Asian Pacific Regional Consultation

Improving Livelihoods through Knowledge Solutions and Partnerships

4-6 November 2015, Putrajaya, Malaysia

KNOWLEDGE FOR LIFE

Contents

Background

These triennial regional meetings have become an important activity in CABI's calendar. They give CABI member countries an opportunity to shape and own CABI's plans, but more importantly they serve as a mechanism for CABI to listen to and engage directly with its member countries and help feed strategic recommendations into the Review Conferences for endorsement. The last consultations were held in 2012-2013 and CABI, through the consultations, was mandated to support member countries in SEVEN priority areas in line with CABI's capabilities and donors' funding requirements. The consolidated and derived outcomes guided the revision of the CABI Medium Term Strategy 2014-2016 and included the following:

- Trade and market access and development
- Knowledge management, communication and use
- Plant health
- Biodiversity and invasive species management
- Climate smart agriculture
- Institutional capacity building
- Publication of, and access to, authoritative information resources

As in the past, this round of Regional Consultation meetings (2015-2016) was aimed towards aligning CABI's work more effectively with regional needs and strategic plans, and developing mutually agreed frameworks for appropriately funded and resourced programmes. Built on the success and lessons learned from the previous regional consultations, these consultation meetings followed a similar arrangement with the following specific objectives:

- Conduct a systematic and focused review of the progress of the 7 priority areas identified in 2012-2013, and their continued relevance
- Identify new emerging regional priorities
- Agree on action plans by linking regional priorities with CABI's capabilities and strategies and identifying synergies among partners

The outcomes will then be fed into the CABI Review Conference 2016.

The Process

The Asia Regional Consultation was concluded successfully on 6 November in Malaysia and all the objectives set for this regional consultation meeting were met.

With the theme being "Improving Livelihoods through Knowledge Solutions and Partnerships", the programme of this Consultation meeting adopted a more interactive and systematic approach. Our member country representatives and other delegates were impressed with CABI's overall progress, and what CABI has done in addressing their needs and priorities. They were pleased that CABI had engaged with them in such a way, which made them feel real ownership of the organization, the priority areas and issues identified and those agreed upon in the consultation meetings. They also commended highly our organization of the event in regard to content and logistics.

The meeting was attended by 65 delegates from 11 member countries, 4 potential member countries (Indonesia, Mongolia, Nepal and Thailand), and over 20 partner organizations. There was a particularly strong attendance at the Invasive Species (IS) session, representing IS related communities across the Asian-Pacific region including Australia, China, Indonesia, Malaysia, Myanmar, Philippines, and several international organizations.

The event was highly interactive and highlighted emerging issues in CABI's key areas of activity, particularly related to food security and improved agricultural productivity, food value chains, ecosystem management, food safety and nutrition. The meeting also looked closely at the impact of invasive species, specifically the threats facing livelihoods and ecosystems in the region.

The meeting programme and pre- and post-meeting efforts and interactions followed a logical flow:

- starting with a systematic and focused review of the progress of the 7 priority areas identified in 2012-2013 by
  - conducting a survey on CABI's delivery
  - compilation of a list of projects, programmes and initiatives in addressing priority areas and issues identified at three Regional Consultation meetings in 2012-2013
  - compilation of Asia-Pacific project dossier
  - CABI CEO's presentation to update on the overall progress
  - Regional Directors' review on the progress in the Region
  - other presenters' reviews on progress in specific issues
- followed by reviewing the continued relevance of the 7 priority areas and associated issues identified in 2012-2013 and identifying new emerging priorities - national, sub-regional and regional
- concluded by consolidation of priority areas and issues for Asia-Pacific region, and with other two regions by linking regional priorities with CABI's capabilities, resources and strategies and identifying synergies among partners

Opening Session

Delegates were welcomed by Dr Umi Kalsom Abu Bakar, Deputy Director General, Malaysian Agricultural Research and Development Institute (MARDI), and Mr Philip Walters, Chair of CABI Governing Board, who reflected on his useful visit to the Plantwise clinics in Vietnam several days' ago.

Dr Umi Kalsom Abu Bakar noted that the consultation was very timely because as a country, they are approaching the 11th Malaysia plan which will begin in 2016. This is a 5-year plan aiming at productivity-driven economic growth and encourages up-skilling and re-skilling as well as research through increased industry-academia collaboration. In the field of agriculture, emphasis will be on increasing productivity through the modernization of the sector, supported by greater innovation and research development. He informed the participants that MARDI has had a good long relationship with CABI Malaysia since its inception in 1988. He gave one example of such cooperation, which is the workshop on diagnostics of whiteflies held in September 2015. On the subject of partnership, Dr Umi Kalsom Abu Bakar commented: "An organization like CABI is very important to facilitate collaboration and cooperation among member countries … I call upon all of you today to play an active part in this consultation session to further strengthen the role of CABI in bridging scientific knowledge and building strategic partnerships among its member countries especially in the Asia-Pacific Region."

Talking about the role the Asia-Pacific region plays in global food security, Dr Dennis Rangi, CABI's Director General for Development, commented: "Asia and the Pacific Region has been a prime mover of economic growth globally in recent decades. The region is the planet's biggest producer of cereals, vegetables, fruits, meat and fish, with strong growth in all areas. The Asia-Pacific experience shows clearly that agriculture plays a key role in the development process, and that a healthy growing agricultural sector is essential to reducing hunger and poverty."

