitating research partnerships
• Providing a medium for communication and knowledge sharing among GFAR stakeholders and their collaborators.

Facilitating systems governance operations

The Secretariat is responsible for organizing statutory meetings of GFAR’s various governing bodies. During 2003 we held a management team meeting during which important decisions were taken on three issues: minimum critical staffing of the Secretariat, our relationship with the facilitation units of the Global Partnership Programmes (GPPs), and the fine-tuning of preparations for the GFAR 2003 triennial General Conference. The minutes of that meeting have been posted on the GFAR website. While there are normally two management team meetings each year, we held only one in 2003 because the second one, usually held in May, would have coincided with the General Conference. In addition, we felt members of the management team would have ample opportunity to interact during the Conference.

The General Conference was an important statutory meeting for GFAR. It brought together all our stakeholders to renew alliances and provided guidelines and input on the issues that the group as a whole should focus on during the current triennium. It was a major undertaking for the Secretariat. In collaboration with the Conference Organizing Committee, we designed the meeting agenda and tackled all the logistical aspects of organizing this international meeting, including fund raising. By all accounts, including formal and informal evaluations by participants and a post-mortem by the Secretariat, GFAR 2003 was a success. The consensus was that the meeting addressed its objectives and achieved expected outputs.

Rodney Cooke, Chair of the GFAR Donor Support Group, during the opening session of the 2003 GFAR Conference in Dakar, Senegal.
Here are a few highlights of the General Conference:

A two-day pre-Conference consultation was organized for representatives of civil society organizations (CSOs), which constitute an important stakeholder group. The consultation allowed representatives of these organizations to define their vision of ARD and to identify issues they believe GFAR as a whole should tackle. It was attended by 48 participants representing 33 nongovernmental organizations (NGOs) and 15 farmer organizations from 37 countries. More on this below.

At the General Conference itself, two keynote speakers identified new and emerging global issues, threats and opportunities of relevance to agriculture and to which GFAR should pay attention as it pursues its goal. Ian Johnson, Chair of the Consultative Group on International Agricultural Research (CGIAR), identified six key issues that GFAR needed to reflect upon. These were poverty alleviation, the need to develop new institutional frameworks, a long-term agenda or time frame for global issues and themes (water, energy, health, agriculture and biodiversity), the output of the World Summit on Sustainable Development, the pertinence of a focus on Africa, and the transformational role that science and technology play in society. On this last issue, he concluded that GFAR, in its advocacy role, urgently needs to encourage ministerial bodies and the public to see science not as a threat, but as an opportunity for change. He stressed that research is central to the future of agriculture and that making the case through GFAR would help improve the sector’s position on the global agenda.

The second keynote speaker was Wiseman Nkuhlu, Chair of the Steering Committee of the New Partnership for Africa’s Development (NEPAD). He highlighted the importance of partnerships with civil society, including farmer organizations, smallholder producers and women’s groups, for improving agricultural productivity in Africa. He identified a number of initiatives on which NEPAD was working and which offered opportunities for collaboration with GFAR stakeholders. Among those activities: small-scale water harvesting, engendering and democratizing agriculture, seed multiplication and facilitating microfinancing.

GFAR stakeholders also emphasized the notion of an increased advocacy role for GFAR, and the need to step up our activities in the area of inter-regional collaboration. While stakeholders applauded current efforts in ICM, it recommended that GFAR shift into second gear, providing more space for CSOs in global ARD decision-making processes.

Soon after the Conference, the Secretariat began translating these and other recommendations into elements and components of the next GFAR Business Plan for 2004–2006, which was one of the expected outputs of the meeting. The Secretariat also prepared a short report on the Conference and shared it widely through the Electronic Global Forum for Agricultural Research (EGFAR) website. In addition, we published proceedings of the meeting, both as a printed book and as an electronic document on our website.
Meetings of the national agricultural research systems (NARS) subcommittee, the GFAR Steering Committee and the Donor Support Group were the last to be organized by the Secretariat in 2003. These have allowed for continued smooth turning of GFAR’s wheels of governance and its operations.

Working with civil society organizations: interaction and support

An improved CSO database
The update of our database on CSOs through a formal survey and web search resulted in 50 new entries. The database will soon be linked to EGFAR so that it can be searched by users. Eventually, it will be managed by the CSOs themselves through the EGFAR Back Office (EBO) system. (See the accompanying computer screen illustrations in the section on the EGFAR website below.) This arrangement will encourage regular updating, build a strong sense of ownership and make available valuable information on CSOs involved in ARD around the world. The Secretariat itself has used the data on several occasions to identify prospective participants in GFAR-related events. We hope to make it directly available to other stakeholders in the near future.

Pre-Conference workshop
During the CSO meeting just before the Dakar Conference, participating organizations endorsed the concept of partnership, a central GFAR guiding theme. They insisted that such partnerships be grounded in reciprocity, mutual trust, joint learning, a shared vision and complementary strategies. The CSOs see such partnerships as indispensable to realizing their vision, as a way to stimulate farmer innovation, facilitate research–extension linkages and promote capacity building so that farmers and their representatives become true partners with the leadership and analytical skills required to convincingly articulate their needs.

The CSOs also argued in favour of reviewing the types of research being carried out as well as the structure and nature of research partnerships. They said that since agriculture serves multiple functions (resource utilization, ecological and social functions), ARD activities must likewise be multifaceted and should involve various stakeholders. And this in turn implies the need to strongly support participatory research approaches and agro-ecosystem and farming systems research. Finally, they strongly advocated the promotion of an enabling political, social and economic environment for the less vocal stakeholders in ARD, and their representation and active participation in research governance structures.

Subregional focal points were identified and charged with working with GFAR and following up on these agreements, recommendations and future ARD activities.
Building a CSO network in the Southern Caucasus

The Secretariat participated in an initiative of NGOs and farmers’ organizations in the Southern Caucasus to organize themselves into a network for more effective contribution to common objectives. During a two-day meeting in late March 2003, in Tbilisi, Georgia, NGOs and farmers’ organizations from Georgia, Azerbaijan and Armenia met to prepare for this new arrangement. The network will take up the challenges of raising awareness of current constraints to agriculture and of mapping out strategies to ensure the voices of NGOs and farmers’ organizations are heard and that they contribute to ARD-related decision making.

Participants discussed issues and challenges facing the three countries. Recognising the important role they could play in developing the agriculture sector, they resolved to form an informal network, the Forum of NGOs and Farmer Organizations in the South Caucasus. The group’s initial objective is to facilitate cooperation, partnership and coordination of their efforts. The following are some of the key activities included in the agenda drafted by the participants:

- Establishment of a scientific/technical committee and thematic working groups that will lead efforts to address priority issues including participating in priority setting exercises in the region
- Development of an information exchange and communication capability
- Creation of linkages with CSOs in Central Asia and international organizations involved in ARD
- Fund raising to support implementation of the Forum’s agenda.

The GFAR Secretariat will continue to monitor and facilitate this initiative, and will make use of the outputs of this workshop to help define future efforts to strengthen CSOs in the region.

Collaborating with the CGIAR

Collaborative priority setting

During the year, the GFAR Secretariat and that of the Interim Science Council (iSC) of the CGIAR, taking advantage our proximity within FAO in Rome, collaborated on many occasions to advance the CGIAR agenda. For example, the GFAR Secretariat participated in brainstorming sessions convened by the iSC Chair to map out research priority-setting procedures and strategies for informing CGIAR decision making by individual centres, system-wide programmes and Challenge Programmes (CPs).

The outcome was a two-step approach, now complete, to which GFAR contributed as follows:

- Identification and recommendation of participants from the GFAR stakeholder database to take part in both the stakeholder and scientific panel consultations
• Facilitation of consultation with, and feedback from, stakeholders during the GFAR 2003 meeting in Dakar
• Participation in an examination of step 1 outputs and fine-tuning of step 2 by iSC and stakeholders at an iSC-convened meeting in June 2003
• Contribution to the output of the exercise.

*Challenge Programmes*
GFAR was invited to serve on the Programme Steering Committee of the Challenge Programme on Unlocking Genetic Diversity in Crops for the Resource-Poor. In that capacity, it has actively contributed to the development of the CP. In particular, four GFAR representatives participated in the Technical Planning Workshop and the Programme Steering Committee meeting in August 2003 in Wageningen, the Netherlands. This ensured that the views of various GFAR stakeholders were made known and accommodated. It was recently suggested that a GFAR Stakeholder Committee be established to advise the CP’s Programme Steering Committee and provide a mechanism for consultation with, and feedback from ARD stakeholders. Ways to operationalize such a mechanism are currently being examined.

We note that other CPs have not yet taken full advantage of the convening power of GFAR and the expertise it can mobilize. Table 1 below outlines the role that GFAR could play at various stages of the CP development and implementation. We urge current and future CPs to collaborate with the GFAR Secretariat on strategies for ensuring a stronger GFAR role in the CPs.

<table>
<thead>
<tr>
<th>Stage of CP</th>
<th>Potential roles for GFAR</th>
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</thead>
</table>
| Development | • Participate in stakeholder consultation meetings  
|             | • Solicit and synthesize stakeholder suggestions and comments on the CP proposal  
|             | • Provide feedback to stakeholders on development of the CP |
| Implementation | • Participate in the work of the Programme Steering Committee  
|             | • Articulate the concerns of less well represented stakeholders and regions  
|             | • Give feedback to stakeholders on the status of CP implementation, mainly through the GFAR Steering Committee, NARS and stakeholder representatives  
|             | • Participate in specific CP components, particularly cross-cutting activities such as capacity building and promoting discussion of intellectual property rights, access to information and other key issues |
| Review | • Assist in mobilizing stakeholder participation |
Nominations for the Genetic Resources Policy Committee
At the request of the CGIAR systems office, the GFAR Secretariat consulted its stakeholders to identify suitable candidates and recommend representatives of national research institutions, farmer organizations and NGOs to sit on the reorganized CGIAR Genetic Resources Policy Committee. Responses received from various stakeholder groups were synthesized and forwarded to the CGIAR systems office.

Facilitating research partnerships
One of the four legs on which GFAR stands, so to speak, is the promotion of research partnerships in four thematic areas. Global Partnership Programmes (GPPs) are the main instrument used by GFAR for this purpose. During the year under review, a discussion forum organized by the Secretariat demonstrated the willingness of our stakeholders to work together on a common problem, using the GPP approach. In keeping with GFAR tradition, the Secretariat in some instances advocated the inclusion of certain stakeholders who were initially left out of such nascent partnerships. Below we present a few examples of such activities, facilitated and nurtured by the Secretariat during 2003.

Rural knowledge systems and innovation processes
One reason often cited for the failure of technology transfer efforts to demonstrably benefit target beneficiaries is the behaviour of researchers and development workers alike. Not infrequently they are accused of patently neglecting to take local rural knowledge into account and to build on that resource to develop new technologies that can alleviate poverty and improve the livelihoods of the poor. Many institutions are therefore grappling today with tough issues: how to transform formal science into useful participatory forms at the local level; how to encourage and stimulate the innovative capacity of local groups in areas of interest to them; and how to strengthen that capacity through training.

The Secretariat has facilitated discussion and dialogue among a number of such institutions and groups. The emerging consensus is that there is a need to better understand the relationship between various knowledge systems and to use those systems in a complementary fashion. It is also agreed that such an approach demands not only an understanding of knowledge systems, but also the use of participatory methods. Such methods allow for the design and execution of activities which, because they are based on a lasting marriage between new and traditional know-how, eventually lead to greater resilience of poor and vulnerable groups, their enhanced capacity for innovation, and greater skill in tackling complex problems.

The stakeholder groups for which the Secretariat provided a forum for discussion have a common understanding of the issues surrounding rural knowledge systems and in-
novation processes. Nevertheless, these groups have identified very different entry points for harnessing and improving these local systems and processes. Table 2 summarizes the various initiatives that the Secretariat has nurtured to date through electronic discussion, face-to-face brainstorming and workshops. Although these initiatives are complementary and have a common goal, they are at different levels of development and tackle different aspects of rural development. It was therefore decided that no further effort should be made to integrate them into one “super” GPP. Rather, it was suggested that they be developed as distinct GPPs in their own right and networked to promote information exchange and knowledge sharing. The Secretariat will continue to provide a neutral platform to move these initiatives forward.

*Rural innovation for small and medium-sized agricultural enterprises (SMEs)*

This initiative, whose development has been facilitated by the Secretariat, builds on the outputs of a series of regional workshops organized in 2002 by GFAR and FAO’s Agricultural Support Systems (AGS) Division.

