



Asia-Pacific Association of Agricultural Research Institutions (APAARI) & Council of Agriculture (COA), Taiwan

COLLABORATIVE PROGRAMME

Proposal for Extension (2017-2020)

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BACKGROUND

The Asia-Pacific Association of Agricultural Research Institutions (APAARI) and the Council of Agriculture (COA), Taiwan, initiated a three year collaborative project in January 2008 to support the APAARI biotechnology programme, the Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB) to expanding its activities in the Asia-Pacific region. After a review in 2011, the project was extended for three years, and in 2014, based on significant achievements, the project was further extended for three years (2014-16) with COA funding commitment of US\$ 50,000 per year.

During the third phase of the project (2014-2016), it was agreed that the collaborative activities in areas of policy advocacy, capacity building and information dissemination be continued. Accordingly, activities under the following sub-programmes were committed:

- I. High Level Policy Dialogues/Expert Consultations to promote use of agricultural biotechnology in the Asia-Pacific region One meeting to be organized each year, and during the three year period of 2014-2016 one such programme to be organized in collaboration with COA at one of its institutions. Senior policy planners, researchers, CSOs and farmer organizations from the Asia-Pacific region to be invited to participate in these meetings.
- II. Symposia/trainings/workshops for scientists from APAARI member institutions to be held at COA research centres

Short to medium duration symposia/trainings/workshops to be organized in collaboration with COA at its designated research centres. The events to comprise theory and/or practical courses in areas of modern agricultural biotechnology.

III. Symposia/trainings/workshops on agricultural biotechnology topics to be held at other NARS centres

COA to be invited to nominate participants to the symposia/trainings/workshops organized every year by APAARI in collaboration with other member organizations in the Asia-Pacific region.

IV. Publication of status reports on biotechnology and strengthening of APCoAB website for knowledge sharing on agricultural biotechnology in the Asia-Pacific region APAARI/APCoAB has been publishing status reports on important achievements in agricultural R&D including biotechnology in the Asia-Pacific region. These efforts to be continued, also inviting status reports/success stories from Taiwan. APCoAB to maintain and strengthen its website.

PROGRESS REPORT

1. Organization of Policy Dialogue/Expert Consultations

1.1. Expert Consultation on Assuring Food Safety in Asia-Pacific (2014)

In pursuance of its mandate to assist APAARI member organizations and other stakeholders in developing appropriate agricultural research and development policies and programs on food safety, APCoAB in collaboration with Japan International Research Centre for Agricultural Sciences (JIRCAS) organized 'Expert Consultation on Assuring Food Safety in Asia-Pacific' at JIRCAS, Tsukuba on 4-5 August, 2014. The objective was to deliberate on recent developments on the science and regulation of food safety, identify country level gaps in effective implementation of food safety measures, and set priorities for regional and subregional cooperation. Experts from APAARI member organizations including COA, Taiwan and other international agencies participated in the consultation.

Recommendations on food safety policy, management and research issues were made under following topics: (i) Policy and standards, (ii) Traditional foods, (iii) Stakeholders' involvement, (iv)Food control systems – risk management aspects, (v) Laboratories, (vi) R&D, (vii) Farm level good agricultural practices (GAP), (viii) Genetically modified food, and (ix) Others. In addition, areas of collaboration at national/regional level were identified which included suggestions for increasing coordination between competent authorities within countries, creation of information network for knowledge sharing, rapid alert system for food and feed, and capacity development.

1.2. International Conference on Avian Influenza Prevention and Control (2014)

COA and APCoAB jointly organized '2014 International Conference on Avian Influenza Prevention and Control' on 18-19 November, 2014 at Animal Health Research Institute, New Taipei City. The Conference was attended by experts from Japan, Russia, India, Korea, the Philippines, and Taiwan, who were supported by both COA and APCoAB/APAARI. The Programme comprised presentations on country status of epidemiology and control of avian influenza, technical advances in characterization and control, and Round Table Meeting on prevention and control of avian influenza.

Based on the presentations and discussion, the following recommendations were made:

- Since stamping out is the best and ultimate measure for the control of HPAI, vaccination should not be applied as an alternative policy
- We should continue to develop standards and share information on avian influenza surveillance, prevention and control
- Infection of H5 and H7 low pathogenic avian influenza virus in poultry is notifiable and should be controlled
- Intensive surveillance is necessary to detect HPAI virus in domestic water birds

- Surveillance of swine influenza is important in addition to that of avian influenza for the preparedness for pandemic influenza
- International collaboration for the prevention and control of avian influenza should be encouraged.