Dr Trevor Nicholls, CABI's CEO, set the context of what CABI is, what CABI does and what CABI wants to achieve. He gave an overview of CABI's capabilities and strengths, as well as the programmes and projects CABI is leading or involved in all over the world and especially in the Asia-Pacific region. Dr Nicholls outlined the challenges faced by organizations like CABI in terms of sustainability when working in member countries, and emphasized the importance of ownership of the programmes and projects from the smallholder farmers to the governmental officials. "*Member country governments need to devise ways/strategies of sustaining the impacts and outcomes of the programmes and projects once they come to an end"*, said Dr Nicholls. He explained in detail about CABI's Vision 2020, and Medium-term strategies, and reviewed CABI's strategic goals including nutrition security, farmer incomes, sustainable farming and protection of biodiversity. "*CABI is to be the place to go for information on agriculture and the environment. The triennial regional consultation is an important event for CABI and its member countries as it gives us an opportunity of exploring ways of working together more closely and effectively, to update our plans for tackling some of the key issues that impact food security such as market access, plant health, invasive species management, using scientific knowledge and partnerships – themes that are central to this meeting"*, said Dr Nicholls.

Presenting Case Studies from Member Countries and Partners

Dr Shahid Masood, CABI Liaison Officer for Pakistan, Dr Feng Dongxin, CABI Liaison Officer for China, and Mr Manzrul Hannan, representative from Bangladesh, each described the current and future partnerships with CABI, showcasing the work that CABI and their countries have collaborated or will collaborate on, stated their top national priorities and also suggested opportunities and mechanisms to strengthen partnership. These presentations described long and productive partnerships with CABI, and highlighted opportunities where CABI can continue to play an important role in facilitating more south-south and triangular collaborations among CABI's member countries and partners.

Dr Masood mentioned that since the establishment of the now called CABI Central and West Asia Centre in 1957, 234 research and development projects in Pakistan have been implemented. "*The Centre, currently employing 69 members of staff has contributed greatly to the food security and sustainable development of agriculture in Pakistan"*, appraised by Dr Masood. He provided some examples to highlight the achievements, current initiatives and future thrusts of the partnership between Pakistan and CABI.

Dr Feng outlined the major achievements and key challenges of Agriculture in China, and highlighted the important milestones of the CABI-China collaboration since it began in early 1980s. Dr Feng informed the participants that the Joint Laboratory for Biosafety between the Chinese Ministry of Agriculture and CABI is now regarded as one of the top platforms of its type within the Chinese agricultural research and development community, and is drawing international attention as a model for others. Since its

establishment in 2008, the Joint Laboratory has achieved significant progress in key areas addressing both Chinese and global needs for food security and sustainable agricultural development.

Mr Hannan informed participants that CABI signed a Memorandum of Understanding with the Economic Relations Division (ERD) of the Bangladeshi Ministry of Agriculture for 3 years (2015 – 2018). Department of Agricultural Extension (DAE) is the implementing partner of the Plantwise in Bangladesh, and the government's funds are being utilized on training plant doctors and other related personnel, establishment costs of plant doctors' clinics and expenditure of various related meetings. He then described the achievements so far and also future plans.

Dr Misnawi Jati of the Indonesian Coffee and Cocoa Research Institute (ICCRI), Indonesia gave a presentation as a representative of partner organizations. Dr Misnawi mentioned that both ICCRI and CABI have more than 100 years' history in research, and delivery of development projects, and have enjoyed fruitful collaboration in several projects during the last 2 decades, namely (a) Prevention and management of coffee berry borer (CBB) in PNG and Indonesia (2007); (b) Assessing and Improving on Pesticide Practice for Cocoa in Indonesia (2011); and (c) CocoaSafe: Capacity Building and Knowledge Sharing in SPS in Cocoa in South East Asia (STDF/PG/381) (2013-2015). Dr Misnawi looked forward to further collaboration between the two organizations.

To further illustrate a productive partnership between CABI and member countries/partners, an exchange of the signed Memorandum of Understanding between MARDI and CABI was carried out by Dato' Dr Sharif Haron, Director-General of MARDI, and Dr Trevor Nicholls, CABI's CEO, witnessed by CABI's Governing Board Chair, Mr Philip Walters, at the meeting's official dinner.

Reviewing and Identifying Priorities of Member Countries

Before dividing the participants into groups, Dr Loke Wai Hong, Regional Director, Southeast Asia and the Pacific, reminded delegates of the consolidated priority areas and issues from 2012-13 regional consultation meetings, and highlighted CABI's responses and thematic strategies. He presented the results from the Survey on CABI's delivery that was carried out in the summer of 2015, and then guided the participants through the importance and process of the next breakout discussion session.

Divided into 3 sub-regional groups, the participants adopted the following steps during breakout and plenary discussions, from articulating national priorities, to agreement of sub-regional and regional priority areas and issues:

1. Review and agree on the continued relevance of the 7 priority areas and issues identified in 2012-2013
2. Articulate the top 3 new emerging national priority areas by each member country
3. Discuss and agree the top 3 new emerging sub-regional priority areas
4. Discuss and agree the specific issues of each of these 3 priority areas
5. Integrate both the relevant priority areas/issues identified previously and sub-regional new emerging priority areas/issues into "Sub-regional priority areas/issues 2015"
6. Discuss and agree the Asian-Pacific "Regional Priority Areas and Issues" after reporting back

Table 1 summarizes some new emerging national priority areas while Table 2 summarizes regional priority areas and issues agreed at the meeting.

