



Asia-Pacific Association of Agricultural Research Institutions (APAARI)

11th GENERAL ASSEMBLY MEETING

**12 October 2010, RDA, Suwon, Republic of Korea
(13:00 – 18:00 hrs)**

AGENDA

1. Welcome and Chairman's Address : Dr. Abd Shukor Abd Rahman
2. APAARI Progress Report : Dr. Raj Paroda
3. Membership and Fee Payment Status : Dr. Raj Paroda
4. Presentation of Audited Accounts and Assets & Liabilities : Mr. P.K. Saha
5. Report of Committee on Investment Policy : *Ad hoc* Committee for Investment (Drs. Raghunath Ghodake, Robert Zeigler, Raju Barwale)
6. Work Plan and Budget for 2011-2012 : Dr. Raj Paroda
7. Executive Committee for 2011-2012 : Background to be provided by Executive Secretary
8. Venue of the next General Assembly : Suggestions from Members
9. Any Other Items (15 minutes each)
 - GCARD Road Map- its implications : Dr. Ajit Maru
 - APARIS Communication Strategy and its Implementation : Dr. Attaluri S.
 - NAARAP- A Brief Report : Fr. Francis Lucas
 - FARA Initiatives on GCARD Road Map : Mrs. Myra Wopereis
 - AARINENA Experiences on Inter-regional Cooperation : Dr. Ibrahim Hamdan
10. Concluding Remarks and Presentation of Plaques : Dr. Abd Shukor Abd Rahman
11. Vote of Thanks : Dr. Raj Paroda

(19:00 hrs – Reception Dinner at Hotel Ramada Plaza, Suwon)

Asia-Pacific Association of Agricultural Research Institutions (APAARI)

11TH GENERAL ASSEMBLY MEETING

**12 October 2010, RDA, Suwon, Republic of Korea
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AGENDA NOTES

1. Welcome and Chairman's Address

Dr. Abd Shukor bin Abd Rahman, Chairman, APAARI will welcome the participants and thank Dr. Seong-yeol Na, Director General, Rural Development Administration (RDA), Republic of Korea for hosting the General Assembly Meeting in Suwon. He will also highlight the activities of APAARI towards strengthening partnership for agricultural research, especially during the last two year's under his Chairmanship.

2. APAARI Progress Report

Dr. Raj Paroda, Executive Secretary will present a brief report on APAARI activities carried out during the current biennium 2009-2010.

Beside regular activities, the progress report will cover three major areas concerning APAARI's mission. These being: (i) partnership for research through networks; (ii) Asia-Pacific Agricultural Research Information System (APARIS); and (iii) Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB).

Details of various activities carried out during 2009 and 2010 are provided in **Annexure I and II**, respectively.

A copy of the printed proceedings of the last General Assembly held at Tsukuba, Japan on 20 October, 2008 will be provided to all members in the folder during the meeting. Its soft version is available on our website: www.apaari.org

3. Membership and Fee Payment Status

The Executive Secretary will provide details of current APAARI membership in different categories (NARS, Associate, Affiliated, and Reciprocal membership).

It is encouraging that during the current biennium different Agricultural Universities and some of the developing NARS have shown interest in joining APAARI as paid members. During this biennium, fifteen new members have joined APAARI, which indeed is an encouraging development. Current membership of APAARI stands at 55. Efforts are on to enroll more new members, especially Chinese Taipei, Indonesia, Myanmar, Lao PDR, Cambodia etc. The new members who have joined during this biennium (2009-2010) are:

- AAU - Anand Agricultural University, Anand (India)- Affiliate Member
- ARIA - Agricultural Research Institute of Afghanistan, Kabul (Afghanistan)
- BAU - Birsa Agricultural University, Ranchi (India)- Affiliate Member
- CAU - Central Agricultural University, Imphal (India)- Affiliate Member
- CIAT - International Center for Tropical Agriculture (Colombia)
- CoRRB - Council for RNR Research of Bhutan, Thimpu (Bhutan)- Regular Member
- FARA - Forum for Agricultural Research in Africa, Accra (Ghana)- Reciprocal Member
- IAUA - Indian Agricultural Universities Association, New Delhi (India)- Affiliate Member
- NAU – Navsari Agricultural University, Navsari (India)- Affiliate Member
- NMC-CREES - Northern Marianas College - Cooperative Research, Extension and Education Service, Saipan (Northern Mariana Islands)- Affiliate Member
- SDAU - Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar (India)- Affiliate Member
- SHIATS - Sam Higginbottom Institute of Agriculture, Technology & Sciences, Allahabad (India) [formerly Allahabad Agricultural Institute-Deemed University].
- SPC – Secretariat of the Pacific Community, Suva (Fiji)- Reciprocal Member
- SRIF - Sugar Research Institute of Fiji (Fiji)
- UPM - University Putra Malaysia, Serdang (Malaysia)- Affiliate Member

Regarding payment of membership fee, invariably all have been paying regularly. Details of membership payment are given in a statement at **Annexure III**.

4. Presentation of Audited Accounts and the Assets and Liabilities

The APAARI Accounts for the period January-December 2009 were audited and approved by the Executive Committee in April, 2010. Same are attached as **Annexure IV**. The accounts for the current year (January-September 2010) will be audited by the Royal Thai Government Registered GAAP Professional Audit Company Limited, Bangkok, appointed for the second term by APAARI in its 10th GAM held in Tsukuba, Japan, and shall be put up alongwith APAARI Assets and Liabilities statement during the meeting for scrutiny and approval by the members.

Members are informed that our long-term target of having a fixed deposit of US\$ one million has now been achieved.

Members may kindly peruse and review the statements and approve the Audited Accounts together with APAARI Assets and Liabilities Statement. Also a decision, in principle, be approved to have a new Auditor appointed by the Executive Committee for the next biennium 2011-2012 since current Auditor has already served for two terms.

5. Report of Committee on Investment Policy

In the last Executive Committee meeting, held on 24 April 2010 at NASC Complex, New Delhi, the possibilities of safe and secured investment of APAARI fixed deposits to generate higher income were discussed. In order to explore the possibilities of resource generation, a 'Working Group' under Dr. Raghunath Ghodake with Dr. Robert Zeigler, and Mr. Raju Barwale as members was constituted. Accordingly, efforts have been made by the committee to devise an investment policy for APAARI and suggest various options for safe investments for higher resource generation. Dr. Ghodake will make a brief presentation on his report for the consideration and appropriate decision by the General Assembly.

6. The Work Plan and budget for 2011-2012

The work plan and budget for 2011-2012 will cover all prioritized activities such as: (i) Publications, (ii) Meetings/Expert Consultations/Symposia etc., (iii) APARIS activities, (iv) APCoAB activities, and (v) Inter-regional Cooperation.

Members may please offer their suggestions on both Work Plan and Budget as provided at **Annexure V and VI**, respectively.

7. Executive Committee for 2011-2012

The Executive Secretary would explain the background and the procedure that has been in practice for the formation of APAARI Executive Committee.

The main principle in the formation of Executive Committee is to have a balanced representation from three sub-regions (South & West Asia, South-East Asia, and the Pacific) and follow the principle of rotation for Chairman and Vice-Chairman coming from different sub-regions. For the sake of continuity, the outgoing Chairman is retained to continue as a member on the Executive Committee. The composition of all the previous Executive Committees since 1991 is provided at **Annexure VII**.

Members are requested to elect the new Executive Committee for the biennium 2011-2012.

8. Venue of the Next General Assembly

The willing members of APAARI are requested to extend an invitation to host the Twelfth General Assembly Meeting of APAARI to be held in October, 2012. As per previous practice, APAARI shall organize an Expert Consultation on some important theme alongwith the next GAM.

Accordingly, members may decide the venue and also the tentative subject/topic for the expert consultation to be held alongwith the next GAM.

9. Any Other Items

- (i) **GCARD Road Map- its Implications:** Dr. Ajit Maru, Senior Knowledge Officer, GFAR will brief on this subject and suggest proposed strategy for implementation of GCARD Road Map. A copy of the draft GCARD Road Map, as adopted in Montpellier in March 2010, is provided at **Annexure VIII**.
- (ii) **APARIS Communication Strategy:** Dr. S. Attaluri, Coordinator, APARIS will brief on APARIS Communication Strategy and its implementation plan. Members are requested to make suggestions for further strengthening of agricultural information system at the national and regional levels.
- (iii) **NAARAP Activities:** Fr. Francis Lucas, Chairman, NGO Association for Agriculture Research in Asia-Pacific (NAARAP) will present a brief report on various achievements during 2009-2010 and suggest future plans of NAARAP, especially in partnership with APAARI and GFAR.
- (iv) **FARA Initiatives on GCARD Road Map:** Mrs. Myra Wopereis, Senior Consultant, FARA will brief on AR4D activities in Africa and proposed strategy for implementation of GCARD Road Map.
- (v) **AARINENA Report:** Dr. Ibrahim Hamdan, Executive Secretary, AARINENA will present his experiences on the inter-regional cooperation in some selected areas, including partnership initiatives with APAARI.

10. Concluding Remarks

Chairman Dr. Abd Shukor bin Abd Rahman will deliver his concluding remarks highlighting the future challenges and specific role of APAARI.

11. Vote of Thanks

The Executive Secretary will propose a vote of thanks.

A REPORT ON APAARI ACTIVITIES

2009



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A REPORT ON APAARI ACTIVITIES 2009

Raj Paroda
Executive Secretary

Progress and Achievements during 2008-2009

During the 10th APAARI General Assembly Meeting held on 20th October 2008, a detailed report of APAARI activities for the period 2007-2008 was submitted and also circulated to all our members. The activities reported here are along the line of major themes consistent with APAARI's strategic thrusts and approved work plan for 2009. APAARI has done its best to bring together all stakeholders to collectively work through existing research networks as well as some new initiatives in the field of biotechnology and ICT/ICM. A brief account of the major accomplishments and progress of activities scheduled during 2009 is presented below:

1. MEETINGS

1.1 First Executive Committee Meeting

The first meeting of the new APAARI Executive Committee for 2009-2010, was held on 29th January 2009 in Bangkok, under the Chairmanship of Dr. Abd. Shukor Abd Rahman, Director General, MARDI, Malaysia. The progress of work was reviewed and the important decisions taken were:

- The work plan for 2009 was approved.
- Executive Committee members were pleased to review the progress relating to various activities including publications brought out by the Secretariat.
- In view of the GAM decision to have one additional seat in the Executive Committee for NGOs, it was agreed to have the Chairman, NGO Association for Agricultural Research in the Asia-Pacific (NAARAP), the regional association of NGOs formed in April 2008, to be a member of the Executive Committee for the biennium 2009-2010. The decision to revise the Constitution was also implemented to this effect.
- The composition of Steering Committees of both APCoAB and APARIS were approved, which currently stands as:

	APCoAB Steering Committee	APARIS Steering Committee
1.	Dr. Abd Shukor Abd. Rahman-Chairman	Dr. Simon Hearn-Chairman
2.	Mr. Thierry Mennesson	Dr. Abd Shukor Abd. Rahman
3.	Mr. Malcolm Hazelman	Dr. Patricio Faylon
4.	Dr. Randy A. Hautea	Dr. Bhartendu Mishra
5.	Dr. R.S. Paroda	Dr. Ajit Maru
6.	Dr. Wais Kabir	Dr. Malcolm Hazelman
7.	Dr. Mark Holderness	Dr. Raj Paroda
8.	Dr. William D. Dar	Dr. S. Attaluri, APARIS Coordinator (Member Secretary) *
9.	Mr. Raju Barwale (Pvt. Sector Representative)	
10.	Mr. Raul Montemayor (CSO Representative)	*Dr Attaluri has joined APAARI Secretariat as APARIS Coordinator. Ms. Saini has since left APAARI.
11.	Dr. J.L. Karihaloo, APCoAB Coordinator (Member Secretary)	

- Detailed discussions were held on the decision towards paradigm shift in APAARI programme activities and it was decided to have a relook at the research prioritization and need assessment exercises as well as the Vision 2025 document. A strategy for “Way Forward” so as to take new initiatives in future was discussed. It was agreed to develop a policy paper to define renewed role of APAARI to continue serving NARS for strengthening agricultural research for development and impact, while being a more vibrant organization.
- Audited accounts for the year 2008 were presented, reviewed and approved unanimously.
- In order to fill the position of APARIS Coordinator in Bangkok Office, which was advertized, a selection committee was constituted under the Chairmanship of Dr. Simon Hearn, Senior Advisor, ACIAR. The selection has since been made and Dr. S. Attaluri has joined as APARIS Coordinator at APAARI, Bangkok from July, 2009.
- Discussions were held on “Tsukuba Declaration on Climate Change” and its possible follow up. It was decided that this document be widely circulated and national systems be catalyzed to reorient their research agenda around adaptation and mitigation to climate change.
- Members expressed concern over the lack of clarity about the priorities, understanding and directions in which the change management process in the CGIAR was heading. They felt that there was a need to have effective involvement of stakeholders of APAARI, through GFAR in view of its expected revitalization and new responsibilities, especially for Global Conference on ARD (GCARD).
- It was decided to strengthen inter-regional collaboration with other regional fora, AARINENA and CACAARI, with expected support from GFAR.

1.2 X APCoAB Steering Committee Meeting

The X Steering Committee (SC) Meeting of Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB) was held on 30 January 2009 at Bangkok under the chairmanship of Dr. Abd. Shukor, Chairman, APAARI. The meeting was attended by eight other SC members/representatives and special invitees. Presentations on Action Taken Report, progress made during the period under report, audited accounts and budget 2009 were made, reviewed and approved.

The SC expressed satisfaction at the good progress made, appreciating in particular the efforts made towards organizing expert consultations and three training programs. The proposal of APCoAB to develop a regional project on Tissue Culture Business Platform in collaboration with FAO funding was welcomed. The decision of Executive Committee of APAARI to raise its annual core funding to APCoAB from current US\$ 18,000 to US\$ 28,000 effective 2009 was also appreciated.

1.3. Second Executive Committee Meeting

The second meeting of the APAARI Executive Committee was held on 26 October, 2009 at TARI, Taichung under the chairmanship of Dr. Abd Shukor bin Abd Rahman, Director General, MARDI, Malaysia. The Committee approved the minutes of the meeting held on 29 January, 2009 in Bangkok and reviewed the progress as per Work Plan for 2010. Following important decisions were taken:

- (a) The members were informed that effective 2009, all CGIAR Institutes, MARDI and PNG have increased their membership of APAARI.
- (b) The audited statement of accounts for the period of January to September, 2009, together with updated statement of Assets and Liabilities along with the Letter of Certification from the Auditor and the Siam Commercial Bank, were presented and unanimously approved. Also the budget for 2010 was approved.
- (c) The members were informed that APAARI Fixed Deposits have now reached an earlier set target of US\$ 1.0 million. Members also discussed the possible ways for secured investments, for income

generation. The idea received a favourable response and it was suggested to contact IRRI Director, Finance for suitable advice.