The priority for this research partnership is postharvest issues. About the same time, the Post-harvest Action Group, a consortium of international research centres, decided to develop and implement an initiative aimed at linking farmers to markets. It was therefore only natural that the three groups – FAO-AGS, Post-harvest Action Group and GFAR through its Secretariat – decided to work together to design and implement a joint venture. The resulting initiative is called Integrated Post-harvest Systems: Linking Farmers to the Market. The GFAR Secretariat has made several contributions to its development:

- Construction of a database of institutions and organizations working in this area of ARD. Among other things, the database has facilitated the identification of CSOs, private-sector groups and southern NARS who can be invited to participate in subsequent activities of the three collaborating groups. The database will soon be available on EGFAR.
- The organization of a session on SMEs and agricultural markets in developing countries, during the GFAR 2003 General Conference. The objective of this satellite meeting was to inform GFAR stakeholders of the Post-harvest Systems initiative and pave the way for their participation. Meeting participants identified five researchable issues that could be addressed: How can partnerships foster the development of agricultural SMEs? How are markets changing the nature of demand for agricultural products? What is the role of science and technology in fostering SME development? Which types of training can best contribute to the development of SMEs? What are the elements of a sustainable finance strategy to support agro-industrial development.
- The organization of an international workshop titled Global Post-harvest Systems Initiative for the 21st Century: Linking Farmers to the Market, in collaboration with
**Table 2. Summary table of initiatives related to rural knowledge and innovation processes**

<table>
<thead>
<tr>
<th>Title</th>
<th>PROLINNOVA (9-month inception phase)</th>
<th>Making Knowledge Work</th>
<th>Inter-SARD</th>
<th>Inter-DEV</th>
<th>ARD Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proponent</td>
<td>NGOs through ETC-Ecoculture</td>
<td>CABI and CIAT</td>
<td>ETC (Dutch NGO)</td>
<td>Gret (French NGO)</td>
<td>ICRA, IAC (The Netherlands)</td>
</tr>
<tr>
<td>Stakeholders involved/ Partners</td>
<td>NGOS, FOs and NARIs (Ethiopia, Uganda, Ghana), Northern NGO (The Netherlands)</td>
<td>ARIs (UK), IARCs (CIAT)</td>
<td>Northern (The Netherlands and UK) and Southern (Philippines and India) NGOs; NARIs (SEAMEO-SEARCA)</td>
<td>Northern NGOs (The Netherlands, France, UK); Southern NGOs (Cameroon, Cambodia, Madagascar and Senegal); ARIs (France, Germany, Switzerland); and NARIs (Vietnam)</td>
<td></td>
</tr>
<tr>
<td>Geographic focus</td>
<td>East Africa (Ethiopia, Uganda, Ghana)</td>
<td>To be defined</td>
<td>South and Southeast Asia</td>
<td>The Sahel, the Indian Ocean, Southeast Asia</td>
<td></td>
</tr>
<tr>
<td>Donor (target and current)</td>
<td>IDCR (RoKS Initiative)</td>
<td>IFAD</td>
<td>European Commission</td>
<td>European Commission, Agence de la Francophonie, MAE-France, BMZ</td>
<td></td>
</tr>
<tr>
<td>Thematic focus</td>
<td>Farmer-led innovation in AE/NRM (focusing on smallholders, livestock-keepers and fisherfolk)</td>
<td>To be further defined, but will likely to include IPM, high value crop development, NRM (e.g. soil management, agroforestry), seeds and seed systems and farmer–market linkages</td>
<td>Agro-ecology, processes and methodologies, and institutional and legal issues (e.g. land rights, intellectual property rights)</td>
<td>Urban agriculture; agro-ecology, food processing and decentralised electricity supplies</td>
<td>ARD research methodologies</td>
</tr>
<tr>
<td>Description</td>
<td>PROLINNOVA is an NGO-led initiative to build a global learning network on promoting local innovation in ecologically oriented agriculture and natural resource management (EA/NRM). The focus is on learning from and encouraging field activities that strengthen the capacities of smallholders, livestock-keepers and fisherfolk.</td>
<td>This proposed GPP will address the ways in which agricultural knowledge from local and scientific sources can be more effectively accessed and made use of through community-driven action research systems. The programme is envisaged as addressing specific poverty alleviation and food security themes in which development</td>
<td>An initiative that builds a network of Southern and Northern partners for sharing information on social and technological innovations for community development and sustainable NRM in rural and peri-urban areas. It uses a web-based information system and a capacity building programme.</td>
<td>Mutualist information service based on new information technologies. It offers development practitioners validated references on experiences, techniques and methods; makes use of a network of practitioners from developed and developing countries in the four thematic foci which produces</td>
<td>ARD methods are still no more than a concept note. The original intent was to create a space in the new 6th EU Framework Programme for a European partnership with ARD organisations in the South to enhance the development and dissemination of methods that increase the contribution of ARD</td>
</tr>
</tbody>
</table>

[9-month inception phase]
Table 2. Summary table of initiatives related to rural knowledge and innovation processes (continued)

<table>
<thead>
<tr>
<th>Title</th>
<th>PROLINNOVA (9-month inception phase)</th>
<th>Making Knowledge Work</th>
<th>Inter-SARD</th>
<th>Inter-DEV</th>
<th>ARDMethods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description (continued)</td>
<td>folk to adjust to changing conditions by developing and adapting their own site-appropriate systems and institutions of resource management</td>
<td>is currently inhibited by a lack of access to relevant knowledge, the complexity of the issues faced and the associated understanding required</td>
<td>Partners combine forces to develop capacities and tools to document and make available information on NRM</td>
<td>and makes available operational information based on their practices. This information is organised in databases, accessible through a website that is a platform for exchange between these development stakeholders</td>
<td>to meeting the major challenges of sustainable development. The idea is to create a highly interactive and participatory initiative among clients, beneficiaries and other stakeholders in ARD in an interdisciplinary way using systems approaches that integrate activities at different levels ranging from policy making to technology development and application</td>
</tr>
<tr>
<td>Activities/ Components/ Outputs</td>
<td>1. Inventorying current activities and databases on promoting local innovation in EA/NRM 2. Consulting stakeholders to review experiences and identify where supportive mechanisms are needed and where sources of support can be obtained 3. Preparing, conducting and following up on national workshops to exchange existing experiences in promoting local innova-</td>
<td>1. Key agricultural resource management needs and knowledge-intensive development opportunities identified by community stakeholders and those who serve them 2. Systems established and available knowledge compiled and jointly distilled, drawing from that held within communities and that accessible from global and local information resources</td>
<td>1. Workshops to widen the partner network, identify existing resources and systems, and support the process of making information available 2. Collaboration with intermediary and community-based organisations to ensure that user needs are properly taken into account 3. Strengthening of information management capacity in the various</td>
<td>The database structuring management of the network’s shared information combines different, cross-referenced, sub-sets of information</td>
<td>1. Inventory of ARD methods 2. “Enhanced/simplified” ARD methods that are more understandable with clearly documented steps and iterations, activities and outputs 3. Information system to facilitate retrieval of ARD methods 4. Training (modules and/or workshops)</td>
</tr>
</tbody>
</table>
Table 2. Summary table of initiatives related to rural knowledge and innovation processes (continued)

<table>
<thead>
<tr>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>1. <strong>Activities/ Components/ Outputs (continued)</strong></td>
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<tr>
<td>2. Exploring and stimulating the interest of donors through exposing them to successful experiences of promoting local innovation and experimentation in EA/NRM, and linking them with local partners</td>
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<td>3. Baskets of potential interventions established through filter of local priorities and constraints and interventions transformed into participatory learning exercises and action research protocols</td>
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<td>4. Interventions evaluated by farmers through participatory validation and action research processes in different contexts</td>
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<tr>
<td>5. Outcomes and identified knowledge gaps used to drive research needs through both action research and ‘upstream’ research processes, creating learning cycles</td>
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<tr>
<td>6. Outcomes and lessons shared locally and globally through a variety of media. Mass media and distance learning systems used to disseminate outcomes and stimulate further uptake and action</td>
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<tr>
<td>7. Regions through key NGOs acting as regional hubs (through Network of Networks and Training of Trainers approach)</td>
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<td>8. Supporting an adequate Internet connectivity and upgrading equipment for data input and management</td>
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<td>9. Constituting thematic networks at national, regional and international levels concentrating on content management for selected themes.</td>
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<tr>
<td>10. Developing a web-based platform making use, wherever possible, of existing technology implementation constraints, and the difficulties encountered. These records are supplemented by auxiliary records; the “Organizations” and “Resource Persons” records identify the various stakeholders (donors, experts, producers, trainers, etc); the “Equipment and Technologies” records focus on tools and how to implement them, and techniques and equipment available locally; the “Multimedia” records consist of images, photographs, equipment blueprints, video clips, etc; and the annotated “Bibliography” records reference selected documents as a function of their target uses and publics</td>
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FAO-AGS and the Post-harvest Action Group. Held at FAO headquarters in Rome 7–9 October 2003, the workshop was attended by almost 100 participants from various stakeholder constituencies and regions. Its purpose was to seek stakeholder endorsement of a strategic framework for advancing the development of the Post-harvest Systems initiative. The Secretariat contributed in several ways. First, with funding from the International Fund for Agricultural Development (IFAD) and the Rockefeller Foundation, it ensured the participation of southern partners, at the same time linking these two potential donor organizations to the initiative. (IFAD is in the process of linking some of its ongoing field projects to the initiative). Second, the Secretariat presented the initiative to a wider audience of potential partners and donors during a side event organized by the International Development Research Centre (IDRC) and the Rockefeller Foundation during the CGIAR’s 2003 Annual General Meeting. Third, it succeeded in having the GPP concept endorsed as a potential format for implementing the initiative. Finally, it secured a seat for GFAR on the Interim Coordinating Committee charged with moving the initiative forward.

Livestock research
The Secretariat continued discussion on how to move ahead with a GPP on control of trypanosomes. At the invitation of a consortium of donors, the Secretariat also identified potential roles and contributions by GFAR stakeholders in a number of livestock-related initiatives. It will continue to closely monitor the development and outcomes of the following:

- Global Initiative on Livestock Services and the Poor, which is promoted by IFAD, the World Bank and Danish International Development Assistance and whose objective is to create a platform for stakeholder cooperation on strengthening delivery of pro-poor livestock services
- Inter-Agency Donor Meeting for Research on Livestock for the Poor, promoted by the UK’s Department for International Development (DFID)
- EU Expert Livestock Meeting for Developing Countries, an initiative of the European Union for discussing member States’ respective livestock R&D programmes for poor countries.

Communication and knowledge sharing
The Secretariat has the mandate to develop, manage and maintain an Electronic Global Forum on Agricultural Research (EGFAR) and to help Regional Fora develop, manage and maintain their own Regional Agricultural Information Systems (RAIS). In addition, the Secretariat produces a number of publications each year in electronic...
and hard-copy formats. The following section looks at activities in 2003 in those three areas of ICM.

**EGFAR website**
Following a re-engineering process to which GFAR stakeholders contributed, a dynamic new EGFAR was launched in mid-2002. The electronic forum’s architecture and design have been improved, with information now stored in a relational database for better management of the site’s contents. A local search engine has also been added. Certain sections of the website, such as those devoted to stakeholders and research partnerships, are still under construction, in collaboration with our stakeholders. Completion of these will be given priority in 2004.

The EGFAR Back Office (EBO), a tool for uploading information, is perhaps the most important website innovation in 2003. This interactive tool allows stakeholders to manage, to some extent, the content of certain pages and/or information in the EGFAR database through a decentralized input process. Its web interface makes it possible for users and administrators with no knowledge of database or HTML codes to update information. The EBO has moved us that much closer to our goal of developing a truly decentralized ICM system, reflecting GFAR’s commitment to full and active stakeholder participation in all the Forum’s activities.

Several components and features of the EBO allowed us to take such rapid strides: four access levels, three of which are password restricted; management of database records (events, institutions and related fora) and web-page contents’ capabilities; strong control of data integrity; e-mail alerts between users and administrator; administrator validation before any online publication; automatic index updates; and extended use of XML and XSL. The computer screens shown below illustrate the input process through the EGFAR Back Office.
To further improve EGFAR, keep it up to date, and ensure that it is a fully responsive tool, a number of measures will be taken during the coming year. These include the establishment of an EGFAR technical advisory committee which will draw on external ICM expertise and website input.

Support to RAIS and global initiatives

Global RAIS Project
One of the milestones identified in the current GFAR Business Plan is the approval of all RAIS strategies and their entry into operation by the end of the triennium. Although we began addressing this issue early in 2003 through the Global RAIS Project funded through the Accompanying Measures of the European INCODEV Programme, we have not yet fully met the target.

The project has two objectives: first, to enable each regional or subregional forum to develop and implement an information and communication strategy that will benefit from synergies and economies of scale at both the national and regional levels; and second, to develop a global strategic agenda that will link all of the regions, and facilitate a bottom-up the implementation of a global information system project. The project calls for workshops in all five regions: West Asia and North Africa; Central Asia and Caucasus; Latin America and the Caribbean; Sub-Saharan Africa, and Asia–Pacific. In addition, an inter-regional workshop started early this year.

The first regional event, held in Cairo, Egypt, from 25–27 February, was the information and communication technology (ICT) Expert Consultation on strengthening RAIS, organized by the Association of Agricultural Research Institutions in the Near East and North Africa (AARINENA), the Regional Forum. Two concrete outcomes were the definition and endorsement of a work plan and budget by the participants (which included subregional representatives), and the establishment of an AARINENA-RAIS Steering Committee. The Steering Committee met for the first time in late July 2003 in Aleppo, Syria, at the headquarters of the International Center for Agricultural Research in the Dry Areas (ICARDA).

A similar workshop dealing with APARIS, the regional information system of the Asia-Pacific Association of Agricultural Research Institutions (APAARI), was held in Bangkok, from 1–4 December 2003. The proceedings are available from the APAARI Secretariat.

Preparations are under way for other regional workshops as follows: Forum for Agricultural Research in Africa (FARA), Accra, Ghana, 27–28 April 2004; Forum of the Americas for Agricultural Research and Technological Development (FORAGRO), Costa Rica, 25–27 May 2004, and Central Asia and the Caucasus (CAC) Regional Forum, Tashkent, Uzbekistan, 25–27 November 2004. An inter-regional workshop will be held in Rome;
the date has not yet been set.

In addition to facilitating the implementation of the GLOBAL RAIS project, the Secretariat also collaborated with the EARD-Infosys+ group to develop a system that allows cross-database searches. The objective is to facilitate information exchange both at the GFAR–RAIS and RAIS–RAIS levels so that GFAR has a truly decentralized information system: hosted at the regional level (or national level in the most advanced cases) and completely managed by each RAIS.

One objective of the GFAR 2003 Conference was to harvest new ideas for improving multidirectional communication among GFAR stakeholders. To this end we organized a special side event aimed at moving forward on a global agenda for ICM practitioners presented innovative aspects of ongoing activities in this area.

Three broad topics were covered by the eight presentations: RAIS, by EARD-Infosys+, AARINENA–RAIS, AGROWEB Caucasus, and INFORTEC; global issues, by FAO/ WAICENT (World Agricultural Information Centre) and GFAR (Global RAIS project); and success stories in ICM, by RUN Network and ISNAR (International Service for National Agricultural Research) (iNARS initiative). The Secretariat will ensure that some of the innovative ideas presented are captured for future use.

**Publications and communication**

This year we continued the tradition of publishing an EGFAR newsletter in two formats: PDF for distribution to 1500 stakeholders on the GFAR-stakeholder mailing list, and HTML, made available online. Only one edition of the newsletter, which focused on the GFAR 2003 Conference, was published in 2003.

A CD-ROM titled “Innovative Research Partnerships” was published in April 2003. It is a collection of the case studies presented during the 2000 GFAR conference in Dresden, Germany. The CD-ROM allows users to browse documents, following the structure of the document repository section of EGFAR. The publication was distributed widely, especially during the GFAR 2003 Conference. In May, in collaboration with the International Plant Genetic Resources Institute (IPGRI), the GFAR Secretariat published other papers presented in Dresden, namely those related to the Initiative on Genetic Resources for Food
and Agriculture.

In October, the Secretariat published an English edition of the GFAR 2003 Conference proceedings, in book form. This was distributed during the Nairobi meetings. French and Spanish editions are being prepared and will be distributed in early 2004 together with a trilingual CD-ROM version. A GFAR poster and two leaflets – one on the Secretariat’s functions, the other on the Post-harvest Systems initiative – were also produced.