Table 1: New emerging national priority areas (top three areas)
East Asia and the Pacific: Australia, China, DPR Korea, and Mongolia plus partners

Australia	China	DPR Korea	Mongolia
• Productivity growth in Agriculture • BIG Data management and use • Border control and risk management	• Nutrition Security (cross-cutting) • Animal health • Information about GMOs - risks perhaps to non-target pests - technology transfer	• Early warning systems • Animal health • Climate smart Agriculture – new varieties resistant to drought, etc.	• Animal health - sheep, goats • Information on GMOs • Plant pests and diseases

South Asia and Central and West Asia: Afghanistan, Bangladesh, India, Nepal, Pakistan and Sri Lanka plus partners

Bangladesh	Sri Lanka	Uzbekistan +Stan's	India	Pakistan	Nepal
• Biopesticide protocols, pesticide capacity building • CABI as master trainers • Building knowledge on soil health	• Organic cultivation • Biological control	• Huge gaps in extension, focus on extension system reinvigoration • Platform advice for farmers • Water and land management	• Climate smart agriculture • Resilience of crops to climate change • including seed and agronomy	• Animal health • Certified nurseries in horticulture • Technology transfer for small holders	• Focus on financial needs and infrastructure • Land conservation • Soil health

Southeast Asia: Brunei Darussalam, Indonesia, Malaysia, Myanmar, Philippines, Vietnam and Thailand plus partners

Brunei Darussalam	Indonesia	Malaysia
• Economic diversification through technology • Food security • Food safety	• Food and nutrition security • Modern agriculture - mechanization • Increasing productivity in livestock farming (health, welfare, transportation etc.)	• Post-harvest • Food security/sovereignty

Myanmar	Philippines	Thailand	Vietnam
• Technology in agriculture • Food security • Ecosystems management	• Invasive Species Management – top priority • Disaster resilience, climate change responses	• Surveillance (key aspect of plant health)	• Post-harvest losses • Farmer health and safety

Table 2: Regional Priority Areas and Issues identified and consolidated at Asian-Pacific Regional Consultation, 4 – 6 November 2015, Putrajaya, Malaysia

Priority Areas In support of SDGs 2, 12, 15, 17 and COP21	Priority Issues
Trade and market access and development	SPS compliance (phytosanitary treatments and promoting confidence in systems) and standards harmonization; Regional value-chain focus (e.g. ASEAN) and post-harvest value-addition; GAP and best practices for trade and food safety (e.g. mycotoxin, contaminants); Upscale farmer skills to become more entrepreneurial and commercially engaged; Advice on crop diversification, e.g. horticulture; facilitating public/private partnerships.
Knowledge management, communication and use*	Technology and knowledge transfer/uptake (particularly amongst member countries, and south-south); Disseminating evidence-based policies; Improving communications to farmers by sharing cross-cutting and holistic knowledge amongst stakeholder groups including youth and progressive farmers via common platforms, social media and mobile advisory services; Archiving and managing institutional research information. Improved information sharing and data utilization.
Food and nutritional security	Application of technology to improve efficiency and productivity; Reduction in post-harvest losses; Human health and food safety; Selection of new crop varieties; Bio-fortification advice; Policy promotion at farm and national level to raise awareness of importance of nutrition.
Climate-smart Plant health systems	Managing a range of stressors including pests (IPM), water, and soil nutrients; IPM in high value crops (e.g. nursery, commodity crops including HVH) and staple crops; Rational use of agrochemical inputs including biofertilizers; Early warning systems for newly emerged/key pests and diseases. Supporting informed decision-making at farm and country levels for adaptation and mitigation, e.g. new resistant varieties, seed selection, GM crops; Extension system reinvigoration. Improved capacity of member countries to run diagnostics at small holder level.
Mixed farming advisory services	Soil health including salinity, micro-nutrients, selection of crop and seed varieties related to soil types; Integrated water and land management including water efficiency, water safety, surface water run-off; Providing animal health advice including nutrition, forage and silage systems.
Biodiversity and invasive species management	Invasive management, especially regional issues; Capacity building of IS identification and diagnostics via digitalization and virtual collections (pests as well as microbes); Habitat manipulation/agro-biodiversity enrichment including crop diversification; Microbial resource collection, characterization and utilization; Development and production of biopesticides, and implications of biopesticides use.
Cross-cutting: • Institutional and regional capacity building (including data standards, access, curation and analysis; strengthening education systems) • Publication of, and access to, authoritative information resources. • Monitoring and inclusive impact evaluation, e.g. youth and gender-specific outcomes	

Texts in black: those were regarded as relevant priority areas and issues from the previous consultations
Texts in orange: those were identified as new emerging priority areas and issues by member countries
Texts in blue: those were added after highlighting issues of select CABI strategic area

Highlighting issues of select key CABI strategic areas

The programme also focused on invasive species – the livelihood threats facing the Asia-Pacific, and highlighted issues of other select strategic areas such as:

- Open data and Mobile information delivery
- Plantwise (Issues in relation to Plant Health System Development, Knowledge Bank and Monitoring & Evaluation)
- CABI's role in facilitating trade and market access
- CABI's Policy on Access and Benefit Sharing (ABS) Compliance under the Nagoya Protocol

The special session on invasive species aimed to address the following overarching objectives:

- Discuss and review the impact of invasive species on livelihoods in the Asia-Pacific region
- Identify where gaps lie in current action plans and what can be done collectively to address the issues
- Identify partnerships and next steps for addressing invasive species at a regional level.

These sessions started with CABI presentations introducing the issues, followed by breakout discussions with pre-prepared sets of questions. Appendix A summarizes these presentations while Appendix B captures outcomes of the breakout discussions.

