



**ASIA-PACIFIC CONSORTIUM
on
AGRICULTURAL BIOTECHNOLOGY AND BIORESOURCES (APCoAB)**

**XIXth STEERING COMMITTEE MEETING
(2018)**

**May 28, 2018
(08:30-10.30 hrs)
Canna 1, Rama Gardens Hotel, Bangkok, Thailand**

PROCEEDINGS

The XIXth Steering Committee (SC) Meeting of the Asia-Pacific Consortium on Agricultural Biotechnology and Bioresources (APCoAB) was held on May 28, 2018 at Rama Gardens Hotel, Bangkok, Thailand. The meeting was attended by 18 participants, comprising the Chairman, Vice Chairman, members of the SC, their representatives, special invitees and observers (Annex I).



Participants of the XIXth Steering Committee Meeting of APCoAB

Agenda Item 1: Welcome and Introduction

Dr Ravi Khetarpal, Executive Secretary, APAARI, welcomed the Chair, Vice-Chair, members, special invitees and observers of the SC meeting. He also gave brief introductory remarks about APAARI. He mentioned that through APCoAB, APAARI is addressing the issues related to the application of agricultural biotechnology and bioresources under thematic area of natural resources. He informed that Steering Committee meeting of APCoAB could not be organized during 2017, as the Coordinator, APCoAB joined in August 2017 and a new Steering Committee was constituted by the Executive Committee on November 12, 2017. Dr Khetarpal thanked the Chair, Vice-Chair, the members, special invitees and all participants for attending the meeting, as well as the major funding partner Council of Agriculture (COA) and Australian Centre for International Agricultural Research (ACIAR) for their generous support to APCoAB. This was followed by self-introduction by each participant.

Agenda Item 2: Opening Remarks

Dr Yusuf Zafar, Chairman of the SC, welcomed all the participants and gave a brief background about APCoAB and its mandate. While emphasizing the importance of agricultural biotechnology, he stressed upon the importance of bioresources to work towards achieving the sustainable development goals. He mentioned that the mandate of APCoAB has been revised, now including bioresources activities in its program, as decided during the Executive Committee meeting held on November 12, 2017. Dr Zafar gave a brief account on the status of GM crops grown in Asian countries *e.g.* Bt cotton in Australia, India, Pakistan; Bt brinjal in Bangladesh; GM maize in the Philippines; canola in Australia, which have improved the production, productivity and income of the farmers. He mentioned that agricultural biotechnology plays a significant role in bioprospecting, effective conservation and sustainable use of bioresources. He stressed that in order to harness the full potential of biotechnology, capacity building in the above-mentioned areas is imperative for effective conservation and sustainable utilization of bioresources in Asia-Pacific region, which is very rich in biodiversity. Dr Zafar informed that before joining Dr Rishi Tyagi as Coordinator, the activities in APCoAB program was being carried out on ad-hoc basis through consultant. Dr Tyagi rejuvenated the program and in November 13-15, 2017, an Expert Consultation on Underutilized Crops for Food and Nutritional Security in Asia and the Pacific was organized successfully and another Expert Consultation on Agricultural Biotechnology – Scoping for the Partnership to Improve Livelihoods of Farmers in Asia-Pacific will be organized on May 29-31, 2018 in Bangkok. He invited all the members to participate in above Expert Consultation.

Dr Zafar expressed his satisfaction about the agenda of the Steering Committee meeting. He stated that after the new team joined in APAARI, the activities under APCoAB have been accelerated. Dr Zafar also placed on record APAARI's appreciation to Council of Agriculture (COA), Taiwan and Australian Centre for International Agricultural Research (ACIAR), Australia for extending financial support, the former being the major funding source to APCoAB.

Before moving to the Agenda items, the Chairman invited the members to make introductory remarks.

Dr Andrew Alford, Research Program Manager, Impact Assessment, ACIAR, informed that he was representing Ms Mellissa Wood, General Manager, Global Program, ACIAR. He reiterated that ACIAR is a strong partner of APAARI and take this partnership very seriously for research and development impacts in the Asia-Pacific region. There are challenges and opportunities for capacity development in agricultural biotechnology and bioresources in the region. ACIAR is committed to enhance its collaboration with APAARI in above areas.

Agenda Item 3: Remarks by COA

Dr Chung-Hsiu Hung, Director General, International Affairs Department, COA, Taipei, Taiwan, expressed his happiness to participate in the SC meeting. He mentioned that COA has been providing uninterrupted funding support to APCoAB since 2008 and will continue to support its activities related to agricultural biotechnology and bioresources for the Asia-Pacific region. He stated that Taiwan has been regular member of APAARI since 1990. Dr Hung appreciated the inclusion of bioresources-related activities in the APCoAB program. He assured that COA's support to APCoAB will be continued for next term also. Dr Hung mentioned that a revised proposal needs to be submitted by APAARI-APCoAB for enhanced funding from 2019 onwards. Dr Hung informed that COA will be happy to organize a 2-3-day workshop/seminar on bioresources in Taiwan in 2018. Agenda of the above workshop/seminar will be prepared soon and shared with APAARI.

Dr Hung appreciated the significant contributions made by Drs Ravi Khetarpal and Rishi Tyagi and his full confidence in APAARI which is playing a key role in addressing the issues related to agriculture in general, and to agricultural biotechnology and bioresources in particular. He anticipated that with the help of collective wisdom and professional experts, the objectives of Steering Committee will be achieved successfully.

Agenda Item 4: Approval of Agenda for the XIXth SC meeting and Final Approval of the Minutes of the XVIIIth SC Meeting

The Agenda for the XIXth SC meeting was approved unanimously (Annex II). Participants were informed that the Proceedings of the XVIIIth Steering Committee held on October 16, 2016 in Taichung City, Taiwan (Annex III) had been circulated to all the SC members and other participants of the meeting, on which no comments were received. The proceedings were placed before the Steering Committee for final approval and the same was approved unanimously.

Agenda Item 5: APCoAB Program - Background and Status, Action Taken Report and Progress Report

Background and Status

Dr Rishi Tyagi made a brief presentation on the mandate, program, progress and current status of APCoAB (Annex IV). He mentioned about the genesis of APCoAB, which was founded in 2003 in response to the need expressed during APAARI and FAO meetings for a regional initiative to promote the adoption of agricultural biotechnology for the benefit of the Asia-Pacific NARS and the farming community. The program has been funded, besides APAARI, by COA, ACIAR and other public and private organizations. COA has been the major supporter of APCoAB since 2008. In order to work towards the strategy plan of APAARI in the context of Sustainable Development Goals (SDGs), conservation and sustainable use of bioresources for sustainability of agri-food system, bioresources were included under the APCoAB program on November 12, 2017 by endorsement of APAARI's Executive Committee. Thereafter, it has been renamed as Asia-Pacific Consortium on Agricultural Biotechnology and Bioresources (APCoAB).

APCoAB, in collaboration with APAARI member organizations, carries out expert meetings in the areas of policy, technological advances, benefits and concerns related to agricultural biotechnology in its broad sense. It also organizes training programs on a diverse range of agricultural biotechnology related topics. APCoAB has brought out a large number of publications, including proceedings of expert meetings, success stories and status reports of technology adoption and regulation. The APCoAB website (www.apcoab.org; <http://www.apaari.org/web/our-projects/apcoab/>) provides up-to-date information about the program and its activities, and global developments in agricultural biotechnology and bioresources.

Action Taken Report

The Action Taken Report regarding the recommendations made during the XVIIIth SC meeting was presented by Dr Tyagi (Annex V).

Progress Report

Dr Rishi Tyagi, Coordinator, presented the progress report. He informed that Steering Committee of APCoAB was not in place after November 2016 and also no regular Coordinator was working for APCoAB until July 2017. Dr Tyagi joined in August 2017 as Coordinator. Therefore, the APCoAB Progress Report was presented in two sections – (A) from November 2016 to July 2017 and (B) from August 2017 to April 2018 (for detail report see Annex VI). A summary of the progress report is given hereunder.

Expert Consultations/Symposium/Workshop

During November 2016 to July 2017, an Expert Consultation on Best Practices in Agri-food Innovations in Asia and the Pacific was organized in partnership with the COA, ACIAR, the World Vegetable Center (WorldVeg), and the Asian Farmers Association (AFA), on November 1-3, 2016 at Taichung, Taiwan. Another workshop entitled “2017 Workshop on e-Business Modelling for Women Entrepreneurs” was organized in collaboration with COA, in cooperation with the Asian Productivity Organization (APO), on June 19, 2017 in Taipei,

Taiwan. Participants from 16 countries: Afghanistan, Cambodia, India, Iran, Korea, Laos, Malaysia, Mongolia, Nepal, Pakistan, the Philippines, Samoa, Sri Lanka, Thailand, Vietnam, and Taiwan were present. Forty professionals, including 21 representatives from APO member countries, one APO program officer, 8 resource persons, and 9 representatives from APAARI member countries, attended the workshop to discuss the successful models and share their experiences in the fields of agricultural e-commerce.