- (d) Members were pleased to note that APAARI, in collaboration with ADB, was developing a strategy for research leading to development of agriculture sector in the region. An e-consultation had already been organized successfully and the Face to Face meeting was to be held on 30-31 October, 2009 in Bangkok.
- (e) The Rural Development Administration (RDA), Republic of Korea has kindly agreed to host an Expert Consultation and the 11th GAM of APAARI in October, 2010. The theme of the Consultation would be on Sustainable Agriculture and Biodiversity. Dr. Woon-Goo Ha, Deputy Director, International Technical Cooperation Center (ITCC) briefed the members regarding various arrangements to host these events, including the meeting of CORRA.
- (f) Dr. Robert Zeigler, Director General, IRRI gave a brief presentation on mega program namely, Global Rice Science Partnership (GRiSP) for increasing and sustaining rice production for the benefit of resource poor farmers and consumers. It will have a 10 year strategic plan (2011-2020). He also informed that IRRI will organize a regional GRiSP consultation for Asia in mid-2010 and APAARI will be actively involved in the process.

1.4 XI APCoAB Steering Committee Meeting

The XI Steering Committee Meeting of APCoAB was held on 26 October, 2009 at Taiwan Agricultural Research Institute, Taichung. The meeting was chaired by Dr. Abd Shukor Abd Rahman, Chairman, APAARI and attended by eight members and special invitees, APCoAB. Coordinator presented the progress report. Audited accounts for the year 2009 (till September) and budget for 2010 were also presented and approved. Following program activities for 2010 were approved:

- (a) Policy Dialogue/Brainstorming/Public awareness on GM Technology for Increasing Agricultural Productivity in Asia
- (b) Publication on Banana Tissue Culture and Bt Cotton in China
- (c) Three training courses on (i) “*In vitro* and Cryopreservation Techniques for Conservation of Plant Genetic Resources”, to be held at National Bureau of Plant Genetic Resources, New Delhi, (ii) “Assisted reproductive technologies for livestock genetic improvement” in collaboration with COA and ILRI to be held in Taichung, and (iii) “Edible Mushroom Production for Asian Farmers and Entrepreneurs” in collaboration with COA to be held in Taichung.
- (d) It was decided to pursue the pending regional project proposal on tissue culture platform with FAO RAP.

1.5 VIII APARIS Steering Committee Meeting

The eighth meeting of the APARIS Steering Committee was held on 29 October, 2009 at FAO RAP, Bangkok. Dr. Simon Hearn, Chairman, Steering Committee in his opening address flagged the growing concern for food security, improving access to food by the hungry and challenges posed by climate change through on-going initiatives like CGIAR reforms, and mega programs that are crucial for agricultural development in Asia and the Pacific.

Dr. S. Attaluri, APARIS Coordinator presented the progress of activities and proposed the work plan and budget for 2010. The Steering Committee decided following important activities:

- (a) Development of communication strategy for the Asia-Pacific region to serve better the NARS, Extension System and NGOs in reaching their respective target groups effectively.
- (b) Status Report on ICT/ICM in ARD in the Asia-Pacific, with the involvement of NINPs/NARS.

- (c) Success Stories on ICT/ICM for disseminating the innovations through active involvement of NARS.
- (d) Capacity Building Programs for National Agricultural Information Systems (NAIS) to be organized in collaboration with GFAR, FAO and Asian Institute of Technology.
- (e) Renewal of website domain name www.apaari.org, server hosting and website maintenance, which will expire in April 2010 was approved.
- (f) APARIS to become Asia-Pacific Nodal Point for GFAR's Coherence in Information for Agricultural Research for Development (CIARD).

2. ORGANIZATION OF TRAINING PROGRAMS

2.1 Expert Consultation on Biopesticides and Biofertilizers for Sustainable Agriculture, 27-29 October 2009, Taiwan Agricultural Research Institute, Taichung.

This expert consultation was organized at Taiwan Agricultural Research Institute, Taichung under the APAARI-COA collaborative program on agricultural biotechnology. Seventy-two participants from 23 countries representing NARS, CG centres, other academic institutions, CSOs, private sector and farmer organizations attended. Group discussions were held on priorities for R&D, commercialization, policy regulation and regional cooperation for promotion of bio-inputs. The delegates expressed consensus that biopesticides and biofertilizers have an important role for sustainable agriculture, reducing thereby the cost of inputs, and in achieving Millennium Development Goals.

2.2 Face to Face Meeting for Expert Consultation on Agricultural Research for Development in the Asia-Pacific Region

APAARI had associated with the Global Forum on Agricultural Research (GFAR), in a process of global consultation to reprioritize the agendas for agricultural research for development through a consultation mechanism involving wide range of stakeholders. Asian Development Bank (ADB) provided needed funding support. The initiative helped in harmonizing the efforts of all stakeholders by having main focus on specific needs of small farmers. The consultation process was undertaken in two steps. First, an e-consultation (4-24 September, 2009) that involved about a thousand individuals associated with ARD. The second step was a multi-stakeholder Face to Face meeting held on 30-31 October, 2009 in Bangkok involving 75 ARD stakeholders from 17 countries and representing APAARI member NARS, CGIAR, IARCs, GFAR, ARIs, Universities, NGOs, Farmers and Farmers' Organisations, private sector and donors organizations. An important outcome of the consultation was a joint "Bangkok Declaration" that reflects a collective thinking of all stakeholders who attended the meeting.

2.3 Rapid Bioassay of Pesticide Residues (RBPR) in Fruits and Vegetables, 18-22 May 2009, TARI, Taichung.

The joint CoA-APAARI/APCoAB training programme (RBPR) in Fruits and Vegetables" was held at Taiwan Agricultural Research Institute, Taichung. Twenty five participants from different countries in the Asia-Pacific region attended, of which 10 were sponsored by APAARI. In pursuit of its main objective of strengthening institutional capacity on ARD, APAARI supported participation of as many as 23 participants from regional NARS during the period under report.

2.4 Eighth South Asia Network Meeting on Plant Genetic Resources (SANPGR), 3-5 November, 2009, National Bureau of Plant genetic Resources (NBPGR), New Delhi

The network meeting was jointly organized by Bioversity International, APAARI and the Indian Council of Agricultural Research (ICAR). SANPGR is a sub-regional network established with the aim of improving conservation and use of plant genetic resources through collaborative efforts amongst the

member countries in South Asia. Twenty eight participants attended the meeting, which reviewed the status of conservation and use of plant genetic resources for food and agriculture (PGRFA) in accordance with Global Plan of Action (GPA); implementation of Treaty and the standard material transfer agreement (SMTA).

2.5 Training on “In Vitro and Cryopreservation Techniques for Conservation of Plant Genetic Resources”, 9-21 November, 2009, National Bureau of Plant Genetic Resources, New Delhi

This training course was organized in collaboration with Bioversity International and ICAR. Eleven participants including four sponsored by APAARI (one each from PNG, Chinese Taipei, Thailand and Vietnam) attended the course covering aspects: overview of *in vitro* and cryopreservation in plant germplasm conservation; *in vitro* and cryopreservation techniques; molecular markers for genotype identification and genetic stability testing.

2.6 Workshop on ICM in Agricultural Research for Development (AR4D), 7-11 December, 2009, ICRISAT, Hyderabad, India

APAARI-GFAR-FAO-ICRISAT jointly organized a five day workshop on International Consultation on Agricultural Research for Development and Innovation: Addressing emerging challenges and exploiting opportunities through Information and Communication Technologies at ICRISAT, Hyderabad. APAARI nominated 14 senior information managers from the member NARS in the region to participate in the workshop. A total of 53 participants from 25 countries and eight international organizations attended. Other events included CIARD Asia-Pacific Regional Consultation, ICM4ARD Inter-regional meeting and meeting of EGFAR Taskforce.

3. PUBLICATIONS

Following publications have been brought out during the last one year. These have been widely circulated to all members and others, as per the mailing list.

3.1 APAARI Bi-annual Newsletter (June and December, 2009 Issues)

Two issues of APAARI Newsletter of December 2008 and June 2009 issues were published in time and circulated widely. Both issues are also posted on APAARI website.

3.2 Proceedings of Symposium on Global Climate Change: Imperatives for Agricultural Research in Asia-Pacific

This publication was brought out in February 2009 and was circulated widely. The proceedings were well received and appreciated by the stakeholders. In view of considerable demand, it was reprinted in March, 2009. The electronic version is also available on APAARI website. In view of considerable demand, it was also reprinted in March, 2009, including “Tsukuba Declaration”.

3.3 Proceedings of the Tenth General Assembly Meeting

A comprehensive report on the Proceedings of the 10th APAARI GAM held on 20th October 2008 at Tsukuba, Japan was published. Also a CD of the same was circulated among APAARI members. The report has also been posted on the website.

3.4 Flyer on Tsukuba Declaration

A flyer exclusively covering the “Tsukuba Declaration on Adapting Agriculture to Climate Change” was brought out and distributed in the region widely. This was well received by the policy makers and the scientists. The same is now being quoted widely and used. It has been reprinted in view of increased demand.

3.5 Proceedings of the Expert Consultation on Agricultural Biotechnology for promoting Food Security in Developing Countries

This publication covers the proceedings of an expert consultation held by APCoAB/APAARI in collaboration with the Malaysian Agricultural Research and Development Institute (MARDI) in Malaysia on 20-22 August, 2008.

3.6 Taro Improvement and Development in Papua New Guinea- A Success Story

This success story published in August 2009 illustrates the efforts of NARI, PNG in collaboration with other national, regional and International partners in South Pacific on taro conservation and utilization. The publication has been mailed to all the APAARI members besides other regional organizations/institutions where it can prove useful. It was recently released on 21st September, 2009 in Fiji during the meeting of Pacific Network on Plant Genetic Resources.

3.7 Bt Cotton in India- A Status Report (2nd Edition)

An status report on Bt Cotton in India, published earlier in 2006, has been updated and revised in view of recent successes and developments. This publication was released in Chinese Taipei on 27 October, 2009.

3.8 APAARI on CD-2009

As an annual exercise, all available documents/reports published, including success stories, have been updated and compiled in a CD form for wider distribution among stakeholders.

3.9 CD on Agricultural Biotechnology Institutions of Asia-Pacific

APCoAB has compiled a database on agricultural biotechnology institutions existing in 36 countries of the Asia-Pacific region. It includes detailed information on institution location, contact details, websites, areas of activity and focus areas of R&D in agricultural biotechnology.

4. WEB-BASED INFORMATION DISSEMINATION

4.1 APAARI website (www.apaari.org) has been currently revised with a new user-friendly design and further improvements are in progress. The website is continuously updated with the latest information. To facilitate access to all scientific publications generated by members, required links are provided and all APAARI publications are uploaded on the website regularly. Also the publications and CD-ROMs are widely distributed to various research institutions and scientists in the region.

4.2 As part of its continuing activity, **APCoAB website (www.apcoab.org)** provides regular updates on developments in agricultural biotechnology with specific reference to the Asia-Pacific countries. A revised database of agricultural biotechnology institutes of the Asia-Pacific region has been compiled and uploaded on the website. A CD-ROM on Agricultural Biotechnology Institutions of the Asia-Pacific region is under development.

5. NEW MEMBERSHIP OF APAARI

During last one year, eight new members, in different categories, joined APAARI, thus raising the membership to 48. **CIAT** (International Center for Tropical Agriculture) and **SRIF** (Sugar Research Institute of Fiji) joined APAARI as new Associate Members, whereas **ARIA** (Agriculture Research Institute of Afghanistan), **BAU** (Birsra Agricultural University), and **IAUA** (Indian Agricultural Universities Association), **AAIDU** (Allahabad Agricultural Institute– Deemed University) became new Affiliate Members. Also, **SPC** (Secretariat of the Pacific Community) and **CACAARI** (Central Asia and the Caucasus Association of Agricultural Research Institutions) have joined as Reciprocal Members effective 2009. **FARA** has also agreed, in principle, to become a reciprocal member, **China**, **Indonesia** and **Mongolia** have also been approached to become members of APAARI. Details of members,

including new members, are given in Enclosure I. Recently, in PAPARGEN meeting organized in Nadi, Fiji, the Pacific Island countries namely Vanuatu, Tonga and Solomon Islands have been approached expressed desire to join APAARI.

Effective 2009, almost all CG Centers, MARDI and PNG have increased their annual contribution to APAARI.

6. APAARI REPRESENTATION IN OTHER FORA

6.1 CGIAR Strategy and Results Framework and Mega Program Meeting

APAARI was represented by Dr. Raul Montemayor, a member of Executive Committee of APAARI representing IFAP, in the meeting held at Bioversity International Headquarters, Rome from 17-20 February 2009. The objective of the workshop was to define in more detail the strategic objectives of the CGIAR following the decisions made in Maputo to proceed with the restructuring of the CGIAR and to clarify the concept of "mega programs" on which the restructured CGIAR would focus its efforts on. Also, GCARD will play a key role in defining the agenda of CGIAR with direct involvement of APAARI.

6.2 ADB Workshop on Building Climate Resilience in the Asia-Pacific

This workshop was organized by ADB from 2-3 March 2009 at Bangkok to discuss the draft report on climate change prepared by IFPRI. Dr. Raj Paroda made a presentation on the "Imperatives of Global Climate Change for Agriculture Research in Asia-Pacific", based on the outcomes of the Symposium on Climate Change organized jointly by APAARI and JIRCAS at Tsukuba, Japan in October 2008.

6.3 29th FAO Regional Conference for Asia and the Pacific

The 29th FAO Regional Conference for Asia and the Pacific was held in Bangkok during 26-31 March 2009. As a Regional Organization, APAARI was invited and Mr. P.K. Saha, Liaison Officer attended the meeting.

6.4 AARINENA Executive Committee Meeting and ICARDA Presentation Day

Dr. Raj Paroda was invited to attend the AARINENA Executive Committee Meeting and also ICARDA Presentation Day in the first week of May at Aleppo, Syria.

6.5 REC-SEA PGR Meeting

APAARI was represented by Dr. Patricio S. Faylon, Executive Director, PCARRD, Philippines in the REC-SEA PGR Meeting organized by Bioversity International at Los Banos, Philippines in May, 2009.

6.6 Meeting of the GlobalHort Board of Directors

The 6th meeting of the Board of Directors of the Global Horticultural Initiative (GlobalHort) was held on 12-13 November 2009 in Bangkok. Dr J.L. Karihaloo, Coordinator, APCoAB was deputed by APAARI to represent GFAR in the meeting on the request of the latter. The meeting was attended by Prof. Norman Looney, Chairman and representatives of CIRAD, ICDF, CGIAR, IFAD, NEPAD, AVRDC, GFAR and HortCRSP.

6.6 International Consultation on Agricultural Research for Development and Innovation: Addressing emerging challenges and exploiting opportunities through Information and Communication Technologies by APAARI-GFAR-FAO-ICRISAT, 7-11 December 2009, ICRISAT, Hyderabad, India

Dr Attaluri Srinivasacharyulu, APARIS Coordinator participated and presented the progress report of APARIS. He also attended the CIARD Asia-Pacific Regional Consultation, ICM4ARD Inter-regional meeting and meeting of EGFAR Taskforce.