To enable participants to hear about first hand damage the Invasives can do to farmers and to the economy at large, one of the farmers, Mr Syed Abdul Rahman, was invited to speak at the meeting. Mr Rahman has been a farmer in the Cameron Highlands for over 25 years growing vegetables and strawberries. He mentioned that in the past 15 years, he shifted from open cultivation to protective cultivation, but with this new cultivation method, he has encountered new pest problems (two spotted red spider mites, thrips, whiteflies, leafminers, etc.), which resulted in increased pesticide application, leading to pollution problems, and losses ranged from 30 to 100%. He reiterated that in order to manage these invasives effectively and also reduce the damage pesticides are causing, institutions like CABI should take a lead and raise farmers' awareness on invasive species through capacity building.

Mr Palasuberniam s/o Kalianan of the Malaysian Department of Agriculture talked about the Impact of Invasive Alien Species (IAS) on agriculture industry and biodiversity in Malaysia. He noted that in 2013, the national working group on IAS identified the top 10 invasive species that occurred in Malaysia and highlighted them in the National Action Plan for Prevention, Eradication, Containment and Control of IAS in Malaysia. The list is being updated and as a signatory to the Conservation of Biological Diversity (CBD), Malaysia is committed to developing national strategies for managing IAS.

Dr Wan Fang-Hao of the Institute of Plant Protection, Chinese Academy of Agricultural Sciences talked about how the Chinese Government has exerted huge efforts to prevent and manage IAS in agriculture, forestry and environments, facing severe challenges from biological invasions; a total of US$100M has been availed for scientific research in the last 10 years. Dr Wan particularly introduced China's Belt and Road initiative (B&R), its principles, priorities and challenges, and highlighted the importance of setting up a crop protection consortium focusing on IAS management, in support of this "B&R" initiative, which is aimed at fostering trade and collaboration between China and countries along the Silk Road economic belt (from China via Central and Western Asia, Turkey, Eastern Europe to Central and finally Western Europe), and the 21st century maritime Silk Road (from China via Southeast Asia, South Asia to East Africa, or to West Asia and Southern Europe).

Final session: Consolidation of outcomes

The final session started with consolidation and discussions of all the outcomes of all the 2-day breakout discussions, followed by discussions on mechanisms for collaboration with regional and sub-regional bodies. The participants have suggested the following effective ways to promote sustainable partnerships:

- Develop virtual interest groups and conduct meetings using ICTs
- Have Liaison Officers' Facebook Page to share knowledge and experiences
- Develop a mechanism to ensure sustainable linkages and maximize in-country consultations led by CABI
- Enagage in cross-country programme development to maximize each other's potential and experiences

CABI CEO, Dr Trevor Nicholls, concluded that by the end of the two days, the following objectives set out at the beginning of the Consultation were all met:

- Review the process made in addressing priority areas identified during previous consultations
- Identify key emerging issues influencing and impacting on sustainable development in the region, and identify national and regional priorities
- Share country experiences and views
- Develop regional plans by linking national/regional priorities with CABI's capabilities and strategies, and identify synergies among partners

Dr Nicholls noted that the outcomes from this Regional Consultation will:

- be consolidated with those from other regional consultations
- be aligned to the Global Goals for Sustainable Development and specific targets for each GGs
- be matched with CABI's capabilities, resources and strategies, and priorities
- influence the revision of the CABI Medium Term Strategy 2017-19 and Vision 2020
- be fed into the bigger CABI Review Conference 2016, which is scheduled for late July 2016
- facilitate implementation of agreed joint initiatives with member countries

Dr Nicholls encouraged member country representatives, who unanimously agreed on CABI's policy on access and benefit sharing in principal at the meeting, to seek approvals from relevant national authorities before CABI Review Conference in late July 2016.

Dr Viba Dhawan, CABI Governing Board Member, gave the vote of thanks and the meeting was officially closed.

Positive feedbacks were received from all delegates through completion of survey forms plus verbal comments, parting remarks and follow-up e-mails, which confirmed that the Asian-Pacific Regional Consultation meeting was highly successful. 88% of delegates gave the top score for the overall ranking, i.e. very satisfied, with examples of comments being: "Thank you very much for the wonderful organization of the workshop. The meeting was productive, we covered a lot of ground, and the workshops and discussions during the breakout sessions were facilitated well"; and "The meeting focused discussions on how to improve cooperation and effectiveness of CABI and member country to better help farmers, which is highly commended". There were also suggestions for improvement, such as "Need to include some more senior policymakers", and "Perhaps include potential private sector partners".

Further consolidation of the outcomes from regional consultations

Further efforts were made to integrate the three sets of tables of priority areas and issues from the three regional consultations, and consolidate them by matching with CABI's capabilities, resources and strategies. Table 3 presents consolidated outcomes from the three regional consultations.

Efforts have also been made to link member country requests with the Global Goals for Sustainable Development and specific targets for each Goals, and develop a specific strategy addressing both the Global Goals for Sustainable Development and Member country priorities. The final outcomes will be reflected in CABI's Medium Term Strategy 2017-19.

Table 3: Consolidated Regional Priority Areas and Issues from the three Regional Consultation meetings (2015-2016)