Detailed Proceedings and Recommendations of the Expert Consultation on Best Practices in Agri-food Innovations in Asia and the Pacific can be viewed at: http://www.apaari.org/wp-content/uploads/2017/Expert%20Consultation%20Best%20Practices-Proceedings%20&%20Recommendations_2-6-2017.pdf

During the period from August 2017 to April 2018, as per approved work plan for the year 2017, a multi-stakeholder “Regional Expert Consultation on Underutilized Crops for Food and Nutrition Security in Asia and the Pacific” was organized by APAARI-APCoAB and COA, in collaboration with WorldVeg, Crops for the Future (CFF), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), International Centre for Agricultural Research in the Dry Areas (ICARDA), Bioversity International, and the Department of Agriculture (DOA), Thailand, during November 13-15, 2017 at Bangkok, Thailand. A total of 54 participants from 18 countries (Bangladesh, Bhutan, Fiji, Germany, India, Iran, Japan, Lao, Malaysia, Nepal, Pakistan, Philippines, PNG, Samoa, Sri Lanka, Taiwan, Thailand, Vietnam) deliberated on the topics and framed recommendations to be addressed by NARS, APAARI and others.

The Proceedings and Recommendations can be accessed at: <http://www.apaari.org/web/wp-content/uploads/downloads/2018/Regional%20Expert%20Consultation%20on%20UUC%20-%20Proceedings%20and%20Recommendations%20-%20Final.pdf>

The CryoSypm 2018 was organized jointly by Mahidol University and the International Society of Horticultural Science (ISHS), APAARI-APCoAB, the Thailand Institute of Scientific and Technological Research (TISTR) and DOA, Thailand, on March 26-28, 2018 at Bangkok, Thailand. A total of 110 participants from 25 countries attended the symposium. The program comprised three sessions – Session I: Research in Plant Cryopreservation, Session II: Cryobanking, and Session 3: Methods in Plant Cryopreservation. Three invited lectures, 32 oral presentations and 35 posters, related to various aspects of plant cryopreservation, were presented. APAARI-APCoAB sponsored three participants from Asia. Coordinator, APCoAB, made a presentation on “Does cryopreservation stress impacts genotype integrity? A case study with germplasm of *Musa* spp.”. He served as the member of (i) International Advisory Committee and (ii) Scientific Committee of CryoSypm 2018.

To assess the potential of APAARI biotechnology communication strategy and its adoption, a survey was conducted by email to obtain the feedback from the of participants who attended the workshop on “Development of Communication Strategies for Adoption of Agri-Biotechnology in the Asia-Pacific Region”, organized by APAARI-APCoAB on September 28-29, 2015. The majority of the participants expressed that the workshop was very useful to enhance their skills in communication in agricultural biotechnology and creating awareness in

different stakeholders. Some participants mentioned that they should have been given an opportunity to develop networking during the workshop. They also suggested for capacity building in various areas of agricultural biotechnology and bioresource management.

Publications

The Proceedings and Recommendations of (i) Expert Consultation on Best Practices in Agri-food Innovations in Asia and the Pacific, and (ii) Regional Expert Consultation on Underutilized Crops for Food and Nutrition Security in Asia and the Pacific, were published. The Third International Symposium on Plant Cryopreservation CryoSymp 2018 - Book of Abstract comprising oral and poster presentations were published comprising 32 abstracts of oral presentations by 32 speakers and 35 posters on various aspects of cryopreservation of plant genetic resources was published in collaboration with Mahidol University and others. Two Success Stories on Bt brinjal in Bangladesh, GM Maize in Philippines and one Status Paper on Rice Biotechnology in Asia-Pacific are in pipeline.

APCoAB Website

Ms Geraldine Nemrod presented the progress regarding the new design and update of the APCoAB website.

The APCoAB website was redesigned and revitalized with updated contents. The website was merged with APAARI website but a separate domain (www.apcoab.org) was maintained as recommended by the EC. A new menu and breadcrumb have been implemented on the 72 pages and subpages of the website. Several pages have been redesigned (Home page, Institutional database, Current news), and new pages have been created (Steering committee, Event proceedings, News archives, Upcoming and past events). The existing databases have been partially updated (Experts, Biosafety, Educational institutions, Event proceedings) or sometimes completely updated (Institutional database, International organizations, Seed companies, NGOs and Miscellaneous).

The Chairman appreciated the efforts to reinvigorate the APCoAB program; the progress report was accepted by all members.

Agenda Item 6: APCoAB Program – Current Work Plan

Dr Rishi Tyagi presented a revised work plan for the period of January-December 2018 (Annex VII). In this revised work plan, all approved activities for the year 2018 (under APAARI-COA) were retained. In view of the expanded scope of APCoAB, bioresource-related activities were included. In addition to the already approved activities, two Symposium/Conference, one training, 4 publications on Proceedings and Recommendations, 3 Success Stories/Status Paper were proposed, and are subject to the availability of additional resources *i.e.* funds and manpower.

The Chairman and other members agreed that additional activities can be accomplished if additional resources are available. The work plan was approved by all the members.

Agenda Item 7: Audited Financial Statement (January-December 2017)

Dr Tyagi presented the overall Audited Account statement of APAARI for January-December 2017 for consideration and approval from the Steering Committee (Annex VIII). Dr Tyagi mentioned that during January-December 2017 the total amount of receipt under APCoAB was USD 143,279.56 and payments were USD 117,500.87. He also presented the expected income and expenditure for January-December 2018. The expected income was estimated at USD 180,778.69 and expected expenditure at USD 204,900.00 (USD -24,121.31). A summary of overall APAARI's income and expenditure for 2017 is given in Annex IX and the expected income and expenditure for 2018 can be found in Annex X.

The audited financial statement of APAARI including APCoAB was approved by the Steering Committee.

Agenda Item 8: Way Forward

The following points were placed by the APCoAB Coordinator before the committee.

- (i) COA has agreed, in principle, to expand the scope of activities under APCoAB to include activities on effective conservation and sustainable use of bioresources. APAARI-APCoAB may submit a revised proposal for enhanced funding for consideration by COA. Dr Hung, Vice Chair of the SC and Director General, COA, was then requested to provide his guidance.

Dr Hung agreed that the scope of APCoAB should be expanded to include activities related to bioresources. He mentioned that COA will be happy to organize a 3-day workshop/seminar on bioresources in Taiwan during 2018; one and half day will be for workshop/seminar and one day will be for field visit. The agenda of the same will be submitted soon to APAARI for further discussion.

- (ii) A decision was taken by ACIAR (reference Steering Committee proceedings; October 31, 2016; Agenda Item 8(vii) – *“ACIAR-FAO project on regional consultation meetings on biotechnology is presently under discussion and APCoAB will also be involved in its implementation”*). At present, there is no involvement of APCoAB in the implementation of the above project. ACIAR was then requested to ensure the involvement of APCoAB in implementation of above project.

Dr Alford mentioned that he will discuss this matter with Ms Mellissa Wood and will ensure that APCoAB is effectively involved in the implementation of the ACIAR-FAO project. He informed that ACIAR raised such issues at various platform including Department of Foreign Affairs in a regional meeting in the end of 2017. Ms Mellissa Wood explained the role of APAARI particularly APCoAB to various stakeholders and has strong view about the importance of the role of APAARI particularly APCoAB in the above project.

The Chairman invited the members and special invitees to provide their suggestions for further improvement. Following suggestions/comments were made by the members and special invitees:

- (iii) **Dr Huu-Sheng Lur**, National Taiwan University, Taiwan, also mentioned about the organization of the event on bioresources in Taiwan and he was hopeful that similar events related to bioresources will be organized in the future also.
- (iv) **Dr Zongwen Zhang**, Bioversity International, mentioned that Bioversity International – South-East Asia Office in China, can contribute to organize the activities related to bioresources e.g. conservation and use and genebank management.
- (v) **Dr T Mohapatra**, Director General, Indian Council of Agricultural Research (ICAR) and Secretary, Department of Agricultural Research and Education (DARE) congratulated APAARI-APCoAB for rejuvenating and accelerating the activities in areas of agricultural biotechnologies and bioresources. He suggested the following activities, which may be taken up by APAARI:
 - (a) India has expertise in bioresource management with one of the largest genebank conserving over 400,000 germplasm accessions, which requires huge efforts for conservation and utilization. India will be happy to share its expertise and experience for evaluation of germplasm to identify the trait-specific germplasm for utilization in breeding programs.
 - (b) A workshop/brainstorming meeting may be organized to share the expertise and experience of the institutions/countries involved in Big Data analyses in agricultural biotechnology.
 - (c) A workshop may be organized to develop and utilize the agrobiodiversity index in the region.
 - (d) A specific program should be continued to promote the underutilized bioresources and strategies to communicate their potential at regional level.
- (vi) **Dr Ravi Khetarpal**, Executive Secretary, APAARI, informed that a workshop on underutilized animal genetic resources will be organized at the Malaysian Agricultural Research and Development Institute (MARDI), Malaysia, in 2018 and on underutilized fish and marine bioresources at the Sri Lanka Council of Agricultural Research and Policy (SLCARP), Sri Lanka, in 2019. He also suggested that:
 - (a) The agenda of agriculturally important microbial genetic resources should also be included as an activity under APCoAB. He requested Dr Mohapatra to organize a workshop/brainstorming on this subject by ICAR-NBAIM (National Bureau of Agriculturally Important Microorganisms). Dr Mohapatra kindly agreed about this proposal.
 - (b) Since APCoAB is a Consortium, it is proposed to bring in its fold all the related sub-regional bodies of Asia-Pacific region which are working on agricultural biotechnology and bioresources and also with the related private sector organizations as that would help in better determining the regional priorities of agricultural biotechnology and bioresources.