7. STRENGTHENING PARTNERSHIP

7.1 EFARD-APAARI Collaboration

EFARD through CIRAD provided funds to APAARI for “SAG Food and Bioenergy Study” based on a project funded by European Commission. The following tasks will be performed under this study:

- (a) Generate regional evidence on the impact of food to biofuel conversion in the Asia-Pacific region
- (b) Undertake policy and institutional mapping to better understand the food and bioenergy interphase; and
- (c) Undertake required component report revisions for a smoother integration of regional reports.

7.2 IFAP-APAARI Partnership

Joint efforts between IFAP and APAARI are making progress. IFAP has decided to sponsor 10 farmers from the region for participation in the “Expert Consultation on Biopesticides and Biofertilizers” to be held in Chinese Taipei from 27-29 October 2009. CoA and APAARI agreed to provide logistic support for participation in the meeting and also the field day.

7.3 NAARAP-APAARI Initiative

APAARI facilitated a meeting of NAARAP in Bangkok on 31 October, 2009 under the Chairmanship of Fr. Francis Lucas. APAARI and GFAR were represented by Dr Raj Paroda and Dr Ajit Maru, respectively. The key decisions taken were: (i) creation of interim Executive Committee, (ii) approval for the preparation of NAARAP Charter and Road Map, and (iii) use of ICT for information exchange and to promote association of different groups. Members agreed that the Committee shall be composed of sub-regional focal points and a member of the resource generation committee. APAARI was requested to extend initial funding support to NAARAP during 2010.

8. OTHER ACTIVITIES

8.1 Crops for the Future Meeting, 21-22 September

The meeting on Crops for the Future was jointly organized by APAARI, SPC, Bioversity International and ICUC from 21-22 September 2009 at Nadi, Fiji. Main aim of the meeting was to decide research priorities and strategy to strengthen research partnership among Pacific countries on under utilized crops. The meeting was well attended with representation from the sub-regional NARS, CG Centres, SPC, ADB, etc. The proceedings of the meeting would soon be published.

8.2 Expert Consultation on Biopesticides and Biofertilizers

As per the decision taken during the GAM held on 20th October, 2009, the “Expert Consultation on Biopesticides and Biofertilizers” was held from 27-29 October, 2009 in Chinese Taipei. CoA provided logistical support to 10 NARS leaders towards their participation and hosted the event in Taichung. It was co-sponsored by GFAR and AVRDC.

8.3 South Asian Network on Plant Genetic Resources (SAGPGR)

The eighth meeting of South Asia Network on Plant Genetic Resources (SANPGR) was held at the National Bureau of Plant genetic Resources (NBPGR), New Delhi on 3-5 November, 2009. The event was jointly organized by Bioversity International, APAARI and the Indian Council of Agricultural Research (ICAR). SANPGR is a sub-regional network established with the aim of improving conservation and use of plant genetic resources through collaborative efforts amongst the member countries in the South Asia region. Twenty-eight participants representing SANPGR member countries and international and regional fora attended the meeting which reviewed the status of conservation and use of plant genetic resources for food and agriculture (PGRFA) following Global Plan of Action (GPA); implementation of Treaty in their

respective countries and its impact in the context of developing standard material transfer agreement (SMTA) at the sub-regional basis; and also to review the activities supported by the Global Crop Diversity Trust (GCDDT) in the region.

8.4 APAARI-ADB-GFAR Regional Consultation on Agricultural Research for Development

Asian Development Bank (ADB) has decided to conduct a regional consultation to identify the priority agriculture and natural resource research (ANRR) agenda for the Asia-Pacific. ADB has observed that guidance on the priority and direction of ANRR agenda in the Asia-Pacific will be crucial in view of the fact that the Region is a major global supplier and consumer of food and agri-based products and is also home to world's extreme poor and vulnerable groups- the most insecure among the income group echelons.

Recognizing the important role of APAARI as a neutral the regional research forum, having engagement of a wide range of stakeholders, ADB has approached us to build on existing priorities established through forum's previous work and to focus on how these are best turned into practice- what sort of partnerships, institutions and capacities are required to help research turn into development impacts. In this initiative, APAARI helped the ADB in identifying the suitable consultants to prepare the reports on three sub-regions (South Asia, South East Asia and PRC, and Pacific) and one regional report on agricultural priority research agenda. In the first step of the process, an e-consultation was initiated on 4 September, 2009 specifically for South Asia, South-East Asia and the Pacific sub-regions involving multi-stakeholder groups. A set of key issues (main drivers of change), challenges currently being faced and possible options for development impacts was attempted by a team of consultants. In this effort, APAARI also identified large number of experts in and outside of the region, who could provide meaningful suggestions for ARD in the region. The e-consultation received an overwhelming response from the various stakeholder groups that were involved in this exercise. The consultation formally concluded on 24th September, 2009.

The consultants have used various inputs to prepare their sub-regional and regional reports in assessing the current ARD priorities in ANRR in Asia and the Pacific- its gaps, challenges, and new areas for future research; develops the conceptual framework for ANRR agenda-setting in an agro-ecologically heterogeneous and socio-economically-politically-culturally diverse region; and outlines the future ANRR needs (whether in the form of research, development and/or policy) to address the challenges, gaps, and new areas. A Face to Face Meeting was organised on 30-31 October, 2009 at Bangkok, Thailand. Please see item no. 2.2 for details on the Face to Face Meeting.

9. FINANCE

The members have invariably paid their contribution for the year 2009. The present level of APAARI savings has exceeded one million USD target recently. It is indeed a landmark achieved mainly through the membership contributions, which is duly acknowledged.

EPILOGUE

As is evident from this report, the APAARI activities are being vigorously pursued and their scope is being widened. Even with an expanding programme, the financial resources of APAARI remain quite stable. This has been possible mainly due to trust, cooperation, support and encouragement provided by our esteemed members and stakeholders, which is duly acknowledged.

LIST OF 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-Council for Agricultural Research Policy (Sri Lanka)
- CoA-Council of Agriculture (Chinese 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- 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)
- RDA-Rural Development Administration (Republic of Korea)

ASSOCIATE MEMBERS

- AVRDC-World Vegetable Center (Chinese Taipei)
- Bioversity International (Italy)
- CIAT-International Center for Tropical Agriculture (Colombia)
- 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)
- ICRAF-International Center for Research in Agroforestry (Kenya)
- ICRISAT-International Crops Research Institute for the Semi-Arid Tropics (India)
- IFAP-International Federation of Agricultural Producers (France)
- IFPRI-International Food Policy Research Institute (U.S.A.)
- ILRI-International Livestock Research Institute (Kenya)
- IRRI-International Rice Research Institute (Philippines)

- IWMI-International Water Management Institute (Sri Lanka)
- NTU- National Taiwan University (Chinese Taipei)
- PNG UniTech - Papua New Guinea University of Technology (Papua New Guinea)
- SAARC-South Asian Association for Regional Cooperation (Bangladesh)
- SRIF-Sugar Research Institute of Fiji (Fiji)
- The World Fish Center (Malaysia)

AFFILIATE MEMBERS

- ARIA – Agricultural Research Institute of Afghanistan (Afghanistan)
- BAU – Birsa Agricultural University (India)
- IAUA – Indian Agricultural Universities Association (India)
- AAI DU– Allahabad Agricultural Institute- Deemed University (India)

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)
- CACAARI - Central Asia and the Caucasus Association of Agricultural Research Institution (Tajikistan)
- APSA-The Asia and Pacific Seed Association (Thailand)
- NACA-Network of Aquaculture Centers in Asia-Pacific (Thailand)
- SPC - Secretariat of the Pacific Community (Fiji)

A REPORT ON APAARI ACTIVITIES

2010



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A BRIEF REPORT ON APAARI ACTIVITIES (2010)

Raj Paroda
Executive Secretary

ACHIEVEMENTS

In continuation with past practice of regularly apprising APAARI members about the activities of the organization, we report here the main achievements during 2010. These activities are along major thrust areas approved in APAARI work plan, as also in areas of biotechnology and ICT, as finalised by their respective steering committees. A brief account of the major accomplishments and progress of activities during January-October 2010 is presented below:

1. MEETINGS

1.1 Third Executive Committee Meeting

The third meeting of the APAARI Executive Committee for 2009-2010 was held on 24 April 2010 at the National Agricultural Science Complex (NASC), Pusa, New Delhi, India. It was hosted by the Indian Council of Agricultural Research (ICAR). Dr Abd Shukor bin Abd. Rahman, Chairman of the Executive Committee presided over the meeting. The meeting was attended by six members of the Committee and other invitees.

In his opening address, Dr Abd Shukor appreciated the progress made by APAARI and commended the pivotal role of APAARI team in the GCARD conference held in March 2010 in France. He expressed concern about least developing countries in the region where the ARD efforts still fall far short of the desired level. He felt that APAARI needs to explore opportunities for a collective endeavour of its members for donor support to ARD in the Asia-Pacific region.

In the introductory remarks, Dr. S. Ayyappan was impressed with the progress made by APAARI and conveyed willingness to host an Expert Consultation in near future on Transboundary Pests and Diseases in India. Dr. Raghunath Ghodake, Director General of NARI, Papua New Guinea shared his experience of Workshop on Fast Growing Economies' Role in Global Agricultural Research for Development held by the Chinese Academy of Agricultural Sciences (CAAS) and the Global Forum on Agricultural Research (GFAR) in Beijing from 8-10 February, 2010. Dr. Robert Zeigler, Director General, IRRI assured to facilitate participation of APAARI in the ASEAN Forum. Mr. Raul Montemayor, IFAP assured collaboration between IFAP (Asia) and APAARI. Mr. Raju Barwale of Mahyco Seed Company desired more collaboration and involvement of private sector in future activities and offered funding support for the publication on Bt Brinjal by APCoAB.

The Committee approved the proceedings of the last Executive Committee Meeting held on 26 October, 2009 in Taichung, Chinese Taipei. Dr. Raj Paroda briefed the members on the action taken and the progress of activities. It was noted that the Rural Development Administration (RDA), the Republic of Korea has confirmed the hosting of "International Symposium on Sustainable Agricultural Development and Use of Agrobiodiversity in the Asia-Pacific Region" and the APAARI biennial 11th General Assembly Meeting from 12-15 October, 2010.

The Committee reviewed and approved the APAARI work plan and budget for 2010. It also approved the audited accounts of APAARI for the period January-December, 2009. The Committee approved publication of success stories on: Short Duration Mungbean in Asia from AVRDC, Value Addition and PHM in Rice for Enhanced Income from IRRI and Banana Production in India and Philippines from ICAR and PCARRD, respectively.

Regarding investment of APAARI savings funds, the Committee requested Dr. Raghunath Ghodake, Dr. Robert Zeigler and Mr. Raju Barwale to suggest the fund management strategy for APAARI.

Dr. Raj Paroda briefed on the outcome of GCARD 2010, where APAARI had made a presentation on “Reorienting Agricultural Research for Development in Asia-Pacific: The Way Ahead”, which was well received.

Dr. Robert Zeigler presented an update on Global Rice Science Partnership (GRiSP) Mega Program on increasing and sustaining rice production for the benefit of the poor producers and consumers. It was proposed to organize the regional GRiSP Consultation for Asia in partnership with APAARI stakeholders while developing the full project proposal. The members agreed to endorse GRiSP and also other Mega Programs being developed by other CG centers.

1.2 XII APCoAB Steering Committee Meeting

The XII Steering Committee Meeting of the Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB) was held on 24 April, 2010 at the National Agricultural Science Centre Complex, New Delhi. It was chaired by Dr. Abd Shukor Abd Rahman, Chairman, APAARI and attended by nine other members/ representatives and special invitees. Dr. Raj Paroda, Executive Secretary, APAARI welcomed the participants and expressed his appreciation of the support received from FAO, ICRISAT, COA and ACIAR in sustaining the consortium. The Chairman lauded the achievements of APCoAB and the recognition it has earned in such a short span. Dr. J.L. Karihaloo, Coordinator, APCoAB presented the action taken report. Audited accounts for 2009 and budget for 2010 were presented and approved. The following work plan for 2010 was approved:

- Expert Consultation on “Post Harvest Technology and Value Addition of Horticultural Produce” to be held at MARDI, Malaysia in December, 2010.
- APCoAB SC meeting to be held along with International Symposium on Sustainable Agricultural Development and Use of Agrobiodiversity in the Asia-Pacific Region in Korea in October, 2010.
- Training Program on “Edible Mushroom Production for Asian Farmers and Entrepreneurs” in collaboration with COA to be held at TARI, Taichung, 21-27 November, 2010.
- Training Program on “In vitro and cryopreservation techniques for conservation of Plant Genetic Resources”, to be held at NBPGR, New Delhi, 15-27 November, 2010.
- Training Program on “Assisted reproductive technologies for livestock genetic improvement” in collaboration with COA and ILRI to be held at Livestock Research Institute, Chinese Taipei.
- Publication of success stories on Banana Tissue Culture in India and Banana Tissue Culture in the Philippines.

1.3 IX APARIS Steering Committee Meeting

The IX Meeting of the APARIS Steering Committee was held on 16 September, 2010 at the Asian Institute of Technology, Bangkok, Thailand under the chairmanship of Dr Simon Hearn, Chair of APARIS Steering Committee and attended by six members and special invitees. . Dr. Raj Paroda, Executive Secretary, APAARI welcomed the participants and expressed his appreciation of the support received from ACIAR, FAO, GFAR and AIT for the APARIS program. Dr Attaluri. S, APARIS Coordinator presented the action taken report and presented the APAARI Communication Strategy along with work plan for the year 2011. The following work plan and budget for 2011 was approved:

- Success Stories on Agricultural Information and Learning Systems in the Asia-Pacific Region
- Workshop on ‘New Dimensions in Information and Communication Management for Agricultural Research for Development’ for National Agricultural Research and Extension Systems. (to be co-organised with partners like FAO, GFAR and other interested Organisations)
- Implementation of APAARI Communication Strategy as per the suggestions
- Development of databases on ARD Experts and ARD Projects
- APAARI on CD-2011
- APAARI Newsletter (2 issues)
- Success Stories on Innovations in Agricultural Research, Extension and Marketing Systems in Asia and the Pacific.
- Collaboration with regional / sub-regional fora, ARD Networks and partnerships with other regional and global initiatives in the Asia-Pacific region such as SAARC, SEARCA, SPC etc.
- Supporting and catalyzing the Coherence in Information for Agricultural Research for Development (CIARD) initiative in the Asia-Pacific region with the support of GFAR.

2. ORGANISATION OF EXPERT CONSULTATIONS/WORKSHOPS/ TRAINING PROGRAMS

2.1 Policy Forum on Agriculture and Food Security in Asia in the Context of Food and Financial Crisis: Impact, Implications, Responses and Policy Lessons, 23-24 February, 2010, FAO RAP, Bangkok, Thailand

APAARI-FAORAP jointly organized a Workshop on Food and Financial Crisis in Asia under a Letter of Agreement (LoA) with FAORAP. A total of 16 participants including four officials of FAORAP attended the workshop. Draft country studies covering 12 countries in Asia and the Pacific were discussed. Proceedings of the meeting are awaited.

2.2 Implementation Workshop on Measuring and Analyzing Agricultural R&D Investment and Capacity Trends in South Asia on 29-30 April, 2010 in Bangkok, Thailand.

