



# APAARI Newsletter



Asia-Pacific Association of Agricultural Research Institutions

VOL 12, No. 1

June 2003

ISSN 0858-6063

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## Editorial

The Asia-Pacific Association of Agricultural Research Institutions (APAARI) has specifically outlined an important objective that aims to facilitate the establishment of appropriate cooperative research mechanisms in identified priority areas. APAARI always pursues to strengthen research partnerships among member institutions, being its mandate.

It is now well recognized that in case if agriculture has to be an effective instrument to eradicate hunger and poverty, then a recourse to modern technologies such as biotechnology and information and communication technology would rather be imperative. Obviously, these options being knowledge and cost intensive may not be within an easy reach of all countries in the region. At the same time, several regional NARS/NARIs, being the main technology generators, are also constrained on account of lack of competent human resource and financial support. Also the access to these technologies is further constrained on account of IPR regime and other regulations that have become effective. Against this backdrop, an appreciation of mutual strengths and weaknesses in terms of technological advancements and sharing of resources to establish much needed partnership in ARD can meaningfully serve the resource poor farmers. FAO- APAARI consultations in the recent past have contemplated a consortium approach to take the benefits of agricultural biotechnology to the farmers. Some key organizations in the region, such as FAO, CGIAR (ISNAR, ICRISAT), GFAR, the private sector (Monsanto, Mahyco, Syngenta), international foundations (Rockefeller), other prominent government agencies and the NGOs have agreed to lend their support to establish an Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB). The Consortium as a neutral platform will primarily focus on issues of building ARD partnerships in biotechnology, policy advocacy, human resource development and technology transfer. It will have an Advisory Committee, with membership drawn from APAARI, FAO, NARS, GFAR, CGIAR, the Private Sector, NGOs, and the Foundations to guide on pragmatic management structure and also to oversee the programme implementation.

It is expected that the establishment of APCoAB would eventually help in faster dissemination of biotechnology for overall growth and development of agriculture in the region. Role of APAARI would be to act as a facilitator and provide neutral platform for all the stakeholders to build much needed alliance and partnerships in the field of agricultural biotechnology.

**Editors**

## FAO-APAARI Meeting on Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB)

On April 4, 2003 a meeting on the establishment of Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB) was held at FAO Regional Office for Asia and the Pacific (FAO-RAP), Bangkok.



In March 2002, FAO Regional Office for Asia and the Pacific (FAO-RAP) and

Asia-Pacific Association of Agricultural Research Institutions (APAARI) jointly organized an expert consultation on the status of biotechnology in the Asia-Pacific region to primarily assess the potential of agricultural biotechnology for increasing both productivity and profitability, and to address concerns for adoption of this technology for the benefit of farmers and consumers. Later, in December 2002, APAARI organized an Expert Consultation on Strengthening of Research Partnerships Through Networks and Consortia” simultaneously with its Seventh General Assembly Meeting in Penang, Malaysia and both these meetings also endorsed the need to establish the Consortium to promote adoption of agricultural biotechnologies in the region.

As a follow-up of the recommendations of the above expert consultations and general assembly FAO-RAP and APAARI organized a meeting on establishment of Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB) on April 4, 2003 at Bangkok. There were about 25 participants representing regional NARS, IARCs, CG Institutions, NGOs, foundations, and the private sector. A brief report of the deliberations, conducted during the four different sessions, is presented here.

Dr He Changchui, FAO Regional Representative for Asia and the Pacific, in his welcome address presented an overview of the opportunities and risks associated with agricultural biotechnology and stressed the need for a collaborative approach in dealing with them. Dr. Changchui reiterated FAO’s commitment to continue working with APAARI in several areas, including establishment of APCoAB, relating to the use of agricultural science to reduce hunger and poverty in the region.

### Meeting Participants

proposed APCoAB while, at the same time, address the concerns of diverse group of stakeholders.

Dr. Takahiro Inoue, Chairman APAARI, emphasized that the novel ARD partnerships are the need of the hour to fully utilize the benefits offered by new technologies for strengthening food, health, and livelihood security system in the region, particularly in the current climate of declining public investment in ARD.

Dr. Ajit Maru, ISNAR, Dr. Malcolm Hazelman and Dr. Susumu Kawabe, Plant, FAO-RAP, Dr. K.K. Sharma, ICRISAT, and Dr. Meisaku Koizumi, AVRDC fully supported the APCoAB initiative and desired stronger linkages of ARIs and IARCs in such an initiative.

Dr. Manju Sharma, Secretary, Department of Biotechnology, Government of India, Dr. P.S. Faylon, Executive Director of Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD), Dr. Morakot Tanticharoen, Director of National Center for Genetic Engineering and Biotechnology (BIOTEC) Dr. Prapaisri Pitakpaivan, Deputy Director General of Department of Agriculture (DOA), representing regional NARS, described the consortium as a novel concept and an important initiative in right direction. While affirming their support they flagged capacity building to be an area of future cooperation with APCoAB.

Dr. Dilip Gokhale and Dr. Partha R. Dasgupta, of Syngenta, Dr. B. R. Barwale, Chairman of Maharashtra Hybrid Seeds Company (Mahyco), from the private sector strongly supported the idea of APCoAB within the Asia-Pacific region

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to speed up the adoption of biotechnology for the benefit of all stakeholders. Other critical areas, identified were the national policy on biotechnology commercialization, the need for harmonization of regulatory systems, human health issues, and biosafety.

Dr. Malee Suwana-Adth from SVITA Foundation mentioned that the needs of small, resource-poor farmers of developing countries require a different approach than the large farmers of the developed countries when it comes to the adoption of agricultural biotechnology. In her view, APCoAB should play an advisory role for the governments, private sector, and the other groups. According to her, NGOs find networks more favorable than consortia due to their flexibility, yet she had no specific reservation if all feel that consortium approach is more suitable.

Mr. Roel Ravanera, Director of Asian NGO Coalition for Agrarian Reform and Rural Development (ANGOC), in principle, endorsed the idea and identified the need for greater public awareness and forums to discuss and debate on agricultural biotechnology as critical issues from an NGO point of view. For APCoAB he wished, its organization, functions, and composition be further detailed out and would like a neutral forum to come forward involving all stakeholders, especially CSOs. He also urged an active involvement of APAARI, GFAR and FAO in this initiative.

Dr. John O'Toole, Associate Director of Food Security at The Rockefeller Foundation, recognized the meeting discussions as a very important exercise in finding a suitable structure for APCoAB with a focus on viable functions. In order to have the results of biotechnology become International Public Goods, need for establishment of APCoAB is justified at this juncture. Dr. O'Toole cautioned about the legal status of APCoAB as it will affect the credibility of APCoAB. He desired involvement of APAARI, FAO, CGIAR and GFAR, beside Private Sector and Foundations as possible support group to move forward.

In the roundtable discussion the participants outlined the parameters for the proposed APCoAB establishment including its management aspects and donor support group, to be as a simple framework/model on which public and private sector can work together. Also such a platform was critical to involve CSOs to ensure safeguard of their concerns on scientific grounds and simply not on certain presumptions. Further it was suggested to have some very specific goals for the APCoAB since the concept was too broad. Among some potential difficulties for the functioning of APCoAB, were lack of public awareness, and human resources in the

biotechnology area and that Asia-Pacific is too broad a region to be addressed through any single entity.

Responding to some observations, Dr. Paroda drew attention to the goals outlined in the APCoAB concept note, which were reiterated by several presenters earlier in the day. He indicated that the priorities are already very clear and have been specified in the three main goals. As we move forward, these could further be refined keeping in view the comments of the participants and availability of funding support and involvement of stakeholders. He further suggested there was no immediate need for official endorsement since this meeting was organized for preliminary exchange of views on how to move forward with the APCoAB initiative, which is likely to be supported by APAARI, GFAR, FAO and also CGIAR. He identified need for having a co-sponsor group; and according to him, once the formation of consortium is agreed; funding opportunities and donor groups could be explored. He further suggested that APCoAB initiative can start with one full time Facilitator and some logistic support could be extended both by APAARI and FAO at its regional office in Bangkok, so that public awareness and capacity building activities can be pursued, on priority.