Priority Areas In support of GGs 1, 2, 12, 15, 17 and COP21	Priority Issues
Development of trade and market access for safe food, domestically, regionally and internationally	• **Provide advice and support for farmers** on aspects such as GAP compliance, Phytosanitary standards and compliance, advice on crop diversification (e.g. HVH), postharvest management, improving quality of agricultural inputs, access to market information, improved technology, improved range management for livestock • **Support for market access along value chains**, including SPS compliance and standards harmonization, food safety • **Stimulate the creation of farmer organizations**, developing entrepreneurial and commercial skills, risk management, access to affordable credit • **Strengthen support for food safety**, including information on legislative and regulatory requirements, prevention of mycotoxins, maximum residue levels, heavy metal contamination, animal health and welfare, zoonotic diseases, and the safe use of veterinary drugs • **Develop public-private partnership** to support smallholder market access along value chains, including SPS compliance and standards harmonization, food safety
Knowledge management, communication and use	• **Improve communication** with development stakeholder groups for greater reach, frequency and impact of messaging to stimulate technology uptake and deliver new knowledge to farmers using mixed methods (including mass media such as mobile and social media, as well as extension approaches based on face-to-face interactions), gender inclusive approaches for all stakeholder groups, **particularly use of ICTs** (including e-M&E; e-statistics and e-vouchers) • Expand the scope of CABI's **support to advisory services** to include soil health, selection of crop and seed varieties, integrated water and land management, animal health and welfare • Assist national services with **information and data management**, e.g. publication of and access to authoritative information resources, archiving and managing research data, awareness-raising, and policy development for open and big data policies
Systems approach to Plant Health	• **Support farmers** for informed decision-making at the farm level through strengthened extension services able to advise on IPM in high value and staple crops, rational use of agrochemical inputs, including biofertilizers, biotechnology applications for pests and diseases including biopesticides, and biological control agents • **Develop better approaches t**o manage pollinators, soil health, and ecosystem services supporting agriculture • **Support plant health systems**, including aspects such as improved diagnostic skills at all levels, informed advice on new resistant varieties, seed selection, and GM crops, informed policy leading to an improved regulatory and legislative environment, optimizing links between different sectors • **Build resilience in farming systems** at all levels to better adapt to climate and other changes, including the management of a range of biophysical stressors including pests (IPM), water (IWM), and soil nutrients (INM), and early warning and rapid response systems for newly emerging/key pests and diseases. • Promote **access to quality controlled agricultural inputs** (seeds, fertilizers, chemicals) • Strengthening support for **livestock management**, including improved range management, advice regarding zoonotic diseases, and the safe use of veterinary drugs

Priority Areas In support of GGs 1, 2, 12, 15, 17 and COP21	Priority Issues
Food & nutrition security	• Contribute to **improved food security** at all levels by the application of technology including new crop varieties to improve efficiency and productivity, reduction of postharvest losses through improved storage, postharvest processing and preservation • Promote the development of **nutrition sensitive agriculture** through support to aspects such as awareness raising and policy development, human health and food safety, advice on nutraceuticals and bio-fortification advice, food preparation, food diet diversification • **Strengthening seed systems**, including aspects such as improved genetic materials, availability of neglected crops, and improving self-saved seed. • P**romote Climate Smart Agricultural practices** that reduce greenhouse gas emissions, adapt to changing conditions, and improve resilience • Promote **agricultural diversification** and the use of **indigenous crops** • Support **cash crops**, fodder, fuel, and fibre production and ornamentals
Biodiversity and ecosystem management	• Improve **prevention and management of invasive species** using national and regional approaches, including capacity building in remote diagnostics, strengthening capacity for management and control of terrestrial and aquatic invasives. • Develop **capacity to use microbial resources**, e.g. pharmaceutical and nutraceutical production, biopesticides, composting and waste management. • C**omply with Nagoya Protocol**, and promote its use, in support of CBD • **Build a coalition of funding partners** to prevent, eradicate or manage the invasive insects and weeds constituting the greatest threats to food security, livelihoods and biodiversity
CROSS-CUTTING: Capacity building and governance at local, national and regional levels Developing public-private partnerships when appropriate Enable, empower and employ women and youth Embed monitoring, evaluation and impact analysis in all activities	• Facilitate knowledge transfer in **South-South interactions** involving member countries • **Provide information and training resources** to support sustainable agro-tourism and other non-farm rural employment, particularly for women and youth • **Build individual, institutional and regional capacity** to develop and govern agricultural innovation systems • **Reinforce linkages** between the scientific community, universities, government, and farmer associations • Develop public-private partnership to **support smallholder market access along value chains**, including SPS compliance and standards harmonization, food safety • Assist national services with **information and data management**, e.g. publication of and access to authoritative information resources, archiving and managing research, production and statistical data, awareness-raising, and policy development for open and big data policies

Appendix A: CABI Presentations

CABI in the Asia-Pacific

Babar Bajwa, Regional Director, Central and West Asia and Feng Zhang, Regional Director, East Asia

Dr Bajwa gave an overview of the key facts about the Asia- Pacific region, and described what CABI has done in response to the priority issues identified in the last regional consultation in 2012. Dr Zhang briefed the participants on the way forward for the region, and promised to continue working closely with member countries, make sustainable project development plans, build smart partnerships, develop more bilateral, tripartite, and multilateral collaboartion, among others.

Knowledge Business

Andrea Powell, Chief Information Officer

Mrs Powell introduced the new intiative, Global Open Data for Agriculture and Nutrition (GODAN), which is aimed at making data accessible, usable, and sharable by anyone. CABI hosts the Secretariat of GODAN. Mrs Powell encouraged the participants to sign up for this because it needs a licence that permits anyone to access, use, and share it.

Furthermore, she explained in detail about another one of CABI's initiatives – mNutrition. The mNutrition initiative builds on the expertise and capacity of two existing platforms, the mHealth and mFarmer/ mAfri. CABI leads the global content consortium arm of this major initiative to harness mobile phones to promote nutrition-sensitive health and agriculture messages to millions of women.

Plantwise Implementation in Asia

Malvika Chaudhary, Plantwise Regional Coordinator for Asia

Dr Chaudhary described in detail how Plantwise works and stated that its success depends on partnership with plant health stakeholders at national, regional and global levels. Plantwise has 3 components – Plant clinics, a Knowledge Bank and M&E. She noted that Plantwise has been piloted in 11 countries in the Asia-Pacific region so far with increasing demand to spread to others.