APAARI and International Food Policy Research Institute/Agricultural Science and Technology Indicators (IFPRI/ASTI) jointly organized the workshop to initiate the ASTI Project on Measuring and Analyzing Agricultural R&D Investment and Capacity Trends in South Asia supported by the Bill & Melinda Gates Foundation. This project aims to begin a new survey round to update and improve the investment and capacity data for Bangladesh, India, Nepal, Pakistan and Sri Lanka that were collected during 2003-05. The workshop was attended by the representatives of Bangladesh Agricultural Research Council (BARC), Indian Council of Agricultural Research (ICAR), Nepal Agricultural Research Council (NARC), Pakistan Agricultural Research Council (PARC), and the Sri Lanka Council for Agricultural Research Policy (SLCARP). Representatives made presentations on recent institutional developments in their national agricultural research systems and discussed on quantitative information needs, data collection procedures, and further analytical opportunities.

2.3 Workshop on ‘National Agricultural Research Information Systems in the Asia-Pacific Region’ on 14-16 September, 2010, Asian Institute of Technology, Bangkok, Thailand

APAARI, FAO RAP, GFAR and AIT jointly organized the workshop for the senior Information and Communication Managers of National Agricultural Research Information Systems in the region. The workshop was aimed to identify mechanisms to strengthen the APARIS, orient participants to the Coherence in Information for Agricultural Research for Development (CIARD) and share opportunities of new ICT/ICM for AR4D. Twenty one participants representing 17 countries in the Asia-Pacific region participated in the workshop and presented country status report on ICT/ICM in AR4D. About 15 resource persons from APAARI, ACIAR, FAO, GFAR, AIT and Kesetsart University provided their inputs in the workshop.

During the workshop, APAARI Communication Strategy was presented and enough opportunity was provided to all the participants to offer suggestions. Participants provided valuable input and at the end endorsed the APAARI Communication Strategy in principle. A hands-on technical training on AgrDrupal was also organized jointly by FAO-GFAR-APAARI on 16-17 September, 2010 for about ten participants who opted for it.

3. PUBLICATIONS

The following publications have been brought out during last six months. The publications, including CDs, were mailed to all members and other stakeholders as per mailing list.

3.1 APAARI Newsletter (bi-annual: June & December)

APAARI Newsletter, December 2009 and June 2010 issues were published in time and circulated widely. These are also posted on APAARI website. All members have been requested to send their inputs concerning main highlights of achievements.

3.2 Highlights from Millions Fed: Proven Successes in Agricultural Development (Hindi) by IFPRI, APAARI and TAAS

A publication on 20 success stories globally was brought out by IFPRI. At the request of Director General, IFPRI, APAARI and TAAS facilitated its Hindi translation and same was launched in an impressive gathering on 19 January, 2010 at Habitat Centre, New Delhi. Same is also posted on APAARI website.

3.3 Proceedings of the Expert Consultation on Biopesticides and Biofertilizers for Sustainable Agriculture

This publication is based on the APAARI-COA meeting on Biopesticides and Biofertilizers for Sustainable Agriculture held on 27-29 October 2009 at Taiwan Agricultural Research Institute (TARI), Chinese Taipei. Same has been distributed to all those on APAARI mailing list and also posted on our website.

3.4 Proceedings of the Expert Consultation on Agricultural Research for Development in Asia and the Pacific-the Way Ahead

This publication was brought out in March 2010 covering the proceedings of the Expert Consultation on Agricultural Research for Development in Asia and the Pacific-the Way Ahead organized on 30-31 October, 2009 by APAARI-Asian Development Bank (ADB) and Global Forum on Agricultural Research (GFAR) as part of the Global Conference on Agricultural Research for Development (GCARD) process. The proceedings contain reports of sessions, outcomes, executive summaries of e-consultation, sub-regional reports, regional report and Bangkok Declaration. It is also posted on APAARI website and was distributed along with CD during GCARD 2010 in Montpellier, France.

3.5 Bangkok Declaration

A flyer on “Bangkok Declaration on Reorienting Agricultural Research for Development in Asia-Pacific Region” was published in February 2010 which reflects collective thinking of all stakeholders from the region, who had attended the face to face meeting held on 30-31 October 2009 in Bangkok. It has been widely distributed and also posted on APAARI website.

3.6 CD Publication on GCARD Reports

A CD was brought out in March 2010. It contains all the documents of GCARD process in Asia and the Pacific region including full text of summary of e-Consultation, South Asia Sub-regional Report, Southeast Asia Sub-regional Report, Pacific Sub-regional Reports, Regional Report on Agricultural Research for Development in the Asia-Pacific, Proceedings of the Face to Face Meeting on Agricultural Research for Development in Asia and the Pacific-the Way Ahead and the Bangkok Declaration. All these reports are also posted on APAARI website.

3.7 Flyer on APPARI

An informative flyer on APAARI was published in February 2010 giving vision and mission of APAARI, updated information and activities of APAARI, list of important publications, success stories, and a list of current APAARI Members etc., for wider distribution.

3.8 APAARI on CD-2010

As an annual exercise, all available documents/reports published, including success stories, have been updated and compiled in a CD form for wider distribution among stakeholders.

4. WEB-BASED INFORMATION DISSEMINATION

4.1 APAARI website (www.apaari.org) is being continuously updated with latest information. It provides links to APAARI Member Institutions, ARD Networks and covers all publications brought out by APAARI.

4.2 APCoAB website (www.apcoab.org) provides information on APCoAB programs and latest developments in agricultural biotechnology in the Asia-Pacific region. The development of a new website with user-friendly navigation and latest information is in progress.

5. APAARI REPRESENTATION IN OTHER FORA

5.1 International Conference on Food Security and Climate Change in Dry Areas by ICARDA, 1-4 February, 2010, Amman, Jordan.

Dr. Abd Shukor Abd Rahman, Chairman, APAARI and Dr Raj Paroda, Executive Secretary attended the Conference organized by ICARDA in Amman, Jordan. Dr. Raj Paroda made a keynote presentation on “Addressing the Concerns of Climate Change and Food Security in the Asia-Pacific Region”, which was well received.

5.2 International Workshop on Fast Growing Economies’ Role in Global Agricultural Research for Development, 8-10 February, 2010, Beijing, Peoples Republic of China

Dr Raghunath Ghodake, Director General, NARI and Member of the Executive Committee represented APAARI and made presentation on ‘Agricultural Research for Development in the Asia-Pacific Region: Status, Needs and Mechanisms for Collaboration and Partnerships’.

5.3 FAO International Technical Conference on “Agricultural Biotechnologies in Developing Countries: Options and Opportunities in Crops, Forestry, Livestock, Fisheries and Agro-industry to face the Challenges of Food Insecurity and Climate Change” (ABDC-10), 1-4 March 2010, Guadalajara, Mexico.

APAARI was invited to convene a special session on Asia-Pacific region in this conference. Dr J.L. Karihaloo, APCoAB Coordinator represented APAARI and organized this session comprising two introductory presentations, discussion and finalization of recommendations. He made a presentation on “Harnessing Biotechnology for Food Security in the Asia-Pacific Region”.

5.4 Sixth Coordination Meeting of Convention on Biological Diversity CBD on Biosafety Capacity Building, 1-3 February, 2010, Siem Reap, Cambodia.

Dr J.L. Karihaloo, APCoAB Coordinator represented APAARI and apprised the participants regarding ongoing and planned biosafety capacity-building activities of APCoAB. He also briefed the participants regarding their collaboration with APAARI biotechnology programs.

5.5 Participation in Mega Program Planning Meeting of CGIAR Centres

APAARI has actively participated in the CGIAR Mega Program initiation. A letter of endorsement for CGIAR change process was sent on behalf of Executive Committee to Dr. Carlos Perez del Castillo, Chair of Consortium Board (Enclosure I). In the process, APAARI has actively participated in development of Mega Programs by IRRI, ICRISAT, ICARDA, IFPRI, ILRI and World Fish Center ensuring that these programs involve actively the NARS and CSOs from the region.

6. RECOGNITION IN GLOBAL ORGANIZATIONS

Dr Raj Paroda, Executive Secretary has been elected as a member of the High Level Task Force (HTLF) by the General Council of World Meteorological Organisation (WMO) for suggesting a Global Framework for Climate Services (GFCS).

Dr Raghunath Ghodake, Director General, NARI and APAARI Executive Committee member has recently been appointed as a member of the CGIAR Fund Council representing the developing country NARS of the Pacific countries.

7. STRENGTHENING PARTNERSHIPS

7.1 AIT-APAARI Collaboration

APAARI signed a Memorandum of Understanding (MoU) with Asian Institute of Technology (AIT), Bangkok, Thailand on 12 February, 2010. Under the MoU, both APAARI and AIT Extension would join hands to work for strengthening APARIS programs, undertake collaborative projects and organise training programs that foster use of ICT/ICM for AR4D in the region.

7.2 FAO RAP-APAARI Collaboration

APAARI signed a Letter of Agreement (LoA) with FAO Regional Office for Asia and the Pacific Region (FAO RAP) to undertake development of five success stories on ICT/ICM in AR4D in the Asia-Pacific and organize a three-day joint workshop on ICM for National Agricultural Information Systems (NAIS) in 2010. APAARI also signed a LoA with FAO RAP to jointly organize a Regional Workshop on Food and Financial Crisis in Asia, which was held on 23-24 February, 2010 at FAO RAP, Bangkok, Thailand.

7.3 IFPRI/ASTI-APAARI Collaboration

In collaboration with APAARI, the ASTI program of IFPRI is initiating a new survey round to update and improve the investment as well as capacity data for five South Asian countries viz., Bangladesh, India, Nepal, Pakistan and Sri Lanka. To begin with, a two-day implementation workshop is proposed on 29-30 April, 2010 in Bangkok for stakeholders to discuss institutional developments in South Asia, quantitative information needs, data collection procedures, and to explore further analytical opportunities.

7.4 GFAR-APAARI Partnership

APAARI signed a Letter of Agreement (LoA) with Global Forum on Agricultural Research (GFAR) in September, 2010 to organise jointly i) International Symposium on Sustainable Agricultural Development and use of Agrobiodiversity in the Asia-Pacific Region during 13-15 October, 2010 in Suwon, Republic of Korea and ii) Workshop on ICT/ICM for National Agricultural Research Information Systems in the Asia-Pacific Region for Information Managers of NAIS during 14-16 September, 2010 at the Asian Institute of Technology, Bangkok.

7.5 ERA-ARD and APAARI Study

A study on food security and bioenergy was conducted in Asia in partnership with ERA-ARD with emphasis on South-East Asia and south Asia. The report revealed that currently food security is not being compromised due to increasing emphasis on biofuels and bioenergy. Report is available on APAARI website (www.apaari.org)

7.6 NAARAP – APAARI Partnership

APAARI has been working closely with NAARAP to strengthen NGO Association for AR4D in the Asia-Pacific. A project for funding was submitted to GFAR and NAARAP has planned to develop its own Charter. It also now has its own Executive Committee that was formed last year in Bangkok.

8. OTHER ACTIVITIES

8.1 GCARD 2010

The first Global Conference on Agricultural Research for Development (GCARD) was held during 28-31 March, 2010 in Montpellier, France by the Global Forum on Agricultural Research (GFAR) and other partners with a huge participation of more than 900 delegates representing national agricultural institutions, governments, international organizations, CG institutions, regional fora, donor agencies, banks, NGOs, farmers' representatives, private sector etc., from all over the world.

APAARI, as a regional forum, has been actively associated with GFAR in facilitating the GCARD process in the Asia-Pacific region in collaboration with the Asian Development Bank (ADB) by involving all stakeholders of ARD in the region. It has played a catalytic role in facilitating the GCARD process in the Asia-Pacific region which includes coordination of e-consultation on agricultural research for development involving more than 300 participants; preparation of 3 sub-regional reports (by consultants Dr. Mruthyunjaya and Dr. P. Kumar for South Asia; Dr. David Raitzer et al., for Southeast Asia; and Dr. Alan Quartermain for the Pacific) and preparation of Regional Report on Agricultural Research for Development in the Asia-Pacific (by the lead consultant Dr. R.B. Singh). It successfully organized Face to Face meeting during 30-31 October, 2009 involving 75 ARD stakeholders from 17 countries and representing APAARI member NARS, CGIAR, IARCs, GFAR, ARIs, Universities, NGOs, Farmers and Farmers' Organisations, private sector and donors organizations. An important outcome of the regional meeting was a joint Bangkok Declaration that reflects the collective thinking of stakeholders from the region.

At the GCARD Conference, Dr. Raj Paroda, Executive Secretary, APAARI made presentation on “Reorienting Agricultural Research for Development in Asia-Pacific: The Way Ahead” focusing on issues that emerged from the consultations made at the regional level, which was well received and appreciated.

He emphasized that accelerated science and innovation-based agricultural growth must be inclusive and it must address the needs and aspirations of resource poor small holder farmers of the Asia-Pacific region. Highlights of his presentation are as follows:

- The main feedback from e-consultation included: AR4D to focus on the development needs of resource-poor small holders, it should be demand driven and address poverty, hunger and concerns of poor producers and consumers, address nutritional security especially of women and children, and maximize out-scaling of innovations through effective TOT and new partnerships involving key stakeholders especially Civil Society Organisations).
- The key messages from the Asia-Pacific region included: re-orientation of AR4D agenda with small farm holders, poor producers, poor consumers as clients; use of ecosystem framework with focus on natural resources management especially land and water; give priority to climate change with emphasis on both adaptation and mitigation; and pursue holistic food supply chain approach. It should also focus on cross cutting areas like human resources development, socio-economic and policy research, and promoting partnership. It should adopt a twin-pillar strategy consisting of germplasm improvement and biotechnology and NRM to promote holistic farming systems approach.
- The AR4D agenda is stated in terms of increasing productivity, improving value chain and increased resilience. For increasing productivity which appeared to be a specific target by the 3 sub-regions the areas of food staples, diversified crops and livestock need special attention. Similarly, for value chain improvement, weak links in the chain are identified as infrastructure and networks/ partnerships. To increase resilience against climate changes and economic shocks, strategy/activities have been identified for each one of 3 sub-regions.
- The emphasis should be not business as usual; focus on innovation partnerships and networking with particular reference to outscaling of innovations in a participatory mode, and linkage of farmers to markets through value chain development and innovative institutions like Farmers’ Self Help Groups, producer companies, cooperatives etc.
- The success stories should be effectively used to spread technology to wider areas as in the case of hybrid rice in China, single cross and QPM hybrids of maize in India, Bt cotton in India, and conservation agriculture in the Indo-Gangetic Plains.
- To further promote AR4D, aggressive advocacy for increased AR4D funding of at least 1% of AgGDP by all developing countries has been advocated. For donor support, South Asia and the Pacific Island countries should receive immediate attention, whereas donor perception needs change for addressing the needs identified by regional fora, and stakeholders should be involved in research planning, implementation and monitoring. The new focus suggested will contribute to achieve in particular the MDGs 1, 7 and 8.
- It was concluded that agricultural development in Asia-Pacific will liberate the region from hunger, malnutrition and poverty and bridge the widening income divide between farmers and non farmers. But the new challenges can be effectively addressed if we partner with new commitments to upscale and outscale innovations.

