

**Proceedings
of the
XV APCoAB STEERING COMMITTEE MEETING
15 April 2013
APAARI, FAO Annex Building, Bangkok**



**Asia-Pacific Consortium on Agricultural Biotechnology,
C/o ICRISAT Delhi Office,
National Agricultural Science Centre Complex
Dev Prakash Shastri Marg, Pusa Campus, New Delhi – 110 012, India**

**ASIA-PACIFIC CONSORTIUM ON AGRICULTURAL BIOTECHNOLOGY
(APCoAB)**

**XV STEERING COMMITTEE MEETING
15 April 2013**
APAARI, FAO Annex Building, Bangkok

PROCEEDINGS

The XV Steering Committee Meeting of the Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB) was held in Bangkok on 15 April 2013. The meeting was chaired by Dr. Simon Hearn, Chairman, APAARI and attended by eight other Steering Committee (SC) members/their representatives and special invitees (Annexure I). Dr. William Dar and Dr. Su-San Chang who could not attend were represented by Dr. K. K. Sharma and Mr. Charoen Nitiwatanapong, respectively.

Agenda item 1. Welcome Remarks

Dr. Raj Paroda, Executive Secretary, APAARI, welcomed the participants and requested Dr. Simon Hearn to Chair the meeting.

Agenda item 2. Address by Chairman

Dr. Simon Hearn while welcoming the participants expressed his pleasure at chairing this meeting, the first APCoAB SC meeting being held under his chairmanship. He expressed his regret that Dr. S. Ayyappan, Dr. Su-San Chang and Mr. Raju Barwale could not join due to other commitments. On behalf of APAARI, Dr. Hearn conveyed thanks to these members for their consistent support to APCoAB.

Dr. Hearn acknowledged that over the years APCoAB has made commendable progress in carrying out its mandated activities on policy advocacy, capacity building and knowledge dissemination. He noted that on an average, two expert consultations/group meetings, 2-3 training programs and 2-3 publications were organized each year. Since the last SC meeting, APCoAB had held two technical meetings, supported organization of three symposia and workshops and brought out three publications. Dr. Hearn recalled his participation in the expert consultation on Managing Trans-boundary Diseases held by APCoAB at New Delhi during October 2012 which highlighted national and regional actions required to combat the serious threats to agriculture posed by trans-boundary diseases. Important recommendations were made in this meeting, including the need for regional cooperation in disease surveillance, forecasting and control.

Dr. Hearn also highlighted other programs organized by APCoAB in collaboration with NARS including Indian Council of Agricultural Research (ICAR) and Council of Agriculture, Chinese Taipei (COA).

Agenda item 3: Approval of minutes of XIV Steering Committee Meeting

The SC was informed that the Proceedings of the XIV Steering Committee meeting held on 12 March 2012 were circulated on 2 May 2012 to all the participants (Annexure II). Acknowledgement was received from one member whereas no comments were received. With this background the chairman sought the concurrence of members for approval of minutes, which was granted unanimously. The members also adopted the agenda for XV Steering Committee meeting (Annexure III).

Agenda item 4: Brief Report

a) Action Taken Report

Dr J. L. Karihaloo, Coordinator, APCoAB presented a brief on the action taken on recommendations of XIV SC meeting.

Sl. No.	Recommendation	Action Taken
1	Need for capacity building in marker assisted selection	Seminar on marker assisted selection is scheduled to be held at AVRDC in September 2013 with support of COA
2	Organization of meeting on biosafety regulations and revision of APCoAB publication on the subject	Stakeholders' dialogue on "Biosafety regulations of Asia-Pacific region" held on 16-17 April 2013. The event will be followed by revision of APCoAB publication "Biosafety Regulations of Asia-Pacific countries".

b) Progress Report

Coordinator, APCoAB presented the report on activities carried out during 2012-13:

I. Expert Consultation/Group Meeting/Symposium

1. Global Workshop on “Genetically Engineered Crops to Meet Future Challenges”, Bhubaneswar, Orissa, 29 May 2012

The workshop was organized by APCoAB in “Global Conference on Horticulture for Food, Nutrition and Livelihood Options” held on 28-31 May 2012. The objective of the workshop was to develop a consensus on the role of GM technology, particularly in horticultural crops, in meeting the food and nutrition needs of India.

The workshop was attended by 34 participants comprising national leaders in policy and research in agricultural biotechnology, representatives of industry, growers and researchers in biotechnology and horticulture. Six papers were presented which was followed by discussion. The following recommendations emerged during the discussion session.

- The workshop was unanimous in recognizing the importance of GM crops, including GM horticultural crops, in meeting the food and nutrition needs of India, and recommended continued research and development efforts to produce such crops.
- In view of the large number of horticultural crops and traits that are potential candidates for genetic modification, there is a need to prioritize the crops and traits that should be modified through GM technology.
- There is an urgent need for agricultural scientists to participate in public deliberations on GM crops to provide a balanced and science based expert opinion on the potential of GM technology to meet the current and future challenges to agriculture and farmers' well-being.
- It was recommended that the Biosafety Regulatory Authority be established without delay so that the technology and product developers have a clear road map for biosafety clearance.

