



# APAARI

## Newsletter

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### Editorial

Partnership in agricultural research for development (ARD) among diverse stakeholders is necessary to strengthen programs and to achieve desired objectives. The research networks in this context constitute an efficient mechanism to bring together R&D institutions with diverse expertise to address common problems and share research results. They provide a platform for faster agricultural development through information/knowledge dissemination and technology transfer, and are cost-effective. In the Asia-Pacific region, a wide array of ARD networks have been operating; while some of these have been effective, others have been functioning rather at a low pace.

The Asia-Pacific Association of Agricultural Research Institutions (APAARI), realizing the importance of research networks and the concern for their functioning and sustainability, took the initiative to hold the first Expert Consultation on this theme in 1997 at AREO, Iran. Since then, the networks' priorities and research objectives have widened commensurate with current needs. Also, several other global partnership programs have been initiated. Thus, APAARI, felt it necessary to hold an "Expert Consultation to Review the Progress of Networks and Consortia in the Asia-Pacific" and organized it jointly with ICAR and ICRISAT at Hyderabad, India from 8-9 October 2007. Over 70 participants attended this meeting, well represented by NARS, CG Centres/IARCs, ACIAR, GFAR, and other international and regional organizations, including NGOs/CSOs. The presentations/deliberations covered currently operating networks on crops/commodities, biodiversity/PGR, underutilized crops, fish and aquaculture, and livestock, APAARI operated programs on agricultural information system and biotechnology, collaborative inter-regional cotton network; and the challenge programs (CPs) operated by CG institutes and the global partnership programs (GPPs) such as ICT4ICM operated by GFAR.

The deliberations highlighted several concerns while appreciating the benefits derived from collaborative research networking in a partnership mode. The review also pointed out the relative effectiveness of the networks. The role of APAARI as facilitator was highly appreciated, and it was emphasized that an impact assessment of prevalent networks be carried out with APAARI assuming facilitation role. This evaluation will help induce efficiency and effectiveness and improve further functioning of networks to achieve tangible results. APAARI intends taking up this study on a similar pattern of CG model of performance evaluation for R&D projects. It will also deliberate on the further needs such as on integrated system-mode approach, technology generation/adoption, HRD/capacity building, policy advocacy and widened partnerships including the role of private sector. Such timely endeavours are also meant to meet the Millennium Development Goals (MDGs) – addressing issues of food security, nutrition, poverty alleviation and environmental security.

**Editors**

## Expert Consultation to Review Progress of Agricultural Research Networks and Consortia in Asia-Pacific

An "Expert Consultation to Review Progress of Agricultural Research Networks and Consortia in Asia-Pacific" was organized by APAARI and hosted by ICAR and ICRISAT from 8-9 October 2007 in Hyderabad, India. Over 70 participants representing APAARI members from NARS, CG centers, ACIAR, GFAR, other international organizations, private sector and CSOs attended the meeting. The consultation reviewed the progress of various regional networks and consortia operating in the Asia-Pacific and their future projections vis-à-vis role of APAARI as facilitator to strengthen networking for agricultural research for development. The scientific deliberations were conducted under four technical sessions which provided a broad coverage of the diverse networks and related regional and global initiatives undertaken by NARS, CG centres and other collaborators in a partnership mode.

The Session-I on "Progress of Regional Programs" dealt with achievements of the two programs initiated by APAARI; Asia-Pacific Agricultural Research Information System (APARIS) for strengthening of ICT/ICM activities, and the Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB) for promoting activities in agricultural biotechnology. Also, activities of an inter-regional network on cotton (INCANA) co-sponsored by APAARI, GFAR, ICARDA/CAC, AARINENA, AERO were presented. Session II on "Partnership through ARD Networks" dealt with different kinds of networks: those on crop improvement like CLAN (cereals and legumes), CORRA (rice), BAPNET (banana), AVRDC (vegetables); other broader networks such as those on PGR (biodiversity), RWC (rice-wheat system); ICUC (underutilized crops), GoFAR (fisheries, aquaculture) and Livestock R&D information network. Session III on "Status of Some New Initiatives" deliberated on specific new activities such as-'National Agricultural Innovation Project (NAIP) of ICAR, Asia and Pacific Seed Association (APSA) and YPARD, the young professionals platform for ARD strengthening. Session IV on "Global Partnership: Challenge Programs-Their relevance for Asia-Pacific", highlighted the progress achieved in CPs on 'Water and food'; 'Generation': cultivating plant diversity for the resource poor; 'HarvestPlus': producing crops for better nutrition; and GPPs on ICM4ARD, and on PROLINNOVA. These technical sessions were followed by a Panel Discussion on 'Strengthening Research Networks in Asia-Pacific: Stakeholder's Perceptions', wherein specific concerns were expressed by panelists representing NARS (Pakistan), CGIAR (ICRISAT), ARIs (ACIAR), private sector and CSOs (IFAP).

The Plenary Session dealt with the outcome of various technical sessions, panel discussions etc based on over 25 presentation that resulted in several suggestions to assess and promote further the existing networks to strengthen ARD; realizing that



Opening Ceremony of the Expert Consultation

several of the activities were indeed common to all networks such as knowledge/information sharing, genetic resources utilization/conservation, technology transfer and dissemination, capacity building and policy issues. The following important recommendations emerged from the discussions on the subject:

1. There was general consensus that clear benefits are accruing from networking and collaboration among R&D institutions in the region. These benefits acquire greater significance in the light of limited funds for agricultural R&D, the relatively low importance accorded by the donor institutions to networking activities, and the shrinking intellectual base for research work. At the same time, climate change and emerging market and consumer demands impose new challenges to the R&D sector to develop crop varieties, fishery, and livestock species that are more biotic and abiotic stress resistant, higher yielding, and lead to lower costs and higher incomes to producers. Also networks on natural resource management such as water, salinity and systems management (soil-crop-livestock) such as agro-forestry are needed to be strengthened. There is, therefore, a continuing justification for institutions like APAARI to facilitate strengthening of R&D networks and consortia in the region.

2. An integrated system-wide approach to agricultural R&D needs to be adopted to ensure that research outputs respond to the whole array of needs and limitations of small-farmer beneficiaries. Greater attention needs to be given to multi-disciplinary research to develop effective network programs in rice-fish, crop-livestock, underutilized crops, and income generation through diversification of farming systems. Other emerging areas include biofuels, biosafety and biosecurity, climate change and sustainable agricultural production, biotechnology and role of public private partnership. In this respect, the role of APAARI as an orchestrator of diverse and independent research efforts leading towards a "total" product for farmers and other stakeholders is crucial.
3. Some networks may operate better as sub-regional groups to address specific and common issues and priorities of these sub-regions within Asia-Pacific. This approach would lead to more effective participation of member countries and yield greater benefits for most of the institutions. In this context, the need to strengthen networks on tuber crops, banana and fishery in the Pacific were also highlighted.

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### Expert Consultation ...

4. Small and medium scale seed producers need research network support as they cannot afford capital investment on R&D. NARS and other ARD partners should extend such support. APAARI and APSA could work more closely to address the issues related to seed research and production networking.
5. The private sector will continue to play an increasing role in technology development and dissemination. More

actively and contribute their share to the effort. This implies that networks and consortia must evolve out of real needs and must be based on commonly shared objectives.

9. Evaluation of networks and prioritization of the network programs is very essential. Presently, there are several networks, some of which are either not functioning or their activity levels are rather low. It was, therefore, recommended that a review of all existing networks be done in terms of programs carried out and their impact assessment. Impact assessment exercise to evaluate the tangible gains is important in order to induce efficiency



Expert Consultation Participants

efforts are needed to establish synergistic relationships/partnerships/modalities with private sector R&D institutions even as steps are taken to ensure that stakeholders and small farmers continue to enjoy choices on what technologies and related services to avail of.