Dr. Raj Paroda also made a Statement on behalf of all Regional Fora on Emerging Role of Fast Growing Economies (BRIC) in Global Research for Development. APAARI also distributed the

proceedings of the Face to Face meeting, Bangkok Declaration and a CD of publications comprising all reports related to GCARD process in the Asia-Pacific region among the participants of GCARD Conference held on 28-31 March, 2010 in Montpellier, France.

9. NEW MEMBERSHIP OF APAARI

During 2010, four new members namely Northern Marianas College– Cooperative Research, Extension and Education Service (CREES), Northern Mariana Islands, University Putra Malaysia, Malaysia, Navsari Agricultural University (NAU), India, Sardar Dantiwada Agricultural University (SDAU), India, Anand Agricultural University (AAU), India and Council for RNR Research of Bhutan (CoRRB), Bhutan have joined APAARI as Affiliate and Associate Members, respectively. The list of APAARI Members is provided in Enclosure II. Efforts are on to enroll more new members, especially Chinese Taipei, Indonesia, Myanmar, Lao PDR, Cambodia etc. to join APAARI.

10. FUTURE EVENTS

1. The XI General Assembly meeting of APAARI will be held on 12th October 2010 in Suwon, being hosted by the Rural Development Authority (RDA), Republic of Korea.
2. International Symposium on Sustainable Agricultural Development and use of Agrobiodiversity in the Asia-Pacific Region to be held on 13-15 October 2010 jointly by APAARI-Rural Development Authority-Bioversity International-GFAR at Suwan, Republic of Korea.
3. Training program on “Edible Mushroom Production for Asian Farmers and Entrepreneurs” will be held on 21-27 November, 2010 at TARI, Taichung in collaboration with COA, Chinese Taipei.
4. An Expert Consultation on Post Harvest Technology and Value Addition of Horticultural Produce to be held on 26-28 October, 2010 at MARDI, Malaysia. This is being hosted by MARDI.
5. Training program on “*In vitro* and Cryopreservation Techniques for Conservation of Plant Genetic Resources”, will be held on 15-27 November, 2010 at the National Bureau of Plant Genetic Resources, New Delhi.
6. Training program on “Assisted Reproductive Technologies for Livestock Genetic Improvement” will be held on 24-29, October, 2010 in collaboration with COA, Chinese Taipei and ILRI at the Livestock Research Institute (LRI), Taichung.

EPILOGUE

As is evident from this report, the APAARI activities are being vigorously pursued and their scope is being widened. Even with an expanding program, the financial resources of APAARI remain table. This has been possible mainly due to trust, cooperation, support and encouragement provided by all our esteemed members and stakeholders, which is duly acknowledged.



ASIA-PACIFIC ASSOCIATION OF AGRICULTURAL RESEARCH INSTITUTIONS (APAARI)

C/o ICRISAT, CG Centres Block, National Agriculture Science Center Complex
Dev Prakash Shastri Marg, Pusa Campus, New Delhi – 110 012

Ph.: 91-11-65437870; Fax: 91-11-25843243, E-mail: raj.paroda@yahoo.com

Dr. Raj Paroda
Executive Secretary

Ref.: APAARI/2010/
Date: 05th May, 2010

Dr. Carlos Perez del Castillo
Chair of the Board of the Consortium of the CGIAR Centres,
Bulevar Espana 2954, Montevideo
Uruguay

Dear Dr. Castillo,

This being the first formal communication, I on behalf of APAARI, congratulate you for the new responsibility as Chairman, CGIAR Consortium Board and wish that partnership between CG Centers and members of APAARI will further get strengthened under your leadership. APAARI, as a regional forum, is working closely with most of the CG Centers having activities in the Asia-Pacific region. We also see that on going change management process in the CG System is an excellent opportunity to match the research priorities and meet the needs of resource poor farmers and consumers in the region.

In October last, the Executive Committee members had discussed the implications of CGIAR change process for our stakeholders. The outcome of those deliberations was conveyed to the Director, CGIAR for appropriate action (copy attached).

In the recently held meeting on 24 April, 2010 in New Delhi, we also discussed the outcome of GCARD Conference in Montpellier, the CGIAR Strategic Framework and the Mega Programs under consideration of the Consortium Board and the Fund Council. The members were also briefed on the current status by Dr. Robert Zeigler, Director General, IRRI, who represents CGIAR on our Executive Committee.

All members were pleased that the new CGIAR is heading in the right direction to meet the future needs of food and nutrition security through crop productivity growth and national research management through inter-institutional collaboration. We will also appreciate if the Centers get APAARI members involved effectively in the development and implementation of new Mega Programs, especially those related to food security, nutrition and health, sustainability of agricultural systems for the poor, enabling higher income, soil, water and biodiversity management, and climate change.

We also note that the Consortium Board has requested the Centers to develop a few Mega Programs over the coming months. We, therefore, urge that a systematic bottom up exercise by involving key stakeholders from the region may please be ensured while developing these programs. On behalf of its members, APAARI supports the Consortium in its efforts to revitalize the international agricultural research and ensure funding for all the eight Mega Programs. Since all are important, none may please be phased out or delayed.

APAARI will be too pleased to facilitate the process, as considered necessary.

With best regards,

Sincerely yours,

(Raj Paroda)

LIST OF APAARI MEMBERS

Regular Members (20)

- ACIAR - Australian Centre 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 (Chinese Taipei)
- CoRRB - Council for RNR Research of Bhutan (Bhutan)
- 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 - Koronivia Research Station, Ministry of Agriculture, Fisheries and Forest (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)
- RDA - Rural Development Administration (Republic of Korea)

Associate Members (17)

- AVRDC - World Vegetable Center (Chinese Taipei)
- Bioversity International (Italy)
- CIAT - International Center for Tropical Agriculture (Colombia)
- CIMMYT - International Maize and Wheat Improvement Center (Mexico)
- ICARDA - International Center for Agricultural Research in the Dry Areas (Syria)
- ICRISAT - International Crops Research Institute for Semi-Arid Tropics (India)
- IFAP - International Federation of Agricultural Producers (France)
- IFPRI - International Food Policy Research Institute (U.S.A.)
- ILRI - International Livestock Research Institute (Kenya)
- IRRI - International Rice Research Institute (Philippines)
- IWMI - International Water Management Institute (Sri Lanka)
- NTU - National Taiwan University (Chinese Taipei)
- PNG UniTech - Papua New Guinea University of Technology (Papua New Guinea)
- SAC - SAARC Agriculture Centre (Bangladesh)
- SRIF - Sugar Research Institute of Fiji (Fiji)
- The World Fish Center (Malaysia)
- World Agroforestry Center (Kenya)

Affiliate Members (10)

- AAU - Anand Agricultural University, Anand (India)
- ARIA - Agricultural Research Institute of Afghanistan, Kabul (Afghanistan)
- BAU - Birsra Agricultural University, Ranchi (India)
- CAU - Central Agricultural University, Imphal (India)

- IAUA - Indian Agricultural Universities Association, New Delhi (India)
- NAU – Navsari Agricultural University, Navsari (India)
- NMC-CREES - Northern Marianas College - Cooperative Research, Extension and Education Service, Saipan (Northern Mariana Islands)
- SDAU - Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar (India)
- SHIATS - Sam Higginbottom Institute of Agriculture, Technology & Sciences, Allahabad (India) [formerly Allahabad Agricultural Institute-Deemed University].
- UPM - University Putra Malaysia, Serdang (Malaysia)

Reciprocal Members (8)

- AARINENA - Association of Agricultural Research Institutions in the Near East and North Africa (Jordan)
- AIT - Asian Institute of Technology (Thailand)
- APAFRI - Asia-Pacific Association of Forestry Research Institutions (Malaysia)
- APSA - The Asia-Pacific Seed Association (Thailand)
- CACAARI - Central Asia and the Caucasus Association of Agricultural Research Institution (Uzbekistan)
- FARA - Forum for Agricultural Research in Africa (Ghana)
- NACA - Network of Aquaculture Centers in Asia-Pacific (Thailand)
- SPC - Secretariat of the Pacific Community (Fiji)

Status of Contribution by APAARI Members
As on 23 September 2010

S.No.	Country	Payment Category											
			2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
1.	ACIAR – Australia	I	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	
2.	AREEO – Iran	II	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.		
3.	BAR – Philippines	II	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	
4.	BARC – Bangladesh	II	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.		
5.	CARP – Sri Lanka	III	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	
6.	COA – Chinese Taipei	I	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	
7.	CoRRB - Bhutan	III										Rec.	
8.	DOA - Thailand	I	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	
9.	IAC – New Caledonia	III		Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	
10.	ICAR - India	I	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.		
11.	JIRCAS - Japan	I	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	
12.	MAFF - Fiji	III	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	
13.	MARD - Vietnam	III	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.			
14.	MARDI - Malaysia	I	Rec.	Rec.	Rec.	Rec.			Rec.	Rec.	Rec.	Rec.	
15.	MCFF - Samoa	III	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	
16.	NARC - Nepal	III	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.		
17.	NARI – Papua New Guinea	II	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	
18.	PARC - Pakistan	II	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	
19.	PCARRD - Philippines	II	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	
20.	RDA – Republic of Korea	I	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	Rec.	

Status of Contribution by Associate Members

(As on 23 September 2010)

S.No.	Country							
		2008	2009	2010	2011	2012	2013	2014
1	The World Vegetable Center (AVRDC), Chinese Taipei	Rec.	Rec.	Rec.				
2	Bioversity International , Rome, Italy	Rec.	Rec.	Rec.				
3	Centro Internacional de Agricultura Tropical (CIAT), Colombia		Rec.	Rec.				
4	International Maize and Wheat Improvement Center (CIMMYT), Mexico	Rec.	Rec.	Rec.				
5	International Centre for Agricultural Research in the Dry Areas (ICARDA), Syria	Rec.	Rec.	Rec.				
6	International Crops Research institute for the Semi-Arid Tropics (ICRISAT), India	Rec.	Rec.	Rec.				
7	International Federation of Agricultural Producers (IFAP), France	Rec.	Rec.					
8	International Food Policy Research Institute (IFPRI), USA	Rec.	Rec.	Rec.				
9	International Livestock Research Institute (ILRI), Kenya	Rec.	Rec.	Rec.				
10	International Rice Research Institute (IRRI), Manila, Philippines	Rec.	Rec.	Rec.				
11	International Water Management Institute (IWMI), Sri Lanka	Rec.	Rec.	Rec.				
12	National Taiwan University, Chinese Taipei	Rec.	Rec.					
13	PNG University of Technology, Papua New Guinea	Rec.	Rec.	Rec.				
14	SAARC Agriculture Centre (SAC), Bangladesh	Rec.	Rec.	Rec.				
15	Sugar Research Institute of Fiji (SRIF), Fiji		Rec.					
16	The World Fish Center, Malaysia	Rec.	Rec.	Rec.				

Status of Contribution by Affiliate Members

(As on 23 September 2010)

S.No.	Country							
		2009	2010	2011	2012	2013	2014	2015
1	Anand Agricultural University (AAU), India		Rec.					
2	Agriculture Research Institute of Afghanistan (ARIA), Afghanistan	Rec.						
3	Birsa Agricultural University (BAU), India	Rec.						
4	Indian Agricultural Universities Association (IAUA), India	Rec.	Rec.					
5	Northern Marianas College – CREES, Northern Mariana Islands		Rec.					
6	Navsari Agricultural University – NAU, Gujarat, India		Rec.					
7	Sam Higginbottom Institute of Agriculture Technology & Sciences, India	Rec.						
8	Sardarkrushinagar Dantiwada Agricultural University, Gujarat, India		Rec.					
9	Universiti Putra Malaysia		Rec.					

SUMMARY ACCOUNT STATEMENT OF APAARI

01 January – 31 December 2009

(Amount in US Dollars)

ITEMS	RECEIVED	DISBURSEMENTS		BALANCE
		Budget	Actual Used	
Amount B/F				1,011,476.61
1. NARS Membership Fee & other sources	186,735.59			
2. Associate Membership Fee	63,500.00			
3. Interest Income	11,754.57			
4. Others				
4.1 Refund and Receipts	88,499.96			
4.2 Profit and Loss on Transfer	1,849.26			
5. Publications		30,000.00	6,500.77	
6. APAARI Secretariat Support:				
6.1 Salaries		120,000.00	111,581.68	
6.2 Office Stationery, Postage & Communication		30,000.00	22,623.05	
6.3 Miscellaneous		25,000.00	27,563.56	
7. Consultancy/Travel/SSA		70,000.00	64,507.39	
8. Training/Selected Research Projects/Network Support		75,000.00	55,694.00	
9. Meetings		75,000.00		
9.1 Expenses for APARIS Meeting			4,103.26	
9.2 Expenses for Executive Committee Meeting			11,588.82	
9.3 Expenses for Expert Consultation Meeting			29,562.53	
TOTAL	352,339.38	425,000.00	333,725.06	

Fund transferred to APCoAB towards LOA and Co-publishing \$11,665.63

1,030,090.93

Exchange Rate: 1 US\$ = 32.92 Baht

Amount in Fixed Account (U.S.Dollar)

Amount in Saving Account (U.S.Dollars)

Amount in Current Account (Baht: 10,563.81

Cash in hand (Baht 3,029.-)


US\$ 1,003,458.62

US\$ 14,553.78

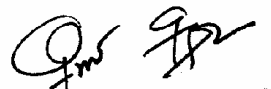
US\$ 320.89

US\$ 92.01

TOT: S 1,018,425.30


.....

Dr. Raj Paroda
Executive Secretary APAARI


.....

Ms. Urairat Rujirek
Accountant APAARI


.....