The Way Ahead – Action Plan and Recommendations from the various presentations and the round-table discussions were: (1) APCoAB should move ahead as a neutral platform for the stakeholders to exchange views, ideas and knowledge in the field of agricultural biotechnology; (2) Initial focus should be on some achievable objectives after further prioritization of APCoAB activities; (3) Beside APAARI, active support of FAO, CGIAR (ISNAR), GFAR, ADB, World Bank, the private sector, prominent foundations, and other key global donor agencies be sought for the establishment of APCoAB. Subsequently, NARS could also be approached for their support as well in the form of membership contributions; (4) Initially, a small secretariat with an annual core funding support of actively involved Private Sector biotechnology companies and foundations could be sought in the range of USD 200,000 – 500,000 for a 3-5 year time lag commitment, and FAO and APAARI be approached to provide their logistic support to house the Secretariat in their premises at FAO-RAP Bangkok; (5) An APCoAB Steering/ Advisory Committee, consisting of one representative from each APAARI, FAO, NARS, GFAR, CGIAR, the Private Sector, NGOs, and the Foundations should be formed that can guide on pragmatic constitutional and legal structure of the Consortium; and (6) APAARI should in partnership with FAO move forward and make efforts to establish APCoAB and simultaneously take up the matter further with all concerned organizations. □

## Support Group Meeting in Bangkok Discusses Future Development of APARIS

Recognizing the importance of ICT in Agricultural Research for Development (ARD), APAARI organized two expert consultations, one in November 2000 and the other in October 2002, exclusively on the development of Asia-Pacific Agricultural Research Information System (APARIS). The next logical steps in the APARIS development process are functional enhancements or value addition in APARIS and linking of APARIS with other regional and global agricultural research information systems. APAARI has been receiving valuable support from ICT groups of several international organizations such as GFAR, FAO, ISNAR, CABI, AIT, and ACIAR, which are also represented in the APARIS steering committee formed in October 2002. The representatives of this support group and APAARI management have had several informal discussions recently during the other meetings organized.

The report relates to the deliberations of the meeting held on April 3, 2003 to formalize the bilateral cooperation between APAARI and the members of its support group in the area of ICT. This exercise was expected to result in identification of specific areas of collaborative activities that synergize the resources of support group members and APAARI.

Dr. R. S. Paroda welcomed the participants and outlined the objectives of the meeting. He urged the participants to identify specific areas where APAARI and individual support group members can work in collaboration for mutual benefits and better utilization of resources. He also suggested that possibilities of a larger project involving all the support group members and APAARI should be explored. The proposal of such a project could be submitted to ADB, World Bank, or some other international donor agency.

Dr. Sahdev Singh presented the current status and future plans of APARIS. APARIS currently comprises of the APAARI web site, ARD databases, gateway/portal to ARD information resources, and features such as current events, APAARI publications, agriculture news, e-forum, information on training opportunities, etc. APARIS Steering Committee formation and the TOR for National Information Nodal Points (NINPs) in APAARI member NARS were also highlighted.

With regard to the future developments in APARIS following activities are planned:

1. Development of a Regional Agricultural Expert Locator (RAEL),
2. A simplified gateway function using CABI's recommendations,
3. ICT needs assessment of APAARI member NARS for better capacity building,

4. Integration of APARIS with agricultural information systems developed by GFAR, FAO, ISNAR, and other regional, sub-regional and national agencies.

The presentation of Dr. Giovannetti, GFAR was made available to the participants. GFAR, under its GLOBAL-RAIS initiative, plans to support APAARI for an ICT workshop during which NINPs will present their country reports on the status of ICT and a framework will be developed for linking the individual NARS to the Global-RAIS through APARIS. Recently GFAR has similarly supported AARINENA for organizing an ICT workshop to develop the information system for the NENA region using APARIS as a model.

Mr. Regino Gonzales (Jun), Senior Computer Specialist from AIT-Extension, gave a very comprehensive presentation of AIT's activities in the area of ICT capacity building in the Asia Pacific region particularly in the agriculture sector. AIT offered to be a co-host for the ICT workshop that APAARI plans to organize in December 2003. AIT with its strong IT expertise can also help in the improvement and promotion of APAARI web site.

Dr. Ajit Maru, Information Officer, said that on account of some policy changes regarding ICT programme, the future support of ISNAR to APAARI in the area needs a thorough reconsideration. However, APAARI could still benefit from ISNAR's review of the lessons learned in ICT implementations from its i-NARS program. This can be integrated with APAARI's assessment of ICT needs in the Asia-Pacific NARS. ISNAR and FAO are jointly working on the development of the Resource Kit for information management capacity building. The Resource Kit should be considered by APAARI to be included in APARIS.

Dr. Maru explained the concepts of "learning space" and "negotiating space" in an information system and how their implementation can make APARIS more user-oriented. He suggested the InfoFinder tool developed by CGIAR as a model for gateway function of APARIS. Dr. Maru also offered his help as a resource person for the ICT workshop that APAARI plans to organize in December 2003 at AIT with support from GFAR.

Mr. Michael Riggs, Information Management Specialist at FAO-RAP, presented the FAO's activities in the ICT area, including various tools and models for ARD information management. He gave a brief overview of some of the tools such as Agris, the Resource Kit, and Teca. He encouraged APAARI for collaboration with FAO in adopting the new model Agris or web-Agris for the Asia-Pacific region and the implementation of Resource Kit through APARIS.

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However, APAARI would have to have the metadata standards followed by FAO. He also suggested FAO's NARS database may be useful in the proposed REAL initiative of APAARI for sharing the data pool and standards. He further identified ICT capacity building in the region as a potential area for future collaboration between FAO and APAARI.

Following formal presentations, a round-table discussion took place to look into details the various points raised during the presentations. The major recommendations of the meeting is as follows :

(1) In order to enhance awareness of the information resources that are freely available on the Internet, it was decided that APAARI, FAO and ISNAR should develop a short brochure on useful ARD information resources available on the Internet.

(2) The meeting suggested that catalyzing the NARS leaders, properly defining the TOR of NINPs, and having more focused ICT activities could help mitigate these problems.

(3) A technically feasible approach for APARIS gateway function could be by direct use of the FAO/CGIAR InfoFinder on APAARI web site and resources should be explored for this.

(4) APAARI and its support group members should collaboratively develop long-term project proposal for APARIS. The proposal could be submitted to ADB, World Bank, or some other organization for funding. APAARI secretariat will develop the framework of the proposal.

(5) Dr. Ajit stressed the need for a better ICT need assessment due to heterogeneity of the Asia-Pacific region and suggested collaboration among APAARI, ISNAR, FAO and AIT for a benchmark report on the state of ICT in agricultural research in Asia-Pacific as a useful guide for capacity building activities in the region.

(6) Mr. Riggs emphasized FAO's priorities on capacity building in NARS and content generation for agricultural information systems and reminded that FAO seeks an active participation from APAARI in the Agris model development and implementation of other FAO tools through APARIS, such as the Resource Kit and Teca. He suggested potential backstopping of APAARI by FAO in the development of RAEL function of APARIS and collaboration in capacity building activities.

(7) Dr. Singh suggested that APAARI being located at FAO-RAP should get some IT facility support from FAO such as web hosting, more LAN connections, and e-mail list for NINPs.

(8) Dr. Paroda indicated that for immediate future APARIS activities, there could be some APAARI funding support available. Hence, APAARI should follow up with the support group members specific collaborative activities identified in the meeting.

(9) The participants also discussed the ways to involve the representatives from APAARI non-members to participate in the proposed workshop. One idea put forward was to organize the workshop jointly with similar capacity building activities of FAO and other organizations. It was suggested that APAARI needs to explore further the possibility of such an event with FAO, GFAR, and ISNAR. South Pacific Commission should also be approached to identify potential areas of cooperation in ICT capacity building and ARD information systems.

#### Recommendations:

(1) APAARI-FAO Collaboration: Dr. Singh and Mr. Riggs to discuss and develop a proposal for collaborative activities to be considered by FAO-RAP and APAARI management.

(2) APAARI-ISNAR Collaboration: Dr. Singh and Dr. Maru to develop an MoU for future collaboration between APAARI and ISNAR, particularly for the ICT need assessment activities, ISNAR's support for ICT capacity building in the Asia Pacific region, and possible integration of ISNAR's information resources those of APARIS.

(3) APAARI-AIT Collaboration: Dr. Singh to pursue with AIT-Extension for AIT facilities for proposed APAARI ICT workshop at AIT in December 2003 with major support from GFAR, and AIT's help in APAARI web site development and promotion.

(4) APAARI-ISNAR-FAO Collaboration: To jointly develop a guide for useful ARD information resources that can be distributed to APAARI members.

(5) APAARI to move forward with the development of a simplified gateway function with the help of ISNAR, FAO, AIT, and CABI, and a regional agricultural expert locator function with the collaboration of FAO.

(6) APAARI, in collaboration with all its support group members, to develop a framework for a project proposal to be submitted to ADB, the World Bank, or some other donor organizations.

## Second International Workshop on Lentil Improvement in South Asia, Kathmandu

The second International workshop on Lentil Improvement in South Asia was held in Kathmandu from 24-28 February 2003. The workshop Sponsored by ACIAR was jointly organized by NARC, Nepal, ICARDA and CLIMA Australia. The meeting was structured into two days of presentations and discussions followed by three day field visit to Rampur and Nepalgunj. There were about 35 participants from Australia, Bangladesh, India, Nepal, ICRISAT, ICARDA and APAARI . The workshop reviewed the progress of lentil improvement research during the last 10 years.