1.3 Multicounty Observational Study Mission on Revitalizing Rural Economies for More Inclusive Development (2015)

COA, China Productivity Center and the Asian Productivity Centre together with APCoAB co-organised 'Multicounty Observational Study Mission on Revitalizing Rural Economies for More Inclusive Development' on 14-18 September 2015 in Taiwan. The aim of the mission was to study the policy and institutional settings for better revitalization of rural economies as well as to learn from the strategies, approaches, and successful models used to revitalize the host country's rural economies. The participants would be then able to formulate strategic action plans to utilize for the revitalization of their own rural economies and disseminate findings of the Study Mission in their own respective countries. The study mission consisted of visits to sites of successful cases of revitalization of local economies in the host country, theme presentations, sharing of experiences among member countries, and individual/group exercises.

1.4 International Symposium on Bio-pesticides & Bio-fertilizers for Sustainable Agriculture (2015)

The Agricultural Technology Research Institute (ATRI) co-organised with APCoAB, COA and China Productivity Centre, the 'International Symposium on Bio-pesticides & Bio-fertilizers for Sustainable Agriculture' on 13-15October, 2015 in Taiwan. A total of 120 participants from industry, regulators, and scientists from universities and research institutes in Taiwan as well as experts and officials from 5 South East Asian countries took part. The main objectives of this Symposium were to understand registration systems, policies, and regulation rules in bio- pesticides and bio-fertilizers of Southeast Asian countries, understand the development status, management, marketing promotion, and marketing bio-pesticides and bio-fertilizers of Southeast Asian cooperation of bio-pesticides and bio-fertilizers through international industrial development and cooperation. The Symposium covered talks from local and foreign regulatory officials and scientists from Taiwan and abroad. The outputs of the meeting included:

- Better understanding of the registration systems, policies and regulation rules in bio pesticides and bio fertilizers in Taiwan and other South East Asian countries;
- Status of research and development in the field of bio-fertilizer and bio pesticides of Taiwan and other South East Asian countries; and
- Promotion of international cooperation in the field of bio-fertilizer and bio pesticide between researchers and industry.

1.5 International Conference on Prevention and Control of Avian

Influenza (2015)

The Animal Health Research Institute (AHRI), APCoAB and COA, co-organized the 'International Conference on Prevention and Control of Avian Influenza' on 21-22 October, 2015 in Taiwan. The conference, discussed issues about enhancing communication and collaboration among Asian countries to fight against the disease. The conference provided opportunities to share information and experiences on prevention and control of avian influenza for government officials, researchers and stakeholders. The output of the Conference was to establish a communication network for the international collaboration on co-defence mechanism, and to achieve the goal of fighting invasion and spread of avian influenza.

1.6 Expert Consultation on Best Practices in Agri-food Innovation in Asia and the Pacific (2016)

APCoAB jointly with COA, ACIAR, the World Vegetable Center and the Asian Farmers Association (AFA), the Philippines organized an Expert Consultation on Successful Agrifood Innovations in Asia and the Pacific on 1-3 November 2016 in Taiwan to create awareness about successful agri-food innovations in the Asia-Pacific region and to develop a road map for up-scaling and out-scaling of the potential and successful agri-food innovations to enhance productivity, efficiency and sustainability of agri-food systems and to contribute to accomplishing the Sustainable Development Goals in Asia and the Pacific. The expert consultation was attended by 90 participants. Comprehensive recommendations under following topics were made:

- Models and Case Studies of Agri-food Innovations;
- Partnerships for Agri-food Innovations;
- Capacity Development in Agri-food Innovations;
- Technology Based Agri-food Innovations;
- Knowledge Management on Agri-food Innovations;
- Policy Oriented Agri-food Innovations.

1.7 1st International Agrobiodiversity Congress (2016)

The International Agrobiodiversity Congress (IAC) 2016 was organized by the Indian Society of Plant Genetic Resources (ISPGR) and Bioversity International in collaboration with Indian Council of Agricultural Research (ICAR), Protection of Plant Varieties and Farmers' Right Authority (PPV&FRA), Government of India, National Biodiversity Authority, Government of India, Trust for Advancement of Agricultural Science (TAAS), National Academy of Agricultural Sciences (NAAS), MS Swaminathan Research Foundation (MSSRF) and APAARI along with many national and international sponsors. The Congress was held from 6 to 9 November 2016 in New Delhi, India.