- (c) Public awareness about agricultural biotechnology and sharing of information about basic knowledge of agricultural biotechnology in Asia-Pacific region is very important.
- (d) Subjected to availability of funds, social biotechnology needs to be given attention, as it has been neglected so far. A policy brief on social biotechnology needs to be developed at regional level.
- (iv) Dr Yusuf Zafar, Chairman, APAARI, mentioned bioresources are under serious threat due to natural and man-made factors. He cited the example of ICARDA genebank and appreciated the Svalbard Global Seed Vault facility where global collections are conserved for the welfare of humanity. Dr Zafar informed that efforts are being made to involve CropLife Asia in activities of APCoAB. Similarly, other private sector organizations should also be involved.
- (v) Dr Gerry Jayawardena, Chairman, SLCARP, appreciated the efforts of APAARI to bring many experts of the region to develop the partnership in agricultural biotechnology in forthcoming Expert Consultation. He mentioned that it is high time to take a global/regional initiative for joint exploration and sharing the bioresources to address the issues related to climate change and food and nutritional security in the region. He underlined the importance of traditional varieties including underutilized animal resources which can mitigate the challenges posed by climate change.
- (vi) Dr Marco Wopereis, Director General, WorldVeg, also congratulated APAARI for good progress in APCoAB. He stated that the recommendations on underutilized crops meeting included several good research ideas. Dr Wopereis mentioned that WorldVeg started working in a taskforce mode with two experts from each member country. He gave example of ASEAN Agricultural Research Network. WorldVeg is working with Taiwan knowledge institutions in three areas (i) indigenous vegetable resources and genebank management, (ii) biocontrol and biopesticide, and (iii) protected cultivation in task force mode. He urged APAARI to move into a kind of taskforce mode to make sure that member countries work together to achieve the mandated activities.
- (vii) Dr Ravi Khetarpal appreciated the above suggestion and mentioned that if we have 2 experts from each country, we should have one person from a technical background, and one person from policy/managerial background. He also mentioned that capacity building in low- and high-tech biotechnology is very important, therefore, 'Centres of Excellence' in National Agricultural Research System of the member country(ies) for researchers should be identified/established.
- (viii) Ms Martina Spisiakova, Consultant, APAARI, suggested to integrate APCoAB activities in Knowledge Management program of APAARI through webinar and online discussions to attract different stakeholders to join APCoAB.

(ix) Dr Rishi Tyagi, Coordinator, APCoAB, thanked all for providing valuable suggestions. He mentioned that the additional activities will be included in the revised work plan of APCoAB, along with additional resources in terms of funds and manpower.

Agenda Item 9: Any other Matters

No other matter was raised.

Agenda Item 10: Concluding Remarks

In his closing remarks, Dr Zafar expressed his satisfaction about the progress under APCoAB and mentioned that inclusion of bioresources on APCoAB was good decision of Executive Committee. However, he stressed that a balance needs to be maintained between both the activities i.e. agricultural biotechnology and bioresources. He also mentioned that for enhanced activities, availability of additional funds is also equally important. He congratulated the new team of APAARI and appreciated their hard work to successfully carry out the activities. He thanked Dr Hung, all members and special invitees for their participation and constructive suggestions to improve the work of APCoAB.

Agenda Item 11: Vote of Thanks

Dr Rishi Tyagi proposed a vote of thanks to the Chairman, Vice Chairman and members of the Steering Committee meeting. He also thanked all the special invitees, observers and APAARI staff members who participated in the meeting.

XIX APCoAB STEERING COMMITTEE MEETING
Bangkok, Thailand
May 28, 2018
List of Participants¹

S. No.	Name, designation and affiliation	Email	Representation
1.	Dr Yusuf Zafar Chairman, Pakistan Agricultural Research Council (PARC), Islamabad, Pakistan	chair@comsats.net.pk; chairman@parc.gov.pk	Chairman
2.	Dr Chung-Hsiu Hung Director General International Affairs Department Council of Agriculture, Taipei, Taiwan	hung8386@mail.coa.gov.tw	Vice-Chairman
3.	Dr Andrew Alford Research Program Manager, Impact Assessment Australian Centre for International Agricultural Research (ACIAR), PO Box 1571, Canberra ACT 2601 Australia	andrew.alford@aciarc.gov.au	Member (Representing ACIAR, Australia)
4.	Dr Gerry Jayawardena Chairman Sri Lanka Council of Agricultural Research Policy, Colombo, Sri Lanka	gerry.jayawardena@gmail.com	Member
5.	Dr Zongwen Zhang Regional Representative for Southeast Asia Biodiversity International – China Office China	z.zhang@cgiar.org	Member
6.	Dr Huu-Sheng Lur Dean College of Bioresources and Agriculture National Taiwan University, Taipei, Taiwan	lurhs@ntu.edu.tw	Member
7.	Dr Ravi Khetarpal, Executive Secretary, Asia-Pacific Association of Agricultural Research Institutions (APAARI), 2 nd & 4 th Floor, FAO Annex Building, 202/1 Larn Luang Road, Bangkok 10100, Thailand	ravi.khetarpal@apaari.org	Member
8.	Dr Rishi Tyagi, Coordinator, APCoAB, APAARI, 2 nd & 4 th Floor, FAO Annex Building, 202/1 Larn Luang Road, Bangkok 10100, Thailand	rishi.tyagi@apaari.org	Member Secretary

¹ Dr Taek-Ryoun Kwon, Member Steering Committee and Director, International Technical Cooperation, Centre, RDA, Republic of Korea, could not participate in the meeting

9.	Dr Trilochan Mohapatra Director General, Indian Council of Agricultural Research and Secretary, Department of Agricultural Research and Education, Indian Council of Agricultural Research, New Delhi, India	dg.icar@nic.in	Special invitee
10.	Dr Marco Wopereis Director General World Vegetable Centre, 60 Yi-Min Liao, <u>Shanhua</u> , Tainan, Taiwan	marco.wopereis@worldveg.org	Special invitee
11.	Ms Tracy, Shwu-Hwa Tarng, Senior Specialist and Chief, Department of International Affairs, Council of Agriculture, Taipei, Taiwan	tracyt@mail.coa.gov.tw	Observer
12.	Ms Yu-Chen (Janet) Shih Secretary, Political Division Taipei Economic and Cultural Office in Thailand, 20 th Floor, Empire Tower 1, South Sathorn Road, Bangkok 10120, Thailand	ycshih@mofa.gov.tw	Observer
13.	Dr Yemi Akinabamiji Executive Director Forum for Agricultural Research in Africa No. 12, Anmeda Street, Roman Ridge PMB CT 173, ACCRA, Ghana	yakinbamijo@faraafrica.org	Observer
14.	Dr Norah Omot Coordinator, ASTI, APAARI 2 nd & 4 th Floor, FAO Annex Building, 202/1 Larn Luang Road, Bangkok 10100, Thailand	norah.omot@apaari.org	Observer
15.	Mr Fai Collins Coordinator, Knowledge Management, APAARI, 2 nd & 4 th Floor, FAO Annex Building, 202/1 Larn Luang Road, Bangkok 10100, Thailand	fai.collins@apaari.org	Observer
16.	Ms Martina Spisiakova Consultant, APAARI 2 nd & 4 th Floor, FAO Annex Building, 202/1 Larn Luang Road, Bangkok 10100, Thailand	m.spisiakova@apaari.org	Observer
17.	Ms Celilu Bitong Knowledge Management Officer, APAARI 2 nd & 4 th Floor, FAO Annex Building, 202/1 Larn Luang Road, Bangkok 10100, Thailand	c.bitong@apaari.org	Observer
18.	Ms Geraldine Nemrod Consultant, APCoAB, APAARI 2 nd & 4 th Floor, FAO Annex Building, 202/1 Larn Luang Road, Bangkok 10100, Thailand	g.nemrod@apaari.org	Observer



**ASIA-PACIFIC CONSORTIUM on AGRICULTURAL BIOTECHNOLOGY AND
BIORESOURCES (APCoAB)**

**XIXth STEERING COMMITTEE MEETING
(2018)**

May 28, 2018

(08.30-10.30 hrs)

Canna1, Rama Gardens Hotel, Bangkok, Thailand

ANNOTATED AGENDA

Agenda Item 1: Welcome and Introduction

Dr Ravi Khetarpal, Executive Secretary, APAARI, will welcome the members, special invitees and other participants of the Steering Committee meeting, followed by introduction of the Steering Committee members.