Mr. Rattanachai Dumnernsawat
External Auditor

STATEMENT OF FUNDS RECEIVED in 2009

As on 31 December 2009

Date	Description	08 Rcvd	09 Rcvd	Rev'd :Bht	Total Rev'd :\$
01/01/2009	Amount in Fixed Dollar A/C				957,296.11
	Amount in Saving Dollar A/C				49,827.64
	Amount in Current Baht A/C (29,788.81)				904.88
	Amount in Saving Baht A/C (112,809.75)				3,426.78
	Cash in hand (698.-)				21.20
	Balance Amount 2008 c/d				1,011,476.61
	<u>Fund support</u>				
09/03/2009	Final payment from GFAR		4,270.00		
11/06/2009	Final payment from GFAR (Japan meeting)		2,000.00		
15/07/2009	Co-sponsoring the Expert Consultation on Biopesticides & Biofertilizers for Sustainable Agriculture from AVRDC		3,000.00		
07/09/2009	First payment from GFAR (face to face meeting)		10,200.00		
02/10/2009	Second payment from GFAR (face to face meeting)		17,000.00		
02/11/2009	First, second payment from GFAR (Taipei meeting)		16,000.00		
28/12/2009	First payment from FAO (APARIS activities)		7,500.00		
	Sub Total Admission Fee:	0.00	59,970.00		59,970.00
	<u>60-01 Refund:Fund support</u>				
25/03/2009	Reimbursed to the air fare		330.00		
09/07/2009	Reimbursed to the air fare		3,005.00		
14/09/2009	Reimbursed to the air fare		196.31		
02/11/2009	Reimbursed to the air fare		420.00		
19/11/2009	Sharing reception dinner at Tai Chung		1,122.00		
24/12/2009	Unspent amount from SPC		1,826.00		
24/12/2009	Reimbursed to the air fare		404.15		
	Sub Total Admission Fee:	0.00	7,303.46		7,303.46

<u>60-02 NARS Membership Fees & other sources</u>					
08/01/2009	From NARI, PNG		6,000.00		
05/02/2009	From VAAS, Vietnam	5,653.24			
16/02/2009	From Samoa	3,000.00	3,000.00		
05/03/2009	From COA, Taiwan		10,000.00		
09/03/2009	From JIRCAS, Japan		10,000.00		
04/04/2009	From IAC, New Caledonia		3,000.00		
21/04/2009	From MARDI, Malaysia		10,000.00		
21/04/2009	From ICAR, India	10,000.00			
26/05/2009	From RDA, Korea		10,000.00		
09/06/2009	From CARP, Sri Lanka		3,000.00		
21/07/2009	From BARC, Bangladesh	12,000.00			
21/07/2009	From PARC, Pakistan		6,000.00		
18/08/2009	From ACIAR, Australia		66,500.00		
04/09/2009	From DOA, Thailand		10,000.00		
07/09/2009	From BAR, Philippines		6,000.00		
06/10/2009	From AREEO, Iran	6,539.98			
02/11/2009	From NARC, Nepal		3,000.00		
11/11/2009	From Fiji		3,042.37		
Sub Total Membership Fees:		37,193.22	149,542.37	0.00	186,735.59
<u>60-03 OTHERS INCOME:</u>					
26/06/2009	From CIRAD towards the SAGs food & bioenergy study		21,224.50		
29/06/2009	Miscellaneous income		2.00		
Sub Total Others Income:		0.00	21,226.50		21,226.50
<u>60-04 Associate Membership Fees:</u>					
08/01/2009	From SAC, Bangladesh		3,000.00		
05/02/2009	From ARIA, Afghanistan		1,500.00		
26/02/2009	From IFPRI, USA		5,000.00		
26/02/2009	From ICRISAT, India		5,000.00		
26/02/2009	From IRRI, Philippines		5,000.00		
26/02/2009	From AVRDC, Taiwan		5,000.00		
04/03/2009	From CIMMYT, Mexico		5,000.00		
06/03/2009	From IWMI, Sri Lanka		3,000.00		
09/03/2009	From ILRI, Kenya		5,000.00		
11/03/2009	From Birsa Agricultural University		1,500.00		
17/03/2009	From IFAP, France		3,000.00		
18/03/2009	From IPGRI, Rome		3,000.00		
21/04/2009	From World Fish Center		5,000.00		
28/04/2009	From IAUA, India		1,500.00		
08/06/2009	From Allahabad Agri. Institute, India		1,500.00		
09/06/2009	From ICARDA, Syria		3,000.00		
29/09/2009	From PNG University		3,000.00		
06/11/2009	From National Taiwan University		3,000.00		
28/12/2009	From Northern Marianas College, USA		1,500.00		
Sub Total Contributions:		0.00	63,500.00	0.00	63,500.00

60-05 MISCELLANEOUS INCOME:					
i) Interest Income:					
27/02/2009	From Fixed deposit		297.47		
14/07/2009	From saving USD		11.25		
14/07/2009	From Fixed deposit		7,382.65		
14/07/2009	From saving Baht		7.15		
02/09/2009	From Fixed deposit		197.68		
08/09/2009	From Fixed deposit		40.83		
23/11/2009	From Fixed deposit		445.09		
31/12/2009	From saving USD		11.76		
31/12/2009	From saving Baht		3.71		
31/12/2009	From Fixed deposit		3,356.98		
Sub Total Interest Income:		0.00	11,754.57	0.00	11,754.57
ii) Profit/loss on Transfer from S S/A to B A/C					
27/01/2009	From Baht Saving A/C		171.32		
26/02/2009	From Baht Saving A/C		265.18		
26/02/2009	From Baht Current A/C		265.18		
11/03/2009	From Baht Saving A/C		275.21		
26/03/2009	From Baht Saving A/C		215.97		
11/05/2009	From Baht Saving A/C		194.10		
19/06/2009	From Baht Saving A/C		97.50		
30/06/2009	From Baht Saving A/C		89.30		
20/08/2009	From Baht Saving A/C		91.13		
07/09/2009	From Baht Saving A/C		92.04		
15/10/2009	From Baht Saving A/C		20.04		
22/10/2009	From Baht Saving A/C		38.27		
17/11/2009	From Baht Current A/C		19.44		
18/12/2009	From Baht Saving A/C		14.58		
Sub Total Profit on Transfer:		0.00	1,849.26	0.00	1,849.26
Sub Total:		0.00	0.00	0.00	0.00
Sub Total Miscellaneous Income:					
GRAND TOTAL RCVD in 2009 up to 31/12/09		37,193.22	315,146.16	0.00	352,339.38



บริษัท จีเอเอพี โปรเฟสชั่นแนล ออดิท จำกัด

GAAP PROFESSIONAL AUDIT COMPANY LIMITED

61/20 Moo 5, Budhamonthon sai 4 road, Thawiwatthana, Thawiwatthana, Bangkok, 10170 Thailand.

07 FEB 2010

Subject: Audit's report

Attention: Executive Committee of the Asia-Pacific Association Of Agricultural Research Institutions. (APAARI)

AUDITOR'S REPORT

I have audited the summary account statement of The Asia-Pacific Association Of Agricultural Research Institutions for the year ended December 31, 2009, and the related statements of funds received and comparing statement between budget and actual used for the year then ended. These financial statements are the responsibility of the Institution's management as to their correctness and completeness of the presentation. My responsibility is to express an opinion on these financial statements based on my audits.

I conducted my audits in accordance with generally accepted auditing standards in Thailand. Those standards require that I plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. I believe that my audit provides a reasonable basis for my opinion.

In my opinion, the financial statements referred to above present fairly, in all material respects, the financial position of The Asia-Pacific Association Of Agricultural Research Institutions for the year ended December 31, 2009, and the results of its operations for the year then ended in conformity with generally accepted accounting principles in Thailand.

(MR. Rattanachai Dumnernsawat)

Certified Public Accountant

(Thailand) No.4897

DR. Rajendra Singh Paroda

Executive Secretary

Maliwan Mansion 39 Phra Atit Road,

Bangkok 10200, Thailand.



ธนาคารไทยพาณิชย์
SIAM COMMERCIAL BANK



BANGLAMPU BRANCH
135 PHRA SUMERU RD.,BANGKOK 10200

FEBRUARY 08,2010

TO WHOM IT MAY CONCERN

THIS IS TO CERTIFY FOR ASIA-PACIFIC ASSOCIATION OF AGRICULTURAL RESEARCH INSTITUTIONS (APAARI) HAVE MAINTAINED AN ACCOUNT WITH THE SIAM COMMERCIAL BANK PCL. BANGLAMPU BRANCH.

ACCOUNT

AMOUNT AS AT DECEMBER 31,2009.

FIX DEPOSIT DOLLAR A/C NO.003-041357-01-1001	USD.1,003,458.62
SAVING DOLLAR A/C NO.003-030801-02-1001	USD.14,553.78
CURRENT BAHT A/C NO.003-3-08558-2	THB.10,563.81
SAVING BAHT A/C NO.003-2-63478-6	THB.0.00

THE SIAM COMMERCIAL BANK PCL.
BANKLAMPU BRANCH

(MR.PUNSAK SATTAPAISARN)

AUTHORIZED SIGNATURE

TEL.02-2817617

APAARI WORK PLAN FOR 2011

Activities	Details
1. Publications	<ul style="list-style-type: none"> • APAARI Newsletter (December, 2010 and June, 2011) Publication of success stories: <ul style="list-style-type: none"> • Taro production in the Pacific (in collaboration with SPC) • Success Story on Innovations in Linking Farmers to Markets in Chinese Taipei. • Success Story on Protected Cultivation on Vegetables in Korea • Success Stories on 2-3 other topics <ul style="list-style-type: none"> • Proceedings of International Symposium on Agrobiodiversity • Proceedings of Expert Consultation on Low Cost PHT and Value Addition of Horticultural Produce
2. Meetings/ Expert Consultations/ Symposium	<ul style="list-style-type: none"> • APAARI Executive Committee Meetings (April & October, 2011) • Expert consultations on selected themes: <ul style="list-style-type: none"> (i) Expert Consultation on Trans-boundary Animal Diseases (ii) High Level Policy Dialogue for Increased Investments in AR4D
3. APARIS Related Activities	<ul style="list-style-type: none"> • Success Stories on Agricultural Information and Learning Systems in the Asia-Pacific Region • Workshop on 'New Dimensions in Information and Communication Management for AR4D • Implementation of APAARI Communication Strategy • ICT Status Report and development of databases on ARD Experts and Projects • Collaboration with regional / sub-regional Fora, ARD Networks and partnerships with other regional initiatives such as SAARC, SEARCA, SPC, NAARAP etc. • Facilitating CIARD initiative in the Asia-Pacific in partnership with GFAR and FAO. • APARIS Steering Committee Meeting • APAARI on CD-2011
4. APCoAB Related Activities	<ul style="list-style-type: none"> • APCoAB Steering Committee Meeting • Training Programs on: <ul style="list-style-type: none"> (i) "In vitro and cryopreservation techniques for conservation of Plant Genetic Resources", to be held at NBPGR, New Delhi (ii) Two training programs to be conducted in collaboration with COA, Chinese Taipei • Publication on Proceedings of Expert Consultation on Low Cost PHT and Value Addition of Horticultural Produce. • Publication of Banana Tissue Culture • Publication of Success Stories on Biotechnology related topics • Revision of APCoAB website and its regular update • Organizing an Expert Consultation on some selected theme • Collaboration with regional fora and other stakeholders in promoting safe application of agricultural biotechnology
5. Inter-regional Cooperation	Participation and strengthening of cooperation in the following: <ul style="list-style-type: none"> • INCANA- an inter-regional network on cotton • Agricultural Biotechnology – Networking with AARINENA • GPP on LFM – in partnership with GFAR and other Regional Fora

Annexure VI

PROPOSED BUDGET FOR 2011-2012 (in US\$)

S. No.	Items	Approved		Proposed	
		2009	2010	2011	2012
1.	Publication (Newsletter, Success Stories, Directory, Technical Report etc.)	30,000	30,000	25,000	25,000
2.	APAARI Secretariat Support				
	Staff Salary	120,000	150,000	150,000	180,000
	Office Stationary and Postage	30,000	35,000	35,000	35,000
	Miscellaneous Items	25,000	30,000	30,000	30,000
3.	Consultancy/Travel/DSA etc.	70,000	80,000	70,000	75,000
4.	Training/Selected Research Projects/ APAARI Program and Network Support	75,000	80,000	70,000	80,000
5.	Expert Consultation(s)/General Assembly and Executive Committee Meetings	75,000	85,000	80,000	90,000
	Total	425000	490000	460,000	515,000

EXECUTIVE COMMITTEE

2009 - 2010		
Chairman	Dr. Abdul Shukor Abdur Rahman	MARDI, Malaysia
Vice-Chairman	Dr. S. Ayyappan	ICAR, India
Members	Dr. Raghunath Ghodake	NARI, PNG
	Mr. Mason Smith	MAFF, Fiji
	Mr. Somchai Charnnarongkul	DoA, Thailand
	Dr. Wais Kabir	BARC, Bangladesh
	Dr. Robert S. Zeigler	IRRI, Philippines
	Mr. Raul Montemayor	CSO
	Fr. Antonio Francisco Lucas	NGO
	Dr. Mark Holderness	GFAR
Executive Secretary	Dr. R.S. Paroda	India

2007 - 2008		
Chairman	Dr. Raghunath Ghodake	NARI, PNG
Vice-Chairman	Dr. Abdul Shukor Abdur Rahman	MARDI, Malaysia
Members	Prof. Rohan Rajapakse	CARP, Sri Lanka
	Dr. William Dar	CGIAR
	Dr. Mangala Rai	ICAR, India
	Dr. Su-San Chang	CoA, Chinese Taipei
	Mr. Raul Montemayor	CSO
	Dr. Mark Holderness	GFAR
	Mr. Philip Tuivavalagi	MAFM, Samoa
Executive Secretary	Dr. R.S. Paroda	India

2005 - 2006		
Chairman	Dr. H.P.M. Gunasena	Sri Lanka
Vice-Chairman	Dr. T. Mennesson	New Caledonia
Members	Dr. Shinobu Inanaga	Japan
	Dr. M. E. Tusneem	Pakistan
	Dr. Nicomedes P. Eleazar	Philippines
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2003 - 2004		
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Vice-Chairman	Dr. M. Nurul Alam	Bangladesh
Members	Dr. R.P. Sapkota	Nepal
	Mr. Somchai Charnnarongkul	Thailand
	Dr. T. Menneson	New Caledonia
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Vice-Chairman	Dr. J. Kumar	Fiji
Members	Dr. Ian Bevege	Australia
	Dr. Z. Karim	Bangladesh
	Dr. S. Anang	Malaysia
	Dr. P. Faylon	Philippines
Executive Secretary	Dr. R.S. Paroda	India

1999 - 2000		
Chairman	Dr. Ian Bevege	Australia
Vice-Chairman	Dr. Ananta Dalodom	Thailand
Members	Dr. Seong-Hee Lee	Korea
	Dr. K.A. Malik	Pakistan
	Dr. R.D. Ghodake	Papua New Guinea
	Dr. D. Kirtisinghe	Sri Lanka
Executive Secretary	Dr. R.S. Paroda	India

1997 - 1998		
Chairman	Dr. M. Akbar	Pakistan
Vice-Chairman	Dr. Nobuyoshi Maeno	Japan
Members	Dr. Z. Karim	Bangladesh
	Dr. Ananda Dalodom	Thailand
	Mr. M.J. Kumar	Fiji
	Dr. William D. Dar	Philippines
Executive Secretary	Dr. R.S. Paroda	India

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Vice-Chairman	Mr. Abbas Keshavarz	Iran
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	Dr. Shiva Bahadur Nepali	Nepal
	Dr. Young Sang Kim	Korea
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Executive Secretary	Dr. R.S. Paroda	India

1993 - 1994		
Chairman	Dr. Young Sang Kim	Korea
Vice-Chairman	Mr. Balthasar M. Wayi	Papua New Guinea
Members	Prof. Wang Lianzheng	China
	Dr. Zafar Altaf	Pakistan
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	Mr. Montri Rumakom	Thailand
Executive Secretary	Dr. R.S. Paroda	India

1991 - 1992		
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The Road Map to Transform the Agricultural Research for Development (AR4D) System for Greater Global Impacts:

Shifting from Being Observers to Actors

Uma Lele, Eugene Terry and Eduardo Trigo

1. The Context

The Global Conference on Agricultural Research for Development (GCARD 1), and the preceding analyses, consultations and discussions culminating in the Montpellier Conference in March 2010, set out to address key challenges and opportunities facing agricultural research, knowledge and technology generation and delivery systems. It identified the changes required in the research and delivery systems so that millions of hitherto unreached small, resource-poor farmers can achieve environmentally-sustainable productivity growth and increase their food security and incomes to tackle the root causes of rural poverty¹.