2. Stakeholders' Interface on "Genetically Modified Crops", Manila, Philippines, 27 September 2012

An interface meeting to discuss the status of GM crops in the Asia-Pacific countries and issues related to their adoption, environment and health safety, and agricultural sustainability was held in the Philippines on 27 September, 2012 in collaboration with the Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD). The meeting followed a similar event held by APCoAB in New Delhi on 19 May 2011.

Forty-three foreign and local experts in agricultural biotechnology research and development (R&D) and policy advocacy, and representatives from government agencies, non-government organizations (NGOs), private sector, and farmers' associations shared their knowledge, experiences, and perceptions on GM crops and related issues. Eleven papers focusing on the status of GM crops adoption, R&D, and regulatory systems were presented.

Among the advantages of using GM crops discussed by speakers were the increase in yield of Bt cotton and the potential of Bt brinjal in India, decrease in pesticide use in India, and the relative improvement in the economic status of Bt corn farmers in the Philippines. Several issues were highlighted during the discussions based on which following recommendations were made:

- There is a need for partnership and unified direction among various stakeholders involved in development, commercialization and promotion of GM crops.
- The issues of ownership of technologies and products being developed through inter-institutional and international partnerships need to be resolved at the very beginning of initiating a project. Otherwise, heavy investments in product development and approval may not achieve the desired results.
- Transfer to technologies to farmers' fields must be accelerated so that they can gain from the promised benefits of biotechnology and repose trust in it.
- In order to take full advantage of the improved products of biotechnology, farmers need better access to resources, markets and market information.
- Affordability of GM seeds is an issue which needs to be considered by public agencies also keeping in view the proportionate economic gains.
- Acceptability of GM crops as food is still being questioned by some groups. There is a need to inform public about the food safety of the crops as endorsed by the regulators.

- There exist several legal challenges to adoption of biotechnology and its products. These need to be addressed through active participation and intervention.
- Knowledgeable public should become communicators for biotechnology to create wider and factual awareness.
- Media has an important role in public information and advocacy. Scientists should utilize this source to reach wider audience.
- The Philippine regulatory system should facilitate the process by granting event based approval and also on the basis of regulatory testing results of other countries. Such approach would also avoid wasteful expenditure of meager resources.
- There is a need to prioritize targets of Philippines Department of Agriculture biotechnology roadmap vis-a-vis available resources and realistic time scale.

In summary, the broader issues on biotechnology and GM crops in the Asia-Pacific region were summarized as “POLE” - public perception, olegal and ethical hurdles. These, however, could be addressed by “PAIR” - partnership in all initiatives; advocate and inform regarding rules and processes for intellectual property and licensing; and the regulatory system.

3. Expert Consultation on “Managing Trans-boundary Diseases of Agricultural Importance in Asia-Pacific”, NASC Complex, New Delhi, 10-12 October 2012

The expert consultation was co-organized by APAARI and ICAR as a follow-up of the decision taken in earlier APAARI Executive Committee Meeting and APCoAB Steering Committee Meeting recognizing the adverse impacts of trans-boundary diseases (TBDs) on agriculture. TBDs not only threaten agricultural productivity but also contribute to poverty, hunger, particularly of small holder farmers, and act as barriers to trade.

The expert consultation was attended by about 140 participants comprising international experts on plant, animal and fish TBDs, APAARI members, CG centers, FAO, CABI and other international and local organizations. The program was inaugurated by the Indian Union Minister of State for Agriculture, Food Processing Industries and Parliamentary Affairs. The proceedings were held under eight Technical Sessions: i) Status and Management of Plant Trans-Boundary Diseases, ii) Status and Management of Animal Trans-Boundary Diseases, iii) Status and Management of Fish Trans-Boundary Diseases, iv) Breakout Group Discussions for Identifying Key Issues in Plant, Animal and Fish Trans-Boundary Diseases, v) Priorities for Policies, Research and Regional Management of Plant Trans-Boundary Diseases, vi) Priorities for Policies, Research and Regional Management of Animal Trans-Boundary Diseases, vii) Priorities for Policies, Research and Regional Management of Fish Trans-Boundary Diseases, and viii) Plenary Session: Presentation of Group Recommendations.

4. International Symposium on “Epidemiology and Disease Management of Citrus HLB Diseases for Sustainable Citrus Production in ASPAC”, National Taiwan University, Chinese Taipei, 5-10 November 2012

An international symposium on epidemiology and management of citrus huanglongbin disease for sustainable citrus production in the Asia-Pacific region was organized by Food and Fertilizer Technology Center for Asia and Pacific Region, Chinese Taipei in Taipei. The Symposium was sponsored, among others, by APAARI under COA-APAARI collaborative project.