6. In the context of sustainability and impact of the networks, a need was expressed to widen the participation of stakeholders. In addition to public sector NARS and IARCs, network partners should include private institutions and grassroot stakeholders such as farmers and CBOs (Community Based Organizations). Along with policymakers, they should be involved in planning as well as implementation of the network activities. Engagement of universities would expand the partnership base of networks while creating awareness among young researchers about these initiatives. Similarly, young professionals could effectively be involved in research and vocational training in the network programs.
7. IPR concerns may increasingly influence collaborative work among network participants and steps need to be taken to ensure that they do not unduly hinder exchanges of information, genetic material and research outputs.
8. The network coordinating institutions need to invest more resources, provide secretariat support, and the leadership. Network members in turn must cooperate

and effectiveness in the networks and to highlight the successes of donor support. APAARI could take a lead in developing a uniform and commonly accepted impact assessment methodology similar to CG model of performance evaluation system for R&D networks/consortia.

10. Currently, APARIS targets researchers and students for dissemination of web-based information on agricultural technologies. While there is a need to extend its reach to farmers, multiplicity of languages is a major hurdle. APARIS needs to work with other institutions (including IARCs) to facilitate downstreaming for the dissemination of knowledge. ICRISAT is willing to partner with APARIS under the VASAT program to ensure that scientific knowledge and technologies are disseminated fast to the farming communities.
11. APARIS should play a major role in sensitizing the NARS for sharing knowledge and joining the networks of their specific interest. Facilitators (IARCs and NARS) of networks and consortia have to have greater commitment to fund and support such activities, so as to make them more effective and sustainable in the long run. Also the donor partners need to appreciate vital importance of research networks and continue funding these innovative and rather very beneficial initiatives.

## Expert Consultation on Biofuels

APAARI in collaboration with IRRI, CIMMYT, and ICRISAT organized an Expert Consultation Meeting from 27–29 August 2007, at IRRI, Philippines. The objective of the Consultation was to: (i) discuss how bioenergy production may have an impact on global and regional food security and the sustainability of key agricultural systems in Asia, (ii) summarize current understanding of bioenergy options for key crops and cropping systems in Asia, (iii) identify key options and research priorities for designing and evaluating integrated food-bioenergy production systems for Asia, and (iv) develop a framework for research on biofuels in key agricultural systems of Asia.

### Deliberations of the Meeting and Recommendations

In all, 44 participants attended the Expert Consultation organized into five sessions: (i) Global Opportunities and Constraints, (ii) Country Status Reports, (iii) Food Security vs Biofuels in Asia, and (iv) Plenary Session and General Recommendations. There was consensus that biofuels will play a major role in the global economy of the future. Many countries are exploring different strategies and policies on alternative energy sources, and the Asia-Pacific region, in particular, is expected to play a significant role in development and promotion of biofuels. Besides general recommendations, specific recommendations were made on three different bioenergy technologies: (i) bioenergy from thermal conversion of biomass, (ii) ethanol from sugar, starch or cellulose biomass, (iii) biodiesel from oil crops.

### The major recommendations were:

1. The Bioenergy Revolution is fast approaching. Biofuels will play a major role in the global economy of the future. Many countries are exploring different strategies and policies on alternative energy sources; and the Asia-Pacific region, in particular, is expected to play a significant role.
2. Poverty is still widespread in Asia. It is not clear to what extent poor farmers will benefit from the Bioenergy Revolution. What is clear is that the introduction and/or expansion of biofuel crops will cause major land use changes, and that many feedstocks (although originally targeted at marginal lands) will compete with food crops in productive eco-regions. The challenge is to ensure a balance between food and biofuel production.
3. Policy makers need to protect the poor from rising commodity prices likely to be triggered by diversion of crop produce or area expansion of biofuel crops. Therefore, there is an urgent need to strengthen policy research in order to avoid decisions that may lead to competition



Participants of the Meeting

between food and bioenergy; and identify a complementary approach that benefits both sectors.

4. International organizations and the International Agricultural Research Centers (IARCs) must accelerate their biofuel-related research in order to generate much needed International Public Goods (IPGs) that will benefit resource-poor farmers. They also need to enhance regional coordination of R&D efforts on bioenergy in the Asia-Pacific region; encourage regional information sharing; and facilitate research networking and capacity building of NARS.
5. Public sector research needs to ensure that technology advances made in the private sector ultimately benefit the poor in the developing world. This is particularly important for many second generation biofuel technologies, which for want of proper policies and IPR regime, may not be accessible to poor farmers in Asia. Public-private partnerships, being the key factor, will have to be established and promoted.
6. It is critical that scientists examine and share unbiased information on the life cycle performance and economics of bioenergy technologies, and their impact on food security and poverty. The social and environmental impacts of these technologies will also have to be assessed. This requires a standardized typology of food-feed-fiber-energy producing agricultural systems as well as standardized methodologies for their integrated assessment.
7. Asian countries should consider utilization of crop residues, especially rice and wheat straw, which are largely being burnt in most countries. This is a priority area for R&D, particularly with regard to thermal conversion technologies for different scales and the level of residue retention which may be needed for sustainable land use under different cropping systems.
8. Potential biofuel producing countries in Asia should conduct their own national assessments critically and devise appropriate strategies to meet long-term bioenergy goals. APAARI and other regional/global organizations should devise strategies for the Bioenergy Revolution, and sensitize policy makers so that countries in the Asia-Pacific can reap the expected benefits.

The donor community should fund new R&D efforts on bioenergy, since the long-run benefits will lead to both poverty alleviation and protection of environment, thus meeting the two of the major Millennium Development Goals (MDGs).

## APAARI Executive Committee Meeting

APAARI mid-term Executive Committee Meeting was held on 10 October 2007 back-to-back with APAARI Expert Consultation at ICRISAT, Patancheru. The Chairman, Dr. R. D. Ghodake welcomed all members/participants, and pointed out that APAARI as an active forum has made substantial progress in its activities. This was followed by remarks by Dr. William Dar, ICRISAT; Dr. Mangala Rai, ICAR and Dr. Carlos Sere, ILRI, appreciating the role of APAARI and concerns on its strengthening. Dr. R.S. Paroda, Executive Secretary, APAARI thanked all participants for their contributions in the success of APAARI programs/networking activities carried out in a partnership mode. He dealt with the achievements made during 2007: holding expert consultations on biofuels and ARD networks and consortia; meetings on public-private partnerships; on ICT/ICM for senior NARS managers; its

### Work Plan for 2008

#### 1. Publications

- (i) APAARI Newsletters (December, 2007 + June 2008 issues)
- (ii) Proceedings of Meeting on Networks (Also CD)
- (iii) Success Stories
  - SS on LFM (India, Philippines, Mongolia)
  - Sugarcane Tissue Culture
  - Banana Tissue Culture
  - Bt Cotton in China
- (iv) Special Report on Biosafety Regulations
- (v) CDs:
  - NARS on CD (Database of 1100+ institutes)
  - APAARI on CD – 2008 version

#### 2. Website Development (both APAARI and APCoAB)

#### 3. Meetings

- (i) AP-NGO Consortium Establishment (March, Bangkok)
- (ii) Steering Committee of APCoAB (Feb, Delhi)
- (iii) Steering Committee of APARIS (April, Hyderabad)
- (iv) APARIS Technical Workshop (April, Hyderabad)
- (v) Executive Committee Meeting (Mar/Apr, Bangkok)
- (vi) General Assembly (Oct, Japan)

#### 4. Expert Consultations (1 or 2)

Suggestions for Themes/Topics

- (i) Biotechnology & Biosafety (August, MARDI, Malaysia)
- (ii) To be identified (October, Tsukuba, Japan)

#### 5. Capacity Building

Training on MAS for Plant Breeding (APCoAB, PCARRD and IRRI)

#### 6. Representation in GFAR Steering Committee and Program Committee

#### 7. Special Drive on Resource Generation

- (i) New Membership (CIAT, CIP etc.)
- (ii) Donor Relations
  - (ACIAR, JIRCAS, ADB, COA, RDA etc.)

participation in network activities and the support to INCANA and CLAN. He pointed out to the new publications and those under process including some successful case studies on LFM; updated CDs on NARS, APAARI, success stories, and the designing of APCoAB and APARIS websites for information dissemination of activities. Discussing work plan for 2008, several topics were suggested for future success stories such as of mungbean and vegetables by AVRDC, pigeonpea in China, chickpea in Myanmar, virus free citrus production in Taiwan. It was also agreed that the next venue for the General Assembly meeting will be Japan, hosted by JIRCAS; and the interest of National Taiwan University, Taipei and of RDA, Korea in hosting further meetings/workshops was appreciated. The topic agreed to for the expert consultation was on climate change as relevant to agriculture in Asia-Pacific. Dr. Paroda apprised the members on the funding position and thanked them for their timely contributions, and on new membership-ICRAF, National Taiwan University; but expressed need for further support of ACIAR, GFAR, and others to strengthen its programs. Budget options were discussed for activities in hand and for 2008 (see box for tentative work plan). The deliberations of the meeting were very fruitful and the EC approved of the activities proposed.