She stressed that for Plantwise to continue working, there is a need to align with country development plans, engage partners beyond national implementation teams/coordination units for broader buy-in, and commitments of governments in dedicating resources to Plantwise operations.

CABI's role in facilitating trade and market access

Julie Flood, Global Director, Trade and Commodities

To set the scene, Dr Flood highlighted the challenges and issues facing trade and market access, particularly in the Asia-Pacific region. She described the role CABI is playing to solve some of the problems, and showcased several projects CABI is undertaking in this area including the Good Seed Initiative, Cocoasafe, and a Credit Guarantee scheme for coffee growers etc. She stressed that trade can help achieve both food security and economic growth, and that all CABI's themes support trade and market access.

Bioservices

David Smith, Director of Biological Resources

CABI aims to engender trust, to facilitate science, and to ensure that benefits are shared. In detail, Dr smith underscored the benefits of the implementation of the Nagoya protocol but CABI needs support from its member countries. He gave some examples of best practices undertaken by CABI. CABI will share benefits as outlined in its policy and also operate in compliance with the protocol.

Invasive Species

Phil Abrahams, Business Development Director, Strategic Business Development

Invasive species are a plant, animal, fungi or bacteria that are not native and have negative effects on an economy, environment, and health. CABI's vision is to stop the world's worst invasive species undermining the livelihoods of 50 million farming families. Mr Abrahams highlighted one of CABI's initiatives, the Big Push, targeting 10 invasives in 10 countries. This initiative will develop national and regional linkages to facilitate a systematic approach to Invasive Species, create and share knowledge to enable countries to identify, prevent and manage threats, and also develop best management plans to address 10 of the world's worst invasives. This can only be done with member country support and mandates.

Appendix B: Outcomes from the breakout discussions on select issues

1. Open data (Australia, China, India, Malaysia, Mongolia and Philippines plus partners)

Is there a good understanding of the issues on making agricultural data open?

- No

What are the issues?

- Key impediments are:
  - Need to digitize data
  - Concerns about validation and quality control
  - "What's in it for me?" – what's wrong with the current system?
  - Data capture and translation
  - Skills gap
  - Lack of clear tangible outcome
  - Need to look for champions
  - Potential cost of participation
  - Sustainability models
  - Concerns about data security
  - Negative results might not be shared, so of limited value
  - Who should take responsibility for joining?
  - What kind of data is relevant for opening up?
  - Whose responsibility is it to maintain and/or correct data once it's Open?
  - Lack of general information about Open Data
  - Lack of willingness to share
  - Intellectual Property concerns

What's needed to remove constraints from making government data open?

- Case studies/practical examples
- Workshops/seminars to explain Open Data/GODAN
- Regional meetings
- Lots of information!
- Accountability and ownership

How can we bring the agricultural and nutrition sectors together, what needs to happen?

- Is there a particular impediment to this happening? Maybe need to work with different government departments/ministries

What should we be doing?

- Promotion/advocacy/awareness raising
- Producing case studies and "how to" guides
- Offering networking opportunities

2. Issues in relation to Plant Health system development, Knowledge Bank and M&E (Bangladesh, Myanmar, Nepal, Pakistan, Vietnam, Sri Lanka and Thailand plus partners)

Plant Health Diagnostics

Priority Area For Action	Improved Plant Health Diagnostics
Constraints	• Weak linkages of Research laboratories with extension staff • Lack of expertise in specialized areas for diagnosis • Lack of equipment and modern diagnostic equipment • Problems to take sample • Pack and ship to concerned diagnostic facility
Specific activities	• Provide training to extension staff at grass root level • Advise for county level diagnostics than at central level • Involve the education and research institutes to use their laboratories
Timeframe	• Immediate to 3 Years
Resources/funding	• Advocacy for policy planners • Local government/county level funding • Increase awareness and importance of such at higher government level • Involve donors
Partners	• Government • Universities • Private sector
Recommendations for CABI MTS	• Improved capacity of member countries to run diagnostics at small holder level

Information sharing and data utilization

Priority Area For Action	Improved information sharing and data utilization
Constraints	• To enhance usage of data for forecasting of pest/disease by plant protection agencies/ departments • Limited data accessibility • Lack of monitoring/performance of clinics and plant doctor
Specific activities	• Establish data sharing units through better coordination • Enhanced use of ICT and mobile usage • Wider dissemination of data through workshops • Using media as partner
Timeframe	• Two to 3 Years or more
Resources/funding	• Involve donors • Local government/county level funding • Advocacy for policy planners • Increase awareness and importance of such at higher government level
Partners	• Information wings of Department of Agriculture Radio • Television • Internet media • Newspapers • Extension wings to coordinate • NGOs
Recommendations for CABI MTS	• Improved information sharing and data utilization

3. Trade and Market Access (Afghanistan, Brunei Darussalam, Indonesia, Papua New Guinea and Solomon Islands plus partners)

Priority Area For Action	Improve Trade and Market access
Priority Issues	• Market information and access, e.g. farm gate price determination and improvement • Improved infrastructure including access to roads • Strengthen farmers groups, associations and cooperatives – it is about farmers working together
Specific activities	• CABI to assist with policy issues and advice, e.g. in Malaysia • CABI to demonstrate usefulness in providing intelligence and access to knowledge, i.e. up to date information. This should be farmer friendly, so the information should be user centric • Content development for specific crops, e.g. market, weather, and agronomy • Focus on export commodity crops per country but local crops can be neglected; CABI can focus help with those too • Organizing famers into cooperatives and empowering them – business skills including building business relationships with banks to ensure longer and sustainable relationships between the banks and farmers/cooperatives • CABI to support quality and post-harvest losses • CABI support the whole value chain – capacity building for value addition • Crop in insurance – already in India, Indonesia • Improving infrastructure in the rural areas to attract the youth for value chain activities in the villages • Contract farming • Make farming attractive – innovation and mechanization (attract youth), perhaps provide them with more incentives to farming • Improve and strengthen extension services – better equipped and with up to date/ reliable information and information tools, identify champion farmers?
Timeframe	• Start as soon as possible
Partners	• Farmers, youth, women, governments, private sector including multinationals, middlemen, cooperatives, financial institutions, farmer associations, regulatory bodies, e.g. marketing boards -intentions are good but can put pressure on farmers