Agenda Item 2: Opening Remarks

The Chairman of the Steering Committee and APAARI will deliver his opening remarks highlighting the APCoAB program and the key issues to be addressed.

Agenda Item 3: Remarks by COA

The Vice Chairman of the Steering Committee, Director General, Council of Agriculture (COA), Taiwan, will give his remarks on the achievements and expectations from APCoAB, being its major funding partner.

Agenda Item 4: Final Approval of the Minutes of the XVIIIth SC Meeting (Annex 1)

The Proceedings of the XVIIIth Steering Committee held on October 31, 2016 in Taichung, Taiwan, were circulated to all the Steering Committee members and other participants of the meeting. No comments were received, as per available records.

The proceedings will be placed before the Steering Committee for formal approval.

Agenda Item 5: APCoAB Program – Background and Status (Annex 2), Action Taken Report (Annex 3) and Progress Report (Annex 4)

Dr Rishi Tyagi, Coordinator, APCoAB, APAARI, will make a brief presentation on the mandate, program and progress of APCoAB (November 2016-July 2017 and August 2017-April 2018). He will also elaborate on its current status.

Agenda Item 6: APCoAB Program – Current Work Plan (January-December 2018) (Annex 6)

Dr Rishi Tyagi, Coordinator of APCoAB, APAARI, will present the work plan for the period of January-December 2018 for approval from the Steering Committee.

Agenda Item 7: Audited Financial Statement (January-December 2017) (Annex 7)

The Audited Account statement of APAARI for January-December 2017 will be presented for consideration and approval from the Steering Committee. A summary of APAARI's income and expenditure for 2017 is given in Annex 7 and the expected income and expenditure for 2018 can be found in Annex 8 and 9, respectively.

Agenda Item 8: General Discussion

A discussion on the progress made, the future priorities and program of APCoAB, including the APAARI-COA collaborative program, will be held. The following points need to be discussed:

1. COA has agreed, in principle, to expand the scope of activities under APCoAB in view of inclusion of activities on effective conservation and sustainable use of bioresources. APAARI-APCoAB may submit the revised proposal for enhanced funding for consideration by COA. Dr Hung, Vice Chair and Director General, COA, is requested to provide his guidance.
2. A decision was taken by ACIAR (reference Steering Committee proceedings; October 31, 2016; Agenda Item 8(vii) – “ACIAR-FAO project on regional consultation meetings on biotechnology is presently under discussion and APCoAB will also be involved in its implementation”). At present, there is no involvement of APCoAB in the implementation of the above project. ACIAR is requested to ensure the involvement of APCoAB in implementation of above project.

Members are welcome to suggest new initiatives and innovative mechanisms to ensure additional funds.

Agenda Item 9: Any other Matters

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

Agenda Item 10: Concluding Remarks

The Chairman will give his closing remarks to the members of the Steering Committee based on the discussions and deliberations held on the progress and future work plan of APCoAB.

Agenda Item 11: Vote of thanks

Dr Rishi Tyagi will present a formal Vote of Thanks to the Chairman, Vice Chairman and Members and other participants of the Steering Committee meeting for their participation and valuable guidance.



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

**XVIII STEERING COMMITTEE MEETING
Taichung City, Taiwan
31 October 2016**

PROCEEDINGS

The XVIII Steering Committee (SC) Meeting of the Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB) was held on 31 October 2016 at National Hotel, Taichung, Taiwan. The meeting was attended by 13 participants, comprising SC members, their representatives, special invitees and observers (Annex I). APAARI Chairman, Mr. Suwit Chaikiattiyos, Director General (DG), Department of Agriculture, Thailand (DOA), was represented by Dr. Waraporn Prompoj, DDG, DOA, while Dr. Chun-yen Chen, DG, International Affairs, Council of Agriculture, Taiwan (COA) was represented by Ms. Rose, Dong-chong Hsiou, DDG, Department of International Affairs, COA.



Participants of XVIII Steering Committee meeting of APCoAB

Agenda Item 1: Welcome and Introduction

Before taking up the Agenda, Dr. Raghunath Ghodake, Executive Secretary, APAARI conveyed the sad news about the passing away of King Bhumibol Adulyadej of Thailand on

13 October 2016. The participants observed one minute silence in the honour of the late king following which Dr. Ghodake introduced the Chair, Vice-Chair, other members and participants to the SC meeting.

Agenda Item 2: Opening Remarks

Dr. Waraporn Prompoj, DDG, DOA speaking on behalf of Dr. Suwit Chaikiattiyos, Chairman, APAARI, welcomed the participants and gave a brief background about APCoAB and its mandate. She highlighted the necessity of capacity building and public awareness in biotechnology and the efforts carried out by APCoAB towards these objectives. Dr. Prompoj put on record APAARI's appreciation of COA and ACIAR for their support to APCoAB, the former being the major funding source for APCoAB.

Agenda Item 3: Remarks by COA

Ms. Rose, Dong-chong Hsiou, Council of Agriculture, Taiwan (COA), expressed her happiness over her participation in the SC meeting. She mentioned that COA has been providing uninterrupted funding support to APCoAB since 2008 and will continue to support its efforts towards facilitating cooperation in agricultural biotechnology research and adoption among Asia-Pacific countries. COA appreciates APAARI's efforts on re-strategizing APCoAB program to make it consistent with long-term APAARI vision and medium term Strategic Plan.

Agenda Item 4: Approval of Agenda for XVIII SC meeting and Final Approval of Minutes of XVII SC Meeting

The Agenda for the XVIII SC meeting was approved unanimously (Annexure II). Participants were informed that the Proceedings of the XVII Steering Committee held on 10 December 2015 in Bangkok (Annexure III) had been circulated to all the SC members and other participants of the meeting, on which no comments were received. The proceedings were placed before the Steering Committee for final approval and the same was granted.

Agenda Item 5: APCoAB Program - Background and Status

Dr Jawahir Karihaloo, Sr. Consultant, APAARI made a brief presentation on the mandate, program, progress and current status of APCoAB (Annex IV). He mentioned about the genesis of APCoAB in 2003 which was founded in response to the need expressed in APAARI and FAO meetings for a regional initiative to promote adoption of agricultural biotechnology for the benefit of the Asia-Pacific NARS and the farming community. The program has been funded, besides APAARI, by COA, ACIAR and other public and private organizations while COA has been the major supporter of APCoAB since 2008.

APCoAB, in collaboration with APAARI member organizations, carries out expert meetings in the areas of policy, technological advances, benefits and concerns related to agricultural biotechnology in its broad sense. It also organizes training programs on a diverse range of agricultural biotechnology related topics. Up to three training programs per year have been conducted in the past. APCoAB has brought out a large number of publications, including proceedings of expert meetings, success stories and status reports of technology adoption and

regulation. APCoAB website (www.apcoab.org) provides up-to-date information about the program and its activities, and global developments in agricultural biotechnology.

Agenda Item 6: APCoAB Program – Current Work Plan and Progress

Dr Karihaloo presented the progress on work plan for the period of September to December 2016 developed earlier in consultation with COA (Annex V). During the period under report, Expert Consultation on Best Practices in Agri-food Innovations in Asia and the Pacific was organized jointly with COA, ACIAR, the World Vegetable Center (WorldVeg), Taiwan; and the Asian Farmers Association (AFA) in Taichung, Taiwan from 1-3 November 2016. APAARI also co-organized and participated in 1st International Agrobiodiversity Congress, held from 6 to 9 November 2016 in New Delhi, India.

A Training Course on Food Safety Management Systems (FSMS): Advanced Course for Small and Medium Enterprises (SMEs) in the Agri-food Industry was held jointly with COA and Asia Productivity Organization (APO) from 3 to 7 October, 2016 in Taipei. Six participants from five countries; Nepal, Philippines, Lao PDR, Malaysia and Thailand were sponsored by APAARI. Commenting on the training course, all the participants felt that the lectures, group activities and discussions were successful in making the participants realize and understand the implementation processes involved in the modern FSMS.

APCoAB website has been revitalized with updated information on organization, work plans, activities, publications and news and events. A publication entitled *Development of Communication Strategies for Adoption of Agri-Biotechnology in the Asia-Pacific: A Framework for Engagement with Key Stakeholders about Agri-Biotechnology – A Paradigm Shift*, was brought out during the period under report.

Agenda Item 7: APCoAB Future Plan

Dr Karihaloo presented a road-map for rejuvenation of APCoAB activities involving appointment of full-time Coordinator, development of other in-house capacity and enhancement of its activities (Annex VI). APAARI-COA collaborative program on biotechnology has been in operation since 2008 with the current funding support of USD 50,000 per annum from COA. In view of the substantial success of this program, it is proposed to request its further extension of four years with higher funding to support increased number of activities, and longer duration of trainings programs for the greater benefit of participants from member organizations. It is also proposed to collaborate with ACIAR in implementing its project on ACIAR-FAO regional biotechnology consultation meetings during the period 2017-18, presently under discussion.