### ICRISAT honours APAARI Partnership Efforts



On its 35<sup>th</sup> Anniversary, the International Crops Research Institute for Semi-Arid Tropics (ICRISAT) honoured Asia-Pacific Association of Agricultural Research Institutions (APAARI) with "Outstanding Research Partner Award". The award was given on 22<sup>nd</sup> November, 2007 in recognition of several partnership initiatives taken jointly by ICRISAT and APAARI such as expert consultations, training programs and organization of research networks such as CLAN. Dr. Raj Paroda, Executive Secretary, received the award on behalf of APAARI from Dr. William Dar, Director General, ICRISAT. Dr. Dar had also been closely associated in developing these partnerships, earlier as Head of the national agricultural research system known as Philippines Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD) and also as Chairman, APAARI.



## Asia-Pacific Agricultural Research Information System (APARIS): An Update

The second half of 2007 was highly productive for APARIS. The following five activities and APARIS work plan for 2008 need special mention:

### **(1) Sensitization and Awareness Building Workshop on ICT/ICM in ARD for the NARS Leaders and Senior Managers**

APAARI in collaboration with GFAR and PCARRD organized the "Sensitization and Awareness Building Workshop on ICT/ICM in ARD for the Leaders and Senior Managers" of member NARS on 30 August 2007 at PCARRD, Philippines. There were 22 NARS Leaders and Senior Managers, representing 10 countries and 3 sub-regions of Asia-Pacific. The workshop theme was agreed in several ICT/ICM consultations and inter-regional meetings organized by APAARI and GFAR in recent years.

The workshop provided a good opportunity to discuss progress of various national ICT/ICM projects and share development experiences of national agricultural information systems (NAIS). APAARI reported the progress of various activities of its Asia-Pacific Agricultural Research Information System, a regional knowledge sharing platform available through APAARI web site ([www.apaari.org](http://www.apaari.org)). GFAR presented new EGFAR initiatives and highlighted the need for stronger NAIS and regional knowledge sharing mechanisms such as APARIS. At the end of the workshop, participants were unanimous in recognizing the important role that ICT plays in linking researchers, farmers and markets. The major recommendations of the workshop included:

- APARIS should continue to focus its activities on advocacy, capacity building and regional knowledge sharing through greater involvement of various NAIS of the region.
- To further strengthen linkages between APARIS and NAIS, NARS need to officially designate their ICT/ICM related units or departments as National Information Nodal Points (NINPs).
- New web technologies and tools should be adopted for cost effective updating of agricultural research information systems and regional information exchange.
- Information resources available through APARIS and NAIS need to be popularized/promoted among various



Workshop Participants

stakeholders.

- APARIS steering committee should play a greater role in developing its work plan and monitoring its activities as well as in resource mobilization through developed NARS and international donors.
- There should be an objective feedback mechanism to evaluate the regional and national agricultural research information systems for their continuous development.

To implement some of the above recommendations, APARIS Coordinator plans to undertake a major revision of APAARI web site ([www.apaari.org](http://www.apaari.org)) using newly available web technologies for a better content management system and linkages to other ARD web sites. The revised web site will also make it easier to directly upload information from decentralized input sources such as NINPs, spread across the Asia-Pacific Region and also globally.

### **(2) e-Agriculture Week at FAO**

APARIS was represented by Dr. Sahdev Singh, APARIS Coordinator in the various activities of e-Agriculture Week organized by FAO, Rome from 22-28 September 2007, attended by approximately 500 participants. Activities also included: (a) Inter-Regional Consultation on ICM4ARD held every year to set the agenda and tasks for future activities of regional organizations in ICM4ARD, (b) the E-GFAR Task Force Meeting, and (c) the Second Expert Consultation on International Information Systems for Agricultural Science and Technology. During the same period, FAO, CTA and several other organizations organized the e-Agriculture Week to enrich the experience of regional organizations in the area of information

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### **Asia-Pacific ...**

management for ARD. On behalf of APAARI, two presentations were made – one on the services provided by APAARI web site and the other on advocacy, capacity building and information resources activities of APARIS program.

### **(3) APARIS Steering Committee Reconstituted**

The APARIS Steering Committee was reconstituted in consultation with all APAARI members during the Expert Consultation Meeting on Networks/Consortia and Annual General Meeting held from 8-10 October at Hyderabad, India. The new Steering Committee has ACIAR, Australia as chair and NARS leaders/senior managers of NARC, Nepal (South Asia), PCARRD, Philippines (Southeast Asia), and NARI, PNG (the Pacific) as sub-regional representatives for a two year term. GFAR, FAO, ICRISAT (CGIAR) and AIT will continue to serve as APARIS support group members on this committee. The newly constituted APARIS Steering Committee will hold its meeting in early 2008 along with some APAARI activity to review the progress of on-going APARIS activities and to discuss the work plan for 2008-2009.

During the Hyderabad meeting, after APARIS progress report presentation which was well received, further discussion on APARIS activities was held and members recommended that APARIS should closely collaborate with ICRISAT's VASAT program to organize a technical workshop of National Information Nodal Points (NINPs) from member NARS at ICRISAT in March/April 2008. The technical workshop will provide tools and methodology to NARS designated NINPs for directly updating APARIS and the web-based institute directory of 1100+ agricultural research institutes in Asia-Pacific region.

### **(4) APAARI Publication "Selected Success Stories on Agricultural Information Systems" Presented at Regional Meeting of IFAP**

APAARI publication entitled "Selected Success Stories on Agricultural Information Systems" continues to gain wider international recognition. International Federation of Agricultural Producers (IFAP) invited APARIS Coordinator to present the success story during its Regional Meeting from 6-10 November 2007 at Hanoi, Vietnam. After the presentation, several participants requested the copies of the publication either in electronic or print format. In addition to a descriptive list of several current initiatives on agricultural information systems, the publication provides two different case studies – one on linking farmers with the researchers (RDA, South Korea's Agricultural Information Service) and the other on linking farmers with the markets (India's e-Choupal initiative). The publication which was formally released and presented during the APAARI Expert Consultation on 'Agricultural Innovations: Linking Farmers to Markets', held from 6-7 November 2006 at New Delhi, India, has also been distributed in several conferences/meetings, including the Regional Meeting on Central Asia and Caucasus – Regional Agricultural Information System (CAC-RAIS), held from 15-16 January 2007 at Tashkent and National

Workshop on ICT for Rural Finances, held from 5-6 February 2007, organized by College of Agricultural Banking, Reserve Bank of India, at New Delhi. Internationally renowned Indian School of Business (ISB) requested APAARI to grant permission to reprint the above collection of success stories in their upcoming book entitled "ICT in the Rural Development: Opportunities and Challenges."

### **(5) Collaboration with ASEAN and SAIC**

With a strong support from APAARI members, APARIS is communicating with ASEAN Technical Working Group on Agricultural R&D (ATWGARD) and SAARC Agricultural Information Center (SAIC) to strengthen sub-regional integration of agricultural research information resources for the benefit of APAARI members and the ARD stakeholders.

### **Activities planned for 2008**

Based on the recommendations emerging from APAARI members and the above activities, the following activities are proposed in 2008 work plan prepared for the consideration of APARIS Steering Committee.