Let us hear from you

The past year has been a long learning experience for the Secretariat. But we are eager for your comments, constructive criticism, and certainly your encouragement. We do not know yet exactly what the next destination will be and what you have in store for us to tackle. But we are ready to continue this journey of discovery which, we hope, will help mobilize scientists and all ARD stakeholders in a global effort to alleviate poverty, increase food security and promote sustainable use of natural resources.
Forum for Agricultural Research in Africa

FARA’s role in the research community

A country’s agricultural development depends on the presence of strong research institutions which, working in unison, form a dynamic national agricultural research system, or NARS. At the next level up, subregional organizations (SROs) work with the NARS of their member countries to identify common priorities and build a critical mass of research capacity.

Until the Forum for Agricultural Research in Africa (FARA) became active in mid-2002, there were missing links among the African SROs and between the African research community and GFAR, the global platform for exchanging knowledge and best practices. The first FARA plenary meeting, held in Maputo, Mozambique, in July 2002, defined the way forward by articulating the ‘Vision for African Agriculture’. This guiding framework for agricultural R&D on the continent moved a step closer to reality with the launch of the Comprehensive African Agricultural Development Programme (CAADP), under the New Partnership for Africa’s Development. (NEPAD is the strategic framework for the continent’s renewal, adopted by African leaders in 2001.)

FARA’s second plenary meeting was held back-to-back with the GFAR Conference in Dakar, Senegal, in May 2003. Participants endorsed the call-for-action made two years earlier in Durban, South Africa, and confirmed the African vision. In effect, FARA re-committed itself to:

• Pursuing the agricultural R&D priorities and agenda of the African Union, as expressed in CAADP
Regional Fora

- Renewing and strengthening research capacity by revitalizing institutions, training and learning at all levels
- Providing governments and development agencies with policy options for promoting agricultural market development and innovation
- Advancing research on natural resource management so that it takes into account the environmental, social, economic and policy-related conditions faced by Africa’s small-holders and pastoralists
- Building African capacity in biotechnology as a way to sustainably intensify agriculture and solve stress-related production constraints in a market context rarely conducive to major private investment in research
- Enhancing biosafety in the region by promoting the development of guidelines for national policy making in this area and by raising political leaders’ awareness of the importance of biosafety procedures and regulations
- Encouraging partnerships through which the African technology coalition can pool available resources for the greatest possible positive impact.

African leadership and ownership

Through NEPAD, African leaders are demonstrating political responsibility and renewed determination to seize the initiative in the fight against poverty, food insecurity and loss of natural resources. Central to this battle is the imperative to turn agriculture around, to make it the engine of economic growth. NEPAD recognizes the importance of harnessing agricultural research for development. The creation of FARA was a significant step in ensuring African ownership of that process.

FARA organized a retreat in August 2003. This allowed it and the SROs to set common goals and objectives and to work out how their different mandates, perspectives and resources might be melded to promote the work of the NARS and their partners.

The retreat formulated the following action plan:
- Consolidate the alignment of FARA with NEPAD by ensuring North Africa is represented in FARA and by creating mechanisms for coordinating FARA’s work with that of the NEPAD Secretariat and relevant African Union structures
- Establish capacity-building programmes for NARS that include African women and youth
- Strengthen NARS and SRO capacity in strategic planning, impact studies and proposal writing, and share best practices with respect to administrative, financial and scientific procedures
- Assess the capacities and resources of NARS to determine how FARA can best assist the SROs with their NARS-support work
• Sign service-level agreements between the FARA Secretariat and the SRO Executive Offices
• Create a database of African agricultural research experts who can help NARS strengthen their scientific centres of excellence
• Establish an effective FARA information-sharing and management system
• Support SROs in their promotion of good governance of NARS by:
  • establishing governance bodies (boards and executive committees)
  • establishing capable scientific and technical committees which include external and independent authoritative scientists
  • compiling a manual of administrative, financial and scientific procedures
  • institutionalizing the practice of assessing programs (for both scientific quality and overall performance) and structures at the NARS level
• Enhance advocacy for agricultural research within NEPAD and its partners by:
  • adopting a communication strategy and advocacy plan of action
  • investigating the feasibility of producing a regular FARA newsletter, communiqué or journal
  • popularizing and supporting the FARA website.

Advocacy for agricultural research for development

Africa’s problems, particularly with agriculture and food security, are much better known than its achievements. FARA is working hard to create a more balanced image by highlighting the many success stories in agricultural research on the continent. Among these are

An Angolan farmer examines a maize crop. Photo: Trygve Bolstad, Panos Pictures
improved maize, cassava, cowpea, cooking banana, yams and the ‘new rices for Africa’ (NERICAs).

The Forum believes the sustainability of African NARS depends on greater investment by governments. This is also important from the donor perspective, as it is taken as an indicator of national commitment. But for public investment in agricultural research to grow, policy makers need to be better informed of the successes to date.

The strong message about the value of agricultural research that came from the Conference of Ministers of Agriculture, and which was endorsed by the Heads of State at the African Union Summit in Maputo in July 2003, was an important step forward. Advocacy is now needed at government level to ensure that this conviction leads to action.

Promoting partnerships

FARA is engaged with other stakeholders in designing and promoting several major Africa-wide agricultural research and capacity-building programmes linked to CAADP. One of these is the Sub-Saharan Africa Challenge Programme which will be grounded in partnerships for Integrated Agricultural Research for Development (IAR4D). This was the outcome of extensive and intensive consultations exemplified by a vigorous Programme Formulation Workshop held in Accra, Ghana, in March 2003.

The consultations continued through an e-forum on mobilizing partnerships for capacity building in IAR4D. The discussion was hosted by the International Centre for development oriented Research in Agriculture (ICRA) and the Network of European Agricultural [Tropically and Subtropically Oriented] Universities and Scientific Complexes Related with Agricultural Development (NATURA). It was stimulated by a growing consensus “that a new paradigm of agricultural research for development is needed in Africa”.

Higher yields and better plant and animal resistance to stresses are clearly not enough to meet the UN Millennium Goals and the objectives of CAADP. These advances must be accompanied by research-based solutions to other problems such as lack of markets and unsupportive policies. A holistic approach, like that embodied in IAR4D, is required to improve human livelihoods, boost economic competitiveness, and ensure sustainable use of natural resources and biodiversity.

Under the IAR4D model, national, regional and international researchers will work together with smallholders, extension agencies and civil society to multiply the impact of innovations. This means taking the products of research to national and regional levels (upscaling) and disseminating them from participating communities to their neighbours (outscaling). Institutional change will likewise be an essential ingredient in such a paradigm shift.
Among other FARA–NEPAD initiatives is the Multi-country Agricultural Productivity Programme (MAPP), aimed at providing the stimulus and resources to reinvigorate African NARS. A phased programme over 13 years, MAPP has three mutually reinforcing thrusts:

On the technology demand side: To strengthen farmers’ capacity to (i) identify and understand income-generating opportunities, production constraints and technology options, and (ii) mobilize the resources and services needed to develop or acquire the necessary technologies.

On the technology supply side: (i) To improve the efficiency, accountability and sustainability of national agricultural technology-generation and advisory systems. This includes reinforcing their links with regional and international institutions. (ii) To promote the development of efficient market chains (for technology, inputs and farm produce), especially through outreach and greater efficiency among private operators.

On the policy side: To promote policy and regulatory environments supportive of rapid and sustained technology generation, diffusion and adoption. This means (i) strengthening national government capacity to perform core functions such as policy-making, design and enforcement of regulations, and monitoring indicators of productivity, environmental impact, rural income and poverty reduction; (ii) supporting the development of regional-level associations and networks of technology users and suppliers, research institutions, and policy makers, as well as the creation of large integrated markets for efficient technology generation and diffusion.

Better access to information and knowledge

Despite rapid advances in information technology, Africa’s scientists, policy makers, agribusiness operators and especially its producers have poor access to the knowledge and information they need. FARA is committed to helping eliminate this major constraint to agricultural development and will investigate the products and services available. It will then assess how it can contribute to improving the exchange of agricultural information and knowledge.

To this end, FARA envisages a collaborative project with other regional fora, such as APAARI and AARINENA, and with GFAR. The aim will be to improve linkages and interactive capacity among information and knowledge providers such as WAICENT, European Information System (INFOSYS), CAB International (CABI), International Network for the Availability of Scientific Publications (INASP), the CGIAR centres, and delivery channels such as the United States Agency for International Development’s (USAID) Africa Link project which provides e-mail access for NARS.

Together with NEPAD, FARA is designing a project on the Dissemination of New Agricultural Technologies in Africa (DONATA). It has three key objectives:
Regional Fora

- To improve dissemination of information on African model crops (NERICAs, cassava and tissue culture banana) within four regions of Africa
- To build the capacity of NARS to disseminate new technologies in the subregions
- To institutionalize links among major stakeholders (regional, subregional and national) for disseminating promising technologies in Africa.

A note of recognition

While FARA is still young — less than two years old — it was given an excellent head start by the preparatory work carried out over the years by the Special Programme for African Agricultural Research. SPAAR not only convened the consultations that culminated in the formation of FARA by the subregional organizations, but also invested FARA with the good will of many stakeholders in African agricultural research, including the donors. FARA is keenly aware of its responsibility to retain and build on that good will.
The Association of Agricultural Research Institutions in the Near East and North Africa (AARINENA) was established in 1985 as an instrument of change. It was seen as means of reinforcing national and regional agricultural research capacities in the Near East and North Africa so as to reverse downward trends in agricultural productivity and the deterioration of natural resources.

AARINENA's mission, then, is to enhance agricultural and rural development in member countries by fostering research and technology development and by strengthening links among them and with the outside world. The Association strives to assist members in creating effective NARS and promotes regional and subregional scientific collaboration.
Executive Committee at work

In December 2002, the Committee met in Oman to translate the guidelines of the 8th General Conference, held in May 2002 in Jordan, into concrete action. The resulting work plan called for the establishment of a Regional Agricultural Information System (RAIS), an inter-regional cotton network, an olive oil network, a medicinal and herbal plants network, and a regional training course in postharvest technology. As part of its work plan, AARINENA also merged its Regional Date Palm Network with the Date Palm Global Network (DPGN), assembled a regional delegation for the 2003 GFAR Conference, and committed itself to building the Association’s membership. The rest of this report illustrates the significant progress to date.

Regional Agricultural Information System (RAIS)

The Association’s homepage

The AARINENA ‘homepage’ has been operating since July 2002 from the Agricultural Research, Education & Extension Organization (AREO) in Iran in collaboration with GFAR. AARINENA’s website (www.aarinena.org) acts as a gateway from which one can find information on national agricultural research institutions, universities, government ministries, NGOs, the private sector and farmers’ organizations in the region. It collects information through national information nodal points from each subregion. Direct links to regional and international organizations, publications, news and events, regional networks and databases are also available at this website.

A new scroll-text spotlight feature has been added to the AARINENA website, allowing users to find information more easily. A search function has also been added for locating information on specific subregions. A project to redesign AARINENA’s website is under way in collaboration with GFAR. A mock-up is available for viewing at http://www.egfar.org/aarinena/default.html.

ICT Steering Committee and NARS questionnaire results

AARINENA’s Steering Committee on Information and Communication Technology (ICT) was established upon the recommendation of participants in the AARINENA ICT Expert Consultation, held in February 2003 in Cairo, Egypt. Supported by GFAR and the Food and Agriculture Organization of the United Nations (FAO), the meeting was organized with the aim of strengthening the RAIS. The Steering Committee’s membership comprises representatives of the five subregions and representatives of the Arab Organization for Agricultural Development (AOAD), FAO, GFAR and the International Center for Agricultural Research in the Dry Areas (ICARDA).
The Committee held its first meeting at ICARDA on 28 July 2003 and reported the following activities:

- Preparation of the committee’s terms of reference and approval by the AARINENA Executive Committee
- Drafting the collaborative programme framework (see below)
- Collection and classification of comments received by the Steering Committee regarding the collaborative program
- Preparation of a National Agricultural Information System (NAIS) questionnaire for NARS in the West Asia and North Africa (WANA) region (see below).

The committee identified the following ICT-related weaknesses in the region:

- Lack of well-qualified human resources
- Lack of national policy on information management
- Language barriers (and hence the need for multilingual systems)
- Poor communication at the subregional level
- Poor communications infrastructure in some countries (low bandwidth).

The framework of the collaborative programme of RAIS has been reviewed by all members. The proposed programme includes the following six projects:

- Design of a management information system (MIS) database
- Design and implementation of four topic-specific information systems: experts, institutes, projects and research outputs (four projects)
- Creation of an electronic forum for discussion.

The NAIS questionnaire for NARS was prepared by the chair of the ICT Steering Committee and approved by its members. Eight countries in the WANA region completed the questionnaire. Preliminary analysis of the results revealed that most national research organizations in respondent countries have a body responsible for information management and maintain a local area network. The Internet connectivity rate is not mentioned in some responses, suggesting that some countries still have problems in this area. The number of work stations ranges from three to more than 300 in national research organizations. Most of the software identified indicates that computers are used mainly for office automation or using ready-made information packages such as CDS-ISIS. Few countries have a Data Base Management System (DBMS) such as SQL or Oracle.

No country has a complete NAIS as specified in the ICT Steering Committee minutes of the meeting held at ICARDA in July 2003. Most countries that have one or two modules have built them using tools provided by international organizations. Half the respondent countries are not satisfied with their current system; the other half, although satisfied, do not have a complete system or indicate that they wish to modify it. Only two countries assigned priority to the Institutions Information System. Four countries indicated they do not have the human capacity to develop the NAIS. Some countries did not respond to
this question because they are satisfied with what they have; however, this does not indicate that they in fact have the human capacity to build new modules.

The Steering Committee has scheduled its second meeting for September 2004.

Research networks

Date palm
AARINENA’s Regional Date Palm Network was established on the basis of the project document adopted by the Association’s 7th General Conference in Beirut, Lebanon.

The regional network then merged with the Date Palm Global Network. (DPGN was established under the aegis of FAO and operates from the United Arab Emirates University at Al-Ain, assisted by an FAO technical secretariat.) AARINENA serves on the coordinating board of DPGN. The network’s constitution and work plan were approved at the board’s first meeting in June 2003 in Cairo.

Cotton
The Inter-Regional Network for Research Collaboration on Sustainable Cotton Production in Asia and North Africa (INCANA) was established in October 2002 at AREO in Iran. Its purpose is to strengthen cooperation among regional and international cotton research institutes, including the exchange of information, experience and scientific results.