Agenda Item 8: General Discussion

Prof. Andrew Campbell, Dr. Waraporn Prompoj and Ms. Rose, Dong-chong Hsiou, made important observations/suggestions on APCoAB program, progress and future plan. Based on these discussions, the following decisions were taken:

- (i) The outputs of APCoAB workshop on communication strategies to be utilized by APCoAB and APAARI member organizations to develop future strategies for public engagement and debate on agricultural biotechnology.
- (ii) Appointment of new APCoAB Coordinator to be taken up on priority. Notification to be sent to all member organizations so that they could nominate candidates for the post.
- (iii) APCoAB Progress Report for 2016 to be submitted to COA by the end of December 2016.
- (iv) COA has agreed to continue funding support to APCoAB. New Proposal for the next phase of APAARI-COA (2017-2020) collaborative program based on newly developed APAARI Strategic Plan to be submitted soon. Decision on the requested enhancement of funding support shall be taken by COA after a review of the proposal.
- (v) The proposed APAARI-COA Program for the next phase was modified to read as:
 - a. ***High Level Policy Dialogues/Expert Consultations to promote use of agricultural biotechnology in the Asia-Pacific region***
One meeting to be organized each year.
 - b. ***Symposia/trainings/workshops for scientists/researchers from APAARI member institutions***
Short to medium duration symposia/trainings/workshops to be organized at COA and other member research institutes.
- (vi) Activities for 2017 to be initiated soon after the joining of new Coordinator. It is expected that larger number of activities shall be taken up during this year since there would be some additional savings available due to absence of Coordinator during 2015.
- (vii) The ACIAR-FAO project on regional consultation meetings on biotechnology is presently under discussion and APCoAB will also be involved in its implementation.

Agenda Item 9: Any other Matters

No other matter was raised.

Agenda Item 10: Concluding Remarks

Dr Prompoj in her closing remarks emphasized the need to accelerate the pace of APCoAB activities following the brief gap during this year. APCoAB should actively engage in the much needed awareness generation and in sharing public information about biotechnology in all its dimensions. Appropriate strategies need to be developed to communicate effectively with the policy makers and the public.

Agenda Item 11: Vote of Thanks

Dr Jawahir Karihaloo presented vote of thanks to the Chair, members and the other participants of the Steering Committee meeting.

APCoAB Program - Background and Status

Introduction: The Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB) was established in 2003 under the umbrella of APAARI. Its genesis is linked to three meetings organized by APAARI during 2002-2003 to discuss the status of agricultural biotechnology in the Asia-Pacific region, and the need for a regional initiative to undertake and promote adoption of agricultural biotechnology for the benefit of NARS and the farming community. To work towards the revised vision of APAARI in the context of Sustainable Development Goals (SDGs), conservation and sustainable use of bioresources for sustainability of agri-food system, bioresources were included under the APCoAB program on November 12, 2017 by endorsement of APAARI's Executive Committee. Thereafter, it has been renamed as Asia-Pacific Consortium on Agricultural Biotechnology and Bioresources (APCoAB). The program is mainly funded by the Council of Agriculture, Taiwan (COA), the Australian Centre for International Agricultural Research (ACIAR) and from time to time by FAO, GFAR, Mahyco and others. Since 2008, COA has been a major fund supporter of APCoAB.

Mission: APCoAB's mission is "To harness the benefits of agricultural biotechnology and bioresources for human and animal welfare through the application of the latest scientific technologies, while safeguarding the environment for the advancement of society in the Asia-Pacific region".

Activities:

Policy Dialogues/Expert Consultations/Brain Storming Sessions: In collaboration with APAARI member organizations, APCoAB organizes expert consultation meetings on contemporary issues of policy, technological advances, benefits, and concerns related to agricultural biotechnology and bioresources in its broad sense. The subjects covered so far include GM technology, biosafety, IPR, public-private partnership, molecular breeding, trans-boundary diseases, bioinformatics, food safety, regulatory issues, conservation of genetic resources and promotion of underutilized crops.

Training Programs: APCoAB, in collaboration with member organizations and other stakeholders, organizes training programs on a diverse range of agricultural biotechnology topics. On average, up to three training programs per year have been conducted in the past.

Publications: APCoAB has brought out a large number of publications, including proceedings of expert consultation meetings, success stories and status reports of technology adoption and regulation.

APCoAB Website: Complete information about APCoAB and its activities is available on the APCoAB website (www.apcoab.org). Besides, it hosts databases on Asia-Pacific agricultural

biotechnology institutions and experts, and regulatory systems in the Asia-Pacific countries. The APCoAB website is redesigned and its databases are being updated.

Current Status: Since the resignation of the previous APCoAB Coordinator, during January 2016-July 2017, APCoAB activities were at low ebb. The previous Steering Committee term was over in December 2016, therefore, no Steering Committee Meeting could be held during 2017. After the new Coordinator joined APCoAB in August 2017, activities were taken up as proposed in the approved program for the year 2017, and progress up to October 2017 was presented in the previous Executive Committee meeting of APAARI on November 12, 2017. A work plan for the period of January-December 2018 has been developed and will be presented before the Steering Committee for approval.

Action Taken Report with reference to the decisions of VIII Steering Committee

S. No.	Decision	Action taken
1.	The outputs of APCoAB workshop on communication strategies to be utilized by APCoAB and APAARI member organizations to develop future strategies for public engagement and debate on agricultural biotechnology.	A feedback questionnaire was developed and distributed to the participants of the workshop about the adoption of APAARI communication strategies on agricultural biotechnology in their organizations. About 48% of the participants responded. A modified questionnaire will be sent to all member and non-member countries to collect relevant information for further analyses.
2.	Appointment of the new APCoAB Coordinator to be taken up on priority. Notification to be sent to all member organizations so that they can nominate candidates for the post.	Interview of the Coordinator held on May 31, 2017. The Coordinator joined APAARI on August 11, 2017.
3.	APCoAB Progress Report for 2016 to be submitted to COA by the end of December 2016.	Progress report for 2016 submitted to COA on January 5, 2017. Progress report for 2017 submitted to COA on January 15, 2018.
4.	COA has agreed to continue its funding support to APCoAB. New Proposal for the next phase of the APAARI-COA (2017-2020) collaborative program based on newly developed APAARI Strategic Plan to be submitted soon. Decision on the requested enhancement of funding support shall be taken by COA after a review of the proposal.	New proposal (2017-2020) submitted on January 19, 2017. Funding is enhanced from USD 50,000 to USD 70,000 with matching grant from APAARI. It is already under implementation.
5.	The proposed APAARI-COA Program for the next phase be modified as per following: <i>a. High Level Policy Dialogues/Expert Consultations to promote use of agricultural biotechnology in the Asia-Pacific region One meeting to be organized each year.</i>	The proposed APAARI-COA Program for the next phase was modified as per decision.

	<p><i>b. Symposia/trainings/workshops for scientists/researchers from APAARI member institutions</i> <i>Short to medium duration symposia/trainings/workshops to be organized at COA and other member research institutes.</i></p>	
6.	<p>Activities for 2017 to be initiated soon after the joining of the new Coordinator. A larger number of activities shall be taken up during this year, since there would be additional savings available, due to the absence of Coordinator during 2015.</p>	<p>Soon after the Coordinator joined (August 11, 2017), activities under APCoAB were started. The Regional Expert Consultation on Underutilized Crops for Food and Nutrition Security in Asia and the Pacific was organized on November 13-15, 2017 and regular updates of the APCoAB website were accomplished by the end of December 2017. Preparation of next Expert Consultation on Agricultural Biotechnology was started. The work plan for the year 2018 will be presented before the IX Steering Committee for approval.</p>
7.	<p>The ACIAR-FAO project on regional consultation meetings on biotechnology is presently under discussion, and APCoAB will also be involved in its implementation.</p>	<p>APCoAB Coordinator participated in the FAO Regional Meeting on Agricultural Biotechnologies in Sustainable Food Systems and Nutrition in Asia-Pacific. The event was organized by FAO-RAP, Kuala Lumpur, Malaysia, September 11-13, 2017. However, active involvement of APCoAB for implementation of ACIAR-FAO project is to be ensured by ACIAR.</p>

APCoAB Program –Progress Report

Progress Report

The APAARI-COA collaborative program on biotechnology has been in operation since 2008 in the form of Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB). Initially approved for three years (2008-2010) with a funding support of USD 35,000 per annum, the program was extended twice (2011-2013, 2014-2016) and the funding was raised to USD 50,000 per annum. This APAARI-COA collaboration gave excellent results in terms of the number and range of activities conducted, as well as the benefits brought to APAARI members and other participants through knowledge enhancement, development of practical experience, networking and opportunities for partnership development. It was thus decided by both APAARI and COA to continue the APCoAB program for another term. Therefore, the program was extended for 4 years, from 2017 to 2020, with a total budget of USD 560,000 to be shared equally between COA and APAARI (USD 280,000 each). The commitment of COA to continue supporting this program was conveyed during the XVIII APCoAB Steering Committee Meeting, held on October 31, 2016 at Taichung, Taiwan.