1. Re-designing of APAARI website with new tools such as RSS feed updating
2. Implementation of Regional Agricultural Expert Locator (RAEL) and Regional Agricultural Information Gateway (RAIG)
3. Workshop for NINPs on De-Centralized Updating of APARIS, April 2008 in collaboration with ICRISAT's VASAT Program
4. Update of Institute Directory Database on CD and Website (1100+ Institutes from Asia-Pacific)
5. Publication of new Status Report on ICT/ICM in ARD for Asia-Pacific
6. APARIS Steering Committee Meeting, April 2008 along with some APAARI activity
7. Development of New Collaborations (DFID, ASEAN, SAIC, and ILRI)
8. Development of APAARI Communication Strategy Paper

*[Dr. Sahdev Singh, APARIS Coordinator]*



### **APAARI Newsletter Rated High**

A project funded by the UK Department for International Development (DFID) has gathered evidence from five development sectors, namely, agriculture, education, health, governance and growth to sensitize policy makers and influencers on the role of information and communication in development. The collected materials are being uploaded to a new web portal [www.dcern.org](http://www.dcern.org). As per the communication from the project, APAARI Newsletter was considered a high quality from among thousands of collected documents.

APAARI Secretariat appreciates the high quality of contributions from the members for the APAARI Newsletter and congratulates them for this global recognition of our efforts.

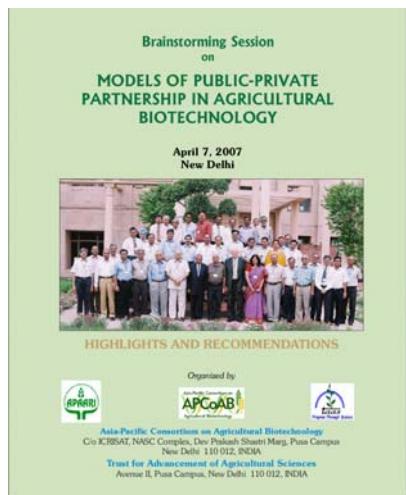
## Recent Activities of APCoAB

The Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB) continued its activities as per its workplan/program. The following are some of the recent achievements:

### Publication: Brainstorming Session on Models of Public-Private-Partnership in Agricultural Biotechnology - Highlights and Recommendations

This publication summarizes the proceedings of brainstorming session held on 7 April 2007 in New Delhi. Besides a general recommendation on the need to expand inter-sectoral partnerships for transferring the benefits of agricultural biotechnology to farmers and other stakeholders, the publication details specific recommendations on (i) Models of Public-Private-Partnership, (ii) Policy, and (iii) Capacity Building. These are detailed below:

#### Models of Public-Private-Partnership/PPP



■ In view of the highly diverse nature of agricultural biotechnology projects operating successfully in partnership mode, there is no single model that can be recommended as the most appropriate one. However, some basic requirements are essential for making a PPP successful:

- The partnership should be based on common goals of the partners to achieve objectives of mutual interest that are also aimed at addressing national challenges in agricultural growth and farmers' incomes.
- The partners should have matching resources which also complement mutual strengths.
- Ultimately, the output of the partnership should be more than the potential of individual partners.
- The existing PPP models should be analyzed to develop appropriate guidelines for entering into future partnerships and for negotiating terms of benefit sharing.
- PPPs need to consider partnering seed industry, including seed associations, to enable expeditious multiplication and distributions of the seed to farmers.
- All projects should be analyzed for Freedom to Operate from IPR perspective before they are operationalized.

#### Policy

- A Senior Level Working Group comprising ICAR/DBT/DST/ IITs/universities to be constituted to frequently review the

technological developments in the public sector and identify the appropriate ones which are fit to be commercialized in a partnership mode. APCoAB could facilitate identification of potential partners in a network.

- All partners must ensure that the project at any stage does not adversely impact ecology and biodiversity.
- With changing perceptions of partnership in a globalized world, multinational companies may be considered at the same level as Indian national companies for entering into partnerships with public sector.
- Private sector needs to make long-term investment in basic and strategic research in molecular aided selection, genomics and bioinformatics, and enter into partnerships with public sector right from project inception stage.

#### Capacity Building

- There is a need for building comprehensive infrastructure and human resources in public sector for biosafety and transgene testing.
- Human resource development in public sector institutions on technical and legal aspects of IPRs and MTAs is essential to build capacities for negotiating partnerships.

#### Database on Agricultural Biotechnology Institutes of Asia-Pacific Region

A new database on agricultural biotechnology institutes of the Asia-Pacific region has been uploaded on the APCoAB website ([www.apcoab.org](http://www.apcoab.org)). Presently, the database includes mailing addresses, contact email ids and website links to about 750 agricultural biotechnology related institutes in 36 countries of the Asia-Pacific region. In future, it is proposed to include information on mandate, research activities, and important technologies and products offered by the respective institutes.

#### APCoAB e-News Service on Agriculture Biotechnology

APCoAB has started a new e-news service with the objective of providing wide circulation to information on significant developments in agricultural biotechnology in the Asia-Pacific region. The first issue entitled "HHB 67-Improved – The First Product of Marker-Assisted Crop Breeding in India" highlighted the collaboration between Indian Council of Agricultural Research and ICRISAT in developing a high yielding downy mildew resistant pearl millet variety that has been widely adopted by Indian farmers. APAARI members are invited to send brief success stories on application of biotechnology that have made an impact in improving agricultural production and farmers' incomes.

*[Dr. J.L. Karihaloo, APCoAB Coordinator]*



## Report on the 11<sup>th</sup> Annual Meeting of CORRA

The 11<sup>th</sup> annual meeting of the Council for Partnership on Rice Research in Asia (CORRA) was held in Ho Chi Minh City, Vietnam from 4-6 September 2007. It brought together the senior research representatives of 16 major rice-producing and consuming nations to highlight the main issues and challenges facing the Asian rice industry. Besides 16 regular members, there were four observers, and 14 IRRI staff, and an FAO senior economist as resource persons. Dr. Bui Ba Bong, Deputy Minister of Agriculture, Vietnam was the honoured guest for the opening ceremony. Dr Mangala Rai, the current chairperson of CORRA and Secretary of the Department of Agricultural Research and Education (DARE) and Director General of the Indian Council of Agricultural Research (ICAR) and Dr. Robert Zeigler, Director General of IRRI highlighted in their opening remarks the strategic importance of CORRA in influencing R&D of member countries, the current situation of the rice industry, the utilization of modern biotechnology tools for advances in rice production, the increasing role of the private sector and the urgent need to raise the next generation of rice scientists.

### Highlights of the Meeting

The deliberations of the meeting focused on the following major activities.

- There was a session on orientation and clarification of the new ITPGRFA Treaty and the linked SMTA for transfer of genetic resources between countries. This was coupled with an update on INGER, that facilitates access of rice germplasm trials.
- The status of transgenic rice development progress and challenges highlighted the global research taking place on transgenic crops including rice. This helped locate the research of IRRI with its partners on golden rice. Of nine events for golden rice, only one will be released. It is now a breeding project with events being crossed into varieties for the Philippines and India etc. Release of these varieties will be with the respective governments.
- Post harvest value chain approach of IRRI centres on understanding quality, training and policy. There is extensive work with the private sector with backward linkages to farmers. The demand for improving post-harvest processing for better marketable rice is high across the region.
- For the unfavourable environments the focus is drought tolerance, submergence tolerance, salinity tolerance, rice in the uplands and intensification and diversification. The IRRI-India drought breeding network and the new sub1 lines for submergence tolerance were highlighted. The sub1 lines have been dubbed by the international press as flood-proof rice. Advanced field trials and release of mega varieties with the sub1 gene are very timely given the extent of floods in 2007.
- A new consortia for temperate rice research has emerged with four working groups covering yield potential and grain quality, blast resistance, cold tolerance and resource use efficiency. Through IRRI, this interfaces tropical rice research and reflects the advances in molecular tools

that enable techniques to move across tropical and temperate rices. It also enables countries in the CORRA group with minor areas subject to cold tolerance or blast to have access to a broader range of pre-breeding material.