The symposium was attended by 80 participants from 18 countries including reputed experts from USA, Japan, Australia, Chinese Taipei and other countries. The program was divided into five sessions: Session 1- Keynote Speeches, Session 2- The Current Status of HLB Epidemic in Asia and Other Areas, Session 3- Molecular Characterization and Identification of Pathogen and Strains of HLB Bacterium, Session 4- Disease Management of Citrus Orchards Suffered from Serious Epidemic of HLB and Virus Diseases, and Session 5- Field trip to Seed Improvement and Propagation Station, Mandarin and Tangerine Farm and Packing House, Chiayi Agricultural Research Station, Douliou Pummelo Farm, and Meishan Pathogen-free Orange Farm. Based on the objective of symposium to identify region-based strategy for the control HLB, the following specific recommendations emerged during the discussions:

- Initiate sub-group or bilateral meetings on HLB on Asian sub-regions. For example, Thailand citrus experts can initiate meetings with nearby Myanmar, Cambodia and Laos countries;
- Encourage governments to seek ways to have disease free regions and convince government officials of Asian countries about the importance of good quarantine;
- Make citrus HLB research results available on the FFTC, APAARI or other partner regional websites;
- Organize another symposium on insect vectors and invite international entomologists to share their ideas and research results; and
- Formulate a proposal for an ASEAN network for the control of HLB and initiate tie-up talks with the senior officials of the ASEAN Ministers on Agriculture and Forestry (AMAF).

5. Other outreach and supporting activities.

1. Supported organization of session “Global Scenario on Horticultural R&D” in “Indian Horticultural Congress” 2012 held in India on 6-9 November 2012 including participation of Prof. Norman E. Looney, Past President, International Society for Horticultural Science, Canada. Prof. Looney delivered a lecture on “The Global Horticulture Initiative: Refining the Vision and Development Priorities.”
2. Presented APAARI report in session “Putting Partnerships and Collaborations into Practice” in GCARD2 Pre-Conference Inter-regional Forum Meeting held on 28 October 2012 in Uruguay.

II. Publications

1. Proceedings and Recommendations of Expert Consultation on Agricultural Biotechnology, Biosafety and Biosecurity

This publication details the proceedings and recommendations of the expert consultation held on 27-28 October 2011 at Taiwan Agricultural Research Institute, Chinese Taipei. It includes chapters: Status of Biosafety and Biosecurity R&D-Country Status; Status of Biosafety and Biosecurity R&D-Regional Status; Advances in Biotechnology for Food

Security; Advances in Biosafety and Biosecurity; Group discussions; and Discussion on Group Recommendations and General Recommendations.

2. Micropropagation of Date Palms

This publication authored by Dr. Nasser S. Al-Khalifah and Dr. Shanavaskhan A. E. of National Center for Agriculture Technologies, King Abdulaziz City for Science and Technology, Riyadh, Saudi Arabia has been published jointly by APAARI and Association of Agricultural Research Institutions in the Near East and North Africa (AARINENA). It describes regeneration methods of date palm with details of micropropagation using somatic embryogenesis, organogenesis, and flower explants. Different media supplements and their effect on date palm tissue culture are described. The publication also includes information on achievements of Saudi Arabia in date palm tissue culture and suggestions for application of the technology for improvement of date palm farming in Arab world. The report is organized into five chapters: (i) Introduction, (ii) Different pathways of regeneration, (iii) Date palm micropropagation, (iv) Problems and prospects of date palm tissue culture, and (v) References.

3. Proceedings and Recommendations of Stakeholders' Interface on Genetically Modified Crops

This publication is the outcome of meeting organized by APCoAB and Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD) in Manila, Philippines on 27 September 2012. It includes summaries of the presentations, discussions and recommendations made during the meeting.

III. APCoAB website

APCoAB website (www.apcoab.org) provides information on the organization, objectives, activities and news and events on agricultural biotechnology. It provides access to APCoAB publications comprising success stories, status reports and proceedings of expert consultation and other group meetings. Databases of agricultural biotechnology institutions in Asia-Pacific and biosafety regulations of Asia-Pacific countries are also available at this website. These resources are updated on regular basis.

Agenda item 5: Work Plan for 2013

The work plan for 2013 presented by Dr. Karihaloo was approved by the SC (Annexure IV).

Agenda item 6: Audited Accounts

Dr. Karihaloo presented the Audited Accounts for the period January-December 2012 (Annexure V) which were approved unanimously by the SC. The committee also approved

the budget for 2013 (Annexure VI). It was also informed that COA had already approved its contribution for 2013 and the amount would be transferred very soon. The SC appreciated the commitment of COA towards APAARI programs.

Agenda item 7: General Discussion on Activities

All the participants took part in the discussion which covered APCoAB activities, workplan and budget. Views were also exchanged on sustainability of APCoAB and the need to maintain its identity as a neutral forum working equally for all the stakeholders in agriculture. Following important points and recommendations were made:

1. Dr. Iftikhar Ahmed suggested that soft copies of new APCoAB publications should be emailed to all members for their use and sharing with other interested users.
2. Dr. Raghunath Ghodake advised that strategic planning was required to enable all APAARI member organizations to benefit from these programs. These should be so tailored as to cater to the needs of less advanced NARS as well.
3. The training programs and workshops organized by APCoAB were well appreciated. Dr. Raj Paroda, Dr. Etienne Duveiller and Dr. Kiran Kumar Sharma recommended to organize priority training programs on GM technology, MAS and biosafety.
4. Dr. Masa Iwanaga advised that schedules of group meetings and training programs should be circulated well in advance to enable timely response from the member organizations.
5. It was suggested to organize expert consultation on food safety in 2014 in collaboration with JIRCAS.
6. A proposal was also made to organize a training program on food safety in 2014 at ICRISAT which was seconded by Dr. Sharma.
7. During discussion on budget, it was recommended to request ICRISAT to issue, from 2014 onwards, audit certificates for the APCoAB accounts being maintained and operated from ICRISAT.
8. Members expressed a strong need for regional cooperation to accelerate application of GM technology to address priority problems like abiotic stress. It would be desirable to pool resources and launch regional network programs to benefit from expertise available in the region. In this regard commendable research has been done by JIRCAS on DREB gene which needs to be carried forward by other national systems through collaborative efforts. Dr. Paroda felt that APAARI could play a facilitation role in establishing the collaborations.
9. Public sector by and large has not delivered to the expected level towards development of GM crops aimed at meeting local agricultural R&D priorities. There is an urgent need to streamline and accelerate public sector GM crops development programs. Success of public sector in development of GM crops would also remove the perception that GM

crops are a private sector monopoly. In this regard, PARC has made commendable progress by releasing a number of GM cotton varieties in Pakistan.

10. Dr. Simon Hearn emphasizes the need to develop consumer confidence in GM products to ensure that farmers adopt the technology. This could be achieved through creation of a robust regulatory system and vigorous public communication of fact and figures.

Agenda item 8: Any other Item

Since the term of the present Steering Committee had expired, a new Steering Committee was constituted for 2013-2014.

Chairman	Dr. Simon Hearn, Principal Adviser, ACIAR, Australia
Members	Dr. Masa Iwanaga, President, JIRCAS, Japan
	Dr. Su-San Chang, Director General, Department of International Affairs, COA, Chinese Taipei
	Dr. William Dar, Director General, ICRISAT, India
	Dr. Iftikhar Ahmad, Chairman, PARC, Pakistan
	Dr. Raj Paroda, Executive Secretary, APAARI, India
Member Secretary	Dr. J. L. Karihaloo, Coordinator, APCoAB, India

Agenda item 9: Chairman's closing Remarks

In his closing remarks, the Chairman thanked the members for their participation and important suggestions. He also appreciated the contribution of APAARI secretariat in making this program a success.

The meeting ended with a Vote of Thanks by Executive Secretary, APAARI to the Chair, SC members and other participants, and staff of APAARI.

Annexure I

APCoAB XV Steering Committee Meeting

List of Participants

1. Dr. Simon Hearn
Chairman, APAARI
Principal Adviser
Australian Centre for International Agricultural Research
GPO Box 1571, Canberra ACT 2601
Australia
Email: Simon.Hearn@aciar.gov.au
2. Dr. Masa Iwanaga
President
Japan International Research Centre for
Agricultural Sciences (JIRCAS)
Ministry of Agriculture Forestry & Fisheries
1-1 Ohwashi Tsukuba
Ibaraki 305 8686
Japan
Email: miwanaga@affrc.go.jp
3. Dr. Raghunath Ghodake
Director General
National Agricultural Research Institute (NARI)
2nd Floor Vele Rumana

Box 4415 Lae Morobe
Province 411
Papua New Guinea
Email: raghunath.ghodake@nari.org.pg

4. Dr. Iftikhar Ahmed
Chairman
Pakistan Agricultural Research Council (PARC)
Plot No. 20, G-5/1, P.O.Box 1031
Islamabad
Pakistan
Email: iftahmad@gmail.com
5. Dr. Etienne Duveiller,
Director of Research for South Asia
CIMMYT
Email: E.Duveiller@cgiar.org
6. Mr. Charoen Nitiwatanapong
Secretary
Taipei Economic and Cultural Office in Thailand
Empire Tower (20th Floor)
195 South Sathorn Road
Bangkok 10120
Thailand
Email: charoen1952@hotmail.com
7. Dr. K. K. Sharma
Principal Scientist
International Crops Research Institute
for the Semi-Arid Tropics (ICRISAT)
Patancheru 502 324
Andhra Pradesh, India
Email: k.sharma@cgiar.org
8. Dr. Raj Paroda
Executive Secretary, APAARI
C/o TAAS
Avenue II, IARI, Pusa
New Delhi-110012, India
Email: raj.paroda@yahoo.com
9. Dr. J. L. Karihaloo
Coordinator, APCoAB
National Agriculture Science Complex
Dev Prakash Shastri Marg
Pusa, New Delhi -110012, India
Email: j.karihaloo@cgiar.org

Annexure II

ASIA-PACIFIC CONSORTIUM ON AGRICULTURAL BIOTECHNOLOGY (APCoAB)

**XIV STEERING COMMITTEE MEETING
12 MARCH 2012
NASC COMPLEX, ICAR, NEW DELHI**

PROCEEDINGS

The XIV Steering Committee Meeting of the Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB) was held on 12th March 2012 at the National Agricultural Science Center (NASC) Complex, New Delhi. The meeting was chaired by Dr. S. Ayyappan, Chairman, APAARI and attended by twelve Steering Committee (SC) members/their representatives and special invitees (Annexure I). Dr. William Dar and Dr. Malcolm Hazelman were represented by Dr. Rajeev Varshney, Principal Scientist and Director (CEG), ICRISAT, and Dr. Peter Kenmore, FAO representative in India, New Delhi, respectively.