The participants were apprised of the structure, mandate and functions of APAARI and about the decision taken in the Expert Consultation on Strengthening Research Partnerships through networks and Consortia organized by APAARI during December 2002, to include Lentil in the CLAN.

The workshop made several useful recommendations development of network for Lentil Improvement with involvement of NARS of South Asia that will operate in collaboration with ICARDA under CLAN umbrella. The progress of lentil research in South Asia should be reviewed after every four years. CLAN may take initiative to organize such meetings in collaboration with ICARDA. A mega-project on lentil and grasspea improvement should be initiated under ACIAR, NARS in South Asia, CLIMA, APAARI, ICRISAT and ICARDA. Research programs on management of lentil and lathyrus under relay cropping should be undertaken and the findings should be disseminated to the farmers. Linkages with rice wheat consortium of IGP for crop diversification and resource conservation were also suggested.

Recognizing the importance of quality seed, the participants felt that strengthening formal and informal seed production and distribution system in lentil Seed priming technique as a non-monitory input should be popularized and efforts to breed for low-toxin (<0.1%) and high yielding grasspea cultivars be given importance and programme to popularize the safe consumption of grasspea be taken.

Basic studies on combating biotic and abiotic stresses should be continued involving various Australian institutions, ICARDA and other advanced research institutions from the region. ICARDA should put more emphasis on the development of suitable lines/technologies for the prevailing agro-ecological conditions of South Asia

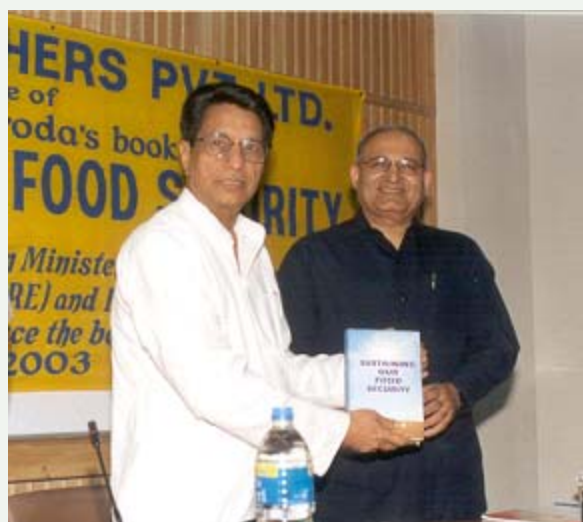
Post-harvest management was identified as an important research gap. The consensus was that research should be

conducted at national level on post-harvest management, especially on processing, packaging, on-farm storage, value addition with special emphasis to generate more employment opportunities for women and rural youth

Organizing regional traveling workshop, working group meetings, exchange visits etc.; Adoption of farmer-participatory approach in varietal selection and other technology development activities. Technology transfer, Training and capacity building of participating NARS Institutes and promotional activities was identified as a high priority area.

The participants later visited the lentil cultivation areas of Rampur and Nepalgunj. □

### New book on "Sustaining Our Food Security"



#### Release of the book

A book entitled "Sustaining Our Food Security" authored by Dr. R. S. Paroda, Executive Secretary, APAARI was released by Mr. Ajit Singh, Hon'ble Minister of Agriculture, Government of India on 2 April 2003 at New Delhi. Dr. Mangala Rai, Director General, ICAR introduced the book. The function was attended by several renowned scientists, directors of agricultural research institutes, vice-chancellors of State Agricultural Universities and senior government officials. The book is a compilation of various lectures and scientific articles written by Dr. Paroda aiming at strengthening of agricultural research for development. The articles are grouped into eight parts addressing the Policy Issues, Food Security, Conservation of Genetic Resources, Natural Resource Management, Biotechnology in Agriculture, Human Resources and Importance of Establishing Partnerships in R&D.



## A Profile

### Background

As the institutions provided for by the Noumea Accords were set up, the Provincial and Territorial Governments, France and CIRAD began examining ways of maintaining the various development-oriented agricultural research activities. The outcome of these discussions was a public institution made up of the above partners organised around a common scientific and financial programme spanning several years at a time.

### Organisation

#### *The Board*

The IAC is managed by a Board of Directors drawn from government bodies mentioned above and CIRAD, who jointly decide on policy implemented by the Institute. The Chamber of Agriculture is also represented on the Board in a consultative capacity.

#### *Scientific Assessment Committee*

This Committee sits on a par with the Board and examines whether the five-year and annual programme objectives are relevant by assessing the impact of the research areas and the scientific resources proposed by the Institute. It also annually evaluates the various programmes' scientific performance. Its make-up directly reflects the availability of local and regional scientists.

#### *Aims*

These are set by the Institute's constitution and cover development-oriented research activities and experimentation. The Institute plays an advisory role to the New Caledonian authorities with regard to rural development policy, common agricultural research for the various tiers of government and scientific and technical information dissemination for government bodies and scientific partners. It also contributes to the training of New Caledonian

professionals and develops scientific and technical co-operation links with similar French and overseas institutions.

In order to achieve its aims, IAC has 6 programmes spread across New Caledonia:

- Livestock and wildlife at Port Laguerre and Pouembout
- Forestry and forest seed at Montravel
- Fruit at Pocquereux
- Market gardening and horticulture at Mont Dore
- Rural systems at Pouembout
- Rural technology on Ouvéa Island

An important feature is the fact that the organisation assists all the bodies represented on the Board and such facilities as the multi-disciplinary Atha Centre on Mare Island should also be added to the above list.

### Resources

#### *Staff*

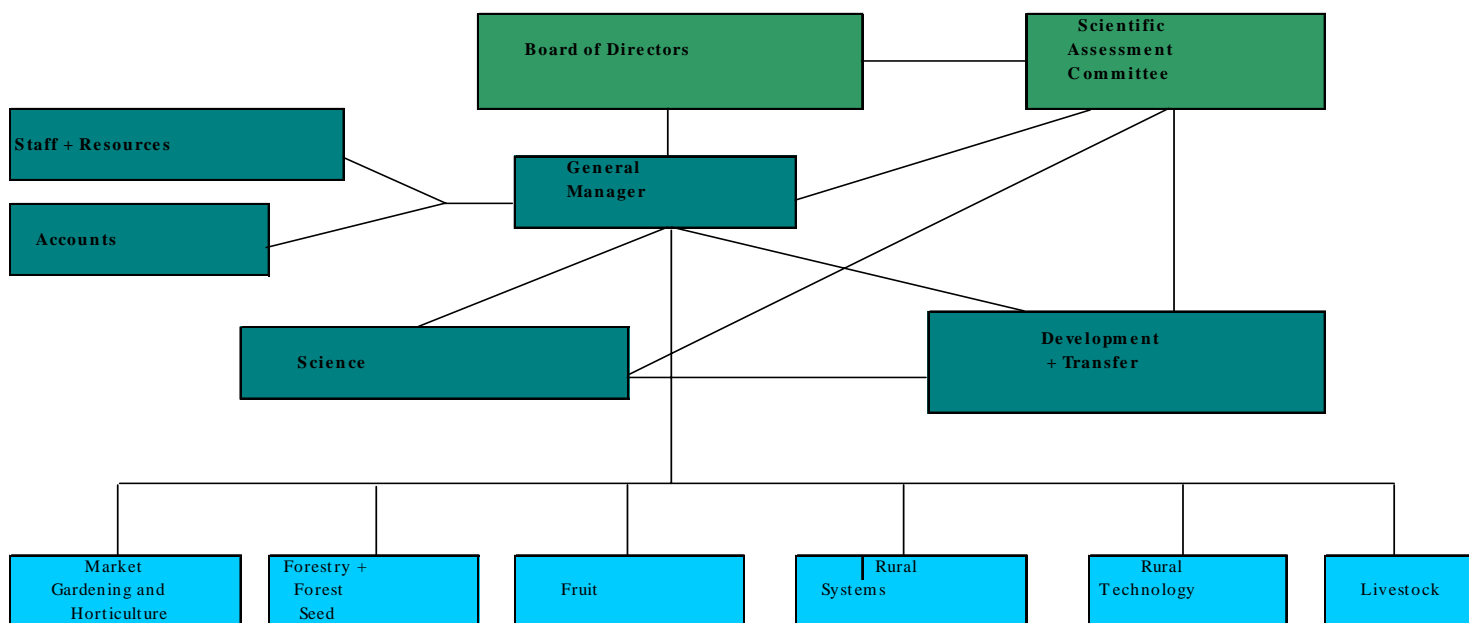
The IAC has a moderate strength of about 90 staff including some officials who are seconded from CIRAD and the government.