Past successes in agricultural research and technology adoption have enabled a growing populace to avoid mass starvation and created abundant food supplies. Yet, according to FAO and the World Bank a billion people still go hungry every day and 1.5 billion live in poverty. Two thirds to three quarters of the poor eke out a living from agriculture and they, and the urban poor, critically depend on sustained productivity growth in agriculture for affordable food supplies.

GCARD1 recognized that current research and innovation systems are too fragmented and are grossly under-equipped to feed the billion and a half poor. The GCARD1 process also clearly established that a revolutionary revitalization of agricultural research and innovation systems is needed if they are to contribute to the abolition of hunger and poverty. Moreover GCARD1 achieved a remarkable consensus that these goals can only be attained if i) all stakeholders work together, ii) the necessary capacities to conduct research and scale up delivery are put in place and iii) their outputs are made available to millions of small farmers operating in diverse natural conditions.

The Road Map, based on GCARD 1 provides a plan for collective action for reform and strengthening of AR4D systems globally, in which all actors have vital roles to play. It addresses the reform of AR4D institutions at all levels and proposes to exploit the reforms currently underway in the international research of the CGIAR as a trigger for the necessary reforms in national agricultural research and innovation systems.

These processes call for clear research and innovation pathways, milestones and targets, defined by individual developing countries in the context of their own national development plans and commitments along the value chains to achieve impact. Such collective goals then can

¹ See discussion of sustainable intensification in: U Lele, J Pretty, E Terry and E Trigo (2010), *Transforming Agricultural Research for Development*, Report of the GCARD1 Global Author Team, GCARD1 2010 www.egfar.org

provide aspirational targets, towards which all concerned actors can work together to meet the needs of the poor farmers in the foreseeable future.

GCARD participants agreed on the characteristics of a well functioning agricultural research for development (AR4D) system (Box 1). They further agreed that the failure of the agricultural research and development systems to achieve these characteristics is a major cause of the failure to achieve MDG #1, i.e., of halving the incidence of poverty and hunger from its 1990 level, upon which the realization of other MDGs in nutrition, health and the environment critically depends.

Box 1: A well functioning AR4D system is one that:

1. Adopts a problem-solving approach to key priorities, with national and regional development objectives as the driver and national systems and regional organizations as the foci, supported by international and regional actions as required;
2. Focuses on *researchable or proven* technologies and/or their delivery to meet farmer constraints on technology adoption;
3. Addresses constraints identified through national and regional consultations e.g., human resource development, career incentives for scientists, accountability and effectiveness of *multiple* partnerships.
4. Facilitates the rapid generation of innovations and the spread of knowledge and technologies to and from small holders and delivery of services to reach the poor;
5. Promotes effective use of collective capacities, particularly networks, by strengthening key relationships among research, development (e.g. extension, seed suppliers, the banking sector) and farmer actors;
6. Actively achieves increased investments in human, institutional and financial resources;
7. Promotes coordinated operational linkages among donors and development partners, aimed at monitorable development impacts;
8. Increases mutual and equal accountability among all stakeholders;
9. Achieves credible monitoring, evaluation and reporting on what has changed to increase the value and recognition of such processes to wider society;
10. Commits to action.

The GCARD analyses also identified the stakeholders who need to be mobilized to develop such an effective AR4D system:

- Civil society organizations at all levels, from local and sub-national to national and international, including farmers and farmer collectives, representatives of the poor and women and stewards of the environment;
- Private sector, including small, medium and large agricultural input companies, food companies, agricultural banks, insurers and the agribusiness, processing and

- marketing sectors;
- National publicly funded systems of agricultural research, education and extension;
- National policy makers of developed and developing countries and in regional political and technical organizations;
- The international agricultural research institutions, in particular the CGIAR, institutions in emerging economies and those undertaking advanced research in agriculture and associated fundamental science;
- All relevant stakeholders at the national, regional and international levels engaged in and/or supporting agricultural research knowledge and information systems including the UN agencies, the CGIAR, educational, research and extension institutions, information and technology systems, and farmers organizations; legislatures,
- Donors and other development assistance agencies, including bilateral and multilateral institutions and development banks; and private foundations, and not the least,
- The Media.

2. Transforming AR4D requires actions at all levels

The collective interventions of the above stakeholders are now urgently needed to more effectively address the challenges in achieving MDG 1. These include:

At the national level:

1. **A lack of input from all relevant *national* stakeholders** into the agricultural research, technology development and knowledge management systems of developing countries: representatives of the poor, small, marginal and women farmers, civil society, the private sector (input suppliers, small agricultural enterprises and markets) , academics in universities and think tanks. Indeed in many cases even an organized representation of the interests of these stakeholders is at a nascent stage.
2. **Huge under investment gap in agricultural research and development** resulting from inadequate attention to the many non-technology factors, including enabling policy environment, good governance, institutional and human resource capacity, trade and infrastructural, financial and risk factors, all of which impact on agricultural production and productivity of small farmers. In turn they are a result of insufficient and ineffective public, private and civil society partnerships in developing countries, misperceptions of the limited potential returns from agriculture and agricultural research, urban-centric policies and a poor voice for agriculture in investment decisions.
3. **The absence of universally accepted standards, norms, methodologies, and accountabilities** for actors responsible for developing agricultural research priorities *ex-ante*, and the lack of agreed principles and standards, either for accessing known technologies for adaptation, or for developing new technologies, geared to resource poor farmer's conditions, to achieve environmentally sustainable food security and poverty reduction.

4. **The lack of effective modalities to operationalize priorities which emerge** from the national and regional AR4D organizations to meet small and resource- poor farmers' needs and constraints.

At the regional level:

5. **Generally weak regional organizations with limited ownership across the range of national AR4D stakeholders relative to what is required and a lack of wider political commitment to support collective regional actions and share technological capabilities.**
6. **Past failure of regional research prioritization to reflect the complexity of factors outside research and technology that determine development impacts from research** e.g., political considerations, rural development plans and commitments, sovereignty, impacts of crises, cross-border competitiveness and trade. These are not normally considered by research establishments.

At the Global Level:

7. **The past focus of the CGIAR centres on their own operations, with limited synergetic drive among centers and insufficient engagement of the national, sub regional and regional fora in the CGIAR priority setting processes.** The recent CGIAR reform efforts highlight the need for effective partnerships among international investors and national partners with more explicit accountability to the intended beneficiaries of research. They call for collective outcome-based planning with national partners, accompanied by clear roles and responsibilities for each and processes of mutual accountability. These reforms are in line with the Paris, Monterrey and Accra Declarations.
8. **Accelerated global market integration and the adverse effects of climate change,** each lead to substantially increased vulnerabilities of the poor .

And yet if TAR4D focuses on poverty reduction in a narrow sense, geographically, it will cover only two parts of the developing world, Asia and Africa, where 97 percent of the global poverty is now concentrated. Moreover, it will fail to mobilize global knowledge with the necessary alignment of agricultural research efforts on a global scale needed to increase global food supplies sustainably, keep food prices low yet returns to farmers high, and protect the environment, so as to truly contribute to the eradication of poverty.

An AR4D focus on poverty reduction alone would also ignore its inter-relationships with food security and environmental resilience. Interventions addressing each of these entail benefits as well as trade-offs. Deciding among technological options is a sovereign decision for national stakeholders to make, but it needs to be informed by access to the best possible knowledge of new technological opportunities, whether, for example, in biotechnologies, ICTs or conservation tillage, and informed choices made regarding their positive and negative implications for meeting development objectives.

3. Why a Road Map?

Recognizing that postponing action is no longer an option, GCARD 1 participants collectively adopted the concept of a Road Map to address these challenges.² **The choice of a Road Map means that rather than hoping for changed behavior by others, the participants in GCARD 1 recognized that all stakeholders must play their respective roles and commit themselves to proactively accept their individual and collective responsibilities in meeting the challenge of improving AR4D in support of the goal of abolishing hunger and poverty³.**

At GCARD 1 there was further consensus on a redefined role for the inclusive, multi-stakeholder **Global Forum for Agricultural Research (GFAR)** to catalyze processes that will:

- Help bridge the vast underinvestment gaps in AR4D, link research investments to wider rural development investments, and promote incentive systems in AR4D career and reward structures to revitalize the institutions involved;
- Recognize the major challenge of capacity development in AR4D systems around the world and put in place collective measures to address this need through concerted actions, with new value and incentive systems aligned with development needs;
- Mobilize expertise on a global scale to help improve strategies and the quality of AR4D investments, partnerships, their performance and enhance public accountabilities for results;
- Strengthen national and regional AR4D stakeholder mobilization, consultation and planning processes that engage and reflect the perspectives of diverse value chain actors and link research into development policy and investments, utilizing good practices and methods across regions. This requires practical commitment on all sides to the development of more effective and inclusive regional fora, with strong national systems as the basis of their national ownership, as the foundations of a robust global system of agricultural research for development;
- Strengthen the processes deployed in the CGIAR's Strategic Research Framework and Mega Program development, to foster international research that is both more outward and outcome-oriented, more open to partnerships, accountable for its outputs and taking on a shared responsibility for effective outcomes from these products to ensure viable impact pathways in national systems;
- Leverage wider involvement of other stakeholders and partners. Achieving large scale development impacts through research and innovation requires actions among many and diverse partners, with clear boundaries and interactions in delivering impacts from different Mega Programs, and principles of governance and management that recognize and encourage greater inputs from, and accountabilities to, countries and regions;
- Mobilize GFAR constituencies to progressively refine research and development priorities and partnership modalities over time, based on a range of development criteria, empirical evidence and outcome-centred thinking, among other aspects;

² An earlier version of the roadmap was contained in the GCARD background paper: U Lele, J Pretty, E Terry and E Trigo, *Transforming Agricultural Research for Development*, Report of the GCARD1 Global Author Team, GCARD1 2010 www.egfar.org

³ As proposed by Ismail Serageldin, Synthesis statement, GCARD 2010.

- Report progress periodically through successive GCARDs on achievements from the baseline of GCARD 1 in 2010, e.g. every two years, using the interim period between GCARDs to foster action;

Conference participants widely shared in this diagnosis and recommendations. They agreed that to reorient research to meet small farmers' needs, far-reaching changes are required from all key stakeholders, in a coherent stepwise approach over a sustained period. Even with countries and regions committing to meeting the needs of poor farmers, the particular needs of women and the most disadvantaged, and the sustainable intensification of production and supply, an ambitious agenda in itself, effective changes can only be achieved if all others, including international partners and donors, change their behavior. Results will be reflected in indicators of changed behavior, end user perceptions and diverse measures of impact. Such changes will take a minimum of four to six years to bring into effect. Successive GCARDs would become an important and mutually accountable vehicle for reporting progress.

4. Strategic Elements of the GCARD1 Roadmap

Achieving Coherence in National and Global Priorities

The Montpellier Road Map aims to transform the Agricultural Research and Innovation systems globally, from their current fragmented status to a more cohesive system. Its end goal is **abolishing poverty and hunger from the developing world** and it builds on two inter-linked approaches;

- i. **Collective research and knowledge sharing actions** to address key outcome-focused themes, including the CGIAR Mega Program themes as a key mechanism to stimulate this; and
- ii. **Transformation and Strengthening of Agricultural Research and Innovation Systems of developing countries;** an essential prerequisite for turning research outputs into large scale development outcomes. This approach will need to ensure that national agricultural research and innovation systems can deliver quickly, effectively and sustainably towards the twin goals of abolishing hunger and poverty.

4 (i) Collective Research and Knowledge Systems in Global Food Security, Income Growth and Sustainable Management of Natural Resources

For the first time Agricultural Research for Development (AR4D) themes are brought together on a global scale, on the one hand through the multi-stakeholder consultations on research and development needs organized by the Agricultural Research Fora of each region of the world (AARINENA, APAARI, CACAARI, EFARD, FARA and FORAGRO⁴), and on the other through the research priorities for scaled up impacts of the CGIAR. Despite the limitations of each, GCARD 1 concluded that there was enough overlap between the regional priorities and the CGIAR Mega Program priorities, that together they provide a useful starting point for a global cooperative effort. The following thematic areas for collective action were identified, which aim to enable the sustainable intensification of resource-poor farmer's systems to meet food, environmental and income needs:

⁴ All regional reports (respective lead authors S. Smets, RB Singh, S. Beniwal, W Richards, U. Mokwunye & G Ferreira) are available at www.egfar.org

1. Agricultural systems for the poor and vulnerable;
2. Enabling agricultural incomes for the poor;
3. Optimizing productivity of global food security crops;
4. Agriculture, nutrition and health;
5. Water, soils and ecosystems;
6. Forests and trees;
7. Climate change and agriculture; and
8. Agricultural biodiversity.

The specific regional research priorities are contained in Annex 1.

It is proposed that the CGIAR SRF and mega programmed plans and GCARD2 processes should be aligned and focused on establishing specific goals and developing the required regional/sub-regional and country inputs and capacities to deliver desired impacts in the thematic areas concerned. The CGIAR's 15 research centers are currently developing 'mega programs' around the above themes that should serve as valuable stimuli for the wider actions required. Collective actions around the impact pathways will require a set of clear criteria, for example, of relative roles of the CGIAR and the national systems, the principle of subsidiary and value addition in support of national development processes, partnerships based on the principle of equality among diverse actors, capacity to deliver outputs, clarity in responsibilities and accountabilities, and capacity and skills development.

The CGIAR's new structure is still a work in progress, with the SRF itself still under review and only a few MPs as yet conceptualized. The initial MPs portfolio can, in this sense, be considered a first approximation both in focus and structure, and a great deal of concurrent effort will still be needed to fully align these with national and regional priorities on the one hand and the SRF on the other hand. For this to happen, well structured in-depth consultations among the key partners will be needed to achieve the coherence and 'ownership' that will be essential to ensure effective outcomes and GFAR stakeholders (including the CGIAR) will need to rapidly i) develop an overall framework for consultations via the regional and national fora on their fit with wider development processes and ii) map and engage the roles of others in the impact pathways. The Mega Programs aim to synthesize the global research community's efforts to produce global and regional public goods of relevance for key issues of poverty, hunger and natural resource management in the developing world, and their effectiveness will depend on addressing priority needs, as seen by national policy makers and by end users, and on stimulating complementary national and regional actions of different types. Active participation of developing countries in the design and implementation of these efforts is an essential element for their success.

Achieving development impacts from international research also requires actions and investments in advanced research laboratories for collaborative research and training as well as in the Emerging Economies to determine how they will play their respective roles in the development and implementation of Mega Program concepts.

National Agricultural Research and Development: Beyond the CGIAR's mandate

Meeting national development objectives of developing countries requires much more than the work of the CGIAR. While significant, the CGIAR forms less than 5 percent of the current global investment and capacity, half of it in developing countries.

Food security and agricultural development are clearly the responsibilities of sovereign governments. They require national commitments from a range of sectors starting from the ministries of finance to ministries of food, agriculture, forestry, water and fisheries among

others as well as appropriate stakeholders from the civil society and private sector related to each sector. Therefore what is required now is that the collective targets identified by the CGIAR's SRF projections are considered by governments and other in-country stakeholders and donors in terms of their implications for the alignment of their own priorities and resources, so that they can together play their part in impacting on the lives of millions of small farmers.