The Congress brought together about 900 experts in genetic resources, genetics and breeding, biotechnology, human nutrition, ecology and environmental science, information management, law and policy analysis, economics and other social sciences from 60 countries

who deliberated on system-wide approach for in situ and ex situ conservation, use and sustainability of agrobiodiversity, including plants (crops, horticulture, agroforestry), animals, fish, insects and microbes. APAARI was represented at the Congress by Dr. Raghunath Ghodake, Dr. Bhag Mal and Dr. Jawahir Karihaloo who chaired sessions/moderated panel discussions/presented key note papers. Dr. Ghodake APAARI presented paper on Conservation and Use of Genetic Resources through Implementation of Suwon Agro-biodiversity Framework and Partnerships in Asia and the Pacific

2. Organization of Training Programmes

2.1. Training on Analytical Techniques in Nutrition, Food Safety and Biosafety (2014)

The training Programme was organized by APCoAB in collaboration with ICRISAT and conducted at ICRISAT, Patancheru, India on 1-14 September, 2014. Eighteen participants from eight Asian and four African countries participated. Dr. Tzu-Hung Hsu, Taiwan Agricultural Chemicals and Toxic Substances Research Institute, was supported by APCoAB for participation in the training Programme.

2.2. Workshop on Development of Communication Strategies for Adoption of Agri-Biotechnology in the Asia-Pacific region(2015)

APCoAB organized a workshop on 'Development of Communication Strategies for Adoption of Agri-Biotechnology in Asia and the Pacific' on 28-29 September, 2015 in Chiang Rai, Thailand. The workshop was organized in collaboration with International Service for the Acquisition of Agri-biotech Applications (ISAAA), Malaysian Biotechnology Information Centre (MABIC) and supported by COA. International experts from nine countries together with twenty-four agriculture researchers from fifteen countries in the Asia and the Pacific participated and shared their experiences as resource persons, scientists, regulators and communicators and deliberated on issues and bottlenecks in the adoption of agribiotechnology in the Asia-Pacific region. They also discussed on policies, regulations and communication strategies that can expedite the adoption of agri-biotechnology in the Asia-Pacific region. The key problems are no longer based around not having an adequate flow of technology in the region, but are based around not having commensurate communication and understanding of agri-biotechnology opportunities.

2.3. Food Safety Management Systems (FSMS): Advanced Course for Small and Medium Enterprises (SMEs) in the Agri-food Industry (2016)

APAARI jointly with COA and Asia Productivity Organization (APO) organized a Training Course on Food Safety Management Systems (FSMS): Advanced Course for Small and Medium Enterprises (SMEs) in the Agri-food Industry, on 3-7 October, 2016 in Taipei. Food safety has become a global issue as contaminated food causes widespread health problems with serious implications for families as well as public healthcare systems. It also causes reduced workforce productivity. Both developed and developing countries share concerns over food safety as international food trade and cross-border movements of people increase.

Six participants from five countries; Nepal, Philippines, Lao PDR, Malaysia and Thailand were sponsored by APAARI. The training course comprised lectures on overview of food safety regulation, various national food regulatory systems, approaches and project plans for FSMS, case studies and assessment of FSMS. Site visits to food manufacturing and processing facilities were also organized. Commenting on the training course, all the participants felt that the lectures, group activities and discussion were successful in making the participants realize and understand the implementation processes involved in the modern FSMS.

3. Publication of Success Stories/Status Reports and Strengthening of APCoAB website

3.1 Biosafety Regulations for GM Crops in Asia-Pacific (2014)

This is an updated and enlarged version of the previous APCoAB publication, 'Biosafety Regulations of Asia-Pacific Countries'. It gives brief details of the regulatory instruments comprising laws/acts/decrees/regulations/rules related to biosafety of GM crops existing in 48 countries of Asia and the Pacific.

3.2 Asia-Pacific Symposium on Molecular Breeding-Proceedings (2014)

The publication reports the proceeding of the 'Asia-Pacific Symposium on Molecular Breeding' held on 1-3 October 2013 at AVRDC-The World Vegetable Centre. The first part provides a technical update on marker-assisted selection in breeding and on genotyping innovations, the second part reports on the status and the progress of molecular breeding in the countries represented in the symposium, and the final part comprises output of a networking session designed to build bridges between the research institutions in the region to enhance collaboration in marker-assisted selection for improvement of priority crops and animals.