As part of its training component, IAC hosts a number of doctoral students from France for their laboratory work. The Institute also aims at taking on University of New Caledonia students for training.

#### *Funding*

Funds are raised by the government bodies. Provincial governments provide their funding under development contracts providing XPF 380 million, which is topped up at rate of XPF 100 million by CIRAD. Policy is formulated by way of a programme established in consultation between the partners represented on the Board upon the advice of the Scientific Assessment Committee and Technical Committees.

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### Institute Organogram

IAC is also commissioned by a number of bodies to conduct consultancies, eg farm rehabilitation in Fiji, the regional sandalwood project and an FAO consultancy.

#### Livestock and Wildlife Research Programme

Conventional livestock breeding projects are underway and these cover breeding of conventional species and research on, conservation, development and management of native and introduced wildlife. *Charolais cattle breeding* in New Caledonia by marketing bulls from Port Laguerre that have the best possible genetic properties; support to farmers with advice on breeding and animal husbandry; *Cattle tick control and Pasture upgrading* by introduced weed control

New Caledonia possesses exceptional floral and faunal biodiversity. IAC is involved in increasing knowledge of animal biodiversity, distribution and development, identifying threats and promoting conservation strategies. The latter involves breeding endangered species, boosting populations and studying the impact of invasive introduced species that are popular with hunters, i.e. deer, and then regulating and managing them.

#### Forestry Research Programme

Initially the forestry programme undertook activities involving natural forests, the Caribbean pine and agroforestry (woody fodder and mine revegetation). They place emphasis

on the use of New Caledonia's plant biodiversity for reforestation and revegetation. IAC Forestry Programme's Forest Planting and Environment sections now make up a single area as the new research objectives on plant genetic resource use are aimed at improving the natural environment, which has remarkable but also vulnerable biodiversity. Emphasis is on developing technical schedules for using local species, which are often endemic, for reforestation operations with timber varieties as well as ecological landscape restoration or mine rehabilitation.

The forestry research program covers use of vegetal biodiversity from New-Caledonia for forestry plantations and rehabilitation of degraded lands ; contribution to tree plantations with exotic commercial timber species; and developing forestry seed center. In this endeavour, the Port Laguerre Forest Seed Centre plays an important role in providing the provincial authorities with suitable plant material.

#### Fruit Research Programme

In 1971 the Territorial Assembly commissioned IRFA (French fruit and citrus research institute) to assess the fruit production potential of the island group and in 1978, it was decided to enlist IRFA's services within the Rural Economy Department. Pocquereux Station was born out of Operation Fruit with the following objectives:

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- § reduce and then eliminate the local fruit production deficiency
- § suggest commercial alternatives, i.e diversification, to farmers to boost their incomes
- § initiate and increase export avenues
- § launch a processing industry

Pocquereux Station's role consists of:

- overcoming the hindrances identified for each species (climate, soil, variety, pests and diseases)
- when techniques developed elsewhere exist and are available through CIRAD's international network, transposing and adjusting them or, when not, devising them
- offering models that are technically and economically suitable by way of purpose-planted trial plots
- passing on the findings through training and crop leaflets that reflect New Caledonian realities

The research programme designed in concert with the provincial authorities and farmers covers the following aspects of fruit research :

- Genetic improvement and management of plant material,
- Pre and post harvest fruit quality improvement,
- Phytosanitary protection,
- Evaluation and validation of technical innovations at farmers level.

In improving fruit production in both quantitatively and qualitatively the approach is through management and genetic improvement, ie selecting the most suitable cultivars and rootstock in terms of biotic and abiotic constraints, staggering production for improved market supply, local genetic heritage conservation

Woody fruit trees account for nearly 90 % of the Pocquereux Station's surface area with citrus fruit, mango and litchi trees covering nearly 60 % of trial plots. The station is host to Coffee and Forestry Programme's pine seed trees, as well.

The findings obtained in New Caledonia have led to scientific co-operation with countries in the region (New Zealand's Horticulture Research Institute and the Queensland Department of Primary Industries, Australia). Finding transfers have also occurred as illustrated by visits to the station as part of these programmes by Western Samoan,

Vanuatu and New Zealand teams. Technical support visits have also been made by station researchers to Fiji, Vanuatu, Indonesia and Wallis and Futuna. In 1998, a joint international seminar was held at SPC on fruit in the Pacific.

### **Market Gardening and Horticultural Crop Research Programme**

Market gardening produce accounts for a large proportion of New Caledonia's crop-based agricultural industry. Policy objectives formulated by the provincial authorities are :

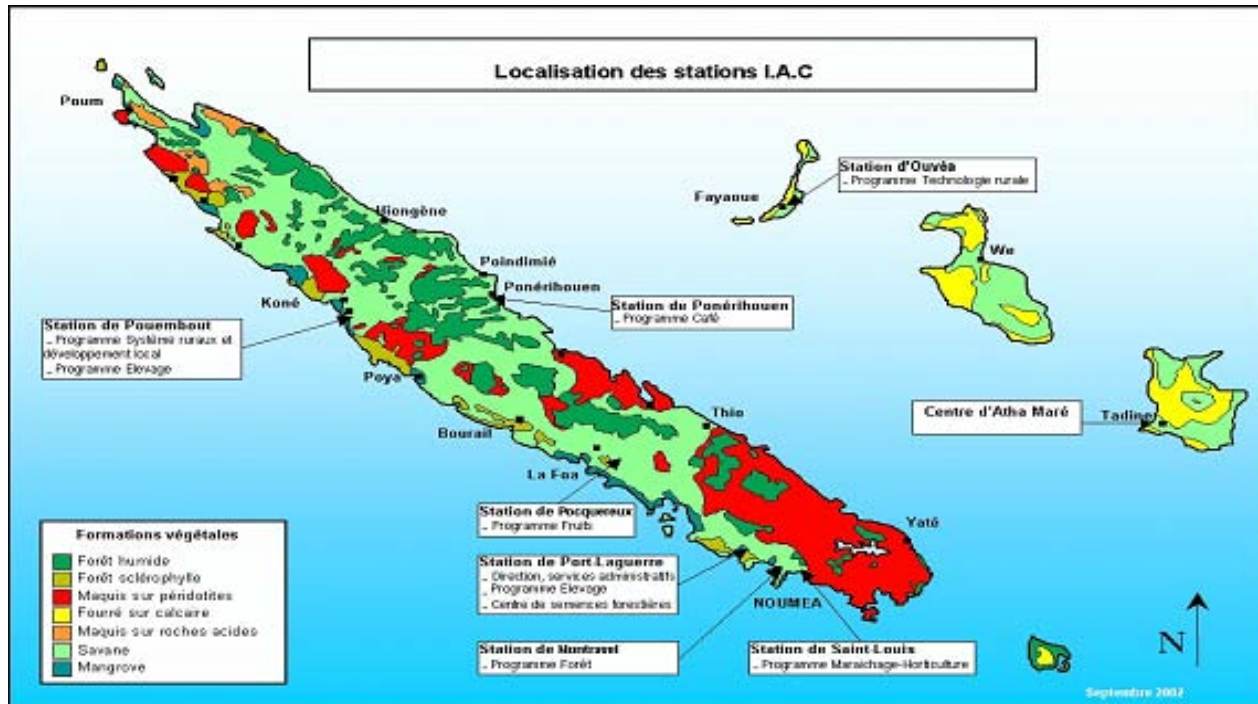
- supplying the domestic fresh food market with a focus on the Japanese tourist segment
- approaching the regional export market (New Zealand, Japan, Singapore and China)
- supporting the emerging agribusiness industry by import substitution (mainly frozen vegetables)

In order to implement the above, the Station has been mandated to carry out the *variety breeding; horticultural mechanisation; crop protection; cultivation techniques, water and mineral inputs*. The Southern Province has made a proposal to the national government agricultural high school at Pouembout to set up the CFPPA (vocational training and agricultural promotion centre) provided for under the Matignon Accords for the Southern province and aimed at meeting farmers' further training needs; supplementing work conducted by the Pouembout livestock CFPPA and offering long and short courses in market gardening

### **Rural Systems and Local Development Research Programme**

The Rural Systems and Local Development Research Programme suggests action research approaches within IAC that emphasise social stakeholders' roles in handling rural and agricultural dynamics. Development initiatives undertaken over the past decade in New Caledonia's agricultural sector by the provincial and territorial governments, backed by agricultural research, have led to farm modernisation and a steep rise in yields in the Territory's main animal- and crop-based industries. Originally designed to support rural New Caledonian producers with their trading as well as their efforts to cope with a rapidly changing political and economic environment, the research conducted by the programme endeavours to combine ways of addressing local problems faced by the Territory's rural inhabitants and

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### Location of Research Stations

anticipating sometimes fast-emerging challenges to the whole world's farmers. These challenges will inevitably affect New Caledonia sooner or later and are related to issues arising from the globalisation of agricultural markets, consumer quality expectations placed on farm produce and food security.