Such a new collective approach has huge potential value, but its development impact will depend clearly on testing and application of the research ideas through national strategies and regional frameworks, with parallel policy commitments and increased resourcing of national agricultural innovation systems, from farmer to researcher, and with a transparent global monitoring and reporting system. Each of these themes now needs to be made real through agreements on their objectives, reach, scale, engagement and speed involving the many other associated inputs and actions required to deliver the desired end impacts with mutual agreement on clear responsibilities at various levels and stages for their conduct.

4 (ii) Transformation of Agricultural Research and Innovation Systems

The GCARD1 clearly showed that very significant increase in **investment in national research and innovation systems are required simply to fill the enormous backlog of the under investment gap from the non-action of the past two decades. Besides the quality assurance of these new investments, they need clear focus and integration into wider development agendas.** Investments will not come without research demonstrating its value and relevance to the real clients of research, namely, the hitherto unreached farm households and consumers and the unattended environmental concerns. This requires outcome-based approaches, filling in the gaps in the complex 'jigsaw puzzle' linking research outputs to development impacts. To achieve this, requires strengthened voices, actions and interactions of people in all relevant sectors in the national institutions and regional fora in order to take forward agricultural research for development in each region of the world with a clear mission of achieving results both in processes and outcomes.

The need for greatly increased capacities of national actors is very clear and urgent, and most critically so in countries recovering from conflict or crisis. To develop these capacities need investment and involvement of Ministries of agriculture, environment, science, water, land, trade, health, education, social welfare and finance as well as the many public private and civil society organizations involved in AR4D implementation at the country level. GFAR and its constituent Regional Fora are committed to helping to facilitate and foster these processes and interactions but both the fora and the agencies concerned will need urgent strengthening to undertake this ambitious task.

In addition to increases in investments, transformation of AR4D and innovation systems will also require: reforms in the national agricultural research and innovation systems (including advisory services and systems for transforming research outputs into farmer knowledge, technologies and changed practices); developing technological innovations that are made available and accessible to meet the demands of resource-poor producers; strengthening stakeholder capacity, creating viable market opportunity, enabling small farmers to better manage risks and system shocks, inspiring and empowering women in agricultural careers; advocating, facilitating and sharing initiatives for collective action etc. These reforms and changed behavior can only take place if all stakeholders take action. This will require agreed milestones for change, with individual and collective accountabilities via opportunities for joint review and reflection of changes and progress achieved in subsequent GCARDs.

5. Actions And Responsibilities - Who Needs to Do What?

5.1 At the Minimum International and National Funding agencies together need to triple their investments using the 2010 base by 2025 while also actively promoting monitoring of improvements in expenditure quality and accountability:

- The CGIAR SRF estimates that to achieve the scale of impacts desired and laid out in the CGIAR SRF presented at Montpellier GCARD1, it will be necessary to triple resources provided to AR4D over the next 15 years, from current levels of around US\$ 5.1 billion to US\$ 16.4 billion by 2025. The enormous magnitude of this challenge requires that all stakeholders making up the AR4D global community collectively commit to the effort to rapidly and progressively increase investment support for AR4D systems to strengthen national, sub-regional, regional and inter-regional research efforts, alongside the CGIAR's increased activity. This latter itself is projected to require \$1.5 billion by 2025. Beyond the complementary investments in national systems to reach the estimated \$16.4 billion, additional national investments and aid flows will be needed in wider rural development activities (e.g. in rural infrastructure, water, education and health) to Achieve full impacts of increased and improved AR4D.

5.2 As the open and inclusive catalyst, GFAR should orchestrate:

- A series of biennial GCARD processes over the next several years, involving all GFAR constituencies and in association with the reform of the CGIAR. These will provide the vehicles for promoting cycles of learning and change. Besides Conferences stocktaking on progress in the change process, the intervening actions should also play a key role in advocacy, mobilization of finance for investments, and human and institutional capital development at the national, regional and international levels. As the GCARD convening body, and incorporating the role of the CGIAR, GFAR should play a strategic role in promoting the transformation process as the Apex organization and interactive mechanism of the AR4D community globally.
- The Global Forum on Agricultural Research was established to be an open and inclusive platform for all those involved in agricultural research and its role in development. GFAR's governance includes members from developing and developed country institutions (regional research fora, private sector, civil society, CGIAR, farmers' organizations, bilateral and multi-lateral donors, and international organizations) and has the broad upstream and downstream reach to include institutions that play key operational roles.
- GFAR is well suited to serve as a platform and apex body as also recognized by the G8. To deliver the significant role now expected of it through the G8 and GCARD1, both GFAR and its regional and stakeholder constituencies need to be strengthened, acquire increased legitimacy through inclusiveness of wider groupings and endorsement by their constituents, with increased financial resources, expertise and credibility based on the tasks now required of each and their demonstrated track records. High level advocacy will also require creation of an expert Transformation Advisory Group (TAG) to assist GFAR and its constituencies to deliver on their increased roles and responsibilities. With strengthening, the GFAR mechanism and its constituents together can play key roles in i) advocating for agricultural research (and hence agriculture) in development, ii) helping to improve capacity of national and regional fora and systems to catalyze actions among the necessary stakeholders to collectively transform

agricultural research systems for greater development impact, and (iii) providing leadership at the global level.

5.3 National Agricultural Research and Innovation Systems, should:

- Examine their own national policies and institutions, adopting an inclusive process involving all relevant stakeholders to develop strategies on what technologies and knowledge can be generated or mobilized nationally, what capacities and investments are needed to do so and how to access new capabilities, technologies and knowledge from external sources, including expectations of the CGIAR. Special attention should be given to incentives for constructive engagement of private sector (broad sense) and of civil society groups in agricultural development, and strengthening sub-regional and regional organizations as instruments to foster regional cooperation and more effectively use available national and international resources, and scientific infrastructures.
- Consider the specific needs of the poorest and most disadvantaged communities and put in place measures and approaches to enable them to take advantage of new opportunities and avoid their being disadvantaged by the introduction of new technologies.
- Address their research, technical and information system capacity requirements to meet bigger scale objectives, including those that address the particular needs of the disadvantaged, and which address areas of impact that go well beyond production to include post-harvest value addition, market access and other areas of opportunity and of greatest potential impact against all development goals.
- Redefine the national roles and responsibilities played by public, private and civil organizations, for their better alignment with each of the MP themes, not just those which are completed but also including those which are at an early stage of development, with clear national targets addressing the issues of productivity stagnation, of poor farmers (in particular women farmers) and consumers and steps needed to address environmental sustainability of natural resources such as land, water and forests.
- Undertake a critical review of their own current food security policies and strategies, including the effectiveness of their implementation, to examine how they might be better cross-aligned with the high-level objectives flagged in the CGIAR mega programs.
- Introduce a value chain approach into their research program development and implementation, with greater accountability to their end users. Practical steps here could include i) implementation and cross-learning from past and ongoing processes of institutional reform that are developing national innovation systems, ii) engagement of research and non-research actors into innovative programmes.
- Re-invent technology delivery systems to (i) give a role to farmers in the planning and design of the innovation processes, (ii) include a diversity of models to respond to different needs and resources, (iii) become more accountable to farmers on the basis of pre-established performance indicators, (iv) fully exploit the potential of the new ICT technologies and (v) better incorporate farmers' own innovations. Specific actions required here include processes of learning from innovative farmer-centred mechanisms that empower end users to commission or themselves be direct partners in research, building linkage with processes that share and scale out farmer innovation,

strengthening national and regional agricultural knowledge and learning systems and their connection to wider knowledge, bringing coherence and cross-linkages between information systems and databases of different forms and fostering blended learning, experiential learning and strengthening of new forms of agricultural advisory services.

- Connect the foresight and strategic planning already deployed in national plans to translate and project future needs into current actions bringing together a variety of models and perspectives grounded in today's realities, as expressed by those that AR4D seeks to serve. Drawing on these can then foster the creation of new knowledge as well as the capacity to seek existing technologies, research priority-setting to focus on reducing the vulnerability of poor people, and ensuring a diversity of approaches that include combinations of traditional knowledge, conventional technologies, agro-ecological methods and modern biotechnology.
- Develop and apply partnership principles and mechanisms, through GFAR's stimulation of collective pilot actions and resolution among stakeholders, aimed at shared goals and outcomes and (i) based on mutual trust and respect, (ii) assuring transparency and accountability, and (iii) including clear participatory feedback and M&E arrangements with mutual accountability via agreed performance and monitoring standards.
- Promote multi-country arrangements within and between regions and sub-regions and develop proactive networks to increase the spillover effects of existing investments and capacities, in particular also making use of new 'South-South' opportunities for sharing knowledge and advances.
- Examine risks to small farmer livelihoods and constraints to their adoption of new practices and develop knowledge and experience-based measures enabling these to be overcome.
- Give specific focus to meeting the needs of women farmers, in production and post-harvest value addition and to overcoming the constraints preventing their adoption of new practices. Increase opportunities for effective involvement of women practitioners in AR4D systems at all levels, recognizing diverse cultural contexts.
- Promote public-private partnerships (PPPs) strategies oriented to the deployment of new products for the benefit of the small-scale and resource-poor with transparent common objectives, associated enabling environments and entrepreneurial spirit. Actions include greater learning from case studies of successful PPPs and what has made them work.

5.4 Industrialized Countries and Global and Regional Organizations should:

- Adopt explicit commitments to increase well co-ordinated investment and human resource development to meet the needs and MDGs or nationally-established goals for poverty reduction, food security and environmental sustainability, and to ensure that national and international efforts attain the required levels of investment.
- Support national efforts to build sub-regional and regional organizations to complement national efforts, particularly to support poorer and smaller countries, so as to achieve the necessary scale to effectively meet research needs, promote international standards and accountability in research management and help ensure effective inclusion of research, extension and capacity development in demand-responsive rural development programs.

- Develop a common strategy for the improvement of the effectiveness of aid flows for national and global AR4D systems to explicitly align bilateral and multilateral investments in research and in wider development so that these processes become much better integrated than at present.

5.5 Emerging Economies/Fast Growing Countries should:

- Use their experiences in the development of their agricultural research, education and extension systems as case studies and a supporting argument for leveraging national and international resources and investments in AR4D systems globally.
- Share knowledge from their research more widely and share experiences and knowledge in areas of AR4D of interest to other countries facing similar challenges, taking a leading role in research agendas where they have particular expertise.
- Promote their more active role in directly strengthening the capacities of other countries in their regions, or globally.

5.6 Regional and Sub-regional Fora should:

- Promote change and action in national AR4D systems around the impact pathways proposed in the CGIAR Mega Programs and other large scale collective research actions, facilitating capacity strengthening and networking of skills where required, and encouraging greater collaboration with appropriate new actors in addressing priorities.
- Map actors in proposed impact pathways towards high level objectives and encourage national research and innovation systems to engage, identify and mobilize a wide range of partners in each country, matching international research to national capabilities and demands in key areas and adding best value to national agricultural research and innovation systems.
- Take responsibility for building practical links between research processes and development processes in their region of action. This entails direct engagement and linkage with policy and investment bodies responsible.
- Work with their political constituencies and engage with regional development banks and other supporting donors to establish links between research and rural development processes and investments that reflect their particular regional needs and establish a process to fully introduce AR4D into the agendas of the relevant political and economic regional bodies.
- Foster active involvement of national and regional stakeholders of all sectors in the governance of CGIAR Mega programmes and help ensure they reflect best processes as these evolve and ensure their alignment with the roles and needs of others, to add best possible value to national systems.
- Strengthen the sharing and access to research-derived information or technological resources and develop regional mechanisms to enhance their accessibility and availability to the poor.

5.7 The CGIAR's SRF and Mega Programs should:

- Develop strong congruence and collective commitment between the CGIAR's agenda and the national and regional priorities identified through the GCARD 1 consultation process and through further regional elaboration;
- Promote devolution of research and innovation activities to the national systems, so the Centers can concentrate efforts in their areas of comparative advantage and that international roles develop an outcome-based exit strategy and transition to national delivery partners;
- Exploit to their fullest the partnership potential *among* Centers, with national systems and the private and other sectors, so that each plays its most effective role;
- Mobilize and leverage investments and help build national systems capacities so that they can effectively fulfill and sustain the roles required at national level; and
- Clearly identify responsibilities for outputs, responsibilities for supporting roles and accountability for delivering outcomes at all levels in proposed impact pathways.

5.8 The Private Sector should:

- Offer information on its research and development activity of potential value as change agents of increased social and environmental stewardship.
- Help mobilize private finances and know how to play a pro- active role in partnership with other stakeholders in promoting socially and environmentally friendly and economically profitable growth as the only way to assure sociopolitical stability and reduce environmental vulnerability.

National and Regional fora should take the lead in seeking more effective ways to involve private sector actor into their activities so that subsequent GCARDs can promote analysis and discussion of the private sector roles in the transformation of agriculture in research, extension, finance, markets linking farmers to consumers

5.9 Civil Society should:

- Help translate the many complex dimensions of the social and environmental concerns into concrete actions through information and knowledge, mobilization, service delivery, monitoring of impacts and increased accountability.

5.10 Farmer's Organizations should:

- Have a clear role in identifying research and rural development policy and intervention needs from their own perspectives,
- Be proactively developed, where they are weak, to make research and development relevant to their needs.
- Help identify farmers as depositories of knowledge and experience and as innovators in their own right, from which others can learn

- Help mobilize these innovations to co-create knowledge so as to develop relevant and effective interventions.

5.11 Media, the Internet and IT should:

- Be mobilized actively to play transformative roles in highlighting the policy, institutional and technological needs of small farmers, the poor and the environment
- Become major instruments for dissemination of information and knowledge
- Help capture knowledge and ideas for multiple sources for subsequent GCARDs so as to promote public monitoring, reporting, dissemination, and accountability of the change processes, actions and their outcomes involving all stakeholders.

6. Monitoring and Reporting Systems for an Evolving TAR4D Global System

An effective transformation needs processes with clear reporting and accountability against time bound aims. This should be built on objective data and key indicators that enable (i) keeping track of changes and their results, and (ii) a transparent feedback to all concerned stakeholders about progress on the transformation strategy and its implementation. GFAR should mobilize and integrate the systems and networks that monitor and report on investments and impacts in AR4D, to:

- Develop a baseline analysis of the state of the AR4D system, starting with 2010 and including all partners (Private Sector, Universities and Foundations) currently not included in the research and reporting;
- Track improvement in the capacities, incentives and management systems in which national and regional organizations seek reforms;
- Ensure countries are committed and able to developing the databases for their countries as tools for policy-making;
- Develop a transparent registry of actions, commitments and responsibilities by national and international actors;
- Develop innovative feedback systems that directly engage the perspectives of intended beneficiaries in the evolution of, and learning around, large scale programmes as they are implemented.
- Support a permanent region-by-region mechanism for the development of key indicators on investments and capacities in research, human resource development and institutional innovations in support of food security, poverty reduction and increased environmental sustainability; and
- Ensure the wide dissemination of results to those concerned with AR4D at least every two years at successive GCARDs and to policy makers in the G8 and G20.