- A hybrid rice research and development consortium has been launched in partnership with NARES and the private hybrid rice seed sector. A draft management model was presented to CORRA members. It entails a financial model for membership of private seed companies that should have ongoing support for public sector research and capacity building in the region.
- To meet the growing challenges of population pressure, reduction in land with need for diversification, water scarcity and climate change there is an urgent need to develop the next generation of rice scientists. This is accentuated by the ageing of the rice research community. New mechanisms of countries building scholar links to IRRI were highlighted with examples from China (the Chinese Scholarship Council) and from India (with the Indian resident scientist program).
- Up-to-date knowledge for extension and farmers is also a challenge. There have been further developments in the Rice Knowledge Bank ([www.knowledgebank.irri.org](http://www.knowledgebank.irri.org)). In the last year, Thailand, Vietnam and Cambodia have taken the lead on the management of their knowledge banks. ASEAN Ministers of Agriculture have endorsed IRRI's Rice Knowledge Bank for rice farmers. In addition, IRRI has recently joined forces with CIMMYT for the soon to be released Cereal Knowledge Bank that will include wheat and maize.
- Finally, it was announced that in 2010 IRRI will celebrate its golden jubilee. There will be programs during the year that recognize the 50 years of achievement and impact with all of IRRI's partners – NARES, donors, research collaborators, rice farmers and consumers and the host nation.

CORRA issued a joint statement as a united voice to influence rice R&D in respective countries. Firstly concerning INGER, CORRA encourages breeding institutions to contribute 10-30 outstanding varieties and breeding/pre-breeding materials each year, to raise awareness of the importance of INGER and to designate the lead research institute within their respective countries for INGER. Secondly for transgenic rice they would actively support policies of government to promote responsible use of biotechnology to support food security, CORRA would be a voice to provide unbiased facts/science to assist governments in making decisions and endorse the use of transgenic technology in rice as appropriate to national priorities and trade. Finally, concerning developing the next generation of rice scientists, CORRA members would actively tap local resources for MSc, PhD, non-degree, on the job trainees, internships and other forms of scientist exchange (Report presented at Expert Consultation to Review Progress of Agricultural Research Networks in Asia-Pacific, 8-10 October, ICRISAT, India).

*[Noel P. Magor, Head of Training, IRRI, Los Banos, Philippines]*

## An Update on INCANA Activities

Cotton is an important agricultural products in a number of developing countries in Asia and North Africa. Considering its importance in the economy of these countries, an *Inter-regional Network on Cotton in Asia and North Africa (INCANA)* was established for strengthening research collaboration among NARS in 2002 by support of GFAR (Global Forum on Agricultural Research), AARINENA



Third INCANA Steering Committee Meeting at Damascus, Syria

(Association of Agricultural Research Institutions in the Near East and North Africa), APAARI (Asia-Pacific Association of Agricultural Research Institutions), CACARRI (Central Asian and Caucasian Association of Agricultural Research Institutions), ICARDA (International Center for Agricultural Research in Dry Areas) and AREO (Agricultural Research and Education Organization) of Iran. At present, the member countries are: Azerbaijan, Egypt, India, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Syria, Tajikistan, Turkmenistan and Uzbekistan

The main objectives of the network are: a) increasing cotton yield in the member countries through research collaboration and exchange of scientific knowledge, success stories and new technologies, b) Increasing the knowledge of cotton experts and scientists through implementation of collaborative research activities and holding training workshops on cotton related issues, c) creating databases on cotton research institutes and researchers, d) publishing regular newsletter and also success stories.

### Recent Achievements

As a follow up on the above mentioned objectives, more recent activities of the network are as follow:

1. Maintenance, enhancement and keeping update the website by the Network Secretariat ([www.cottonnetwork.org](http://www.cottonnetwork.org)).
2. A traveling workshop on Hybrid and Bt Cotton was held in India during 21-26 Nov. 2005 for participants of four INCANA member countries (Iran, Syria, Turkmenistan and Uzbekistan), supported by: ICAR, Mahyco, AARINENA, APAARI, ICARAD-PFU (Tashkent-Uz.).
3. Two databases including Cotton Research Institutes (included information: Country, Institute name, Director, Address, tel., fax, email and website) and Cotton

researches (included information: Country, Researcher Name, Institute, Address and email) have been created and are available on the website.

4. A workshop on Cotton IPM was held in Aleppo, Syria from 16-21 Aug. 2006. Participants from 8 INCANA member countries attended in the workshop (Egypt, India, Iran, Pakistan, Sudan, Syria, Tajikistan and Uzbekistan). The workshop was supported by: AARINENA, APAARI, ICARAD-PFU (Tashkent-Uz.) and hosted by CGIAR. The objectives of this workshop were: a) Getting familiar with successful IPM programs on cotton in Syria, b) Exchange of information and knowledge, establishing and strengthening relations among cotton scientists from member countries.
5. Publishing the Proceeding of the above mentioned workshops including country reports provided by the participants.
6. Third Steering Committee Meeting was held from 19 – 20 June 2007 in Damascus, Syria, which was organized by General Commission for Scientific Agricultural Research (GCSAR), INCANA Secretariat and Supported by: AARINENA, APAARI, ICARAD-PFU (Tashkent-Uz.). In total, 12 participants attended including representatives from: Egypt, India, Iran, Pakistan, Sudan, Syria, Tajikistan, Turkmenistan and Uzbekistan. The main subject of the meeting was strengthening the Network through formulating technical working groups in order to:
  - optimize the limited resources available and to streamline and focus on the problems in each of the areas identified as "priority areas"
  - prepare work plans and assign responsibilities
7. Established Working Groups and Leading Institutions/ countries during the 3<sup>rd</sup> SC meeting are as follow:
  - Biotechnology application including development of transgenic cotton for biotic and abiotic stresses (India)
  - IPM on cotton (Syria)
  - Mechanization of cotton cultivation (Uzbekistan)
  - Soil and Water management (Pakistan)
  - Seed Technology and Marketing (Egypt)

[Ms. Aisel Gharedaghli, INCANA Secretariat]

## Reforming the National Agricultural Research System: PARC's Initiatives

Pakistan Agricultural Research Council (PARC), established in 1981, is an apex body of the National Agricultural Research System (NARS) in Pakistan. Its mandate is to undertake, aid, promote and coordinate agricultural research; arrange expeditious utilization of research results; and develop scientific manpower. It comprises a staff complement of 2400, of whom 650 are scientists.

### Agricultural Research and Development

During the 1980s, PARC, with support from USAID and World Bank, established a state-of-the-art infrastructure for research in crop sciences, animal sciences, natural resources and social sciences for science-based agricultural development in Pakistan. It also implemented several human resources development programs culminating in a team of highly qualified 650 scientists, of whom 150 were Ph.Ds and remaining M.Sc./M.Phil degree holders from renowned universities of the world.

PARC's achievements in the development and dissemination of Green Revolution technologies, have been widely recognized. These technologies, in combination with investment in rural infrastructure and sound agricultural policies in the seventies and eighties, led to more than doubling of rice and wheat yields per hectare, achieving food security, reducing poverty, and improving quality of life in rural Pakistan. To sustain these developments, PARC, in collaboration with the CGIAR research centers (e.g. CIMMYT, ICARDA, IFPRI, ILRI, IRRI, IWMI, etc.), continued its research activities to achieve an average growth rate of 4 per cent per annum.

### Reforming the NARS

Notwithstanding these impressive achievements, PARC's research output has been experiencing qualitative decline since early 2000 and its scientists facing problems of career stagnation, pay and pension fixation, and budgetary constraints leading to low staff moral and brain drain. At the same time, PARC was asked to address an increasingly challenging national research agenda relating to food security, rural poverty, export competitiveness, climate change, and environment degradation. It was in this context, that PARC took the initiative to develop a comprehensive reform program to re-position itself to address the challenges of 21<sup>st</sup> Century.