Some farmers have clearly not been fully integrated in the major industries that dictate the terms in New Caledonia's agrarian economy, but have still kept up agricultural activity on a variable scale, depending on the location and period.

Although industry dynamics have a limited impact on some categories of rural people, now fairly entrenched local multisectoral development dynamics can be seen to emerge or become consolidated, based on specific territorial areas, such as the tribal homeland, commune, or job belt. Such dynamics usually combine an economic aspect (producing wealth, generating jobs and income) with a social aspect and a cultural facet that is asserted to varying degrees from one instance to another. A highly diverse set of economic strategies therefore emerge with combinations of farming (that is profit-oriented to varying degrees) and income earning on the fringes of or outside the farming industry.

Running parallel to operations designed to strengthen commercial farms and the various rural industries, this social

and economic programme aims at improving understanding of existing local dynamics and developing methods and mechanisms that could help to strengthen them.

Action research operations conducted under this IAC programme contribute to addressing issues raised by the CIRAD-TERA research teams involving :

- changing production systems and adaptation to new market conditions by family-run farms and their organisations
- analysis of agriculture's various functions
- analysis of the Territory's dynamics and local development processes

Operations conducted in New Caledonia have the following objectives :

- contribute to economically and socially integrating the Territory's remote rural areas
- assist and support farms and rural industries in the process of adjusting to local and overseas markets
- contribute to strengthening rural economy stakeholders' analysis and negotiation skills by providing assessments and developing decision-making aids.

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## Rural Technology Research Programme

This Development Research Programme's contribution comes in the final stages of a major venture for the Province aimed at providing incentives for rural communities to remain in a fragile island-farming environment. The overall aim is to contribute to the Territory of New Caledonia's economic and social adjustment by involving rural communities in their own development.

The research aims mainly at :

- gaining an understanding of the rural sector's social and economic dynamics
- developing methods for supporting development (organising and assisting with local project planning, programming and implementation processes; designing procedures for negotiation and discussion between stakeholders; producing technical and economic reference material for providing advice to farmers)
- developing decision-making aids for resource planning and management at both local and provincial level

Emphasis is also placed on community ownership of action research activities by:

- involving development officers in the programme (training in local development and agricultural counselling is offered for this)
- training research students
- organising regional workshops on the programme's research topics.

The programme team is based at IAC's Northern Research Centre in Pouembout.

## Partnerships and Regional Co-operation

In addition to CIRAD, the Institute's internal standard-setting scientific partner, links have been established with INRA (the national agricultural research body) in France. Regional and International Co-operation

At the local level, IAC is working with the University of New Caledonia on a joint research unit project. Also, a

framework agreement is about to be signed with IRD (development research institute, formerly ORSTOM) to develop research activities. At regional level, our main partners are Australia's CSIRO and New Zealand's Hort-Research and Massey University with programmes involving plants and cattle. The Institute is currently forming close ties with the Pacific Community and support programmes for South Pacific countries are currently under consideration.

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## New Chairman of APAARI



**Dr. Mutsuo Iwamoto**

Dr. Mutsuo Iwamoto was appointed as President of Japan International Research Center for Agricultural Sciences (JIRCAS) on April 1, 2003 succeeding Dr. Takahiro Inoue. He also succeeds Dr. Inoue as the new Chairman of APAARI. He had previously served as the Director-General of Agriculture, Forestry and Fisheries Research Council (AFFRC) Secretariat under the jurisdiction of the Ministry of Agriculture, Forestry and Fisheries (MAFF) in Tokyo from 2001 to 2003. He has obtained MS and PhD degrees in Food Science. at the university. Dr. Iwamoto is a person with a singular capacity of integrating interdisciplinary ideas to overcome obstacles confronted by the agricultural sector and has always been considering ways by which R & D can contribute to it. He wishes to take the opportunity as President of JIRCAS to strengthen the relationship of not only JIRCAS, but also the entire Japanese science community with the Asia-Pacific region.

APAARI wishes all the best in his new assignment.

# Freshwater Prawn Culture Technology Development - A New Dimension of the JIRCAS Project in Vietnam

## INTRODUCTION

The Mekong Delta is by far the most productive region having the highest potential for freshwater aquacultural development in Vietnam. Major culture species include Chinese carps and catfishes of *Pangasius* genus. However, a new important species, the giant freshwater prawn (*Macrobrachium rosenbergii*) has been pinpointed as one of the major target species by the Vietnamese government.

*M. rosenbergii* is cultured under various systems such as improved-extensive culture in rice fields, and semi-intensive and/or intensive culture in ponds, orchard canals and pens. Before 2000, most of the commercial culture systems depended on juvenile prawns collected from natural water bodies. More recently, there has been a great decline in natural resources.

The Japan International Research Center for Agricultural Sciences (JIRCAS) and Cantho University (CTU), a leading aquacultural research center in the Delta, initiated collaborative research in 1994, and started by examining the factors effecting the reproductive development of *M. rosenbergii*, and then expanding to a wider range of studies including larval rearing, culture in rice fields and orchard canals, and finally technology transfer.

### Seed Production Studies

At JIRCAS's Tsukuba premises, reproductive and osmoregulatory mechanisms in *M. rosenbergii* with the aim of addressing problems related to broodstock cultivation and larval rearing under captive conditions, were first studied.

Next, in order to select suitable female spawners for purposes of seed production, JIRCAS and CTU developed jointly a technology "A process for determining maturity by using anti-serum against shrimp egg yolk protein."

*M. rosenbergii* is a freshwater prawn, but since its larvae require brackish water for survival, hatchery operations are usually conducted using 12 parts per thousand (ppt) salinity. JIRCAS and CTU have found that this species regulates its hemolymph osmolarity to be equivalent to that of brackish water (12 ppt or 450 mOsm). In both freshwater and brackishwater, *M. rosenbergii* is able to maintain hemolymph osmolarity, but at higher salinities, loses this ability. Mid-way through the developmental period which requires about 25 days, larvae acquire the ability to survive under 6 ppt salinity. We are now looking at whether this result can be applied to improving seed production techniques leading to reduced labor input and costs.



Freshwater Prawns

Larval rearing in this project has been conducted using the "green water" model, which was originally developed in Malaysia. The model provided more satisfactory results than did the "re-circulating water" model, requires less labor, and is easier to implement in "back-yard" hatching facilities that are likely to be adopted by farmers engaging in prawn-rice culture. JIRCAS and CTU adapted this model for utilization under the unique conditions of the Mekong Delta, and have been promoting its use throughout the region.

### Prawn Culture Studies And Production Trials

The development of feed for the grow-out stages and the examination of prawn culture in rice fields and orchard canals have been conducted to develop means of producing prawns at low cost using methods suitable for small-scale farmers, especially integrated with other agricultural activities.

In the Mekong Delta, two prawn-rice farming systems, e.g., integrated farming of prawn with the summer-autumn rice crop, and alternative farming of prawn with the summer-autumn rice crop, can be delineated. In the latter system, no summer-autumn rice crop is cultivated. The former system is more suitable for non-flooding areas, while the latter type

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### **Freshwater Prawn ...**

is appropriate for flooded areas or where summer-autumn rice cultivation is subjected to high risks due to flooding. The present project has focused on the integration form of rice-prawn farming with summer-autumn rice using hatchery-reared post-larvae. The non-integrated farming type is also important, and should be given further study in the near future.

To date, under the present project, two prawn-rice farming trials have been conducted in areas around Cantho Province. However, harvested prawns showed a certain degree of size variation, which resulted in lower prices. Therefore, the improvement of harvesting size and delay in maturation is extremely important for improving both production and income levels in prawn-rice farming and will potentially allow farmers to increase their income levels 2-3 fold by engaging in prawn-rice farming. Prawn culture in orchard canals was also attempted, and preliminary results showed production was higher than in the prawn-rice farming trial. Although technology for prawn culture integrated with summer-autumn rice cultivation and that for prawn culture in orchard canals has been realized, further study is required to improve production levels, increase prawn size, and maximize income.

### **Technology Transfer and Future Perspectives**

Since the beginning of 2000, the “green water” model has already been introduced to various users in the Mekong Delta (including provincial authorities and the private sector), and the number of hatcheries and quantity of post-larvae produced rapidly increased. The production of post-larvae reached over fifty million by the end of 2001 or about 50-fold compared to the 1990s. As of mid-2002, the “green water” model has been transferred to eleven state-run and 72 private hatcheries in different provinces of the Mekong Delta, and CTU staff trained 108 persons in the Mekong Delta and in a few provinces of central Vietnam. Of these 108 persons, 83 individuals have set-up small-scale (utilizing 10-20 cubic meters of rearing water) hatcheries throughout the Mekong Delta and Vietnam based on the “green water” model. These hatcheries are now contributing to meeting the demands of prawn seed for use in farming systems and other aquaculture systems in Vietnam.