As cotton is a way of life in many countries of Asia and North Africa, it was necessary to set up a cross-regional research network for this important commodity. INCANA’s mission is to establish regional collaboration for improving cotton production technology via research, workshops and training. Network
partners include APAARI, AARINENA, ICARDA, the Central Asia and Caucasus Agricultural Research Forum (CAC Forum), GFAR and AREO.

Since its establishment, INCANA has contacted NARS and agricultural research institutes to promote the exchange of germplasm and information. It has also established a database on AARINENA’s website and planned databases for research institutes and research programs for NARS in participating regions. A regular electronic newsletter on cotton is on the drawing board as well.

**Olive oil**

AARINENA is planning an expert consultation for February 2004 in Sfax, Tunisia. Supported by GFAR, FAO and ICARDA, the meeting will move forward with the creation of a regional cooperative olive oil network to be hosted by the Olive Tree Institute in Sfax. Subgroups will be established to cover three areas: production and plant protection, postharvest technology, and socioeconomics and commercialization.

*Selling olives in Morocco. The new olive oil research network will look at all aspects of the production-to-consumption chain.*  
*Photo: Eric Miller, Panos Pictures*

**Medicinal and herbal plants**

Contacts were made with the president of the Egyptian Society for Medicinal and Herbal Plants and with the coordinator of the medicinal and herbal plant project conducted by Jordan’s National Center for Agricultural Research and Technology Transfer (NCARTT). As a result, prospects for setting up a regional network for this area of research will be
explored during the International Conference on Medicinal and Herbal plants, scheduled for 28–30 September 2004, in Cairo.

**Training courses**

Jointly with the FAO Regional Office (Near East), AARINENA co-sponsored a regional training course on postharvest technology in January 2003 in Jordan, and a biosafety workshop, in August 2003 in Syria. An advanced course on postharvest technology is scheduled to be held in Jordan 6–8 April 2004.

**Publications: Keeping the region informed**

Volume 11 of the AARINENA Newsletter was circulated in May 2003 to all members, research institutions and university faculties of agriculture in the region. Issues of the newsletter are also posted on the Association’s website. Reports of meetings, workshops and training courses were likewise distributed.

The amended Constitution of AARINENA has been published and circulated to all members. Rules of procedure, adopted by the 8th General Conference, were also published.

**A growing membership**

The Secretariat’s recruitment efforts have resulted in seven new members joining the Association: Algeria, Somalia, Tunisia, the University of Jordan, Jordan University of Science & Technology (JUST), the International Center for Biosaline Agriculture (ICBA), and King Abdelaziz City for Science and Technology in Saudi Arabia.

**Summing up**

Over the years AARINENA has successfully supported NARS capacity building in the region – through training programs, technical and scientific workshops and conferences, and a regional information and communication system. As a catalyst and facilitator, it has also brought the views, aspirations and agricultural research priorities of people in the WANA region to the attention of the international development community. In advancing the cause of sustainable agriculture, the Association hopefully will attract vital donor support for its regional and subregional research projects and supporting activities.
Forum of the Americas for Agricultural Research and Technological Development

**FORAGRO: An emphasis on competitive and sustainable small-scale agriculture**

The Forum has made major progress in implementing provisions of the Declaration of Brasilia, which was a key outcome of the Third International Meeting of FORAGRO, held in April 2002 in Brazil. The following report was prepared by FORAGRO's Technical Secretariat, hosted and operated by the Inter-American Institute for Cooperation on Agriculture (IICA), in Costa Rica.

Further information, including technology policy documents and institutional links, can be found on FORAGRO’s web page (www.iica.int/foragro) and that of INFOTEC (Scientific and Technological Information System for the Agricultural sector in the Americas, http://infotec.ws), which grew out of FORAGRO. All Forum stakeholders are encouraged to consult those resources.

**Follow-up to Brasilia**

The Technical Secretariat prepared proceedings of the meeting and circulated them in July 2003. Papers presented at the meeting and the Declaration of Brasilia itself were also made available to participants and members through INFOTEC and the Forum’s website. With a view to implementing the Declaration, FORAGRO prepared its 2003–2005 medium-term plan and 2003–2004 plan of action, which were both approved by the Executive Committee.

**Executive Committee**

New officers were named to the FORAGRO Executive Committee. David Berroa, Director General of Panama’s Instituto de Investigación Agropecuaria (IDIAP), President of the Sistema de Integración Centroamericano de Tecnología Agrícola (SICTA) until November 2003, and FORAGRO Vice President, took office as Committee President. The following
Vice Presidents were appointed: Claudio Barriga, representing the private sector; Mario Ahumada, Director of the Chilean branch of the Latin American Agroecological Movement (MAELA), representing NGOs; and Francisco Delgado de la Flor, Chancellor of La Molina Agricultural University, Peru, representing agricultural universities. Jorge Ardila and Enrique Alarcón, of IICA’s Directorate of Technology and Innovation, continue to operate FORAGRO’s Technical Secretariat.

The Seventh Meeting of the Executive Committee was held in Panama in September 2003. A key outcome was the approval of work programs for the execution of hemispheric activities in four priority areas: new biotechnologies; agribusiness, innovation and small-scale agriculture; genetic resources; and natural resource management. The Committee also decided that the Fourth International Meeting should emphasize competitiveness and market access for agricultural products; ways to promote the modernization of small-scale agriculture; strengthening of national research institutions; and making better use of the institutional framework of the Regional Research System of the Americas.

FORAGRO linkages

With members
Priority topics at the hemispheric level were identified for cooperative research on the basis of subregional topics and a hemispheric vision of the problems now facing agriculture in a
globalized world. This will promote congruence between the activities of FORAGRO and those of the subregional Programas Cooperativos de Investigacion y Transferencia de Tecnología Agrícola (PROCIs).

The research topics have been disseminated and discussed, particularly in the meetings of the steering committees of the following PROCIs:

• the Cooperative Program for Research and Technology Transfer for the South American Tropics (PROCITROPICOS)
• the Programa Cooperativo para el Desarrollo Tecnológico Agropecuario del Cono Sur (PROCISUR)
• the Programa Cooperativo de Investigación Agrícola para la Región Norte (PROCINORTE)
• the System for Central American Integration of Agricultural Technology (SICTA)
• the Regional Fund on Agricultural Technology (FONTAGRO)
• the Cooperative Program for Improvement of Crops and Livestock in Central America (PCCMCA).

The Technical Secretariat continued to support the consolidation of the Regional Research System by promoting and assisting the most recently created cooperative mechanisms as follows:

• SICTA: An operations agreement was signed between participating countries, IICA and the Tropical Agriculture Research and Education Center (CATIE).
• PROCICARIBE (Caribbean Agricultural Science and Technology Networking System): A review of its impact and its operating model were programmed.
• PROCINORTE. New support was received and the programme’s first Executive Secretary, a professional from Mexico’s Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias (INIFAP), was appointed.

**With Latin American legislators**

The President of FORAGRO was invited to a trade and agriculture meeting of the Agricultural Commissions of Legislators, in São Paulo, Brazil in April 2003. It was an excellent opportunity to discuss cooperation between FORAGRO and the Latin American Parliament (PARLATINO), on the basis of a proposal by Parliamentarian Carlos Recondo, delegate to the Third International Meeting of FORAGRO, in 2002. The Secretariats of the Commissions of PARLATINO and of FORAGRO are working on a draft PARLATINO-FORAGRO agreement, to be signed in 2004. This will enable the two regional organizations to strengthen ties and carry out joint activities.

**With GFAR**

Representatives of Latin American and Caribbean public and private institutions belonging to FORAGRO participated in the Second Triennial GFAR Conference in Dakar, Senegal.
Of particular note was the presence of the President of the Brazilian Agricultural Research Corporation (EMBRAPA), also President of FORAGRO at the time. He shared with GFAR members details of a successful partnership known as LABEX (EMBRAPA Overseas Laboratory). This experience was singled out as an example of a partnership for advancing science between institutions in developing and developed countries.

During the Dakar conference, the FORAGRO and GFAR secretariats met to identify joint actions based on their respective plans of action. The development of RAIS and reciprocal cooperation between continental fora deserve mention. Specifically, public–private partnerships in R&D, development of institutional innovations, and the creation of information systems are of special interest.

**With the CGIAR**

The Technical Secretariat of FORAGRO contributed to the iSC of the CGIAR in its efforts to develop a new vision of the CGIAR system, submitting an analytical paper titled “Constraints and Priorities in Agriculture from the Technological Perspective in LAC”. This document presents FORAGRO proposals and a vision of agriculture and the rural sector from the technological perspective, and the hemispheric priorities for research in Latin America and the Caribbean (LAC). This task is part of the Forum’s mission influence the international research agenda.

In late 2003, the GFAR Secretariat consulted FORAGRO about becoming an alternate member of FARA, which currently represents the regional fora on the Executive Committee of the CGIAR. FORAGRO agreed to the proposal and hopes, after its tenure as alternate, to represent the regional fora on the CGIAR Committee in two years time.

**With NGOs**

The Latin American and Caribbean Agroecological Movement (MAELA), under the direction of Mario Ahumada, also Vice President of FORAGRO, held its regional conference in Costa Rica. FORAGRO’s Secretariat attended. During the meeting, MAELA’s President made important proposals, which are consistent with priority subjects outlined in the Declaration of Brasilia. These proposals relate to current trade regimes and their effects on rural development, food security, local markets, sovereignty and the struggle against poverty.

**Plan of action: 2003–2004**

The plan calls for several activities that correspond to the Forum’s ‘lines of action’. Here we highlight four areas: the regional information system, inter-regional coordination, hemispheric priority topics and advocacy at the political level.
INFOTEC
Development of the Scientific and Technological Information System for the Agricultural sector in the Americas (INFOTEC) continues. In addition, two agreements were negotiated to mobilize technical and financial support for INFOTEC activities. One is a between IICA and FAO, to develop a directory of research institutions, for use by Forum members, FAO’s World Agricultural Information Centre (WAICENT), and the larger global community. The second agreement, with GFAR, calls for the establishment of a network of specialists in information and communication technologies in the area of agriculture, and the preparation of a conceptual and operating guide to support development of this discipline in the NARS and subregional fora.

Strengthening FORAGRO and inter-regional coordination
The Technical Group in Support of the FORAGRO Secretariat (GTAF) was set up. It comprises the Executive Secretariats of the PROCIs of the Northern, Andean, Southern, Caribbean, Tropical Amazon and Central (under SICTA) regions, and a specialist from EMBRAPA. The group, coordinated by the FORAGRO Technical Secretariat, established its mission and work programme as way to catalyze the 2003–2004 plan of action.

Hemispheric topics
GTAF members programmed activities to be carried out in connection with the four agreed-on priority issues for the region. Initially, studies will be conducted to establish the state-of-the-art across the region for each of the four topics. The execution of specific activities by multinational consortia will then be promoted. FORAGRO is accelerating phase one activities so that preliminary results can be presented at the Fourth International Meeting in Panama.

Political presence
FORAGRO is keen to have research and technology development assigned a more prominent position on national and regional political agendas. To this end, FORAGRO’s President recently addressed the ministers of agriculture of 34 countries of the Americas. In his report to the meeting of the Inter-American Board of Agriculture (IABA), in Panama in November 2003, the President outlined the conclusions of the Third International Meeting of FORAGRO, held in Brasilia. He referred to ways in which FORAGRO can cooperate on the AGRO 2003–2015 Plan of Action.

As a result of this intervention, IABA issued a resolution in support of the Forum. (The first such endorsement was issued in Chile in 1997, asking IICA to support the Technical Secretariat.) Resolution 398 states that the ministers welcome the conclusions of the Third International Meeting and that they encourage IICA and the countries of the region to strengthen their participation in FORAGRO.
The Asia–Pacific Association of Agricultural Research Institutions (APAARI) was established in 1990 as an apolitical, nonprofit and neutral forum for NARS. While NARS constitute its core membership, several international agricultural research institutes, including centres of the CGIAR, are associate members.

The mission of APAARI is to promote the development of NARS in the Asia–Pacific region through intraregional, interinstitutional and international cooperation. APAARI stakeholders have developed long-term plans and research programmes to address important issues such as regional collaboration, networking of research efforts, policy advocacy, resource mobilization and scientific publishing. Some activities under these plans aim to improve the exchange of scientific and technical know-how and information on ARD.

Participants in the APAARI consultation on information and communication technology, held in Bangkok, recommended that the Association strengthen its advocacy role in this area.

Photo: APAARI
Others aim to strengthen the research capability of member institutions and promote linkages among national, regional and international research organizations.

The rest of this section highlights the major activities of APAARI during 2003.

Asia–Pacific Consortium on Agricultural Biotechnology (APCoAB)

In December 2002, the APAARI General Assembly endorsed the establishment of APCoAB. Since then, APAARI stakeholders have taken steps to implement this decision. A first meeting to discuss the issue was jointly organized by the Food and Agriculture Organization’s Regional Office for Asia and the Pacific (FAO/RAP) and the APAARI Secretariat on 4 April 2003, in Bangkok. It was attended by about 25 participants representing NARS, international institutes including CGIAR centres, NGOs, foundations and private-sector concerns from the region. After a full day of deliberations, the participants made the following recommendations:

• That APCoAB be established as a neutral platform for its stakeholders to exchange views, ideas and knowledge in the field of agricultural biotechnology
• That the initial focus be on achievable objectives following further prioritization of APCoAB activities
• That active financial support for the initiative be sought from sources other than APAARI, such as FAO, the International Service for National Agricultural Research (ISNAR), GFAR, the Asian Development Bank, the World Bank, prominent foundations, the private sector, and even through membership contributions from NARS
• That an APCoAB Steering/Advisory Committee be formed to guide programmatic, constitutional and legal issues of the consortium
• That the recommendations and proceedings of the meeting be sent to all NARS associated with APAARI, and who approved the APCoAB idea during the APAARI Expert Consultation on ARD Networks and Consortia, held in Penang, Malaysia.

Participants acknowledged the efforts of FAO’s Bangkok office and the APAARI Secretariat for having developed the APCoAB concept through extensive consultation and for having organized the meeting.