The reform package included the following:

- Prioritization of research agenda in line with the current and emerging challenges of the agriculture sector;
- Resources mobilization to secure adequate funding for sustained implementation of priority research agenda;
- Administrative and financial reforms with focus on providing enabling environment for high quality research through improved governance structure, service structure, and efficient financial management system;
- Human resources development through merit based



Silver Jubilee Celebrations at PARC

recruitment, training and promotion system including re-tooling of staff skills to meet the needs of new research paradigms;

- Forging stronger partnership with the national and international agriculture research systems and other stakeholders including farmers, NGOs, agro-industry.
- Establishing research product marketing company to commercialize research products, services and other innovative technologies.
- Upgrading the National Agricultural Research Center of PARC to a degree-awarding institute.

The formulation of PARC reform agenda was the single most important activity during 2006 followed by resource mobilization to secure funding of Rs. 3.0 billion (US\$50 million) for a five-year period (2007-2011). The agenda was internally driven, intensively reviewed and discussed by the Ministry of Agriculture, Planning Commission, the Economic Coordination Council of the Cabinet chaired by the Prime Minister, the Chairman of National Commission for Government Reforms, the Ministry of Finance and the Establishment Division before it was approved by the Prime Minister in September 2007.

### Implementing Reform Measures

The implementation of reforms has been progressing at a fast pace since its approval in September 2007. Some important reform measures have already been completed. These include (i) introduction of special pay scales bringing PARC scientists and staff salaries at par with the highest paid scientists and staff of Pakistan Atomic Energy Commission; (ii) restructuring of BoG from 25 members to 15; (iii) establishment of inter-provincial Coordination Committee and Technical Committees for Plant, Animal and Social Sciences; (iv) Government's endorsement of the concept paper for the establishment of the National Agricultural Institute for award of graduate degree programs in emerging sciences; (v) grant of Rs.3.0 billion development budget for upgradation of research infrastructure including equipment, laboratories, green house facilities, and operational funds for high priority research projects, and (vi) establishment of National Institute of Genomics. The other items of the Reform Agenda are being vigorously followed for implementation including: (i) empowerment of BoG for all administrative and financial matters; (ii) introduction of tenure track system allowing PARC to recruit outstanding scientists on renewable contract basis from within or outside the country; and (iii) modernization of the financial management system (accounting, budgeting, auditing) which is *sine qua non* for effective and timely delivery of research products and services.

The strengthening of linkages with the national and international research systems was yet another important component of the Reform Agenda. At the national level, coordination with the provincial research system was strengthened through the PARC

*Continued on page 12* ➔

## Report on the 9<sup>th</sup> Steering Committee Meeting of CLAN

The 9<sup>th</sup> Steering Committee of Cereals and Legumes Asia Network (CLAN) was held at ICRISAT, Patancheru on 10<sup>th</sup> October 2007, back to back with the APAARI Expert Consultation to review ARD networks. Dr C.L.L. Gowda, CLAN Coordinator welcomed Dr William D. Dar, Director General, ICRISAT; Dr R. S. Paroda, Executive Secretary, APAARI; Heads of National Programs of CLAN member countries (who were special invitees), and the CLAN Country Coordinators.



Opening of CLAN Steering Committee Meeting

### Highlights of the meeting:

Dr. J.E. Eusebio, Chair, CLAN Steering Committee welcomed the representatives of the CLAN member countries from Bangladesh, China, Indonesia, Iran, Myanmar, Nepal, Pakistan, the Philippines, Thailand, Vietnam and staff from ICRISAT, AVRDC and ICARDA. Indian and Sri Lanka representatives could not attend the meeting. In her welcome address, she emphasized that networking is a tool and we need to sustain the network activities. It is a challenge for member countries to mobilize resources. We need to strengthen the ICT activities and knowledge sharing among and within CLAN member countries. Dr J.E. Eusebio tabled the Agenda items for discussion, and sought additional items, if any.

Dr. William D. Dar, DG ICRISAT, in his opening remarks said that CLAN is among the successful networks in Asia and is facilitating the regional agriculture research and technology exchange among network member countries and agricultural research institutions to enhance member countries capabilities for increased productivity and production of its mandate crops. He asked the CLAN representatives to identify the areas where we need to enhance capabilities for solving country-specific problems of the small holders. He informed the group that there are opportunities to facilitate various networks within the umbrella of APAARI. On the occasion of ICRISAT 35<sup>th</sup> Annual Day he recognized the outstanding partnership with CLAN member countries by giving a certificate of "Outstanding Partnership" to the Heads of NARS.

### Discussion on Future CLAN Activities

Dr. C.L.L. Gowda opened the discussion on "Future of CLAN Activities beyond 2007". He listed several points for information/discussion. The following consensus emerged subsequent to discussions:

- Succession planning: Experienced Scientists should train young scientists in the NARS. Recruitment of young scientist to work with experienced scientist for research collaboration is essential for continuity of R&D efforts.
- Since there is no funding for training from core fund, countries should support training/capacity building, and

this should be part of the R & D program of the national program projects. IARCs (AVRDC, ICARDA and ICRISAT) will support training through available funds from special projects.

■ Representatives from PARC, Pakistan, said that they have funds and they would like to have opportunities to impart training to Pakistani scientists at ICRISAT, AVRDC, or ICARDA for acquiring new skills, tools and technologies. A framework should be developed to provide training and enhance capacity building within and between CLAN

member countries.

- NARS to provide funds (wherever feasible) to support network activities.
- Restart the regional varietal trials (including released varieties from member countries) as a means of exchanging improved varieties.
- Although CLAN has crop-focus, collaborative research should involve systems approach.
- Minutes of the 2007 Steering Committee should be circulated for comments and approval by the members.

### Election of Chair/Deputy Chair of CLAN-SC

Dr. S.H. Sabaghpoor, Iran was unanimously elected as Chair of CLAN Steering Committee and Dr. Zong Xuxiao as Deputy Chair for 2008-09.

### Venue for 10<sup>th</sup> Steering Committee Meeting

The 2009 CLAN meeting is proposed to be held in Iran.

*[Dr. C.L.L. Gowda, CLAN Coordinator]*



*From page 11 ...*

### *Reforming the National ...*

funded national coordinated programs for all major crops. Concurrently research collaboration was strengthened with the international and regional research centers (APAARI, CIMMYT, FAO, ICARDA, ICIMOD, IFPRI, and IIRR) and bilateral cooperation was forged with some forty countries including Bangladesh, China, Egypt, India, Iran, Nepal, Sri Lanka, USA, Uzbekistan among others.

*[Dr. M.E. Tusneem, Chairman, Pakistan Agricultural Research Council, Islamabad, Pakistan]*

## The New GFAR Strategy

The new GFAR Business Plan for 2007-2009 is the fourth in the series since GFAR's inception in 1996. Each business plan reflects what GFAR stakeholders perceive as critical issues in agricultural research for development and the action that the global ARD community should take to resolve them.

The activities endorsed in the new GFAR business plan by the GFAR stakeholders were guided by the need to shift agricultural research, education and extension systems from a narrow technological focus towards a more interactive, multidisciplinary, gender sensitive and integrated approach with focus on pro-poor, smallholder farmers and producers. This would be the basis to solve the inter-related and complex issues of poverty alleviation, food security and conservation of natural resources in a rapid and threatening global climate change context.

For the new business plan, GFAR stakeholders have re-aligned and consolidated GFAR's Strategic Objectives. These now include consensus-building and advocacy for action on agricultural research and innovation priorities, promotion of global and regional partnerships for collaborative research and

innovation; knowledge and communication for agricultural research and innovation and strengthening the Institutional capacities of GFAR and its Stakeholders.

The activities planned to meet the GFAR strategic objectives include a set of six new projects in addition to its ongoing activities. These projects are on (i) advocacy on adaptation to climate change, (ii) transformation of the agricultural research, education and extension systems, (iii) linking smallholder producers to markets, (iv) adaptive research and transfer to farmers technologies for the management of on farm water use, (v) promoting sustainable development in agricultural research systems and (vi) enabling small farmers' access to knowledge for innovation. GFAR will also continue its global partnership programs (GPPs) and increase support to inter-regional networks. GFAR communications especially its EGFAR platform for information sharing and communication will be further strengthened.