Currently, as part of the process of technology transfer, preparations are underway for the publication of a prawn hatchery operation manual and CD. Along these lines, up to

the present, a great deal has been accomplished with the transfer of prawn larval rearing techniques based on collaborative research between JIRCAS and CTU, and CTU’s cooperation with other Vietnamese institutions. This has in turn contributed greatly to the development of the freshwater prawn culture industry in Vietnam, especially in the Mekong Delta.

Thus, the JIRCAS-CTU collaborative project has greatly impacted the prawn farming industry in Vietnam, particularly in the Mekong Delta. The Vietnamese Government has put forward development strategies for related industries and is also conducting a re-structuring of its agricultural and aquaculture production policy.

*Contributed by Marcy Wilder, Japan International Research Center for Agricultural Sciences and Nguyen Thanh Phuong, College of Aquaculture and Fisheries, Cantho University*

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### **Dr. Raj Paroda Honoured**

Dr. R.S.Paroda, Executive Secretary, APAARI was conferred the prestigious *Dr. B. P. Pal Memorial Award* and a gold medal instituted by the National Academy of Agricultural Sciences (NAAS, India). The award was presented by the Chief Minister of Madhya Pradesh State H.E. Mr. Digvijay Singh (third from left in the picture) on 13 February 2003.



**Presentation of Award to Dr. Paroda**

Also, Maharana Pratap University of Agriculture and Technology, Udaipur, India conferred D.Sc. (Honoris causa) to Dr. Paroda in its convocation held on 31 March 2003. Dr. Paroda is an alumni of the university. Both these honours came in recognition of his singular outstanding contributions in the field of agricultural research and education at national, regional, and global levels.

## NEW GLOBAL PARTNERSHIP TO IMPROVE CASSAVA PRODUCTION

*Little-known Root Crop Feeds 600 Million in the Tropics*

Thirty of the world's leading cassava researchers established a "Global Partnership for Cassava Genetic Improvement," a new partnership to promote and coordinate global investment in the genetic improvement of cassava, an important source of nutrition in tropical countries. "This new partnership is a very positive development," said Louise Fresco, Assistant Director General, FAO. "It reflects the urgent need to support the genetic improvement of cassava to help millions of the world's hungriest people." Cassava (*Manihot esculenta* Crantz), is a perennial woody shrub with an edible root. It is the third most important source of calories, after rice and corn, among more than 600 million people in Africa, Asia and Latin America. Cassava is grown by poor farmers, many of them women, often on marginal lands. For these people, the crop is vital for food and nutrition security and income generation. Despite the importance of cassava, investments in research have lagged behind other food crops. Consequently, cassava productivity over the past 30 years has grown at a meager 1 percent annually, in contrast to 2-5 percent growth rates in corn, rice and wheat. In Africa, average cassava yield is 8 tonnes per hectare compared to potential yields of over 80 tonnes per hectare. Bacterial and viral diseases, insect pests, weeds, and drought have all combined to limit cassava production. Attempts by farmers to market their cassava products have also fallen well short of their potential, because of rapid post-harvest deterioration and inadequate starch and protein content in the roots. Conventional breeding efforts have attempted to address many of the constraints facing cassava productivity, but with limited success. Progress has been slow, because of the crop's complex genetic makeup, which makes it difficult to breed efficiently. "Cassava is the most reliable source of food for subsistence farmers in Africa, Asia, and Latin America," says Alfred Dixon, cassava breeder at IITA. "But it is also an important industrial and cash crop that can promote rural development." New tools such as advanced molecular biology and biotechnology offer new approaches to cassava improvement and have the potential to make cassava much more productive, nutritious, and profitable to grow. "The new partnership will develop and use advanced technologies such as genomics to create cassava planting materials that incorporate desired traits," said Eric Kueneman, Chief, Crop and Grassland Service, FAO. "These include enhanced resistance to pests and disease, modified starch quality for better marketability and enhanced levels of protein and micronutrients that will make the crop more nutritious." The Global Partnership for Cassava Genetic Improvement was conceived at a meeting of 30 of the world's leading experts

in cassava research held at the Rockefeller Foundation Conference Center in Italy in early October. It is balanced by representation from leading research organizations in developing countries and advanced research institutions in industrialized countries. For more information, click on [www.cgiar.org](http://www.cgiar.org).

*GFAR Newsletter December 2002*

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### New APAARI Assistant Executive Secretary



**Dr. Sahdev Singh**

Dr. Sahdev Singh joined APAARI as its Assistant Executive Secretary on February 1, 2003. Prior to joining APAARI, Dr. Singh, working as a Research Specialist, managed the Information Systems Unit of Aquaculture and Aquatic Resources Management (AARM) Program, conducted research and consultancy in the area of aquacultural engineering, and taught graduate classes at Asian Institute of Technology, Bangkok, Thailand. He also served as the production editor of quarterly *AARM Newsletter*.

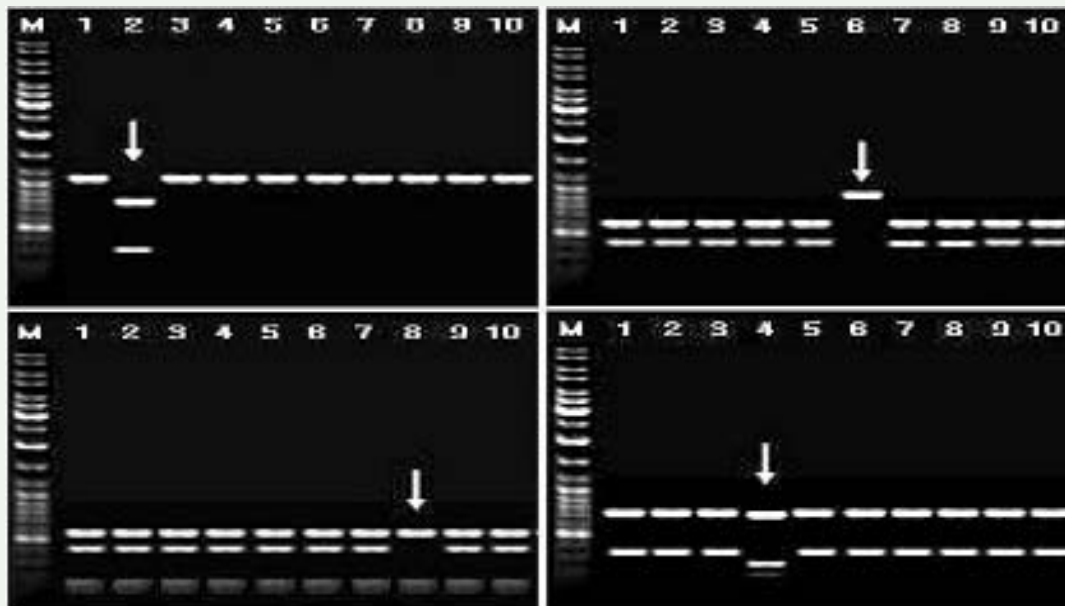
Previously, Dr. Singh obtained his PhD in Biological Systems Engineering from Virginia Tech, USA and worked as a Faculty Research Associate at University of Maryland, College Park, USA for three years.

Besides general administrative functions, Dr. Singh is mainly responsible for information management activities of APAARI, including Asia-Pacific Agricultural Research Information System (APARIS) and various APAARI publications. He can be contacted at [apaari@apaari.org](mailto:apaari@apaari.org).

## Korea Applies DNA Fingerprinting Technique to Protect Fruit Tree Cultivars

The National Horticultural Research Institute (Director Yiem, Myoung-Soon), the Korea University (Prof. Lee, Chang-Hoo), and the Seoul Women's University (Prof. Lee, Gung-Pyo) developed cultivar-specific molecular markers through a collaborative, RDA-sponsored project. The project was launched in 2002 to protect newly developed Korean fruit cultivars against illegal distribution in domestic and foreign markets.

DNA-based molecular markers are not affected by these factors. Molecular markers can be interpreted in terms of presence or absence of specific alleles. These can be found in great abundance in the whole plant genome. The discrimination level can be very high, even between very closely related cultivars. This molecular marker, called DNA fingerprint, can be used to identify individual cultivars. This is similar to the function of human fingerprints identifying



*Cultivar-specific DNA markers for identification of fruit tree cultivars.  
(upper-left, 'Sunhong' apple; upper-right, 'Whangkeumbae' pear;  
lower-left, 'Jinmi' peach; lower-right, 'Hongdan' grape)*

Korea enacted a law related to plant patents in 1995 and joined the Union for the Protection of New Varieties of Plant (UPOV) in January 2002. It is expected that, due to the reinforced protection, there will be more active research efforts to develop new plant varieties.