Agenda item 1: Welcome Remarks

Dr. Raj Paroda, Executive Secretary, APAARI welcomed the participants and also congratulated Dr. Peter Kenmore on his new assignment as FAO Representative in India. Dr. Paroda expressed his thanks to Mr. Raju Barwale for Mahyco's continued and enhanced funding support to APCoAB. While welcoming Dr. Varshney, he thanked Dr. William Dar, DG, ICRISAT for hosting APCoAB secretariat and participating in several APAARI activities.

Agenda item 2: Address by the Chairman

Dr. S. Ayyappan, Chairman, APAARI in his address welcomed the members of SC and special invitees participating in this meeting. Dr. Ayyappan expressed regret that other members of SC, Dr. Su-San Chang, Director General, Department of International Affairs, COA, Dr. Malcolm Hazelman, FAO-RAP, and Dr. William Dar, Director General, ICRISAT could not attend, though FAO-RAP and ICRISAT had deputed their representatives.

Dr. Ayyappan reminded that APCoAB is reaching the tenth year of its existence; during this period it had contributed significantly towards its objective of promoting biotechnology for agricultural development in AP region. APCoAB has been expanding its activities in key areas of policy advocacy, capacity building, and information generation and dissemination. Dr. Ayyappan was happy to note that in 2011, APCoAB organized “Stakeholders’ interface on GM food crops”; “Expert consultation on biotechnology, biosafety and biosecurity”; “International symposium on genetics and reproductive management for animal production”; and two training programs on “Rapid bioassay for pesticide residues” and “*In vitro* and cryopreservation techniques for conservation of plant genetic resources”, and brought out two publications. Of these, ICAR was privileged to co-organize “Stakeholders’ interface” and training program on “*In vitro* and cryopreservation”.

Dr. Ayyappan conveyed APAARI’s appreciation of Council of Agriculture, Chinese Taipei for continued funding support to APCoAB as well as for hosting a number of activities. He announced that during 2012, ICAR would coorganize with APAARI/APCoAB an expert consultation on transboundary diseases and pests in the Asia-Pacific.

Agenda item 3: Approval of minutes of XIII Steering Committee Meeting

The SC was informed that the proceedings of XIII SC had been circulated on 23rd March 2011 (Annexure II). Acknowledgements were received from two members while no comments were received. Chairman sought the concurrence of members for approval of minutes, which was granted unanimously. The members also adopted the agenda for the XIV Steering Committee meeting (Annexure III).

Agenda item 4: Brief Report

a) Action Taken Report

Dr J. L. Karihaloo, Coordinator, APCoAB presented a brief on the action taken on recommendations of XIII SC meeting.

Sl. No.	Recommendation	Action Taken
1	It was recommended to undertake policy advocacy and public awareness on GM Food crops.	<ul style="list-style-type: none">Organized “Stakeholders’ Interface on GM Food Crops” at New Delhi on 19 May 2011.Another such meeting is proposed to be organized in collaboration with PCAARRD, Philippines during 2012.
2	Promoting Biosafety Develop biosafety capacity;	Proposal submitted to FAO for supporting

	Revision of APCoAB biosafety regulations publication; Collaboration with ICRISAT.	revision of APCoAB publication and organization of stakeholders' meeting at ICRISAT on biosafety regulations.
3	Follow up on outcome of training courses conducted by APCoAB.	A questionnaire on the impact of training courses was circulated among the respective participants. The details of response received were presented in SC meeting.
4	Training material to be made available on APCoAB website.	Material for CD on all trainings conducted in 2011 has been compiled. CD will be produced soon.

b) Progress Report

Dr. J. L. Karihaloo, Coordinator, APCoAB presented a report on the activities carried out during the period under report.

- **Expert Consultation/Group Meeting/Symposium**

Stakeholders' Interface on GM Food Crops, NASC, New Delhi, 19 May, 2011

APCoAB in collaboration with Trust for Advancement of Agricultural Sciences (TAAS) organized “Stakeholders’ Interface on GM Food Crops” at National Agricultural Science Centre, New Delhi to deliberate on issues relating to adoption of GM food crops in India. The event, cosponsored by the Indian Council of Agricultural Research (ICAR), was attended by 45 participants representing policy makers, technical experts, representatives of seed sector, NGOs and farmers. Important recommendations of the interface were: (i) increased investment in biotechnology; (ii) focused and mission mode approach for development of GM crops/other products; (iii) prioritization of crops and traits for which GM technology to be applied; (iv) biosafety regulatory systems to be science based and efficient; (v) information communication systems including public extension and awareness services need to be considerably improved; and (vi) focus on agri-business, including agri-business platform and technology parks.