The APCoAB's Progress Report is presented in two sections – (A) from November 2016-July 2017 and (B) August 2017-April 2018.

(A) From November 2016 to July 2017

During the period under report, the following activities were carried out:

1. Expert Consultation on Best Practices in Agri-food Innovations in Asia and the Pacific

The Asia-Pacific Association of Agricultural Research Institutions (APAARI) under its APCoAB program, in partnership with the Council of Agriculture (COA), the Australian Centre for International Agricultural Research (ACIAR), the World Vegetable Center (WorldVeg), and the Asian Farmers Association (AFA), organized an “Expert Consultation on Best Practices in Agri-food Innovations in Asia and the Pacific” on November 1-3, 2016 at Taichung, Taiwan. The overall purpose was to have in-depth deliberations/discussions and to develop a road map for scaling up and out the potential and successful agri-food innovations in the region.



Participants of Expert Consultation

The Consultation was organized in six technical sessions: i) models and case studies of agri-food innovations, ii) partnership for agri-food innovations, iii) capacity development in agri-food innovations, iv) technology based agri-food innovations, v) knowledge management on agri-food innovations and vi) policy oriented agri-food innovations. There were in-depth discussions, which helped to bring out the major recommendations on agri-food innovations for the benefit of smallholder producers, rural communities and overall sustainable agricultural development. Some 87 participants from 18 countries from Asia-Pacific, France, Kenya and USA, attended the Expert Consultation.

The major recommendations include:

- (i) there is a need for strong cooperation amongst the organizations/nations to facilitate the sharing and adaptation of tested policies, systems, institutional arrangements and bridging the required knowledge gap;
- (ii) there is an urgent need for developing a road map and platform for innovative partnerships in the Asia-Pacific region;
- (iii) capacity development for innovation should be based on a long-term strategy covering three interconnected dimensions - individual innovation capacity, organizational innovation capacity, and the creation of an enabling environment;
- (iv) an innovation strategy needs to be apt and well-articulated in terms of providing the basis to beat the competition and create new space;
- (v) concerted efforts are required in managing the knowledge on innovations in production process, postharvest handling, product processing, reduction of greenhouse gas emissions, climate change, and innovations in marketing, institutional development, capacity building, etc.; and
- (vi) there is greater need for policy interventions in support of agri-food innovations and removal of all barriers in implementing policy, especially in path-breaking innovations such as health, diet, functional food supplements, organic farming, malnutrition, low-cost technology, IPR and biodiversity.

2. 2017 Workshop on e-Business Modelling for Women Entrepreneurs

APAARI, under its APCoAB programme of APCoAB in collaboration with The Council of Agriculture of Taiwan, in cooperation with Asian Productivity Organization (APO), co-organized the “2017 Workshop on e-Business Modeling for Women Entrepreneurs” on June 19, 2017 in Taipei, Taiwan. The participants came from 16 countries: Afghanistan, Cambodia, India, Iran, Korea, Laos, Malaysia, Mongolia, Nepal, Pakistan, the Philippines, Samoa, Sri Lanka, Thailand, Vietnam, and Taiwan. 40 professionals, including 21 representatives from APO member countries, one APO program officer, 8 resource persons, and 9 representatives from APAARI member countries, attended the workshop to discuss the successful models and share their experiences in the fields of agricultural e-commerce. As the society and environment become more open and the economic knowledge rapidly develops, the e-commerce modeling provides a more efficient platform for commercial activities. The purpose of this workshop was to examine the development of agricultural e-commerce and the trends in e-business, and to share the successful e-business modeling, strategies and regulations with women entrepreneurs in Asia.



Participants of Workshop on e-Business Modelling

To help participating representatives have better understanding about the operation modeling in e-commerce, domestic and international experts were invited to deliver speeches and join the discussion at the workshop. Moreover, a field visit was arranged to the stores of Taiwan’s e-business and Food Taipei 2017 to inspire participants with more innovative e-commerce management. The workshop also established a network between women entrepreneurs from Asian countries to build a new chapter for agricultural e-commerce development in the region.

APCoAB website

The APCoAB website was maintained with updated information on organization, work plans, activities, publications, news and events.

(B) From August 2017 to April 2018²

During the period under report, the following activities were carried out:

1. Joining of Coordinator, APCoAB

The interview for the post of Coordinator, APCoAB was held on May 31, 2017. Dr Rishi Tyagi was selected and joined APAARI on August 11, 2017.

2. Expansion of activities under APCoAB program

Coordinator, APCoAB made a presentation about expanding the activities, the additional requirement of funds, and the proposal of APCoAB's Steering Committee under the APAARI-COA collaborative program, during the Executive Committee (EC) Meeting (2/2017), held on November 12, 2017 at Bangkok. It was proposed that (i) Asia-Pacific Consortium on Agricultural Biotechnology should be renamed as Asia-Pacific Consortium on Agricultural Biotechnology and Bioresources, keeping the acronym as APCoAB, (ii) activities on bioresources should be included in the APAARI-COA work plan for 2018-2020 and (iii) objectives and logo should be revised accordingly. COA, the main sponsor of APCoAB, supported the new dimension of the activities to include bioresources in 2018-2020 work plan. A revised work plan for the year 2018 was also presented with additional activities including bioresources, subjected to availability of additional funding for 2018.

3. Regional Expert Consultation on Underutilized Crops for Food and Nutrition Security in Asia and the Pacific

As per approved work plan for the year 2017, a multi-stakeholder "Regional Expert Consultation on Underutilized Crops for Food and Nutrition Security in Asia and the Pacific" was organized by APAARI, APCoAB and the Council of Agriculture (COA), in collaboration with World Vegetable Centre, Crops for Future (CFF), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), International Centre for Agricultural Research in the Dry Areas (ICARDA), Bioversity International, and the Department of Agriculture (DOA), Thailand, during November 13-15, 2017 at Bangkok, Thailand. The purpose of the Expert Consultation was (i) to create awareness on the role and value of underutilized crops, which have potential for diversification of food basket to ensure better food and nutritional security in Asia-Pacific region; (ii) to share experiences to accelerate the use of underutilized plants as crops for future and (iii) to assess R&D status on priority crops, and policies that are needed to promote these potential crops for future use in Asia and the Pacific. Dr Hiroyuki Konuma, Professor and the Director of ASEAN Center, Meiji



Participants of Expert consultation on UUC

²Coordinator, APCoAB joined APAARI on August 11, 2017; activities presented in this section are after his joining

University, Thailand, and former ADG FAO and Regional Representative for Asia and the Pacific, inaugurated the Expert Consultation Meeting. A total of 54 participants from 18 countries (Bangladesh, Bhutan, Fiji, Germany, India, Iran, Japan, Lao, Malaysia, Nepal, Pakistan, Philippines, PNG, Samoa, Sri Lanka, Taiwan, Thailand, Vietnam) deliberated on the above issues. The participants comprised Senior Officials, researchers from National Agricultural Research Systems (NARS), Consultative Group (CG) Centers, experts on underutilized crops, representatives of research institutions, NGOs and farmers.

The technical sessions of Expert Consultation comprised: (i) Thematic Technical Presentations; (ii) Strategies on Underutilized Crops for Food and Nutritional Security. (iii) Country Status Reports on Underutilized Crops; (iv) Working Group Discussion and Recommendations; (v) Panel Discussion on Policy Support for Underutilized Crops to Achieve Sustainable Development Goals (SDGs).

The deliberations held during the 3-day Expert Consultation brought forth many important issues that require immediate attention. Participants gave several suggestions and the major recommendations emanating from the discussion were categorized as following: (i) Research and Education, (ii) Development, (iii) Policy and (iv) Regional Cooperation and Networking. The Proceedings and Recommendations can be accessed: <http://www.apaari.org/web/wp-content/uploads/downloads/2018/Regional%20Expert%20Consultation%20on%20UUC%20-%20Proceedings%20and%20Recommendations%20-%20Final.pdf>

The following Action Points emerged and should be taken up by APAARI:

- (a) **Funding for the activities needs to be explored:** Strengths of international organizations (CFF, CGIAR, WorldVeg, CABI, etc.) and reputed international universities to be explored as partners while submitting funding proposals. Consultants may be engaged to develop proposals.
- (b) **Facilitate establishment of web-based open source Knowledge Portal of Potential UUCs for APR:** A Knowledge Portal needs to be developed. It should have all published information on the aspects of potential UUCs relevant to the region. This Knowledge Portal may be hosted by APAARI, and should be maintained and updated regularly. It should also have scope for capacity building opportunities in the form of MOOCs or other certification process, preferably in major languages relevant to the needy member countries.
- (c) **A Centre of Excellence for Research and Development on UUCs:** Establishment of this COE could be a project with partners from within and outside APAARI to initiate and strengthen Research and Development on prioritized crops, thus addressing 12 of 17 SDGs that have indicators reflecting the nutrition role in sustainable development. The major aim of this COE will be to develop local and NARS capacities in R&D of UUCs.
- (d) **Seed Systems and Markets for UUCs:** Initiate, strengthen and support seed systems for UUCs to expand their cultivation area, production and productivity. The main goal of this project should be the access to quality seeds involving formal and informal seed systems, including the involvement of the private seed industry. Market intelligence cell should strive to link and promote relevant crops and value-added products.