4. Invasive Species Management

To dig deeper, and also go into details, the participants were divided into 3 groups by random selection and discussed the following:-

Priority Area For Action	Invasive Species Management

Specific activities	• CABI to complement the existing platforms:
	  • Technical assistance and provision of information resources – clear and consistent messaging e.g. ISC
	  • GODAN
	  • Plantwise – early warning systems, early detection,
	  • Pest Risk Assessments (PRAs)
	  • Regional mapping
	  • Capacity building to respond
	  • Country and regional coordination
	  • Policy advocacy and awareness-raising
	  • Cost Benefit Analysis – ROI papers
	• Fund-raising – Research funding assistance

Resources/funding	• Governments and regional bodies
Partners	• Farmers, NGOs, Universities, Youth groups, Women's groups, CGIAR, Non-CGIAR, Private sector, NPPOs, A-P Plant Protection Commission (FAO Bangkok), Ministries of Agriculture, Environment, Science and Technology, Water, Natural Resources, Health, Trade, Foreign Affairs

What are the barriers at national and regional level to effective IS management?	What should we do collectively to address IS issues and remove the barriers mentioned above? How will we achieve this?	Why is this not just more of the same? What is new in the ideas being proposed?
Low level of awareness - How information flows down (e.g. policy level)	Develop IAS hub; education syllabus at levels	Develop a multi-language super-hub
Not integrated or coordinated on IS issues -countries working in isolation	Regional consensus in information management system	
Poor Information sharing	Adoption of common protocols	
Lack of communication	Adoption of common protocols to improve communication, e.g. mobile hubs	Use of e-mobile tools
Harmonization of standards	Develop IAS hub	
Political interference for quarantine and trade	Involve international compliance/warning	
Access and compliance to technology, e.g. gamma irradiation	Capacity building from importing country	
Financial barrier	Access funds	Follow business model
Cross-border management – problem in one country spreading to others, and lack of early warning	Regional collaboration	
Lack of regional standards	Develop IAS hub	
Enforcement problems at front-line and borders – skills of quarantine officials	Put up as priority	
IS not quantified - not in economic ($$$) terms	Impact assessment should be done for key species to bring the message to key stakeholders	Seldom talk this language for most crops except for major export crops (e.g. oil palm, rubber)
Public –private sector engagement weak	Strengthen linkages at the outset	

Most damaging IS in the region

Sr	Invasive	Relevant Countries	Who, What Affected	M
1	Parthenium	Pakistan, Malaysia, Australia, Nepal, Thailand, India (6)	Community, Livestock, Environment, Population, Agriculture	6
2	Lantana	Malaysia, Australia, Nepal, Myanmar, Philippines, Thailand, India (7)	Environment, Agriculture	7
3	Devil weed	Indonesia, Philippines (2)	Environment	2
4	Water hyacinth	Malaysia Australia, Brunei, Indonesia, Philippines, Thailand (6)	Environment, Economy, Community, Transport, Fisheries, Tourism	6
5	Giant sensitive plant	Malaysia, Vietnam, Thailand (3)	Environment, Economy, Community, Agriculture	3
6	Creeping sensitive plant	Malaysia, Philippines (2)	Environment, Agriculture	2
7	Tuta absoluta	Nepal, India (2)	Agriculture	2
8	Liriomyza spp	Malaysia Australia, Vietnam (3)	Agriculture	3
9	Oriental fruit fly	Pakistan Australia, Nepal, Vietnam, Brunei, Thailand (6)	Agriculture, Economy, Trade	6
10	Mesquite	Myanmar, India (2)	Agriculture, Environment, Economy, Community	2
11	Witch weeds	Nepal, Australia, Nepal, India (4)	Agriculture, Environment,	4
12	Red palm weevil	Malaysia, Brunei, Philippines (3)	Agriculture, Trade	3
13	Mikania micrantha	Malaysia Australia, Indonesia, Philippines (4)	Agriculture, Environment, Plantation	4
14	Acacia nilotica	Indonesia, Myanmar, Indonesia (3)	Agriculture, Environment,	3
15	Piper aduncum	Indonesia, Philippines, Indonesia (3)	Environment, Community, Agriculture	3
16	Fire ants	Taiwan, China, Australia, Indonesia (4)	Environment, Community, Agriculture, Livestock	4
17	Janitor fish	Philippines (1)	Environment, Community, Agriculture	1
18	Knife fish	Vietnam, Philippines (2)	Environment, Community, Agriculture	2
19	Messena bolsiana	Vietnam,	Environment, Agriculture	1
20	Widelia	Indonesia	Environment, Plantation	1
21	Asystacia	Indonesia, Malaysia	Agriculture, Environment, Plantation	2
22	Meremia	Indonesia	Environment,	1
23	White fly	India, Australia, Pakistan, Brunei, Malaysia (5)	Agriculture	5
24	Large grain borer	India, Pakistan (2)	Agriculture	2
25	Creeping sensitive plant	India	Agriculture	1
26	Golden apple snail	Malaysia, Indonesia, Brunei, Australia, Philippines, Thailand, Myanmar (7)	Agriculture	7
27	Salvinia	Malaysia, Thailand, Australia, Philippines (4)	Agriculture, Environment, Tourism, Fisheries	4
28	Coconut scale insect	Philippines	Agriculture; Economy	
29	Papaya ring spot virus	Malaysia, Thailand (2)	Agriculture	2
30	Banana blood disease	Malaysia	Agriculture	1
31	Papaya die back	Malaysia	Agriculture	1
32	Club roots	Nepal	Agriculture	1