*[Dr. Ajit Maru, GFAR]*



## Forthcoming Meetings

### International Symposium on Underutilized Plants

A symposium entitled "Underutilized Plant Species for Food, Nutrition, Income, and Sustainable Development" will be held in Arusha, Tanzania from 3-7 March 2008. Underutilized plants are species that are under-exploited but have huge potential for contributing to food security and nutrition. The symposium is being organized under the auspices of the International Society for Horticultural Science (ISHS).

### Molecular Marker Applications Training Course

The International Crops Research Institute for the Semi-Arid Tropics' (ICRISAT) Center of Excellence in Genomics (CEG), supported by the Department of Biotechnology (DBT), Government of India, announces its first training course entitled "Molecular Marker Applications in Crop Genetics and Breeding". This will be held from 31 March-11 April 2008 at the ICRISAT campus, Patancheru, Hyderabad India. The course will focus on the experimental design and data analysis components of molecular markers. To register, visit <http://www.dbtindia.nic.in/Misc/ICRISAT.htm>. For further information, contact Dr. Dave Hoisington at [d.hoisington@cgiar.org](mailto:d.hoisington@cgiar.org).

### Genetics – Understanding Living Systems: XX: International Congress of Genetics 2008

Genomics revolutionized genetic research. Now, complete

annotated genome sequences are available for the human, our closest relative, the chimpanzee, and for many other model organisms. Comprehensive maps of genome variation and polymorphism paint a rich picture of our population and evolutionary history and will explain genetic, epigenetic and environmental contributions to life processes. Bioinformatics and modelling of genomic data attempt to predict and explain the functional architecture of genomes across the diversity of organisms. The Congress will be held from July 12-17, 2008, International Congress Center (ICC), Berlin, Germany. In ten plenary lectures and 54 concurrent symposia, about 280 of the world's most prominent geneticists will speak. For more information please visit: <http://www.geneticsberlin2008.com>

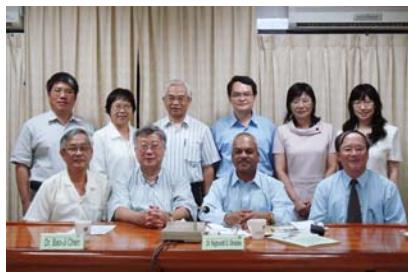
### International Symposium on *In Vitro* Culture and Horticultural Breeding

The Sixth International Symposium on *In Vitro* Culture and Horticultural Breeding will be held in Queensland, Australia from 24-28 August, 2008. The theme of the symposium is "2020 Vision for *in vitro* horticulture breeding". The topics for discussion include advances in plant tissue culture and plant molecular breeding, transgenics and crop improvement, GM impact and future demands, and emerging technologies. For details please visit <http://www.une.edu.au/campus/confco/ivchb2008/theme.htm>.

## Other APAARI Events

Some important initiatives were undertaken by APAARI during the year. It was represented in important meetings and organized visits to some lead institutes in the region, and to ADB; to strengthen its activities.

### Visit to COA - Chinese Taipei



Dr. Raghunath Ghodake, Chairman of APAARI visited the Council of Agriculture (COA), Chinese Taipei, from 5 to 9 August 2007. The visit was organized at the invitation of COA and was to appraise research and

development progress made by COA and various institutions in Chinese Taipei and to help promote R&D partnership between these institutions and APAARI. The institutions visited include COA, AVRDC, Taiwanese Agricultural Research Institute, a couple of district agricultural research and extension stations, Gene Bank, Biotechnology Centre, National Taiwan University (NTU), the Ministry of Foreign Affairs (MOFA), and a calling on the Deputy Minister responsible for COA.

Considered collectively, these institutions have a vast array of expertise, capacity and resources to provide invaluable partnership not only with APAARI as regional forum but also with many NARS in developing countries of the Asia-Pacific region. Some areas of such partnership are training and workshops, conferences on a number of aspects such as genetic resources, biotechnology, biosafety, post-harvest processing, irrigation/ drainage, and policy analysis. The Ministry of Foreign Affairs was willing to consider appropriate resource support to APAARI through a formalized programme activities.

The Chairman wishes to thank all those who assisted and helped in organizing and facilitating this visit. Special thanks are due to Dr Wen-Deh Chen, Director General of COA, Dr. Grace Lin, Deputy Director General of COA, Ms Rowana Sung, Liaison Officer with COA, Dr Bio-Ji Chen and DR Zueng-Sang Chen, Dean and Associate Dean, respectively, at NTU, and Mr. David Y. L. Lin, Director General with MOFA for their assistance and forthcoming willingness in developing cooperation.

### Visit to IAARD - Indonesia

Dr. Ghodake also visited Indonesia and met with the NARS leaders/ officials of Indonesian Agency for Agricultural Research and Development (IAARD) in Jakarta to promote activities of APAARI and to solicit their membership of APAARI. The officials were very enthusiastic and willing to become an active member of APAARI. They appreciated the efforts of APAARI, and the kind and type of benefits that both IAARD and APAARI could derive from such collaboration. This further resulted in the participation of Dr Haryono at the APAARI meeting at Hyderabad.

### Participation in the CGIAR Senior Management Program

APAARI had taken special initiative for the participation of senior NARS leaders for a CGIAR organized Management Orientation program in Switzerland. Dr. Raghunath Ghodake (NARI-PNG), Dr. M.E. Tusneem (PARC-Pakistan), Mr. A. K. Upadhyaya (ICAR-India) and Ms. Grace Lin (CoA-Taipei) participated representing APAARI.

### APAARI Delegation Visits ADB

A delegation of APAARI consisting of Drs. R.S. Paroda, Raghunath Ghodake and M.E. Tusneem visited Asian Development Bank (ADB) Headquarters on 30 August 2007 in Manila to explore the possibilities of future collaboration in strengthening agricultural research in Asia-Pacific region. The delegation was received by the Vice-President, Mr. Jin and Senior Directors of various Divisions of the Bank. Efforts of APAARI were highly appreciated and it was agreed to have more effective partnership between the two organization.



### APAARI Represented in the ERA ARD Meet in Slovenia

APAARI took the lead in enhancing involvement of Southern Regional Fora in the European efforts to coordinate better their agricultural research on the occasion of the 4<sup>th</sup> Steering Committee meeting of the European Research Area – Agricultural Research for Development (ERA ARD) held in Maribor Slovenia on October 2-3, 2007.

ERA ARD brings together 14 European countries (Austria, Belgium, Denmark, France, Germany, Hungary, Italy, Lithuania, Netherlands, Poland, Slovenia, Spain, Switzerland, United Kingdom) to promote collaboration in European agricultural research for the world's poor. It likewise gives a very high priority to the participation of partners from the South in the decision-making process, thus the creation of the Southern Advisory Group (SAG) comprised of representatives of regional fora, namely - APAARI, AARINENA, ASARECA, CACAARI, CORAF, FARA, FORAGRO, FANR (SADC). The SAG's involvement is envisaged at three levels, namely, 1) participation in ERAARD Steering committee meetings, 2) involvement in project activities (working groups, workshops), and 3) support the identification of relevant experts from their respective regions as may be required.

The involvement of SAG was initiated in Brussels in June 2007 at ERA ARD's mid term conference and was made official during the 2<sup>nd</sup> SAG meeting in Maribor. SAG also agreed to have a chairperson on rotation basis. APAARI's representative, Dr. Nirlita M. Manalili, Regional Adviser for Asia (market access) of VREDESEILANDEN, a Belgian NGO committed to the pursuit of viable livelihoods for small family farmers, was endorsed to be the first chairperson of SAG.

*[Dr. Nirlita M. Manalili, SAG Chairperson]*

### APAARI Congratulates the New Executive Director of CARP



Prof. Rohan Rajapakse, earlier a Senior Professor in the University of Ruhuna has joined the position of Executive Director of the Council for Agricultural Research Policy (CARP), Sri Lanka on 3<sup>rd</sup> September 2007. He has more than 30 years experience in agriculture research and teaching. Prof.