Following the creation of APCoAB, the primary donor group met in Bangkok in July 2003 to accelerate the consortium’s development. Participants included representatives from FAO/RAP, APAARI, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), the Australian Centre for International Agricultural Research (ACIAR), ISNAR and Monsanto Corporation. They discussed APCoAB issues such as formation of the steering committee, priority activities and programmes, funding support, location of the APCoAB Secretariat, and potential collaborators. Here are the key decisions taken:
APAARI has set up the Asia-Pacific Consortium for Agricultural Biotechnology (APCoAB). Its priorities are to promote research partnerships, disseminate information, build scientific capacity, increase public awareness and engage in policy advocacy. Photo: Marcus Rose, Panos Pictures

- The APCoAB Steering Committee will have the following composition: two NARS representatives (APAARI’s Chair and one NARS leader from a developing country); one FAO representative; one CGIAR centre representative, from ICRISAT, ISNAR or the International Rice Research Institute (IRRI), on a rotational basis; one GFAR representative (its Executive Secretary); one private-sector representative (initially from Monsanto); one representative of the International Service for the Acquisition of Agri-biotech Applications (ISAAA); and one representative of CSOs, NGOs and farmer groups. In addition, APCoAB’s coordinator will serve as the Steering Committee’s Member-Secretary.
- Priority activities of APCoAB will include research partnership, information dissemination, capacity building, public awareness and policy advocacy.
- APAARI should present these recommendations to its Executive Committee and seek further funding support from international and regional organizations, both private and public.

Expert consultation on ICTs

This consultation took place 1–3 December 2003, with partial financial support from GFAR. Its aims were to strengthen the regional agricultural information system (APARIS) and national information nodal points (NINPs), and to further identify specific
programmes to enhance the role of ICTs in Asia–Pacific ARD. Conclusions and recommendations included the following:

- Agriculture is becoming increasingly knowledge-intensive and market-oriented in a globalized world. The use of ICTs is vital for accelerated growth of this sector.
- The Asia-Pacific region contains several hot spots of rural poverty, dominated by small-holders. Information and knowledge sharing via both conventional and new ICTs has great potential to boost agricultural productivity and alleviate poverty.
- APARIS, as a regional agricultural information resource and intermediary, and APAARI, as a regional organization, have critical roles to play in improving the efficiency and effectiveness of agricultural information and knowledge flows in the Asia–Pacific region.
- Relationships between NARS (represented by NINPs) and APARIS should be enhanced for greater collaboration in information exchange.
- NINPs’ capacity to use and manage ICTs should be strengthened.
- APAARI’s advocacy role in the area of information and communication management for ARD should be improved.
- ICT indicators and the ICT status of NARS and member institutes should be identified.

### Status of regional research networks

On 2 December 2003, APAARI organized a meeting of the coordinators of the following networks:

- Council for Partnerships on Rice Research in Asia (CORRA)
- Cereals and Legumes Asia Network (CLAN), led by ICRISAT
- Group of Fisheries and Aquatic Research (GoFAR)
- Underutilized Tropical Fruits in Asia Network (UTFANET)
- Plant Genetic Resources (PGR) Networks
- Tropical Asian Maize Network (TAMNET)
- Inter-Regional Network for Research Collaboration on Sustainable Cotton Production in Asia and North Africa (INCANA)
- Biosaline Networks
- International Tropical Fruits Network (ITFNET).

During the session, participants brainstormed on ways to reinforce the networks. Discussion on the role of the networks was lively. Member NARS felt the networks were serving a useful purpose and must be further strengthened and supported, especially through active involvement of concerned NARS. It was suggested that, in order to improve financial support, a regional level donor meeting be organized in active collaboration with FAO, GFAR and the international agricultural research centres. Furthermore, the APAARI
Secretariat should facilitate this process and provide needs-based support, wherever necessary.

Participants agreed that CGIAR centres should be asked to continue playing their important facilitating function for existing networks and that member NARS should contribute towards better network sustainability, in part by assuming responsibility in future for running their secretariats. It was suggested that private-sector involvement be sought in the future, and that facilitating centres or institutes should be encouraged to conduct internal reviews of the existing networks, for gap analysis and restructuring where needed. Finally, participants expressed the need for research networking activities in the livestock sector, involving the International Livestock Research Institute (ILRI), and in agroforestry, involving the World Agroforestry Centre. The initiative to establish INCANA, the cotton network, was appreciated by participants; it was felt that similar efforts in the future will strengthen NARS considerably.

Support to NARS and their networks

CLAN: an expanding mandate

The steering committee of the Cereals and Legumes Asia Network (CLAN) met to examine the possibility of expanding network activities to include research on cover crops such as soybean, mungbean and lentil. The meeting, organized by ICRISAT and APAARI, took place in Hyderabad, India in November. The proposed expansion would be done in part-

The Cereals and Legumes Asia Network (CLAN) will expand its scope to include research on cover crops such as soybean, mungbean and lentil.  

Photo: APAARI
nership with the World Vegetable Center (AVRDC) and ICARDA. ICRISAT, ICARDA and AVRDC have agreed in principle to collaborate and would initiate specific activities under the network to support APAARI member NARS in the Asia–Pacific region.

*TAMNET revival*
In cooperation with FAO and APSA, APAARI facilitated the revitalization of TAMNET and provided support for the distribution of hybrid maize seed to network members for trials.

*CORRA and GoFAR*
CORRA and GoFAR presented activity reports during the APAARI-organized expert consultation on Strengthening of Research Partnerships through Networks and Consortia.

*INCANA*
APAARI contributed US$5,000 to INCANA, the inter-regional cotton network hosted by Iran’s AREO.

**Seventh APAARI Executive Committee Meeting**
The seventh APAARI Executive Committee meeting, held on 3 December 2003, reviewed APAARI activities during 2003, including membership status and audited accounts. It finalized the 2004 work plan and approved the establishment of APCoAB.

**Information and communications technology (ICT)**

*APAARI homepage*
The redesigned APAARI homepage (www.apaari.org) was enriched with new information and links. The site now provides useful information on agricultural R&D activities in the region such as seminars, symposia and conferences, and serves as a portal to regional research networks. This component of APARIS facilitates access to Internet-based information, both through search engines and by linking to other ARD-related websites. This is only a portal service, however, not a centralized database. The improved site has features for e-discussion among NINPs. Most APAARI publications are now available on the website for download.

*APARIS update*
Two new functions – gateway and the regional agricultural expert locator (RAEL) – are currently being developed to make APARIS more useful to agricultural researchers and
other experts in the region and elsewhere. The gateway function will be able to perform keyword-based searches for ARD information resources available in the region and the RAEL function will maintain a database of agricultural experts. Interested experts will be able to log on to APARIS and to upload/update their information, including publications lists.

On 3 April 2003 the APARIS support group met to formalize bilateral cooperation on ICT, between APAARI and members of its support group, including FAO/RAP, GFAR, ISNAR and the Asian Institute of Technology (AIT). Decisions and recommendations included the following:

• APAARI and FAO/RAP representatives were mandated to discuss and develop a proposal for collaborative activities to be considered by FAO/RAP and APAARI management.

• APAARI and ISNAR were urged to develop a memorandum of understanding for future collaboration, particularly for ICT needs assessment, ISNAR's support for ICT capacity building in the Asia–Pacific region, and possible integration of ISNAR and APARIS information resources.

• APAARI and AIT were mandated to finalize arrangements for a proposed ICT workshop at AIT in December 2003 with major support from GFAR.

• APAARI, ISNAR and FAO/RAP were requested to jointly develop a guide to useful ARD information resources, for distribution to APAARI members.

• APAARI will move forward to develop a simplified gateway function with the help of ISNAR, FAO, AIT and CABI, as well as a RAEL function with the collaboration of FAO/RAP.

• APAARI, in collaboration with its support group members, will develop a framework for a project proposal to be submitted to ADB, the World Bank or other donor organizations.

**FAO/RAP–APAARI collaboration on ICT activities**

FAO/RAP and APAARI representatives jointly developed a work plan to promote ICT in ARD. Proposed activities include demonstration of FAO’s ICT tools to the NINPs of APAARI and publication of the benchmark report on the status and progress of ICT in ARD in the Asia–Pacific region.

**Publications**

**Newsletters**

Two issues of APAARI Newsletter (December 2002 and June 2003) were published and circulated. Electronic versions were also posted on APAARI website.
Proceedings of expert consultations

Reports of the following expert consultations were published, distributed widely and posted on the APAARI homepage:

• Proceedings of the Expert Consultations on Strengthening Regional Agricultural Information Systems and Regional Research Networks and the Seventh Executive Committee Meeting of APAARI

• Proceedings of the Seventh General Assembly of APAARI and Expert Consultation on Strengthening of Research Partnerships through Networks and Consortia.

Success stories

“Lentil Improvement in Bangladesh” was the 20th ‘success story’ in a series published by APAARI. It has been circulated to all Association members and to key ARD contacts for wider dissemination. It will also appear on the APAARI website. Other stories in the series are “Control of Newcastle Disease in Village Chickens Using Thermoduric Vaccines” (no. 19) and “Biological Control of Insect Pests in India” (in preparation).

APAARI Constitution

The revised Constitution of APAARI was published, widely disseminated and posted on the Association’s website.

Expanding membership

Four groups recently joined APAARI as associate members: the Asia and Pacific Seed Association (APSA), the Network of Aquaculture Centres in Asia-Pacific (NACA), the Asia-Pacific Association of Forestry Research Institutions (APAFRI), and the Association of Agricultural Research Institutions in the Near East and North Africa (AARINENA). They have also accepted APAARI as an associate member on a reciprocal basis.

The NARS of China, Indonesia, Cambodia, Laos, Bhutan and Myanmar have been approached about APAARI membership.
Past and future: summing up

APAARI’s diverse activities over the past year have helped strengthen partnerships, collaboration and networking in agricultural R&D in the Asia–Pacific region and have addressed the emerging needs and expectations of the national systems. APAARI looks forward to continued partnership with ARD organizations in pursuing common goals, especially in the areas of genetic resources conservation, biotechnology, natural resources management, ICT networking and commodity chain programmes. APAARI also hopes to strengthen links with other regional fora through GFAR.

APAARI would now like to move forward with a gap analysis based on the results of earlier regional and subregional priority setting exercises. This will be followed by collaborative efforts to bridge those gaps. Agricultural biotechnology and postharvest technology are being considered as top priorities.
Raising awareness

The year’s activities kicked off with the GFU’s participation in the International Green Week agricultural fair in Berlin, Germany, 17–26 January. It was a major opportunity for us to create awareness of the importance of underutilized species. The GFU stand provided information – via posters, books, leaflets, video and discussion – on the contributions of underutilized plant species to food security, nutrition and health, income generation, cultural identity and biodiversity conservation.

The GFU invited the Fundación Promoción y Investigación de Productos Andinos (PROINPA) to use the stand to showcase foods made from quinoa, kañawa, amaranthus and tarwi. A Bolivian NGO, PROINPA promotes the production, consumption and commercialization of these grains and other Andean crops. Many visitors, from the general public, academia (researchers, teachers and students of all levels), the business world and the media, showed great interest in the exhibit. A number of classes visited the stand and collected study material for use in school projects. The GFU was able to lay the groundwork for collaboration with an international school garden initiative in Berlin. With our support, material related to underutilized species will be included in information packages to be produced and disseminated in support of school garden projects in several partner countries.

The fair provided an opportunity for the GFU to make contacts in the food industry and with fair trade and environmental organizations potentially interested in underutilized species. Personal contacts were also developed with scientists and other individuals with interests in conservation, development and sustainable use of underutilized species.
Planning for successful promotion and utilization

In May 2003, the GFU held an international workshop in Leipzig, Germany, with the objective of identifying strategic elements for the promotion and sustainable use of underutilized plant species. Discussions underscored the important role these species can play in enhancing food security and alleviating poverty. Participants listed key characteristics of successful approaches to promotion that target and benefit poor people. The group identified priority areas for development, strategic elements for each, and the various actors who can be mobilized to help with implementation.

The proceedings of the workshop and other details are available on the GFU website.

Policy dialogue on Europe’s Novel Food regulation

In a joint effort with personnel involved in projects of the German Agency for Technical Cooperation (GTZ) and with the International Potato Center (CIP), we analyzed the implications of the European Union’s Novel Food Regulation (NFR) for the import into the EU of food products derived from underutilized species. The NFR represents a threat to trade in all products that have not been marketed as a food to a significant degree within the EU before 15 May 1997. It especially affects small producers and entrepreneurs in...
developing countries for whom the export of such products provides an opportunity for higher incomes. Trade in products derived from underutilized species also stimulates sustainable use of these genetic resources.

Discussions on this issue with the German Federal Ministry for Economic Cooperation and Development (BMZ) and the German Ministry of Consumer Protection, Food and Agriculture (BMVEL) highlighted the inconsistency between development policies and consumer protection within the EU. A proposal, with recommendations on ways to better take into account the interests of developing countries without undermining consumer protection, was developed. This proposal has been submitted through BMZ to BMVEL, the authority charged with the implementation of NFR in Germany, with a request to bring the recommendations to the attention of the EU-working group on novel food currently reviewing the regulation.

Website launched

We launched our website in October 2003. Its purpose is not to duplicate existing efforts; rather, the site will serve as an Internet gateway or portal to many sources of information on underutilized species. It will serve a large and diverse clientele including researchers, development workers, policymakers, donor organizations, farmers and consumers.

Information accessible through this portal includes details of specific crops, events of interest, important topics related to underutilized species, links to other stakeholders and relevant publications. Besides making knowledge available for download, we intend the site to offer a platform for communication among interested parties. The portal is currently hosted by the International Plant Genetic Resources Institute (IPGRI), but maintained by the GFU. The address is www.underutilized-species.org.

Survey of the international community working on underutilized species

To facilitate networking and create synergy among all those involved in the development of underutilized species, it is important to know who the stakeholders are, what they are doing, and what strategies they are using. We therefore conducted a global survey to identify individuals and groups working with underutilized species. The information obtained has been compiled in a database which will soon be made available on the GFU’s website.

An essential component of the database is an expert list which will allow interested actors to contact each other and discuss topics of common interest. We are confident this
kind of information will contribute to active and fruitful interactions within the community of individuals and organizations promoting underutilized species. The database will also provide an opportunity for members of this diverse community to make their work and expertise known to a larger audience. The value of such a database depends, of course, on continuous updates. Stakeholders are invited to submit their information using the electronic forms available at http://www.underutilized-species.org/survey form%20institutions.asp.