- (e) **Develop Policy Briefs:** These briefs should be relevant to the country. Priority may be given to the countries that are severely affected by malnutrition. Developing the briefs would involve public, private and community organizations that realize the sensitivities and practicality, so that follow up actions are the responsibility of the respective countries, with the help of APAARI wherever needed.

The participants not only appreciated the role of APAARI-APCoAB in taking the initiative to hold the expert consultation, but also entrusted APAARI-APCoAB to play a pro-active role in networking and liaising programs related to promotion of the use of underutilized plants/crops in the Asia-Pacific region.

4. **Organization of the Third International Symposium on Plant Cryopreservation (CryoSymp 2018)**

The CryoSymp 2018 was organized jointly by Mahidol University and International Society of Horticultural Science (ISHS), APAARI-APCoAB, Thailand Institute of Scientific and Technological Research and DOA, Thailand, on March 26-28, 2018 at Bangkok, Thailand. A total of 110 participants from 25 countries attended the symposium. The program comprised three sessions – Session I: Research in Plant Cryopreservation, Session II: Cryobanking, and Session 3: Methods in Plant Cryopreservation. Three Invited lectures, 32 oral and 35 posters, related to various aspects of plant cryopreservation, were presented. Dr Rishi Tyagi, Coordinator, APCoAB, made a presentation on “Does cryopreservation stress impacts genotype integrity? A case study with germplasm of *Musa spp.*”. He served as the member of (i) International Advisory Committee and (ii) Scientific Committee of CryoSymp 2018.



Participants of CryoSymp 2018

5. **APAARI Biotechnology Communication Strategy and its Potential for Adoption – An Online Survey**

A simple questionnaire comprising 20 questions was developed and distributed to the 24 participants who attended the workshop on “Development of Communication Strategies for Adoption of Agri-Biotechnology in the Asia-Pacific Region”, organized by APAARI-APCoAB on September 28-29, 2015. This questionnaire was designed to get the participants feedback on the impact of APAARI-APCoAB communication strategies for agri-biotechnology. A total of 11 participants responded. The impact of the Workshop on each participant and organization is summarized below.

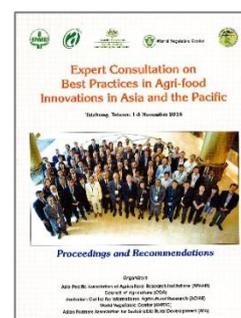
- (i) About 55% of the participants are involved in the development of effective communication strategies in their organization.
- (ii) Most of the participants (82%) reported a major improvement in their knowledge and skills in communication in agri-biotechnology.
- (iii) Most of the participants (90-100%) stated that the workshop experience helped their organizations to create awareness and promote agri-biotechnology, and that they are able to implement and practice the knowledge and skills gained during the workshop.
- (iv) Some 36% of the participants reported that organizations got a formal recognition award by adopting communication strategies suggested during the workshop.

- (v) About 45-66% of the participants stated that it is difficult to communicate with politicians, policy makers/regulators and media persons about agri-biotechnology.
- (vi) The majority of participants (64%) said they would have benefited from networking after the workshop, to exchange experience and ideas among other participants.
- (vii) About 45-55% participants would like, in the future, to attend stakeholder-, biotechnology sector- and region-specific workshops on biosafety, gene editing, trait discovery, molecular breeding, networking and partnership, application of biotechnology for conservation and use of bioresources and biofertilizers.

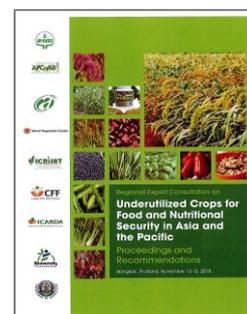
A modified questionnaire is also being developed and will be sent to various stakeholders in NARS of member and non-member countries of the region.

6. Publications

(i) Proceedings and Recommendations of Expert Consultation on Best Practices in Agri-food Innovations in Asia and the Pacific (2017). The publication reports the Proceedings of Expert Consultation on Best Practices in Agri-food Innovations in Asia and the Pacific, held on November 1-3, 2016 at Taichung, Taiwan. It included the proceedings of 6 Technical Sessions, 2 working groups, 1 plenary Session and Extended Summaries of 14 presentations.



(ii) Proceedings and Recommendation of Regional Expert Consultation on Underutilized Crops for Food and Nutrition Security in Asia and the Pacific, held on November 13-15, 2017 published in April 2018. This includes the Executive Summary, the Proceedings of 5 Technical Sessions, 4 Working Groups and a Plenary Session, in addition to the Inaugural Address. Major recommendations emerged out from the deliberations and were categorized – Research and Education, Development, Policy, and Regional Cooperation and Networking. Nine Thematic and six Strategic Papers, and Country Reports of underutilized crops from 16 countries of the Asia-Pacific region, which were presented during the Expert Consultation, were compiled and edited.



These publications can be found in APAARI's website: <http://www.apaari.org/web/latest-publications/>

The presentations were shared by the respective participants and can be accessed here: <https://www.slideshare.net/apaari/presentations>
<https://www.slideshare.net/apaari/presentations/2>

(iii) The Third International Symposium on Plant Cryopreservation CryoSymp 2018 - Book of Abstract of the oral and poster presentations were published comprising 35 abstracts of oral presentations by 32 speakers and 39 posters on various aspects of cryopreservation of plant genetic resources. These presentations were made during Technical Sessions - Invited Oral Session, Research in



Plant Conservation, Cryobanking and Methods in Plant Cryopreservation.

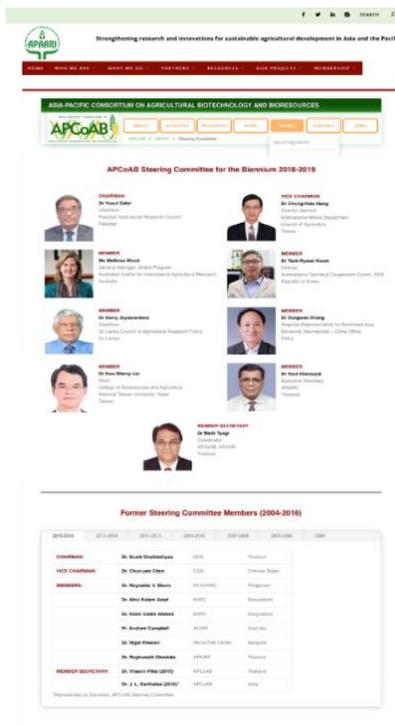
(iv) Success Story/Status Paper

- (i) Special Service Agreement (SSA) including TOR with Dr Rafiqul Islam Mondal, Former Director General, Bangladesh Agricultural Research Institute (BARI), who was involved in development of Bt brinjal, has been developed and signed for documentation of *Bt* Brinjal in Bangladesh.
- (ii) SSA including TOR with Mr Carlo Custodio Jr, Philippines Country Coordinator, Program for Biosafety System, Philippines, has been developed and signed for documentation of GM maize in Philippines.
- (iii) SSA including TOR with Dr NK Singh, Director, National Research Centre on Plant Biotechnology, New Delhi, India, has been developed and signed to write a status paper on Rice Biotechnology in Asia-Pacific region.

The above Success Stories/Status paper are expected to be published by December 2018.

7. APCoAB Website

- (i) The Home Page has been re-designed and the new menu and breadcrumb have been implemented on the 72 pages and subpages of the APCoAB website. The website has been merged with APAARI website but a separate domain (www.apcoab.org) for APCoAB is maintained as per the recommendation of EC.
- (ii) Update and redesign of dormant Sub-pages – Institutional database (319 institutes of 36 countries); International Organizations, Seed Companies, NGOs, and Miscellaneous (72 organizations) were completed.
- (iii) New pages for – Steering Committee (Current and past 12 years), News (Current and Archives; Biotechnology and Bioresources), Events (Upcoming and Past; APAARI and Others), were created.
- (iv) Existing other Databases (Experts, Biosafety, Educational Institutions, Publications, Event Proceedings) are being updated.