Rajapakse is also member of the University Grant Commission and chairing the Standing Committee of Agriculture, Veterinary – medicine and Animal Science of the UGC. Prof. Rajapakse has contributed significantly to Sri Lanka's agricultural education and research. He has published more than hundred research publications.

*[CARP Secretariat, Colombo, Sri Lanka]*

### New WB Report Discusses Importance of Agriculture for Development

Developing countries should invest in agriculture if they want to reduce poverty and hunger, says the new World Development Report. The report, titled "Agriculture for Development", pointed out that the agricultural and rural sectors have suffered from underinvestment and disregard for the past 20 years. The report notes that less than 5 percent of the government budget is allotted for agriculture in many agriculture-based countries. In these countries the agricultural sector is essential to overall growth and food security for about 417 million rural people, 170 million of whom live on less than \$1 a day.

According to the report, the GDP growth originating from agriculture is about four times more effective in reducing poverty than those coming from other sectors. The report also noted that agriculture can offer an escape from poverty; should the developing countries invest in the staple food sector, enhance the participation of smallholders in horticulture, aquaculture, dairy and poultry markets, and provide jobs to the rural non-farm economy.

The World Bank Group is advocating a new 'agriculture for development' agenda. It has four policy objectives namely:

- Improvement of market access and establishment of efficient value chains
- Enhancement of smallholder competitiveness to facilitate their market entry
- Improvement of livelihoods in subsistence agriculture and low-skilled rural occupations
- Increase of employment opportunities in rural labor markets and skill enhancement

For its part, the Bank intends to continue increasing its support for agriculture and rural development, with the commitments for the 2007 fiscal year reaching \$3.1 billion. Read the full report at [http://siteresources.worldbank.org/INTWDR2008/Resources/WDR\\_00\\_book.pdf](http://siteresources.worldbank.org/INTWDR2008/Resources/WDR_00_book.pdf)

### How Will Science and Technology Feed the World in 2025?

With 7 billion people, the world's population in 2025 will require tremendous resources. M.S. Swaminathan says that science and technology can help by stimulating and sustaining an 'Evergreen Revolution' that will lead to long-term increases in productivity without associated ecological harm.

Swaminathan enumerates several components to this Evergreen Revolution. It includes the cultivation of crops without any use of chemical inputs, the utilization of effective integrated pest and nutrient management strategies, conservation of biodiversity including soil and water resources, the application of traditional knowledge, and the substantial use of beneficial microorganisms in agriculture.

He cited steps how India can attain meeting its needs. Among the long term strategies on providing for its increasing population, he said, should be one that will provide for new yield and quality breakthroughs in major crops through new technologies, such as genomics and gene pyramiding.

For the paper published in Field Crops Research, please visit <http://dx.doi.org/10.1016/j.fcr.2007.02.004>.

### Philippines-ACIAR Horticulture Workshop

Scientists, farmer organizations, the private sector and other fruits and vegetables industry players from southern Philippines gathered in Cebu city for the "Philippines – Australian Centre for International Agricultural Research (ACIAR) Horticulture Workshop held from 11-12 September, 2007.

Organized by ACIAR in cooperation with the Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD), the workshop evolved programs that seem to enhance the market competitiveness of vegetables and tropical fruits prioritized under the Philippines – ACIAR cooperation.

The said programs would support the development of conducive systems and policies to help meet the market specifications

for both fruits and vegetables; and facilitate research and development (R&D) efforts to increase the returns from vegetables and ensure the competitiveness of tropical fruits in the domestic and export markets.

ACIAR has earmarked about Aus\$ 5 million to support these efforts (Aus\$ 3 million for vegetable R&D and Aus\$ 2 million for fruits R&D). These program are expected to commence early 2008.

The Australian agency sees the possibility of a bigger fruits R&D program if co-investment with Philippine partners continues.

*[Courtesy: Dr. P.S. Faylon, Executive Director, PCARRD]*

## APAARI Members

### MEMBERS

- ACIAR-Australian Center for International Agricultural Research (Australia)
- AREO-Agricultural Research and Education Organization (Iran)
- BAR-Bureau of Agricultural Research (Philippines)
- BARC-Bangladesh Agricultural Research Council (Bangladesh)
- CARP-Sri Lanka Council for Agricultural Research Policy (Sri Lanka)
- COA-Council of Agriculture (Taipei)
- DOA-Department of Agriculture (Thailand)
- IAC-Institut Agronomique Neo-Caledonien (New Caledonia)
- ICAR-Indian Council of Agricultural Research (India)
- JIRCAS-Japan International Research Center for Agricultural Sciences (Japan)
- MAFF-Koroniva Research Station, Ministry of Agriculture, Forestry and Fishery (Fiji)
- MARD-Ministry of Agriculture and Rural Development (Vietnam)
- MARDI-Malaysian Agricultural Research and Development Institute (Malaysia)
- MCFF-Ministry of Commerce, Forests and Fisheries (Samoa)
- NARC-Nepal Agricultural Research Council (Nepal)
- NARI-National Agricultural Research Institute (Papua New Guinea)
- PARC-Pakistan Agricultural Research Council (Pakistan)
- PCARRD-Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (Philippines)
- PNG UniTech - Papua New Guinea University of Technology (Papua New Guinea)
- RDA-Rural Development Administration (Republic of Korea)

### ASSOCIATE MEMBERS

- AVRDC-World Vegetable Center (Taipei)
- Bioversity International (formerly IPGRI), Italy
- CIMMYT-International Maize and Wheat Improvement Center (Mexico)
- ICARDA-International Center for Agricultural Research in the Dry Areas (Syria)
- ICBA-International Center for Biosaline Agriculture (United Arab Emirates)
- ICIMOD-International Center for Integrated Mountain Development (Nepal)
- ICRAF-International Center for Research in Agroforestry
- ICRISAT-International Crops Research Institute for the Semi-Arid Tropics (India)
- IFPRI-International Food Policy Research Institute (U.S.A.)
- ILRI-International Livestock Research Institute (Kenya)
- IRRI-International Rice Research Institute (Philippines)

## APAARI Members (continued)

- IWMI-International Water Management Institute (Sri Lanka)
- UNESCAP-CAPSA-Center for Alleviation of Poverty through Secondary Crops' Development in Asia and the Pacific (Indonesia)
- The World Fish Center (Malaysia)

### RECIPROCAL MEMBERS

- AARINENA-Association of Agricultural Research Institutions in the Near East and North Africa (Jordan)
- AIT-Asian Institute of Technology (Thailand)
- APAFRI-Asia-Pacific Association for Forestry Research Institutions (Malaysia)
- APSA-The Asia and Pacific Seed Association (Thailand)
- NACA-Network of Aquaculture Centers in Asia-Pacific (Thailand)

### Recent APAARI Publications

- Proceedings of the Expert Consultation on Agricultural Innovations: Linking Farmers to Market
- Fifteen Years of APAARI: A Retrospective.
- Selected Success Stories on Agricultural Information Systems.
- Success Story on Lentil in Nepal.
- Bt Cotton in India: A Status Report.
- Proceedings of Regional Synthesis of Research Needs.
- Proceedings of Expert Consultation on Biofuels.
- Micropropagation for Production of Quality Potato Seed in Asia-Pacific.
- Workshop on Biosafety Regulations for Transgenic Crops and the Need for Harmonizing them in the Asia-Pacific Region - Highlights and Recommendations.
- Brainstorming Session on Models of Public-Private Partnership in Agricultural Biotechnology - Highlights and Recommendations.
- APAARI on CD 2007.
- NARS on CD: Directory of Agricultural Research Institutions in Asia and the Pacific.

All queries relating to APAARI Newsletter be addressed to:

**APAARI Secretariat**  
**FAO Regional Office for Asia and the Pacific**  
**Maliwan Mansion, 39 Phra Atit Road**  
**Bangkok 10200**  
**THAILAND**

**Tel: +662-697-4371 - Fax: +662-697-4408**  
**e-mail: apaari@apaari.org**  
**<http://www.apaari.org>**