The survey revealed that certain types of organizations are more heavily involved than others in the development of underutilized species. National and international research organizations and universities are currently much more active than groups in business and industry, development organizations, donors, extension services and farmers’ organizations. Not surprisingly, then, the fields that receive the most attention by stakeholders are characterization and conservation of plant genetic resources, applied research and training. Policy and legal issues were of least concern.
PROLINNOVA stands for Promoting Local Innovation. It is a global partnership led by NGOs to promote research and development approaches that enhance local innovation in ecologically oriented agriculture and natural resource management. The programme is being built from the bottom up: NGOs in Africa and Asia are facilitating multistakeholder design of country-level programmes and are designing an international programme to reinforce their activities.

Recognizing the dynamics of indigenous knowledge and learning how to strengthen farmers’ capacities to adjust to changing conditions are the focus of PROLINNOVA’s work. By developing and adapting their own site-appropriate systems and resource management institutions, rural people are trying to improve food security, sustain their livelihoods and safeguard the environment. PROLINNOVA builds on and seeks to scale up farmer-based R&D approaches that start with discovering how farmers carry out informal experimentation to develop and test new ideas for improved use of natural resources. Understanding and documenting the rationale behind local innovation transforms the way conventional researchers and extensionists view local people. The experience stimulates interest, on both sides, in entering into joint R&D. Local ideas can then be further developed in a participatory innovation process that integrates the dynamics of indigenous and formal scientific knowledge.

Mainstreaming participatory approaches

Scaling up is in two directions: horizontally, by involving more people and organizations, including farmer groups; and vertically, by targeting higher levels within institutions concerned with R&D in agriculture and natural resource management. PROLINNOVA seeks to integrate participatory approaches that build on local innovation into formal research, extension and education.
To achieve these objectives, the PROLINNOVA partners are developing country-specific ways to:

- Identify and document local innovations and innovation processes
- Establish partnerships among farmers, extensionists and scientists to further develop local innovations and to encourage others to experiment with them
- Build capacities of all stakeholders in participatory R&D approaches and methods
- Develop and expand mechanisms that give farmers influence over formal research, extension and education
- Encourage multistakeholder learning through joint analysis of: PROLINNOVA approaches and methods; curricula and learning methods; and case studies of policies and institutional conditions.

Decentralized programme development

The concept for PROLINNOVA emerged four years ago. With support from GFAR, the NGO Committee of the CGIAR and the French Ministry of Foreign Affairs, a group made up mainly of NGOs from North and South met in Rambouillet, France, in December 1999 to discuss ways to forge global partnerships in agro-ecological R&D. The group asked ETC Ecoculture (Netherlands) to coordinate further development of the PROLINNOVA proposal and to seek funding support.

PROLINNOVA has been growing in a decentralized way since that meeting. NGOs in Ethiopia, Ghana and Uganda (Agri-Service Ethiopia, the Ecumenical Association for Sustainable Agriculture and Rural Development, and Environmental Alert, respectively) have facilitated the building of

Protective embankments for crops in West Africa. PROLINNOVA builds on farmers’ own approaches to technical innovation. Photo: Giacomo Pirozzi, Panos Pictures
R&D partnerships within each of these countries. Support for their work was provided by the International Fund for Agricultural Development (IFAD), which is supporting a similar process in Niger. In each country, multistakeholder steering groups have collected local experiences in recognizing farmer innovation and informal experimentation and in promoting participatory innovation development. The groups convened workshops to analyze the in-country experiences and developed national action plans to improve and scale up participatory approaches to farmer-led R&D. NGOs in several other countries – Cambodia, Nepal, South Africa, Sudan and Tanzania – have also developed proposals for facilitating participatory design of PROLINNOVA programmes at national or subnational levels. Together, they succeeded in gaining support from the Netherlands Directorate-General for International Cooperation (DGIS) to execute their plans.

The national action plans differ, depending on the experience and self-identified strengths and weaknesses in engaging the dynamics of indigenous knowledge in participatory innovation development, and in institutionalizing the approach. However, they have some common elements, in particular:

- Making an inventory of initiatives to promote local innovation and of the organizations involved
- Creating national, multistakeholder learning platforms
- Building in-country capacity to identify and document local innovation and to develop participatory innovation
- Implementing participatory innovation development on the ground
- Participatory monitoring and evaluation of joint activities, outcomes and impacts
- Awareness raising and engagement in policy dialogue to create favourable environments for this approach.

For some international activities over the past four years, a mosaic of funds was pieced together from several sources. A study culminating in a workshop on “Advancing Participatory Technology Development” was an outstanding example of this cooperation. The meeting was hosted by the International Institute of Rural Reconstruction (IIRR) in the Philippines, which also published the proceedings and a selection of edited papers in 2003. PROLINNOVA received support for the workshop and publications from the Technical Centre for Agricultural and Rural Cooperation (CTA), DGIS, Misereor (Germany), the NGO Committee of the CGIAR, the Rockefeller Foundation and the Swiss Agency for Development and Cooperation (SDC) through the Swiss Centre for Agricultural Extension (LBL).

The workshop focused on experiences in scaling up participatory innovation development and in integrating it into mainstream agricultural research, extension and education. Workshop participants presented and analyzed case studies from Brazil, Cameroon, China, Costa Rica, Egypt, Ethiopia, Honduras, India, Kyrgyzstan, the Philippines, South Africa, Sri Lanka, Sudan, Thailand, Uganda, Vietnam and Zimbabwe. The proceedings (Participa-
tory Technology Development for Agricultural Improvement: Challenges for Institutional Integration) and a book containing edited versions of selected case studies (Advancing Participatory Technology Development: Case Studies on Integration into Agricultural Research, Extension and Education) can be obtained from IIRR (bookstore@iirr.org). The proceedings and all case studies can also be downloaded from the PROLINNOVA website and are available on CD-ROM from IIRR.

Other organizations involved in developing the PROLINNOVA concept also raised funds to undertake activities at the regional or national level. For example, the Participatory Ecological Land-Use Management (PELUM) association organized case studies and a workshop on farmer innovation in Eastern and Southern Africa. Also, Agromisa (Netherlands) is supporting PELUM-Zambia in strengthening the way farmers obtain, share and manage knowledge and experience, including documentation of local innovation.

The next major event will be an international workshop in March 2004 to share experiences in developing national PROLINNOVA partnerships, to discuss and compare national action plans and to decide on international learning mechanisms and programme governance. The workshop will be hosted by the PROLINNOVA multistakeholder platform in Ethiopia, known as PROFIEET (Promoting Farmer Innovation and Experimentation in Ethiopia). This process of participatory planning of the international programme mirrors the approach advocated by PROLINNOVA at the national level. The partners in the different countries are the developers and owners of the programme.

Country-level activities are supported by an international team composed of four organizations: ETC Ecoculture, IIRR, the Centre for International Cooperation at the Free University of Amsterdam, and LBL in Switzerland. Their contributions – for coordination, administration, capacity building, methodological support, advocacy, web-based knowledge management, documentation, editing and publishing – have been, and remain, invaluable.

In collaboration with existing electronic networks and databases serving groups with similar interests, PROLINNOVA will be building platforms for discussion of concepts and experiences in promoting local innovation. To overcome the digital divide, printed brochures, posters, books and circulars will also be disseminated, and links with other media, such as radio and video, will be sought. The use of participatory video to give local innovators an opportunity to share experience with other communities and to influence policymakers is an exciting new prospect being explored. Research on partnership building to move participatory approaches into formal R&D is also being planned with universities in PROLINNOVA partner countries.

More information on the bottom-up process in the PROLINNOVA initiative to build a global learning platform on the promotion of local innovation can be found on its website: www.prolinnova.net.
The Direct Sowing, Mulch-based Systems and Conservation Agriculture (DMC) initiative is a global partnership that aims to strengthen the capacity of key stakeholders to develop suitable DMC systems and accelerate their wide adoption. Still in its preparatory phase, the programme will feature a process of learning and synthesis. It will analyze and compare experiences from decentralized initiatives, draw lessons from them, and identify and fill technological and process-related gaps.

DMC was formally launched in January 2000 by a large group of stakeholders, including national and international agricultural research institutes, NGOs and regional networks. The group agreed on the potential advantages of global cooperation for fostering adoption of DMC systems worldwide. At that time, a broad framework for the DMC initiative was forged. However, due to delays in bringing a full-time facilitator on board, the programme is not yet operational.

From May 2002 to August 2003, Fatima Ribeiro, a Brazilian researcher from the Instituto Agronômico do Paraná (IAPAR), served as DMC facilitator. She was hosted by France’s Centre de coopération internationale en recherche agronomique pour le développement (CIRAD). The following activities comprised her work plan, which was approved by the interim Steering Committee in May 2002:

- Learning from local initiatives: establish an inventory and implement case studies on DMC research and development projects
- Synthesis: prepare a synthesis of these activities in order to answer questions on adoption, the state-of-the-art and what has been learned about technologies, processes and policies
• Feedback/advocacy: encourage links between research, extension and development agents; identify relevant research questions; promote the development of DMC research methods; and encourage farmer-to-farmer knowledge sharing and exchanges across projects
• Information sharing: develop a DMC website.

Based on the work plan established by the Steering Committee, DMC concentrated its efforts on learning activities. However, as opportunities arose during the work plan period, additional activities were also carried out. The main outputs are summarized below.

Project inventory and DMC website
CIRAD provided resources for establishing the DMC website which it hosts at http://agroecologie.cirad.fr/dmc/index.php. The site contains an inventory of projects. Any DMC initiative with research and development components can be included. Managers of such projects are invited to fill in a form on the website and submit it. The DMC website also provides links to other websites on related topics.

Four case studies
The first case study was carried out in Bolivia, in collaboration with ANAPO, the National Association of Oilseed Producers. No-till (NT) is a DMC practice now used on nearly 400,000 hectares in the Department of Santa Cruz de la Sierra, mainly by medium-scale farmers. Adoption by small-scale farmers, however, has remained very low. The case study indicated that a key constraint on adoption of NT by small farmers is lack of specialized equipment. Rental markets for NT equipment have not developed and outright purchase can be very costly. Furthermore, these farmers also have limited access to pertinent information on NT.

Case study results also suggest that small farmers would use NT if suitable equipment were available. Medium-size power planters developed in Brazil are less expensive and perform well. These might usefully be evaluated for use under Bolivian conditions. Farmer groups could be formed to test these planters, and rental markets might be fostered. Such measures could make NT technology more accessible to small-scale farmers.

The second case study was carried out in Tanzania, under a collaborative project by IFAD, FAO, the Selian Agricultural Research Institute (SARI) and DMC. Funds were provided mainly by the Government of Japan, the Norwegian Agency for Development Cooperation (NORAD) and FAO.

This study was proposed by FAO as an assessment of labour-saving technology and practices with a focus on women farmers and vulnerable groups. Specifically, the research had the following objectives: 1) to verify that reduced tillage practices and conservation agriculture (CA) do save significant amounts of labour; 2) to verify that vulnerable groups – women, young people and orphans – are capable of adopting and practising CA without
jeopardizing their own food security and livelihood stability; and 3) identify and overcome sociocultural barriers to the adoption of labour-saving practices such as CA.

The third case study, in Ghana, was conducted collaboratively by the Sedentary Farming Systems Project, ICRA and DMC. Farmers in the Brong Ahafo Region have traditionally practised zero tillage using hand tools, but mainly in combination with burning. Some are now adopting no-burn slash and mulch, the use of glyphosate and direct planting. Some have also started to use the legume mucuna as an improved fallow. However, there is an urgent need to increase labour productivity. This could be done by introducing mechanization options for conservation farming.

Tractor services for land preparation are prominent in the savannah areas, but only use disc ploughs. This practice is now spreading to the transitional zone of Ghana. It is important to stop the trend and to develop and offer mechanized services for conservation farming. In this context, the case study aimed to find out whether such service options could be introduced under existing social, ecological, technical and economic conditions and, if so, how this could be organized to ensure access by small-scale farmers.

Another case study is scheduled to start in March 2004 in Zambia, with support from the Swedish International Development Cooperation Agency’s Regional Land Management Unit (RELMA) for East Africa.

The KASSA platform
DMC participates in the CIRAD-led study titled Knowledge Assessment and Sharing on Sustainable Agriculture (KASSA). This initiative, to be financed by the European Union under its Integrating and Strengthening the European Research Area programme, involves
Global Partnership Programmes

31 institutions organized into regional platforms. Contacts made by the DMC facilitator allowed the participation of important partners such as the Rice-Wheat Consortium for the Indo-Gangetic Plains (South Asia), ANAPO/Bolivia, and Brazil’s Fundação de Apoio Ensino, Pesquisa e Extensão (FAEPE) in association with IAPAR and EMBRAPA, for the scientific aspects. It is important to highlight that, despite the relatively high levels of adoption of DMC by small farmers in Brazil, this is restricted to the subtropical areas. FAEPE is the first Brazilian institution to address the issue with small farmers in tropical areas. The DMC initiative thus expects that participation of FAEPE in the KASSA project will ultimately help foster adoption of DMC systems in tropical areas of Brazil and other countries.

**Mainstreaming DMC in Cambodia**

With financial support from the Norwegian Trust Fund, a group of agronomists from Cambodia’s Ministry of Agriculture was trained in the concepts of DMC. As a result, a network of trials was established in the country. Preliminary technical and economic assessments of DMC systems have shown the feasibility of these technologies for rice-based farming systems.

**Building an African platform for the Second World Congress on Conservation Agriculture**

DMC collaborated with the African Conservation Tillage Network to help its members prepare an African contribution on the main issues surrounding the dissemination of DMC systems in Africa. This was presented at the Second World Congress on Conservation Agriculture, in Brazil in August 2003.

**DMC and the DURAS project**

Despite the delayed opening of tenders for the Promoting Sustainable Development in Southern Agricultural Research Systems project (DURAS), teams from the Southern Africa region are now preparing a farmer-oriented project on the consequences of the tragedy of AIDS in the area. The project will assist women in developing high-production DMC systems through biological management and direct sowing. This initiative takes place under the umbrella of the Action by Churches Together (ACT) network, with support from CIRAD, WWF and NARS.

**Filling research gaps**

Fostering research to fill knowledge gaps is another role of DMC. By identifying key research needs, DMC can contribute to orienting research resources toward priority issues. One initiative already taken is the representation of DMC in the European Forum on Agricultural Research for Development.
Global Coconut Research for Development Programme (PROCORD)

Cooperation to boost the benefits of an undervalued crop

The Global Coconut Research for Development Programme (PROCORD) aims to generate and deliver benefits to coconut stakeholders, especially poor coconut producers and consumers. It was formed on the initiative of the Bureau for the Development of Research on Tropical Perennial Oil Crops (BUROTROP), IPGRI and GFAR.