3.3 Expert Consultation on Assuring Food Safety in Asia-Pacific - Proceedings and Recommendations (2015)

The publication reports the proceedings of the meeting held at Japan International Research Center for Agricultural Science (JIRCAS), Tsukuba, Japan on 4-5 August 2014. It includes summary of Keynote Lecture presentations, Country Reports, Scientific Advances in Specific Commodities followed by discussions held in each session. Details of Discussions on Key Issues and Recommendations made in the final session are also provided.

3.4 Development of Communication Strategies for Adoption of Agri-Biotechnology in the Asia-Pacific region- Proceedings and Recommendations (2015)

The publication details the proceedings of APCoAB organized workshop held on 28-29 September, 2015 in Chiang Rai, Thailand. It includes details of three technical sessions, outputs of group discussions and recommendations made in the plenary session.

3.5. 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 (2016)

This publication details issues with public acceptance and adoption of GM technology and recommendations of a workshop on communication strategies conducted by APAARI that could expedite the adoption of biotech crops to harness its benefits in the Asia-Pacific region. The workshop findings have been supplemented with recent research from science communication, risk communications, psychology, and social psychology.

3.6. Other APAARI publications

APAARI Newsletter

The half-yearly APAARI Newsletter publishes items on agriculture related R&D in the Asia-Pacific region, including the progress of APAARI collaborative programmes. Activities under APAARI-COA project, meetings with COA representatives and participation of COA nominees in various APAARI activities are regularly highlighted.

• Wax Apple Industry in Taiwan: A Success Story (2014)

This publication embodies information on wax apple in Taiwan covering: i) importance, ii) general production scenario, iii) improved varieties, iv) cultivation practices, v) post-harvest handling, vi) processing and export, vii) production-market linkage, viii) factors for success of industry, and ix) future prospects and suggested strategy.

- High Level Policy Dialogue on Investment in Agricultural Research for Sustainable development in the Asia-Pacific Region Proceedings and Recommendations. (ISBN: 978-616-7101-02-6)
- High Level Policy Dialogue on Investment in Agricultural Research for Sustainable development in the Asia-Pacific Region Papers Presented. (ISBN: 978-616-7101-04-0)
- APAARI Strategic Plan 2017-2022 (ISBN: 978-616-7101-05-7)

4. APCoAB Website

APCoAB website (www.apcoab.org) is being maintained, updated and improved since the past several years. Important APAARI and APCoAB announcements, publications, proceedings of meetings are uploaded on a regular basis. Databases on biotechnology institutions and biosafety regulatory systems of the Asia-Pacific region have been created.

5. APCoAB Management

During the period under report, annual APCoAB Steering Committee Meetings were held regularly to discuss APCoAB programmes, work plans and secretarial matters. Following is the list of meetings held during 2014-16:

- XVI APCoAB Steering Committee Meeting was held on 22 April, 2014 at Royal Princess Hotel, Bangkok
- XVII APCoAB Steering Committee Meeting held 10 December 2015 at Rama Gardens Hotel, Bangkok, Thailand
- XVIII APCoAB Steering Committee Meeting held on 31 October 2016 at Hotel National, Taichung, Taiwan

Dr. Rose, Dong-chong Hsiou, DDG, Department of International Affairs, represented COA in the three SC meetings. Proceedings of the meetings were circulated to all the SC members and other participants and adopted after due process.

PROPOSAL FOR EXTENSION OF APAARI-COA PROGRAMME

APAARI-COA collaborative programme on biotechnology has been in operation since 2008. Initially approved for three years (2008-2010) with a funding support of USD 35,000 per annum, the programme was extended twice (2011-2013, 2014-2016) and funding raised to USD 50,000 per annum. In view of the excellent performance of this APAARI-COA collaboration in terms of the number and range of activities conducted and benefits brought to APAARI members and other participants by way of knowledge enhancement, development of practical experience, networking and opportunities for partnership development, it is felt necessary by both APAARI and COA to continue the Programme for another term. The commitment of COA to continue supporting this programme was conveyed during the XVIII APCoAB Steering Committee Meeting held on 31 October 2016 in Taiwan.

During the fourth phase of the project (2017-2020), activities under the following heads as approved by the XVIII Steering Committee, are proposed to be undertaken:

i) High Level Policy Dialogues/Expert Consultations to promote use of agricultural biotechnology in the Asia-Pacific region

One meeting to be organized each year.