International Symposium on Genetics and Reproductive Management for Animal Production, LRI, Tainan, 21-24 November, 2011

APCoAB in collaboration with Council of Agriculture, Chinese Taipei (COA) organized the symposium at Livestock Research Institute, Tainan. It was attended by 33 participants from eight countries, five of whom, from Vietnam, Iran and Philippines, were sponsored by APCoAB. The program comprised presentations on: i) genetics and reproductive management of cattle, deer, poultry, pigs and rabbit; ii) quarantine systems of different countries; and iii) advances in the use of farm animals for biomedical research. APCoAB Coordinator made a presentation on “Role of biotechnology in improving agricultural productivity and poverty alleviation in the Asia-Pacific region”.

Expert Consultation on Agricultural Biotechnology, Biosafety and Biosecurity, TARI, Taichung, 27- 28 October, 2011

The expert consultation held at Taiwan Agricultural Research Institute (TARI), Taichung was attended by 73 participants from 22 countries representing Asia, Australia, Pacific, Africa and North America. The program comprised presentation of status reports on biotechnology, biosafety and biosecurity R&D in Asia-Pacific countries, followed by regional status reports (Africa, Asia and the Pacific), expert lectures on advances in biotechnology and biosecurity for food security and group discussions.

The expert consultation recognized that agricultural biosecurity is essential for food security, food safety, protection of human health and biodiversity, and market access. Promoting adoption of biotechnological tools, facilitating biosafety systems and developing integrated legislative framework and capacity to address diverse agricultural biosecurity threats were recommended during group discussions.

- **Trainings**

Training Workshop on Rapid Bioassay for Pesticide Residues (RBPR) on Fruits and Vegetables for Market Inspection and Farm Education, TARI, Taichung, 27 June-1 July, 2011

The training workshop was organized in collaboration with COA at Taiwan Agricultural Research Institute (TARI). Six trainees from Malaysia, Vietnam, India, Sri Lanka and Philippines were sponsored by APCoAB, of whom four attended.

The program comprised lectures and laboratory demonstrations on qualitative and quantitative RBPR analysis. Visits to farmer cooperatives and vegetable markets provided first hand experience of the RBPR technology at field level. The participants also visited the museum of Miaoli District Agricultural Research and Extension Station where they had a glimpse of the history and development of agriculture in the country.

International Training Course on *In Vitro* and Cryopreservation Techniques for Conservation of Plant Genetic Resources: Current Methods and Techniques, NBPGR, New Delhi, 14-26 November, 2011

APCoAB collaborated with Indian Council of Agricultural Research (ICAR) and Bioversity International in organizing this training course at National Bureau of Plant Genetic Resources, New Delhi. Three trainees from Iran, Chinese Taipei and Sri Lanka were sponsored by APCoAB out of a total of 12 participants from eight countries.

The 13 day training program opened with introductory lectures on management of plant genetic resources (PGR), and details of national and international organizations involved in PGR collection and conservation. Lectures on principles and methods of *in vitro* conservation and cryopreservation, genetic stability testing and transboundary movement of vegetative germplasm were delivered by national and international experts. A significant portion of the training period was devoted to hands-on laboratory training on biotechnological techniques of conservation and molecular characterization of germplasm. The trainees were also provided opportunity to present their ongoing research programs and seek suggestions of experts on specific technical issues.

- Publications

“Stakeholders’ Interface on GM Food Crops: Recommendations”

This publication reports the proceedings and recommendations of the “Stakeholders’ Interface on GM Food Crops” held on 19 May 2011 at New Delhi. It stresses on the need for: use of GM technologies for quality and good nutrition; mission-mode approach to adopt appropriate GM technologies by strengthening public research system and enabling environment for private sector investments; developing protocols and IPR regimes for better investment and partnerships; need for a national mission on GM food crops; clearance of Biotechnology Regulatory Authority of India (BRAI) Bill by the Parliament; transparent biosafety regulatory system for safe application of biotechnology; post-release monitoring mechanism; use of effective communication tools and extension to raise awareness about GM technologies; capacity building in the areas of biosafety, regulatory systems and IPR issues; and focus on agribusiness and agri-biotechnology in the 12th Five Year Plan.

“Expert Consultation Meeting on Postharvest and Value Addition of Horticultural Produce – Proceedings and Recommendations”

This publication reports the proceedings of expert consultation meeting held by APAARI in collaboration with Malaysian Agricultural Research and Development Institute (MARDI) in Malaysia on 29 November – 2 December 2010. It includes details of presentations and discussion in five technical sessions, and recommendations. Strategies and action plans proposed to address key policy, technical and management issues on postharvest and value of fruits, vegetables, ornamentals, herbs and medicinal plants with special reference to strengthening linkages of farmers to markets in the Asia-Pacific region are also included.

APCoAB Website

APCoAB website is being regularly updated with new publications, reports on Expert Consultations, training programs and other activities and current news and events related to agricultural biotechnology. E-Newsletter is circulated at regular intervals. Members were pleased to see that APCoAB website is serving very good purpose.