8. Participation in Meetings Organized by Other Organizations

- (i) The Coordinator of APCoAB participated and acted as the Facilitator of Session IV: Policy Dialogue Scaling Conservation Agriculture in Regional Policy Dialogue on Scaling Conservation Agriculture for Sustainable Intensification (CASI) in South Asia, organized by ACIAR and TAAS, in Dhaka, Bangladesh, September 8-9, 2017.
- (ii) The Coordinator of APCoAB participated in FAO Regional Meeting on Agricultural Biotechnologies in Sustainable Food Systems and Nutrition in Asia-Pacific, organized by FAO-RAP, in Kuala Lumpur, Malaysia, September 11-13, 2017.
- (iii) The Coordinator of APCoAB participated in Sustainable Agro Food Business Forum (SABF), organized by ESCAP, AFMA, EBAC, in Bangkok, Thailand, September 26-27, 2017.
- (iv) The Coordinator of APCoAB participated in Workshop on Sustainable Branding – Coffee and Beyond (SBCB), organized by Agricultural and Food Marketing Association for Asia and the Pacific (AFMA), in Bangkok, Thailand, March 10, 2018.
- (v) The Coordinator of APCoAB participated and presented a paper on “Does cryopreservation impacts genetic integrity? A case study of banana cryopreservation” in CryoSypm 2018, organized by Mahidol University, APAARI-APCoAB and others, in Bangkok, Thailand, March 26-29, 2018.



Participants of SABF



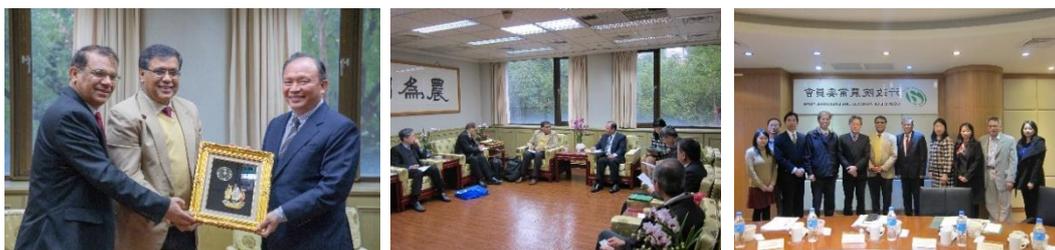
Participants of SBCB



Participants of CryoSypm 2018

9. Visit to COA, Taiwan

During the Executive Committee Meeting on November 12, 2017, the Council of Agriculture (COA) endorsed the expansion of activities in relation to bioresources under the APCoAB programme. A visit to Taiwan was made to discuss about further strengthening the collaboration with Taiwan, for the expansion of APCoAB activities. Visits were also made to 9 scientific organizations (including World Vegetable Centre) dealing with agriculture research and policies to explore the possibilities of collaboration. During the discussion with several dignitaries, possible areas for future collaboration were identified in agricultural biotechnology, bioresources and others. COA agreed that a comprehensive proposal inclusive of APCoAB expanded activities may be submitted by APAARI for consideration of COA to enhance the budget of APCoAB programme.



Meeting with Hon'ble Minister of COA and other officials of different organizations in Taiwan

10. Constitution of Steering Committee for the year 2018-2019

During the Executive Committee Meeting of APAARI, Steering Committee of APCoAB was re-constituted for 2018-2019. (<http://www.apaari.org/web/our-projects/apcoab/steering-committee/>)

Revised Work Plan of APCoAB for 2018

Area	Activities
Expert Consultation/ High Level Policy Dialogue	<ul style="list-style-type: none"> Regional Expert Consultation on Agricultural Biotechnology - Scoping Partnership to Improve Livelihoods of Farmers in Asia-Pacific (May 2018)
Symposium/training/workshops	<ul style="list-style-type: none"> The Third International Symposium on Plant Cryopreservation (CryoSymp 2018; in collaboration with Mahidol University, Bangkok (March 2018)*) Adoption of APAARI biotechnology communication strategies by member organizations – a review (through email) (September 2018) South Asia Biosafety Conference (September 2018)* Underutilized animal resources of Asia-pacific and their amelioration (September- October 2018) In vitro conservation and cryopreservation of plant genetic resources (November-December 2018)*
Steering Committee of APCoAB	<ul style="list-style-type: none"> Steering Committee Meeting of APCoAB (May 2018)
Publication of proceedings/status report/success story	<ul style="list-style-type: none"> Proceedings and Recommendation of Regional Expert Consultation on Underutilized Crops for Food and Nutrition Security in Asia and the Pacific (April 2018) Country Status Reports on Underutilized Crops of Asia-Pacific (May 2018)* Proceedings of Regional Expert Consultation on Biotechnology - Scoping Partnership to Improve Livelihoods of Farmers in Asia-Pacific (August 2018) Country Status Reports on Agricultural Biotechnology in Asia-Pacific (September 2018)* Three Status report/success stories are targeted - (Bt brinjal in B'desh, GM Maize in Philippines, Rice Biotechnology in Asia-Pacific) (December 2018)* Revised APCoAB brochure (June 2018)*
APCoAB website	<ul style="list-style-type: none"> Re-design and improvement of the website Regular updates on agricultural biotechnology and bioresources developments, news and events of specific relevance to Asia-Pacific Update of existing databases. Regular updates of other content and additional databases
One activity as suggested by COA	To be decided in consultation with COA (July-November 2018)

*In view of expanded scope of APCoAB, two symposium/Conference, one training, 4 publications, 3 Success Stories/Status Paper/Brochure, in addition to already approved activities have been planned for the year 2018 (under APAARI-COA), subjected to availability of resources

SUMMARY ACCOUNT STATEMENT OF APAARI

01 January 2017 – 31 December 2017

(Amount in US Dollars)

ITEMS	RECEIVED	DISBURSEMENTS		BALANCE
		Budget	Actual Used	
Amount B/F				1,140,129.05
Carryover expenditure				
1. NARS Membership Fee & ACIAR Support	144,000.00			
2. Associate Membership Fee	110,000.00			
3. Affiliate Membership Fee	12,000.00			
4. Funds from (GFAR,FAO, Symposium Co-sponsor & etc.)	40,894.37			
4.1 Receipts and Refunds	(6,781.91)			
4.2 Profit and Loss on Bank Transfers	74,426.46			
5. Interest Income/Other Income		121,962.00		
6. APAARI Secretariat Support:			221,120.89	
6.1 Salary				
7. Operation cost		124,000.00		
7.1 Publications			10,344.24	
7.2 Office Stationery, Postage & Communication			5,223.03	
7.3 Miscellaneous			39,218.92	
8. Consultancy/Travel/SSA/Honorarium			82,949.18	
9. Training/Selected Research Projects/Network Support			5,000.00	
10. Meetings				
10.1 Expenses for Strategic Planning Meeting			21,503.06	
10.2 Expenses for Executive Committee Meeting & Expert Consultation			115,094.66	
10.3 Expenses spent by APAARI on behalf of LoA			18,804.04	
TOTAL	374,538.92	245,962.00	519,258.02	995,409.95

Exchange Rate: 1 US\$ = 35.92 Baht

Amount in Fixed Account (U.S.Dollar)

Amount in Saving Account (U.S.Dollars)

Amount in Current Account (Baht: 34,446.34)

Amount in Saving Account (Baht:514.04)

Cash in hand (Usd 784.29+Bahat 9,477.44)

US\$ 991,741.57

US\$ 1,646.96

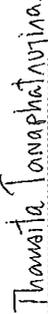
US\$ 958.97

US\$ 14.31

US\$ 1,048.14

TOT:\$995,409.95


 Dr. Ravinder Kumar Khetarpal
 Executive Secretary APAARI


 Ms. Thansita Tanaphatrujira
 Accountant APAARI


 MR. Rattanachai Dumnernsawat
 External Auditor

Table 1. Summary of Account Statement of APCoAB (January 1, 2017-December 31, 2017)

	USD
Receipts	
COA, Taiwan	70,000
APAARI contribution	
Balance brought forward APAARI (APCoAB)	2394.27
ACIAR	15,000.00
APAARI	55,885.29
Total	143,279.56
Payments	
Salary costs	30,993.21
Other direct costs	
Meetings/Trainings/Workshop	56,535.88
Consultancy	14,750.00
Telephone and other communication	373.57
Travel	2175.75
Computer hardware and software - Laptop	1048.00
Interview APCoAB Coordinator	2804.19
Facilities from Secretariat	8820.28
Total	117,500.87

Table 2. Summary of Expected Income and Expected Expenditure for the APCoAB activities during January 1, 2018-December 31, 2018

	USD
Receipts	
COA, Taiwan	70,000
APAARI contribution	
Balance brought Forward (APAARI/APCoAB)	25778.69
ACIAR	15,000.00
APAARI	70,000.00
Total	180,778.69
Payments	
Coordinator salary costs	76,400.00
Other direct costs	
Meetings/Trainings/Workshop	60,000.00
Publications	20,000.00
Consultancy and APCoAB technical staff salary	25,000.00
Telephone and other communication	500.00
Travel	10,000.00
Computer hardware and software - Laptop	1,000.00
Facilities from Secretariat	10,000.00
Miscellaneous	2,000.00
Total	204,900.00
Difference between Expected Income and Expected Expenditure (Additional budget required)	-24,121.31