The programme has three members: the Asian and Pacific Coconut Community (APCC), the International Coconut Genetic Resources Network (COGENT) and BUROTROP, each of which has specific but complementary strengths. PROCORD was launched during the COCOTECH meeting on 5 July 2002, in Pattaya, Thailand, when representatives of the three organizations and of IPGRI signed a memorandum of agreement.

The overriding goal of PROCORD is to improve the returns on coconut to farmers, communities and countries growing the crop. The programme's objectives are to improve productivity, strengthen partnerships, enhance information access and dissemination, and promote capacity building.

Under the programme, the three member groups coordinate separate but complementary activities. COGENT focuses on genetic resources improvement, as well as socio-economics and policy support. BUROTROP has lead responsibility in the areas of pest and disease (especially lethal disease) control and productivity and sustainability of coconut-based agroforestry systems. APCC leads PROCORD’s efforts to improve the efficiency and value-added benefits of postharvest processing, utilization and marketing.

Although each institution concentrates on two research areas for PROCORD, it is by no means limited to these themes. All three organizations are free to conduct research on any of the identified themes, consistent with their institutional mandates and the decisions of their respective governing bodies.

Coordination of PROCORD is to be rotated among the three member institutions by mutual consent, and the Chair of the coordinating agency will also chair the PROCORD Coordinating Committee. For the first three years, PROCORD will exercise the coordinat-
The Coordinating Committee has held three meetings: on 5 July 2002 in Pattaya, Thailand; on 26 October 2002 in Manila, Philippines; and on 1 June 2003 in Montpellier, France. Meetings have been and will be scheduled back-to-back with other meetings of one of the three organizations.

Here is a summary, by member institution, of PROCORD achievements and plans.

COGENT

*Genetic resources: conservation, safe exchange, evaluation and breeding*

COGENT is committed to collecting and conserving coconut genetic resources, especially through the International Coconut Genebank (ICG). To date, 11,402 accessions are conserved at 25 sites in 23 countries and 224 within the ICG system. Of the 224 accessions, 29 are at ICG-Southeast and East Asia, 50 at ICG-South Pacific, 99 at ICG-Africa and the Indian Ocean, and 46 at ICG-Latin America and the Caribbean. The ICGs will be strengthened, field conservation of germplasm will continue, and more characterization data will be generated.

Current efforts to conserve genetic material in 23 national genebanks and four ICG sites will continue and expand to eight countries. To support this work, a training course
on cryopreservation was conducted in India in 2002 with eight countries represented. It will be presented again in collaboration with France’s Institut de recherche pour le développement (IRD). Staff from five countries will participate. A handbook, titled “Manual on Germplasm Health Management for the International Coconut Genebank”, will be published. Cryopreservation technology is being further developed and an embryo culture technique has been improved.

COGENT is promoting international exchange and evaluation of germplasm. Multilocation trials involving Benin, Côte d’Ivoire, Tanzania, Mozambique, Brazil, Jamaica and Mexico will continue, as will the provision of germplasm to ICG member countries. Ongoing germplasm exchanges involve the Philippines and Vietnam; India, Sri Lanka and Bangladesh; and Papua New Guinea, Cook Islands, Marshall Islands, Kiribati and Tuvalu. In the area of crop improvement, biotechnology methods are now being applied to coconut. Microsatellite analysis kits, for example, were developed and will be used in nine countries to characterize farmer varieties. Plans for the future include analysis of quantitative trait loci (QTLs), genome mapping and somatic embryogenesis. These tools and methods of molecular genetics shorten the breeding cycle and allow scientists to introduce useful new characteristics into coconut.

A consultative meeting on globally coordinated coconut breeding, held in India in November 2002, is the foundation for a project proposal to be submitted to a donor in 2004. The goal of these efforts is to make available, to both national agricultural researchers and farmers, a range of improved planting materials with a wide genetic base and high consumer acceptability.

Socioeconomics and health
Understanding the social and economic constraints to smallholders’ adoption of new technology and to their participation in planting and rehabilitation programmes is vital to effective coconut R&D. Several activities have been carried out or are planned:

• A survey of hybrid and varietal performance and farmer preferences was conducted, in collaboration with APCC and BUROTROP.

• Surveys of 54 communities in eight countries were carried out to identify sites for a major poverty-reduction project, with similar surveys planned for 10 African countries. The project, funded by the ADB, covers 24 rural communities in eight countries. A proposal to fund projects for 10 more countries has been submitted to IFAD and others proposals to fund similar work in 10 African countries are being prepared for the Common Fund for Commodities (CFC), the Rockefeller Foundation and the Sasagawa Foundation.

• Surveys of 24 communities in eight countries examined adoption of new technology and identified market constraints and opportunities. This research will be extended to another 16 countries.
• In the area of nutrition and health, COGENT completed a study of the relationship between coconut diversity and human nutrition. A CD ROM, “Coconut is Good for Your Health”, will be prepared in collaboration with APCC and the Philippine Coconut Authority (PCA) for distribution worldwide. A study on the effects of coconut on HIV is also planned.
• Linkages are to be developed with partner institutions to study the use of coconut oil derivatives for biofuel.

Training and policy support
• In line with the results of a 1998 training needs survey, 10 MSc scholars were supported and have now graduated. Two PhD candidates are currently being supported in their work. Another training needs survey was begun in 2003.
• A regional training course on technical writing, seminar presentation, proposal preparation and public awareness was held in Mexico in November 2003 and will be presented again in China in August 2004.
• A seven-year work plan and budget for the ICG has been submitted to donors.
• COGENT is reviewing plant genetic resources policies in the Asia–Pacific and Oceania region.

BUROTROP

Coconut diseases
Coconut lethal yellowing disease (LYD) is the clear research priority. Scientists at the University of Florida, USA, under a newly approved grant, and at the Institute of Arable Crops Research (IACR), Rothamsted, UK, under a grant from the UK’s Department for International Development (DFID), are sequencing the phytoplasmas that cause LYD. Their aim is to develop molecular markers and monoclonal antibodies to improve diagnostics.

The causal agents of a number of lethal diseases of coconut are still unknown. Identifying them will provide vital scientific information for disease control. In particular, a project is in progress to investigate the causal agent of Porroca (little leaf disease) in Latin America.

Research continues on the epidemiology of lethal diseases of coconut such as LYD, Phytophthora budrot, coconut foliar decay, heartrot and cadang-cadang. New studies will attempt to identify insect vectors and understand transmission mechanisms, including the possibility of seed transmission of LYD phytoplasmas. Future epidemiological studies will exploit powerful tools such as molecular markers and geographic information systems. Proposals for research on the management and control of LYD in Latin America and the Caribbean and in Africa have been prepared for submission to donor agencies.
**Germplasm exchange protocols**

Indexing protocols for virus and viroid diseases would help ensure safe international sharing of coconut germplasm. These have been developed for the Vanuatu viral disease, coconut foliar decay, as well as the viroid diseases, cadang-cadang from the Philippines and tinangaja disease from Guam. Workshops will be held to train people from ICG and quarantine facilities in the use of these protocols. Techniques to index phytoplasma, phytomonas and xylem proteo-bacteria will be developed.

**Resistant varieties**

For some diseases, varieties and ecotypes with varying levels of tolerance or resistance have been identified. For LYD, Malayan Yellow and Red Dwarf, Sri Lanka Green Dwarf, Panama Tall and Vanuatu Tall have potential. For coconut foliar decay, Vanuatu Tall is of interest. Other varieties are being tested in Ghana, Mozambique, Tanzania, Mexico, Jamaica and elsewhere. Development of improved resistant varieties is included in the LYD control proposal for Latin America and the Caribbean.

**Integrated pest management (IPM)**

The goal is to develop cultural practices favouring IPM. Cultural practices are available for several important pests, but more are needed. Funding will be sought from CFC and DFID for an IPM project on *Oryctes spp.* and coconut mite, with APCC as the executing agency.

Training sessions on cultural practices that help control *Oryctes spp.* and other *Dynastidae* are planned. In East Africa, sessions will highlight cultural practices for control of *Pseudotheraptus wayi*.

Projects on IPM of several important coconut pests have been conducted in many countries. An FAO-Vietnam project addresses IPM of *Brontispa spp.* Surveys and inter-country exchanges regarding natural enemies of major pests, including improved strains of viral and fungal pathogens for biological control, could provide valuable agents for IPM.

**Agroforestry systems**

Drought resistance is the main priority for R&D on the productivity and sustainability of coconut-based agroforestry systems. The following are highlights of current work and future plans in several areas of research:

- Functioning and physiology: Modelling studies of coconut agrosystems were conducted under European Union-funded projects.
- Nutrition: Techniques for managing coconut nutrition, based on leaf analysis and fertilizer reference trials, have been developed and made available. Training for farmers, extensionists and researchers is planned.
• Water and carbon balances: Ongoing research in Vanuatu aims to establish a global balance of water and carbon exchanges at the level of the organs, the tree and the plantation. The results will be used to design diagnostic and decision tools for coconut plantation management. In India, long-term studies on the mechanisms and criteria of drought tolerance are being conducted. Breeding for drought tolerance is also under way, tolerant cultivars have been identified, and irrigation techniques have been developed and made available. Information on coconut irrigation will be disseminated and related training offered.

• Multistorey cultivation: Locally adapted multistorey cropping systems have been tested under various conditions. A future research project will investigate the principles of successful multistorey cultivation with a view to designing models and refining recommendations. Training will also be provided.

Funding and institutional issues
In September 2003, BUROTROP requested funds from the European Commission to cover the costs of supporting PROCORD in 2004–2005. Among the activities included in the request is the creation of Internet-based technical working groups, a database of coconut stakeholders and a permanent electronic forum.

For financial reasons, only three to five participants from each technical working group will be able to attend larger meetings such as COCOTECH or those of COGENT and BUROTROP. As proposed in Montpellier, France, in June 2003, the core of each working group will be drawn from BUROTROP’s Programme Committee, assisted by specialists as needed. The Programme Committee Chair will coordinate the working group on pests and diseases and the Director of BUROTROP will coordinate the group on coconut farming systems and agronomy.

Web page
A special page on the coconut commodity chain and PROCORD is available at www.egfar.org/action/partnership/cc/cocnut.shtml. Comments and contributions should be sent to BUROTROP, which created and maintains the site.

APCC

Processing and utilization
The goal of this research is to improve the efficiency and quality of copra and coconut oil production, and to enhance the value-adding impact of processing. This will be achieved in four main areas:

• Improving small-scale processing methods for copra and coconut oil producers
• Improving fruit processing for large-scale users
• Improving the quality of value-added products such as desiccated coconut, coconut cream, coconut water, shells and stems
• Increasing the uses, quality and value of by-products derived from the kernel, husk, shell, sap, leaves and stem.

Marketing
APCC aims to expand and diversify markets and promote coconut consumption and use. The programme comprises five major areas of work:
• Market studies to identify regional and global markets for major traditional and non-traditional coconut products. Demand, prospects, consumer preference and utilization patterns will be investigated.
• Developing market channels and strategic marketing techniques for coconut products
• Promoting the use of coconut in food and nonfood commercial and industrial sectors
• Organizing world exhibitions and trade fairs for coconut products
• Promoting public awareness on coconut, including its role as a health food, through brochures and other promotional materials.
Concluding remarks of the Executive Secretary

Annual Report 2003: a modest beginning

As noted in the report from the Secretariat, this is GFAR’s first annual report, and is therefore necessarily a modest effort in some ways. First, it does not include contributions from all of GFAR’s stakeholders. Apart from an overview from the Secretariat, only the Regional Fora and four ongoing Global Partnership Programme Initiatives contributed to the report. Other GFAR stakeholders such as consortia of NGOs, farmer organizations and private-sector interests did not contribute to the report, mainly because many of these groups are not yet fully organized to be able to provide a common report on their GFAR-related work. This situation is quite challenging and is why the GFAR Secretariat initiated a CSOs Project aimed at reinforcing these constituencies, in this case in sub-Saharan Africa. The design and fund raising were worked on throughout 2003, and the Directorate of International Cooperation of the European Commission is expected to support this important project in 2005.

Second, we deliberately left out a number of activities begun in 2003 but not fully completed that year. Two such activities are the ongoing GFAR charter review and the preparation of the Business Plan for the triennium 2004–2006. The Charter review will be completed in 2004 and fully reported in the next annual report as an accomplished task. The GFAR Business Plan for the next triennium was not completed in 2003, and therefore was not included in this report. Nevertheless, since developing the plan was a major undertaking in 2003, we briefly present here a few highlights.

The Business Plan was developed after consultations with all GFAR stakeholders, as well as thoughtful and comprehensive analyses and syntheses. The result of these preparations is a three-part plan as follows:

• A Strategic Document that briefly describes key issues that shape the vision of GFAR and which will guide the choice of its activities for the immediate and near future.
• A comprehensive three-year rolling plan.
• An annual Programme of Work for the Secretariat, to facilitate implementation of the three-year rolling plan.
Four priority areas for GFAR work over the next three years are recommended: 1) inter-regional collaboration; 2) collaborative research partnerships; 3) advocacy, public awareness and strategic thinking; and 4) the development of a management information system. Private-sector engagement and the full participation of CSOs in ‘agricultural research for sustainable development’ processes were considered sufficiently important to be identified as cross-cutting issues in all GFAR activities. Two other noteworthy features of the Business Plan are that stakeholder groups will be responsible for providing leadership for the implementation of well described activities, and that implementation of the plan is further supported by a comprehensive Secretariat work programme.

We are confident that future annual reports will be more comprehensive. They will include contributions by all GFAR stakeholders and will document processes and products, outputs and demonstrated impact.

Ola Smith
Executive Secretary, GFAR
About the Global Forum on Agricultural Research (GFAR)

GFAR’s mission is to mobilize the scientific community and all stakeholders in ARD in their efforts to alleviate poverty, increase food security and promote the sustainable use of natural resources.

As a new stakeholder-led initiative, the Global Forum seeks to promote cost-effective partnerships and alliances among the key players in agricultural research. It provides a forum for the discussion of strategic issues among ARD stakeholders, thus promoting a common vision to facilitate cooperation and concerted action. GFAR’s stakeholders are NARS, the CGIAR, advanced research institutes, farmer organizations, NGOs, the private sector, and donors and development agencies.