Agenda item 5: Work Plan for 2012

The work plan for 2012 presented by Dr. Karihaloo was approved by the SC (Annexure IV)

Agenda item 6: Audited Accounts

Dr. Karihaloo presented the Audited Accounts for the period January-December 2011 (Annexure V) which were approved unanimously by the SC. The committee also approved the budget for 2012 (Annexure VI).

Agenda item 7: General Discussion on Activities

All the SC participants took part in the discussions on APCoAB activities, workplan for 2012 and funding resources. Following important recommendations were made:

- Dr. Peter Kenmore appreciated the plan to revise the publication on biosafety regulations and agreed to follow up the proposal for funding with FAO-RAP. He further suggested to organize the workshop on biosafety regulations side by side with

COP-MOP meeting being held in Hyderabad during October 2012. Regarding expert consultation on transboundary diseases, Dr. Kenmore suggested to highlight the issues of animal-human and animal-plant diseases as is being addressed by the One Health approach formulated by FAO and other UN agencies.

- Dr. Abd. Shukor Abd Rahman highlighted the importance of biosensors in assessing the level of inoculum in an area and forecasting epidemic threats.
- Dr. Rajeev Varshney stressed the need for greater emphasis on capacity building in the area of marker assisted selection and publication of success stories on adoption of MAS. He emphasized that MAS was non-controversial and a number of improved varieties using this technology had been released in the developing countries. It was suggested that APCoAB and ICRISAT should join hand in organising a training course on MAS for crop improvement.
- Dr. Mark Holderness highlighted the concern of GFAR regarding CG principles on equitable access to GM technologies. He suggested that GFAR could consider supporting a training course on intellectual assets in biotechnology.
- Dr. Paroda articulated the dilemma of several developing countries which are unable to decide on adoption of GM technologies due to conflicting opinions about their potential benefits and environmental impacts. He desired CG and FAO to articulate a clear position on this issue so that the national organizations could develop a clear road map for R&D in agriculture.
- Elaborating FAO's position, Dr. Kenmore mentioned that FAO favours those GM technologies that benefit small and marginal farmers. If the benefits are not clear, FAO would prefer not to take any position.
- Dr. Simon Hearn endorsed GFAR's concerns regarding CG principles on intellectual assets. Regarding potential benefits of GM technology, he however, felt that it may not be possible to forecast that a particular technology will not benefit small holder farmers.
- Dr. Ayyappan emphasized that Bt cotton technology had been scale neutral in India with both large and small farmers have been benefitted from it.

Agenda item 8: Any other Business

No issue was discussed under this item.

Agenda item 9: Chairman's closing Remarks

In his concluding remarks, Dr. Ayyappan thanked the SC members for their participation and important recommendations. He hoped that besides policy advocacy, capacity development and information dissemination, in future APCoAB would facilitate transfer of new technologies for the benefit of developing countries. He also appreciated untiring efforts of Dr. J.L. Karihaloo, APCoAB, Coordinator.

The meeting ended with a Vote of Thanks by Executive Secretary, APAARI to the Chair, SC members and other participants, and staff of APAARI.

Annexure III



ASIA-PACIFIC CONSORTIUM ON AGRICULTURAL BIOTECHNOLOGY (APCoAB)

XV STEERING COMMITTEE MEETING

FAO Annex Building, Larn Laung
Bangkok, Thailand

15 April 2013 (14:00 – 15:30 hrs)

TENTATIVE AGENDA

1. Welcome Remarks : Dr. Raj Paroda
2. Chairman's Opening Remarks : Dr. Simon Hearn
3. Approval of Minutes of XIV SC Meeting : Dr. Simon Hearn
4. A Brief Report : Dr. J. L. Karihaloo
5. Audited Accounts and Budget : Dr. J. L. Karihaloo
6. Work Plan 2013 : Dr. J. L. Karihaloo

- | | |
|-------------------------------|-----------------------|
| 7. General Discussion | : Members |
| 8. Any other Business | : Members |
| 9. Chairman's Closing Remarks | : Dr. Simon Hearn |
| 10. Vote of Thanks | : Dr. J. L. Karihaloo |

ASIA-PACIFIC CONSORTIUM ON AGRICULTURAL BIOTECHNOLOGY (APCoAB)

XV STEERING COMMITTEE MEETING

FAO Annex Building, Larn Laung

Bangkok, Thailand

15 April 2013 (14:00 – 15:30 hrs)

AGENDA NOTES

1. Welcome Remarks

Dr. Raj Paroda, Executive Secretary, APAARI will welcome the members, special invitees and other participants of the Steering Committee meeting.

2. Chairman's Opening Remarks

Chairman APAARI, Dr. Simon Hearn will deliver his Opening Remarks highlighting program of APCoAB and key issues to be addressed.

3. Approval of Minutes of XIV SC Meeting

Proceedings of the XIV Steering Committee meeting held on 12 March 2012 at NASC complex, New Delhi were circulated to all the participants on 2 May 2012. Acknowledgement was received from one member whereas no comments were received. The proceedings will be placed before the steering committee for adoption.

4. A Brief Report

Dr. J. L. Karihaloo, Coordinator, APCoAB will brief the Steering Committee about the following activities carried out since the last SC meeting.