Justification: High level consultation meetings are essential to create awareness and assist policy makers, and research and development managers in updating information about global and regional developments in the fast-developing area of agricultural biotechnology. Consequently, such consultations help national agencies in taking appropriate local policy and international cooperation decisions on the adoption of biotechnology for agricultural development.

ii) 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 institutes.

Justification: Agricultural biotechnology is undergoing phenomenal development particularly in genomics, proteomics and metabolomics, and their application in crop and animal improvement. Organization of regular trainings/workshops at advanced centres of research and teaching are essential to keep scientists and other technical personnel of APAARI member organizations abreast of global and regional R&D developments.

iii) Publication of status reports on biotechnology and strengthening of APCoAB website for knowledge sharing on agricultural biotechnology in the Asia-Pacific region APAARI/APCoAB will publish status reports on important achievements in agricultural biotechnology and related areas in the Asia-Pacific region, also inviting status reports/success stories from Taiwan. APCoAB to maintain and strengthen its website.

Justification: APAARI has made substantial efforts towards compiling and disseminating success stories/status reports/news updates on agricultural technology adoption in Asia and the Pacific. These publications have been widely appreciated for creating awareness about potential opportunities that can be harnessed for development and economic welfare by countries of the region.

Year-wise activities to be undertaken during the project period are detailed in Annex I.

The position of APCoAB Coordinator is vacant since January 2016. Approval for appointment of Coordinator and other required support staff was granted in the XVIII SC meeting and the post has been advertised. The applications are being screened and the selection process is likely to be completed soon and the APCoAB Coordinator will be in position by the end of April or beginning of May 2017.

Alignment with APAARI Strategic Plan

The above activities and creation of required human resources/infrastructure shall effectively address the following Priority Themes, Development Outcomes and Indicative Activities of APAARI Strategic Plan:

Theme 1: Mobilization, management and use of natural resources for sustainability of agrifood systems

Development outcome 1.3: Agrobiodiversity is effectively managed and utilized for increased agricultural productivity, efficiency and sustainability

Indicative activities:

- Facilitate consultation on conservation, including in situ/on-farm conservation and cryopreservation
- Organize e-training and sharing of expertise on conservation and use of underutilized species

Development outcome 1.4: Biotechnologies and related regulatory systems are promoted and applied for improved productivity, nutritional quality, and sustainability of agri-food systems

Indicative activities:

- Policy makers and wider stakeholders of research and innovation systems have greater understanding of the use of advanced biotechnologies
- Underutilized and neglected bio-resources are improved through increased use of advanced biotechnologies
- Regional and sub-regional partnership and networking are actively operating through the Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB) programme
- Organize consultation on advanced technologies for smallholder producers
- Engage in policy advocacy for sensitization of policymakers on the application and promotion of advanced agri-biotechnologies and innovations
- Facilitate exchange of expertise on underutilized species (crops, animals, fish and bio-resources) in partnership with Crops For the Future and AVRDC The World Vegetable Center, International Livestock Research Institute, and the World Fish Centre
- Rejuvenate the APCoAB programme on facilitating partnerships and networking in biotechnology

ACTIVITIES AND BUDGET

Annexes I and II list activities proposed to be carried out during the project period 2017-2020, and their budget details. The total budget of USD 560,000 is to be shared equally (USD 280,000) by COA and APAARI and other partners.