The Global Forum operates at two levels. The first is defined by all the activities, projects and programmes that stakeholders agree to undertake jointly in the context of the Global Forum. Activities at this level constitute the GFAR Business Plan, which emerged from the GFAR-2000 Conference in Dresden, Germany, in May 2000. The second level is defined by the support activities of the GFAR Secretariat. Laid out in the GFAR Secretariat Programme of Work, these activities facilitate the implementation of the GFAR Business Plan – through dialogue, exchange of information, capacity building and partnership facilitation. The recently completed GFAR First External Review endorsed the mission and objectives of the Global Forum and recommended that the Secretariat focus its efforts on four ‘lines of action’:

• Facilitate the flow of information and knowledge among ARD stakeholders by providing a gateway to information resources and by building learning networks on concrete topics. This is being done through two main instruments: the Electronic Global Forum on Agricultural Research (www.egfar.org) and RAIS.
• Develop a global strategic agenda for ARD aimed at facilitating the emergence of a new normative framework for agricultural research. This can be achieved by providing a forum for dialogue that lays the foundation for better understanding of global issues.
Facilitate networking and research partnerships among ARD stakeholders on topics of common interest, including the development, over the next three years, of a small portfolio of global programmes on issues of strategic importance. Criteria have been proposed for identifying such issues. Partnerships and global programmes are now emerging in the four thematic areas identified by stakeholders: genetic resources management and biotechnology; natural resources management and agro-ecology; commodity chains; and policy and institutional development.

Strengthen various constituencies of ARD stakeholders, paying special attention to those that play a central role in linking research to development, namely civil society groups (farmer organizations and NGOs) and the NARS. This support can be provided through their respective regional and subregional fora.

Since the Global Forum’s stakeholders are its principal actors, GFAR is not itself an implementing agency. Its organizational structure has therefore been kept lean: a small Secretariat, a Steering Committee to set policy and agree on programmes, a management team to assist with implementation, and a donor group to coordinate funding support.

Two basic documents provide the framework for the functioning of the Global Forum: the GFAR Charter, which defines its operational rules and procedures, and the Business Plan and Secretariat Programme of Work. The latter is approved by the Steering Committee for periods of three years. The Secretariat is hosted by FAO in Rome, Italy, and the Donor Support Group is chaired by IFAD.

For further information, please contact the Secretariat: gfar-secretariat@fao.org.
Tel.: +39 (0)65705-3413.
Who is who?

1996
GFAR Chair
F. Chaparro

1998
GFAR Vice-Chair
R. Paroda

1999
NARS Executive Secretary
H. Rouillé D’Orfeuil
GFAR Executive Secretary
A. Dervier
GFAR Chair
F. Chaparro

2000
1st GFAR Conference (Dresden)

2002
GFAR Chair
F. Chaparro

2003
2nd GFAR Conference (Dakar)
M. Roozitalab
M. Kapiriri
W. Van Vuure
O. Smith
J-F. Giovannetti
Donor contributions to the GFAR Secretariat for budget year 2003 (US dollars)

Cash and in-kind contributions for GFAR Secretariat’s activities

Canada (CIDA) 750 000
France (MAE, DURAS Project) 440 000
Italy 200 000
The Netherlands 65 000
European Commission (Global RAIS Project) 38 000
IFAD 50 000
FAO 50 000
Rockefeller Foundation 12 000

Total income for budget year 1 605 000

Plus in-kind support (travel) from FAO, IFAD

Special budget for the GFAR 2003 Conference, Dakar

Italy / IFAD 100 000
CTA 39 000
Canada (IDRC) 42 000
Canada (CIDA) 25 000
Germany (GTZ) 28 000
CIAT 5 000
IPGRI 5 000
Syngenta 9 000

Total income 214 000

Plus in-kind support (travel, logistics and consultant) from IFAD, ILRI, ISNAR, ISRA, FARA and USAID
In-kind contributions for staffing the GFAR Secretariat

France (secondment from CIRAD) Senior Officer
Italy Associated Professional Officer
Italy Junior Officer, cost-shared with IAO
Gambia (secondment from NARI) NARS Senior Expert, 6 months
Canada (support from CFA) Volunteer, 12 months
IFAD Consultant, part-time
## Acronyms, organizations and websites

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<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
<th>Website</th>
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<td>ACIAR</td>
<td>Australian Centre for International Agricultural Research</td>
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<td>ACT</td>
<td>Action by Churches Together</td>
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<td>Asian Development Bank</td>
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<td>ANAPO</td>
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<td>Asia-Pacific Consortium on Agricultural Biotechnology</td>
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<td>BUROTROP</td>
<td>Bureau for the Development of Research on Tropical Perennial Oil Crops &lt;br&gt;www.burotrop.org</td>
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<td>CAADP</td>
<td>Comprehensive African Agricultural Development Programme</td>
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<td>CATIE</td>
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<td>Centre de coopération internationale en recherche agronomique pour le développement (France) &lt;br&gt;www.cirad.fr</td>
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<td>CLAN</td>
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<tr>
<td>CTA</td>
<td>Technical Centre for Agricultural and Rural Cooperation ACP-EU &lt;br&gt;www.agricta.org</td>
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<tr>
<td>DFID</td>
<td>Department for International Development, United Kingdom &lt;br&gt;www.dfid.gov.uk</td>
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<tr>
<td>DGIS</td>
<td>Directorate General for International Cooperation (Dutch Ministry of Foreign Affairs) &lt;br&gt;<a href="http://www.minbuza.nl/">http://www.minbuza.nl/</a> default.asp?CMS_ITEM=7C8EB095BEFE42C0A0ED2385B434B424X1X56192X15</td>
<td></td>
</tr>
</tbody>
</table>
DONATA Dissemination of New Technologies in Africa

DPGN Date Palm Global Network
http://dpgn.uaeu.ac.ae

DURAS Promoting Sustainable Development in Southern Agricultural Research Systems

EARD-InfoSys+ European Agricultural Research for Development Information System
http://www.infosysplus.org

EBO EGFAR Back Office
http://www.egfar.org/ebo/masterpage.jsp

EGFAR Electronic Global Forum on Agricultural Research
www.egfar.org

EMBRAPA Brazilian Agricultural Research Corporation
www.embrapa.br

ETC Ecoculture www.etc-ecoculture.org

EU European Union
http://europa.eu.int

FAEPE Fundação de Apoio Ensino, Pesquisa e Extensão, Brazil

FAO Food and Agriculture Organization of the United Nations
www.fao.org

FAO/RAP FAO Regional Office for Asia and the Pacific
www.fao.or.th

FARA Forum for Agricultural Research in Africa

FO farmer organization

FONTAGRO Regional Fund on Agricultural Technology (FORAGRO)
www.fontagro.org

FORAGRO Forum of the Americas for Agricultural Research and Technological Development
www.iica.int/foragro

Fundación PROINPA Promoción y Investigación de Productos Andinos (Bolivia)
www.proinpa.org

GFAR Global Forum on Agricultural Research
www.egfar.org

GFU Global Facilitation Unit for Underutilized Species
www.underutilized-species.org

GTAF Technical Group in Support of the FORAGRO Secretariat

GTZ German Agency for Technical Cooperation
www.gtz.de

IABA Inter-American Board of Agriculture
www.iica.int/organos_iica/JIA
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>IAPAR</td>
<td>Instituto Agronômico do Paraná (Brazil)</td>
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</table>
| ICARDA  | International Center for Agricultural Research in the Dry Areas  
  [www.icarda.org](http://www.icarda.org) |
| ICBA    | International Center for Biosaline Agriculture  
  [www.biosaline.org](http://www.biosaline.org) |
| ICG     | International Coconut Genebank |
| ICM     | information and communication management |
| ICRA    | International Centre for development oriented Research in Agriculture  
  [www.icra.edu.org](http://www.icra.edu.org) |
| ICRAF   | World Agroforestry Centre  
  [http://www.worldagroforestrycentre.org](http://www.worldagroforestrycentre.org) |
| ICRISAT | International Crops Research Institute for the Semi-Arid Tropics  
  [www.icrisat.org](http://www.icrisat.org) |
| ICTs    | information and communication technologies |
| IDIAP   | Instituto de Investigación Agropecuaria de Panamá  
  [www.idiap.gob.pa](http://www.idiap.gob.pa) |
| IDRC    | International Development Research Centre  
  [www.idrc.ca](http://www.idrc.ca) |
| IFAD    | International Fund for Agricultural Development  
  [www.ifad.org](http://www.ifad.org) |
| IICA    | Inter-American Institute for Cooperation on Agriculture  
  [www.iica.int](http://www.iica.int) |
| IIRR    | International Institute of Rural Reconstruction  
  [www.iirr.org](http://www.iirr.org) |
| ILRI    | International Livestock Research Institute  
  [www.ilri.org](http://www.ilri.org) |
| INASP   | International Network for the Availability of Scientific Publications  
  [www.inasp.org.uk](http://www.inasp.org.uk) |
| INCANA  | Inter-Regional Network for Research Collaboration on Sustainable  
  Cotton Production in Asia and North Africa  
  [www.aarinena.org/cottonnetwork/home.htm](http://www.aarinena.org/cottonnetwork/home.htm) |
| INFOTEC | Scientific and Technological Information System for the Agricultural sector in the Americas (FORAGRO)  
  [http://infotec.ws](http://infotec.ws) |
| INIFAP  | Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias (Mexico)  
  [www.inifap.gob.mx](http://www.inifap.gob.mx) |
| IPGRI   | International Plant Genetic Resources Institute  
  [www.ipgri.cgiar.org](http://www.ipgri.cgiar.org) |
| IRD     | Institut de recherche pour le développement, France  
  [www.ird.fr](http://www.ird.fr) |
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>IRRI</td>
<td>International Rice Research Institute <a href="http://www.irri.org">www.irri.org</a></td>
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<tr>
<td>ISAAA</td>
<td>International Service for the Acquisition of Agri-biotech Applications <a href="http://www.isaaa.org">www.isaaa.org</a></td>
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<tr>
<td>iSC</td>
<td>Interim Science Council of the CGIAR</td>
</tr>
<tr>
<td>ISNAR</td>
<td>International Service for National Agricultural Research <a href="http://www.ifpri.org/divs/isnar.htm">www.ifpri.org/divs/isnar.htm</a></td>
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<tr>
<td>ISRA</td>
<td>Institut Sénégalais de Recherches Agricoles <a href="http://www.isra.sn">www.isra.sn</a></td>
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<tr>
<td>ITFNET</td>
<td>International Tropical Fruits Network <a href="http://www.itfnet.org">www.itfnet.org</a></td>
</tr>
<tr>
<td>JUST</td>
<td>Jordan University of Science and Technology <a href="http://www.just.edu.jo">www.just.edu.jo</a></td>
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<tr>
<td>KASSA</td>
<td>Knowledge Assessment and Sharing on Sustainable Agriculture (study title)</td>
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<tr>
<td>LBL</td>
<td>Swiss Center for Agricultural Extension <a href="http://www.lbl.ch">www.lbl.ch</a></td>
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<tr>
<td>LYD</td>
<td>lethal yellowing disease (Coconut)</td>
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<tr>
<td>MAELA</td>
<td>Latin American and Caribbean Agroecological Movement <a href="http://www.maela-net.org">www.maela-net.org</a></td>
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<tr>
<td>NACA</td>
<td>Network of Aquaculture Centres in Asia-Pacific <a href="http://www.enaca.org">www.enaca.org</a></td>
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<tr>
<td>NARI</td>
<td>National Agricultural Research Institute (Gambia)</td>
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<tr>
<td>NCARTT</td>
<td>National Center for Agricultural Research and Technology Transfer (Jordan) <a href="http://www.ncartt.gov.jo">www.ncartt.gov.jo</a></td>
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<tr>
<td>NEPAD</td>
<td>New Partnership for Africa’s Development <a href="http://www.nepad.org">www.nepad.org</a></td>
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<td>NERICA</td>
<td>New rice for Africa</td>
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<td>NFR</td>
<td>Novel Food Regulation, European Union</td>
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<tr>
<td>NGO</td>
<td>nongovernmental organization</td>
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<tr>
<td>NINP</td>
<td>national information nodal point</td>
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<tr>
<td>NORAD</td>
<td>Norwegian Agency for Development Cooperation <a href="http://www.norad.no">www.norad.no</a></td>
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<tr>
<td>PARLATINO</td>
<td>Parlamento Latinoamericano <a href="http://www.parlatino.org.br">www.parlatino.org.br</a></td>
</tr>
<tr>
<td>PCCMCA</td>
<td>Programa Cooperativo Centroamericano para el Mejoramiento de Cultivos y Animales</td>
</tr>
<tr>
<td>Acronyms, organizations and websites</td>
<td></td>
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<td>-------------------------------------</td>
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<tr>
<td>PELUM</td>
<td>Participatory Ecological Land-Use Management</td>
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<tr>
<td>PROCICARIBE</td>
<td>Caribbean Agricultural Science and Technology Networking System</td>
</tr>
<tr>
<td>PROCINORTE</td>
<td>Programa Cooperativo de Investigacion Agricola para la Región Norte</td>
</tr>
<tr>
<td>PROCIs</td>
<td>Programas Cooperativos de Investigacion y Transferencia de Tecnología Agricola (FORAGRO)</td>
</tr>
<tr>
<td>PROCISUR</td>
<td>Programa Cooperativo para el Desarrollo Tecnologico Agropecuario del Cono Sur</td>
</tr>
<tr>
<td>PROCITRÓPICOS</td>
<td>Programa Cooperativo de Investigación y Transferencia de Tecnología para los Trópicos Suramericanos</td>
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<tr>
<td>PROFIEET</td>
<td>PROmoting Farmer Innovation and Experimentation in EThiopia</td>
</tr>
<tr>
<td>RAEL</td>
<td>regional agricultural expert locator (APARIS)</td>
</tr>
<tr>
<td>RAIS</td>
<td>regional agricultural information system</td>
</tr>
<tr>
<td>RELMA</td>
<td>Regional Land Management Unit, East Africa (SIDA programme)</td>
</tr>
<tr>
<td>SDC</td>
<td>Swiss Agency for Development and Cooperation</td>
</tr>
<tr>
<td>SICTA</td>
<td>Sistema de Integración Centroamericano de Tecnología Agrícola</td>
</tr>
<tr>
<td>SMEs</td>
<td>small and medium-sized enterprises</td>
</tr>
<tr>
<td>SPAAR</td>
<td>Special Programme for African Agricultural Research</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>UTFANET</td>
<td>Underutilized Tropical Fruits in Asia Network</td>
</tr>
<tr>
<td>WAICENT</td>
<td>World Agricultural Information Centre of FAO</td>
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