- 1) Global Workshop on “Genetically Engineered Crops to Meet Future Challenges”, Bhubaneswar, Orissa, 28-31 May 2012.
- 2) Stakeholders’ Interface on “Genetically Modified Crops”, held at Manila, Philippines, 27 September 2012.
- 3) Expert Consultation on “Managing Trans-boundary Diseases of Agricultural Importance in Asia-Pacific” held at NASC Complex, New Delhi, 10-12 October 2012.
- 4) International Symposium on “Epidemiology and Disease Management of Citrus HLB Diseases for Sustainable Citrus Production in ASPAC” held at National Taiwan University, Chinese Taipei, 5- 10 November 2012.
- 5) Other outreach and supporting activities.
- 6) Publications:

1. Proceedings and Recommendations of Expert Consultation on Agricultural Biotechnology, Biosafety and Biosecurity; (ii) Micropropagation of Date Palms; (iii) Proceedings and Recommendations of Stakeholders' Interface on Genetically Modified Crops; (iv) Proceedings and Recommendations of Expert Consultation on Managing Trans-boundary Diseases of Agricultural Importance in Asia-Pacific.

Brief reports of the activities conducted by APCoAB during 2012 are given in the half-yearly APAARI reports circulated earlier. These are also attached herewith (Annexures I, II) for perusal of the members.

5. Audited Accounts and Budget

The Audited Accounts statement for January-December 2012 and Budget 2013 will be presented for consideration and approval of the Steering Committee.

6. Work Plan 2013

Work plan for 2013 will be presented to the Steering Committee. The members may like to give their suggestions on the draft work plan.

7. General Discussion

Discussion on progress made, program for 2013 and budget will be held. Members are welcome to suggest new initiatives.

8. Any other Business

Reconstitution of Steering Committee: The last SC was constituted on 14 February 2011 and is now due for reconstitution.

Any other item shall be taken up with the permission of Chair.

9. Chairman's Closing Remarks

The Chairman will deliver closing remarks.

10. Vote of Thanks

Coordinator, APCoAB will present a vote of thanks.

Annexure IV

APCoAB WORK PLAN FOR 2013

Expert Consultations /Symposia/Meetings	<ul style="list-style-type: none">• Steering Committee Meeting, Bangkok, 15 April 2013• Stakeholders' Dialogues on Biosafety Regulations in the Asia-Pacific Region, Bangkok, 16-17 April 2013
Training Programs/Workshops	<ul style="list-style-type: none">• Symposium on molecular breeding, AVRDC, September 2013• Training program on biotechnology in Chinese Taipei in consultation with COA
Publications	<ul style="list-style-type: none">• Proceedings of Expert Consultation on "Managing Trans-boundary Diseases of Agricultural Importance in Asia-Pacific"• Proceedings of Stakeholders' Dialogues on Biosafety Regulations of Asia-Pacific Region"• Biosafety Regulations of Asia-Pacific Countries (revision)
APCoAB Website	<ul style="list-style-type: none">• Regular Update of News and Events on agricultural biotechnology developments in AP region• Regular update of other contents and databases

Annexure V



SUMMARY ACCOUNT STATEMENT OF APCoAB

01 JANUARY – 31 December 2012

(Amount in US Dollars)

ITEMS	Amount B/F	RECEIVED	DISBURSEMENTS		BALANCE
			Budget	Actual Used	
1. Contributions		89,985.98			63,976.10
2. Interest Income		52.45			
3. Other Income:		15,000.00			
3.1 Refund		7,247.77			
4. Secretariat Support:			15,000.00		
4.1 Office Stationery & Office equipment				1,651.29	
4.2 Miscellaneous / Communication				2,555.57	
5. Publications			10,000.00	1,805.08	
6. Consultancy , Salary of Assistant			55,000.00	55,879.56	
7. Travel			10,000.00	1,877.09	
8. Training			20,000.00	-	
9. Meetings			20,000.00	19,117.50	
9.1 Expenses of Steering Com/General/High Level Meetings				-	
TOTAL		112,286.20	130,000.00	82,886.09	93,376.21

Total amount in BKK office:

US\$ 68,832.35

Total amount in New Delhi office:

US\$ 24,543.86

Grand Total:

US\$ 93,376.21

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Dr. Raj Paroda
 Executive Secretary, APCoAB

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Ms. Urairat Rujirek
 Accountant, APCoAB

.....

Mr. Wittaya Jenchotsuwan
 External Auditor

BUDGET 2013

EXPECTED INCOME

1. CONTRIBUTORS	US\$
1.1 APAARI	28,000.00
1.2 ACIAR	15,000.00
1.3 MAHYCO	10,000.00
1.4 COA	50,000.00
B/F 2012 BALANCE	93,376.21
TOTAL	196,376.21

EXPECTED EXPENDITURE

2. HEAD	US\$
2.1 Consultancy	55,000.00
2.2 Secretarial Support and miscellaneous	15,000.00
2.3 Publications	10,000.00
2.4 Travel	10,000.00
2.5 Training	20,000.00
2.6 Meetings Expenses	20,000.00
TOTAL	130,000.00