Annex I: Proposed activities 2017-20

Area	2017	2018	2019	2020	
	Activities	Activities	Activities	Activities	
Organizing High Level Policy Dialogues/Expert Consultations to promote use of agricultural biotechnology in the Asia-Pacific region Duration: 2-3 days	Expert Consultation: Underutilized bioresources and their potential for food and nutrition security of Asia and the Pacific *Co-organizer: Crops for Future/World Vegetable Centre/Bioversity/ICARDA /PARC	Regional Consultation: Biotechnology for Partnership in the Asia- Pacific Region - in collaboration with ACIAR under ACIAR- FAO project Co-organizer: ACIAR/FAO/DOA	Expert Consultation: New genome manipulation technologies and their implications on biosafety regulation Co-organizer: IRRI/ICRISAT/	High level policy dialogue: Regional cooperation for food and agriculture biosecure and biosafe Asia-Pacific region Co-organizer: COA/JIRCAS/PCCAARRD	
Organizing Symposia/trainings/ workshops for scientists/researchers from APAARI member institutions Duration: Symposia/Workshop: 3-4 days Training: 1-2 weeks	 Underutilized crop resources of Asia- Pacific and their amelioration. Co-organizer: Crops for Future/World Vegetable 	 Underutilized animal resources of Asia- Pacific and their amelioration. Co-organizer: ILRI/ICAR/COA/RDA Adoption of APAARI biotechnology communication strategy by member organizations – A Review. Co-organizer: FAO/DOA/CABI 	 Underutilized fish and marine resources of Asia- Pacific and their amelioration. Co-organizer: World Fish Centre/ICAR/RDA/BARC Gene editing technologies for crop and animal improvement. Co-organizer: COA/RDA/JIRCAS 	 Safe exchange and utilization of germplasm of underutilized species. Co-organizer: ICAR/DOA/ PCCAARRD Biotechnological tools for conservation of crop and animal germplasm. Co-organizer: ICAR/COA/BARC 	

Publication of proceedings/status reports and strengthening of APCoAB website for knowledge sharing on agricultural biotechnology in the Asia-Pacific region Duration: Continuous activity	 Publication of Expert Consultation Proceedings Publication of Symposium/ workshop proceedings/ training manual Redesigning and improvement of APCoAB website Regular updating of website with news and events of specific relevance to Asia- Pacific 	 Publication of Expert Consultation Proceedings Publication of Symposium/ workshop proceedings/ training manual Publication of success story/status report on successful adoption of biotechnology in agriculture Regular updating of website with news and events of specific relevance to Asia- Pacific 	 Publication of Expert Consultation Proceedings Publication of Symposium/ workshop proceedings/ training manual Publication of success story/status report on successful adoption of biotechnology in agriculture Regular updating of website with news and events of specific relevance to Asia- Pacific 	 Publication of Expert Consultation Proceedings Publication of Symposium/ workshop proceedings/ training manual Publication of success story/status report on successful adoption of biotechnology in agriculture Regular updating of website with news and events of specific relevance to Asia- Pacific
Miscellaneous	 One activity on any	 One activity on any	 One activity on any	 One activity on any
activities to be	other topic suggested	other topic suggested	other topic suggested	other topic suggested
conducted in Taiwan	by COA	by COA	by COA	by COA

*APAARI member organization to be approached to co-organize the activity

Annex II: Proposed budget 2017-2010 (USD)

Activities	Item	2017*	2018	2019	2020	Total
Organizing High Level Policy Dialogues/Expert Consultations to promote use of agricultural biotechnology in the Asia-Pacific	Participants' travel	8,000	8,000	8,000	8,000	32,000
region	DSA (accommodation & meals)	8,000	8,000	8,000	8,000	32,000
	Meeting arrangements	5,000	5,000	5,000	5,000	20,000
	APCoAB staff time	20,000	20,000	20,000	20,000	80,000
	Sub-total	41,000	41,000	41,000	41,000	164,000
Symposia/trainings/ workshops for scientists/researchers from APAARI member institutions	Participants' travel	10,000	10,000	10,000	10,000	40,000
AI AAAI member institutions	DSA	15,000	15,000	15,000	15,000	60,000
	Meeting arrangements	5,000	5,000	5,000	5,000	20,000
	APCoAB staff time	20,000	20,000	20,000	20,000	80,000
	Sub-total	50,000	50,000	50,000	50,000	200,000
Publication of proceedings/status reports and strengthening of APCoAB website for knowledge sharing on agricultural	Hiring of consultants for drafting proceedings	5,000	5,000	5,000	5,000	20,000
biotechnology in the Asia-Pacific region	and success stories					
	Printing and distribution of publications	5,000	5,000	5,000	5,000	20,000
	Website maintenance	4,000	4,000	4,000	4,000	16,000

	APCoAB staff time	20,000	20,000	20,000	20,000	80,000
	Sub-total	34,000	34,000	34,000	34,000	136,000
Miscellaneous activities organized by COA in Taiwan	Participants' travel	5,000	5,000	5,000	5,000	20,000
	APCoAB staff time	10,000	10,000	10,000	10,000	40,000
	Sub-total	15,000	15,000	15,000	15,000	60,000
	Total	140,000	140,000	140,000	140,000	560,000
L	APAARI and other partners' contribution	70,000	70,000	70,000	70,000	280,000
	COA contribution	70,000	70,000	70,000	70,000	280,000