Morphological data usually provide the basis of descriptions for cultivar registration and identification. Since most young nursery fruit trees are distributed during the winter season (dormancy period) without fruits and leaves, identification of fruit cultivars in circulation is very difficult. Some factors - seasonal and environmental - make it difficult and inaccurate to identify fruit tree cultivars.

individual human beings. A method was also developed to extract pure genomic DNA from woody tissue. This will make it easier to apply DNA fingerprint even during the winter season.

These markers are expected to eventually contribute to strengthening the international competitiveness of Korea's fruit industry.

*[E-NEWSLETTER Rural Development Administration  
Vol.1, No:4 March 2003]*

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## Eradication of Rinderpest in Pakistan

Rinderpest is a highly fatal disease of ruminants, particularly cattle and buffaloes. The disease is characterized by high fever, necrotic stomatitis, diarrhoea and high mortality. The disease has been present in this part of the world for more than a century. The disease was controlled by vaccination. Global eradication of the disease has been launched by FAO and a large part of the world has already been declared free from Rinderpest. Low grade infection with limited number of deaths were reported each year at Cattle colonies around Karachi. However, a major outbreak of Rinderpest occurred in 1994-95 in which more than 40,000 animals died in

production on Vero cells and strengthening the vaccine manufacturing infrastructure at VRI. A few focal outbreaks during this period were reported. These were immediately controlled by the use of ring vaccination. Throughout this period, technical and financial support of FAO was a great help.

After an initial success, a comprehensive Rinderpest eradication strategy was developed. Additional elements included in the final strategy were; no vaccine policy, diagnostic facilities at the regional levels, sero-surveillance



Participating Farmers

Northern Areas of Pakistan. The disease was diagnosed by Animal Sciences Institute, National Agricultural Research Centre (NARC), Islamabad and Veterinary Research Institute VRI, Lahore. The disease was controlled by the use of an effective vaccine. This outbreak sent shock waves through out the veterinary profession in the country and made people realize that Pakistan should also pursue the path of eradication of Rinderpest. Technical and financial assistance was also provided by FAO for the control of this epidemic.

Once Rinderpest eradication was officially adopted as a national policy, initial efforts were focused on improving surveillance system for the disease, developing good diagnostic facilities in Pakistan, improving quality of local vaccine and creating awareness about the disease. Livestock and Dairy Developments of all provinces, Northern Areas and Kashmir actively participated in the diseases surveillance efforts. Diagnostic facilities using ELISA for both antigen and antibody detection were developed at NARC which served as a focal point for the diagnosis of suspected outbreaks. Vaccine quality was improved by shifting to

and village disease search programme beside stressing on improving departmental surveillance for the disease and creating awareness about the disease. 'No vaccine policy' proved to be a major factor in building confidence of veterinary professionals and farmers. Improving diagnostic facilities at regional levels helped to immediately respond to all outbreaks and helped in diagnosis of other infectious diseases. Sero-surveillance from all regions of the country showed no relevant antibody titres and only a few animals showed residual titres from previous vaccination. Village disease search was also a big success since it not only provided information on the prevalence of Rinderpest but also highlighted the relative importance of other livestock diseases in the country.

During this period, concerted efforts have been made to improve Disease Information System for the control/eradication of livestock diseases in Pakistan. Information collected through various sources indicated that Rinderpest was mainly associated with the peri-urban dairy colonies and/or small farmers in interior Sindh Province. The last outbreak

*Continued on page 17* ➔



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## ICRISAT's Agri-Business Incubator Initiative Takes Off

The project to establish an Agri-Business Incubator (ABI) at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) was kicked-off recently with the first meeting of its Governing Body members.

According to Dr William Dar, Director General of ICRISAT and Chairman of the ABI Board, the project will give an opportunity for entrepreneurs to incubate technologies so that they become effective agri-business ventures. The entrepreneurs will also get the opportunity to tap the expertise of ICRISAT's scientists since the Incubator project will be hosted inside the Institute's Patancheru campus.

"Technologies that are nurtured and incubated have better chances of becoming commercial successes than those that do not follow this process," Dr Dar added. "All technologies that show promise in the laboratories need not necessarily make good commercial ventures. The Incubator will provide the appropriate facility for the entrepreneur to test out the technologies."

The Department of Science and Technology, Government of India, has visualized the ABI as a national facility and has provided the initial corpus funding of Rs 2.5 crore for establishing it.

It will enable entrepreneurs wishing to incubate agri-business technologies to hire working space and shared scientific equipment. Within the five years that an entrepreneur spends in ABI it is hoped that his technology can be incubated to a stage where investment can be made for commercial production.

Incubation of technologies is the critical stage where the technology comes out of the laboratories and it is tested for performance, market acceptability and viability before scaling up to larger commercial projects.

The entrepreneurs can identify the technology they want to incubate and develop a business plan for their individual projects. They can, however take help from the ABI management in these areas.

The services that will be marketed by ABI are consultancy, technical evaluation, and exploring the business opportunities of the technologies identified (in collaboration with the International School of Business).

In addition to ICRISAT, the institutions represented on the Board of ABI are the Indian Council of Agricultural Research, DST, the Andhra Pradesh State Seeds Corporation, the

National Bank for Agriculture and Rural Development, and the Andhra Pradesh Industrial Development Corporation.

At ICRISAT the ABI project is being facilitated as part of the Technology Innovation Centre (TIC). Another project being facilitated by TIC is the establishment of an Agri-Biotech Park, which will be part of the Genome Valley visualized by the Andhra Pradesh Government.

For more information contact Dr V Mahalakshmi at [v.mahalakshmi@cgiar.org](mailto:v.mahalakshmi@cgiar.org).

[From: <http://www.icrisat.org>]

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From page 16 ...

**Eradication of ...**

of Rinderpest diagnosed and reported was in Karachi during September 2000. Since then, there is no confirmed report of a Rinderpest outbreak anywhere in the country. Rinderpest vaccination was stopped since November 2000. Based upon these facts, Pakistan was declared Provisionally Free from Rinderpest on January 30, 2003. This Landmark was achieved by the dedicated efforts of staff in all livestock departments of the country, technical support from R & D institutions in the country and continuous support by international agencies particularly FAO-UN, EU and IAEA.

The next target of Pakistan is to get certification of Freedom from Disease and finally Freedom from Infection. Currently, the major emphasis is to design and implement various activities for the eradication of rinderpest. For this target to achieve, we will have to generate scientific evidence that Rinderpest virus has been eradicated from the country. Disease Information System for livestock diseases, Sero-surveillance and Participatory Village Disease Searches will form the basis of the scientific evidence in this regard. Current FAO run EU project on Transboundary Diseases and forth coming EU project on Strengthening of Veterinary Services in Pakistan will ensure that necessary material and technical resources are available to achieve this laudable target.

*Contributed by:*

*Dr. M. Afzal, Incharge, Animal Sciences Division, Pakistan Agricultural Research Council, Islamabad; and*

*Dr. Manzoor Hussain, FAO Consultant on Transboundary Diseases, National Veterinary Laboratory, Islamabad.*

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## Asia-Pacific Association of Forestry Research Institutions (APAFRI): Recent Activities

### CIDA-Tree Link Project

The Tree Link Project has finally come to the end of its term. The project officially ended on 30 September 2002. With the financial support extended by the Canadian International Development Agency (CIDA) through this project, APAFRI has since the project's inception in 1998, been able to provide services and programmes to most of its members in the ASEAN countries. Over the last four years, the project has instituted 85 contracts, through APAFRI, with various agencies in the ASEAN region. APAFRI's member institutions in the ASEAN nations, which had been involved in Tree Link Project programmes and activities, would agree that the project has contributed much to building up the capacity in forestry research in the region.



*The 2<sup>nd</sup> Librarian Meeting on Creating the E-loan System, at RECOFTC, Thailand, 2000, representatives from Vietnam, Cambodia, Philippines, Thailand and Malaysia.*

### APAFRI signs Memoranda of Understanding

APAFRI has recently signed two important Memoranda of Understanding. The first was with the International Union of Forest Research Organizations (IUFRO) that officially endorsed the status as well as detailing the roles of APAFRI as the Asia Pacific Chapter of IUFRO. The second one was with the International Plant Genetic Resources Institute (IPGRI) towards strengthening cooperation and collaboration between the APAFRI and IPGRI.

### APAFRI - New web site

APAFRI has finally registered and now is the owner of its own web address [www.apafri.org](http://www.apafri.org). The new web address has been operational since July 2002. A message had been posted on the old website, [www.apafri.upm.edu.my](http://www.apafri.upm.edu.my), hosted by University Putra Malaysia, directing visitors to the new address. This new website has been running satisfactorily since then.

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## The News

### The New President of JIRCAS

Dr. Mutsuo Iwamoto was appointed as the new President of Japan International Research Center for Agricultural Sciences (JIRCAS) on April 1, 2003, succeeding Dr. Takahiro Inoue.

### The New Administrator of RDA

Dr. Young Wook Kim was appointed as the new Administrator of Rural Development Administration (RDA), Republic of Korea on March 3, 2003, succeeding Dr. Moo-Nam Chung.

### The New Director General of ICAR

Dr. Mangala Rai has been appointed as the new Director General of Indian Council of Agricultural Research (ICAR), India, succeeding Dr. Panjab Singh.

### The New Director of BAR

Dr. William Medrano has been appointed as the new Director of Bureau of Agricultural Research (BAR), Philippines, succeeding Dr. Eliseo R. Ponce.

### The New Director General of ISNAR

Dr. Cyrus Ndiritu is the new Director General of International Service for National Agricultural Research (ISNAR), The Netherlands.

### The New Director General of IPGRI

Dr. Emil Frison is the new Director General of International Plant Genetic Resources Institute (IPGRI), Italy, succeeding Dr. Geoff Hawtin.

*APAARI congratulates all of them and is looking forward for their continued support and cooperation with APAARI.*

## AARINENA-ICT Expert Consultation and Workshop in February 2003 at Cairo, Egypt

The role of Information and Communication Technologies (ICT) in enhancing the effectiveness of a regional agricultural research forum is now widely recognized. ICT has been used with significant success by at least two regional agricultural research forums, Asia-Pacific and European, in developing their agricultural research information systems. To emulate these successes in the WANA region, AARINENA had been planning a regional agricultural research information system for quite some time. This ICT Expert Consultation workshop, supported generously by GFAR and FAO, was an effort in the direction of building an agricultural research information system for the WANA region. It took place two years after the first WANA region ICT workshop, which was also held in Cairo, Egypt. APAARI, represented by its newly appointed Assistant Executive Secretary Dr. Sahdev Singh, was invited to share its experiences in successfully developing and implementing a regional agricultural research information system. Besides GFAR, FAO, and NINPs of WANA region, other invitees included ICARDA, ISNAR, and EARD-Infosys.

The workshop participants:

1. Endorsed the “proposal for regional agricultural information system for WANA Region”, prepared by AARINENA, in April 2001, as a relevant regional framework for actions;
2. Recommended defining an articulated set of collaborative programmes consistent with this regional framework. These collaborative programmes can be seen as different modules, their later integration would constitute the future RAIS;
3. Recommended that these collaborative programmes (a) would be led by the NARS, each acting as a leader for a specific collaborative programme and (b) would involve NARS, regional organizations, international centers or Agencies as a common platform making use of the available expertise;
4. Recommended that these collaborative programmes would be define through a specific plan of work and budget, systematically including (a) a content generation component and, (b) a training component;
5. Recommended that these collaborative programmes would adopt methodologies and tool kits already available for agricultural information management, or when necessary, would customize or develop such tools and methodologies;
6. Recommended that the information contents would be made available in local language, or whenever possible, local language and English or French according to the various sub-regions of AARINENA;
7. Recommended that AARINENA Executive Secretariat would seek for catalytic funds in order to achieve the

definition and the launching of these collaborative programmes. For this purpose, Regional and international Organizations could play a significant role;

8. Recommended the launching of a AARINENA-RAIS Steering committee, which would deal with the following issues: (a) facilitate the management of an articulated and consistent set of collaborative programmes leading to a three-years plan of work, (b) monitor and evaluate the activities undertaken within this plan of work, (c) ensure that there is a timely delivery of the expected outcomes of the collaborative programmes, (d) facilitate the communication between all the stakeholders involved in these activities, and (e) report to the AARINENA executive Committee.

9. This AARINENA-RAIS Steering committee, consisting of information technology and information management specialists would be nominated for a three-year period, consistently with a sub-regional balance and personal and institutional commitment of its members. Associate Members of this AARINENA-RAIS Steering Committee would involve sponsors and partners;

10. Recommended that AARINENA Executive Secretariat, in consultation with FAO and GFAR explore possibilities to assign a scientific assistant in charge of the Information and Communication Management (ICM) activities within the Secretariat;

11. Recommended the following frame for the collaborative programmes:

- Enhancing management information systems at national level. That would include the following modules (a) management of institutional information, (b) management of research activities and research project information, (c) management of information on experts, and (d) management of information on research outputs,
- Launching of electronic forum of discussion enabling and fostering dialogues within and amongst all the stakeholders involved in agricultural research for development in the region,
- Launching of a question and answer service at the regional level,
- Establishment of a gateway function at the regional level facilitating accesses to information managed by NARS.

The AARINENA-RAIS Steering Committee is expected to draft and circulate a concept note related to these various collaborative programmes.

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## APAARI Publications

### SUCCESS STORIES

#### **Baby Corn Production in Thailand (1994/1)**

by Dr Chamnan Chutkaew and Dr R.S. Paroda

#### **Tilapia Farming in the Philippines (1994/2)**

by Dr Rafael D. Guerrero III

#### **Hybrid Rice in China (1994/3)**

by Mr Lou Xizhi and Dr C.X. Mao

#### **Dairying in India (1994/4)**

by Dr R.P. Aneja

#### **Hybrid Cotton in India (1995/1)**

by Dr A.K. Basu and Dr R.S. Paroda

#### **Palm Oil Industry in Malaysia (1995/2)**

by Dr Y.B. Basiron

#### **Transformation in Korean Farming - A Success Story of**

**Effective Linkages (1996/1)** by Dr Chae Yun Cho

#### **Cotton Production in Pakistan (1996/2)**

by Dr Badaruddin Soomro and Dr Parvez Khaliq

#### **Orchids in Thailand (1997/1)**

by Dr Kanchit Thammasiri

#### **Wheat Production in Iran (1997/2)**

by Dr Abbas Keshavarz and Dr M.J. Mirhadi

#### **Agro-Tourism in Australia (1997/3)**

by Dr Tom Connors

#### **Direct Seeded Rice in Malaysia (1998/1)**

by Dr Cheong Ah Wah

#### **Groundnut in China (1998/2)**

by Dr Duan Shufen, Dr Hu Wenguang and Dr Sui Qingwei

#### **Oilseeds in India (1999/1)**

by Dr Mangala Rai

#### **Integrated Pest Management in Rice in Indonesia (1999/2)**

by Dr Soejitno

#### **Bivalve Mariculture in India (2000/1)**

by Dr V.N. Pillai et al.

#### **Farming of Carrageenophytes in the Philippines (2001/1)**

by Dr Rafael D. Guerrero III

#### **Resource Conserving Technologies: Transforming the Rice-Wheat Systems of the Indo-Gangetic Plains(2002/1)**

by Raj K. Gupta et al.

### OTHER PUBLICATIONS

- Proceedings - The Seventh General Assembly of APAARI & Expert Consultation on Strengthening Research Partnerships Through Networks and Consortia, 2-4 December 2002, Penang, Malaysia.
- APAARI - A Decade of Progress, reprinted in 2001.
- Proceedings - Expert Consultation on Regional Priority Setting for Agricultural Research for Development in the Asia-Pacific Region and Sixth Executive Committee Meeting of APAARI, 12-14 November 2001, Bangkok, Thailand.
- FAO-APAARI Expert Consultation on the Status of Biotechnology in Agriculture in Asia and the Pacific, 21-23 March 2002
- Agricultural Research Priorities for Asia and the Pacific - A Synthesis
- ICT Expert Consultation on Development of Second Phase of APARIS, 24-25 October 2002.

## Future Conferences

### **6th International Symposium on Septoria/Stagonospora Diseases of Cereals**

Tunis, Tunisia, December 8-12, 2003.

Contact: Prof. Moncef Harrabi

INAT

43 Ave. Charles Nicolle

1082 Tunis

Tunisia

Tel: 216 71 840 270; Fax: 216 71 799 391

### **3rd International Symposium On The Molecular And Cellular Biology Of Bananas, 9 - 11 September 2002, Leuven, Belgium**

Contact for information and registration:

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### **Technical consultation: gender data for rural livelihood policies and programmes, 7 - 10 October 2003, Bangkok, Thailand.**

For information contact Revathi.Balakrishnan@fao.org.

### **Twenty-third session of the Asia and Pacific Plant Protection Commission, 4 - 8 August 2003, Kuala Lumpur, Malaysia.**

For information contact Chong Yao.Shen@fao.org.

### **International Rice Conference 2003 : Modern Rice Farming, 13 - 16 October 2003, Kuala Lumpur, Malaysia.**

Secretariat IRC2003

Conference and Exhibit Programme, Teknikal Services Centre,

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