Appendix C: Acronyms

ABS	Access and Benefit Sharing
DAE	Department of Agricultural Extension, Malaysia
EMT	CABI's Executive Management Team
ERD	Economic Relations Division of Department of Agricultural Extension, Malaysia
GAP	Good Agricultural Practice
GODAN	Global Open Data in Agriculture and Nutrition
HVH	High Value Horticulture
IAS	Invasive Alien Species
ICT	Information and Communication Technologies
INGOs	International Non-Governmental Organizations
IPM	Integrated Pest Management
IPP/CAAS	Institute of Plant Protection/Chinese Academy of Agricultural Sciences
ISC	Invasive Species Compendium produced by CABI
LO	CABI's Liaison Officer
MARDI	Malaysian Agricultural Research and Development Institute
MoA	Ministry of Agriculture
MTS	Mid Term Strategy
NPPOs	National Plant Protection Organizations
PRAs	Pest Risk Assessments
SDG/GG	Sustainable Development Goals/now Global Goals for Sustainable Development
SEA	South East Asia

Appendix D: Programme

IMPROVING LIVELIHOODS THROUGH KNOWLEDGE SOLUTIONS AND PARTNERSHIPS

Asian-Pacific Member Countries Regional Consultation

4 – 6 November 2015, Putrajaya Marriott Hotel, Putrajaya, Malaysia

Wednesday, 4 November	
0830 – 0900	Registration
Opening Plenary Session	
Master of Ceremony: Dr Loke Wai Hong, Regional Director, CABI Southeast Asia and Pacific	
0900 – 0920	Welcome Address and Introduction *Mr Philip Walters, Chair, Governing Board, CABI* *Dr Dennis Rangi, Director General, Development, CABI*
0920 – 0935	Official Speech from the Host Country *Dato' Dr. Sharif Haron, Director-General, Malaysian Agricultural Research and Development Institute (MARDI), Malaysia*
0935 – 1010	CABI: Progress Updates and Medium Term Strategy Review *Dr Trevor Nicholls, Chief Executive Officer, CABI*
1010 – 1025	Opening of Invasive Species Exhibition
1025 – 1100	Group Photo and Networking Break
Session 1: CABI and its Membership	
Chairpersons: Dato' Dr. Sharif Haron, Director-General, Malaysian Agricultural Research and Development Institute (MARDI), Malaysia and Mr Philip Walters, Chair, Governing Board, CABI	
1100 – 1130	CABI in Asia-Pacific – Partnerships and Action *Dr Babar Bajwa, Regional Director, Central and West Asia and Dr Feng Zhang, Regional Director, East Asia*
1130 – 1230	Working in Partnership with CABI Presentations from member countries, prospective member countries and partners China – *Dr Feng Dongxin, DG, Department of International Co-operations, Chinese Academy of Agricultural Sciences* Bangladesh – *Mr MD Manzurul Hannan, Additional Director, Plant Protection Wing, Department of Agricultural Extension, Bangladesh* Pakistan - *Dr Muhammad Shahid Masood, Member (Plant Sciences Division), Pakistan Agricultural Research Council* Partner - *Dr Misnawi Jati, Director, Indonesian Coffee and Cocoa Research Institute, Indonesia*
1230 – 1300	General Discussions and Questions/Answers
1300 – 1400	Lunch
Session 2: Reviewing and Identifying Priorities of Member Countries	
Chairpersons: Mrs Fuziah Haji Hamdan, Assistant Director of Agriculture , Ministry of Industry and Primary Resources, Brunei Darussalam and Dr David Smith, Director of Biological Resources, CABI	
1400 – 1420	Introduction *Dr Loke Wai Hong, Regional Director, CABI Southeast Asia and Pacific*
1420 – 1600	Breakout Discussions 1: Sub-Regional Groups (3 groups) (Southeast Asia, East Asia and the Pacific and South Asia-Central and West Asia)
1600 – 1620	Networking Break
1620 – 1730	Reporting back and agreeing on broad Regional Priority Areas
1900 – 2200	Official Dinner Exchange of MoU between MARDI and CABI *Dato' Dr. Sharif Haron, Director-General, Malaysian Agricultural Research and Development Institute (MARDI), Malaysia and Dr Trevor Nicholls, Chief Executive Officer, CABI*

Thursday, 5 November	
Session 3: Prioritising Key Regional Issues	
Chairpersons: Dr Rohan Wijekoon, Director General, Department of Agriculture, Sri Lanka and Dr Qiaoqiao Zhang, Director of Memberships, CABI	
0830 – 0840	Introduction: Objectives of the day *Dr Lum Keng Yeang, Chief Scientist, CABI Southeast Asia and Pacific*
0840 – 1000	Highlighting issues of select CABI strategic areas Knowledge Business (open data and mobile information delivery) – *Mrs Andrea Powell, Chief Information Officer* Plantwise (Issues in relation to Plant Health System Development, Knowledge Bank and M&E) – Dr *Malvika Chaudhary, Regional Coordinator, Plantwise Asia* Trade and Commodities (CABI's role in facilitating trade and market access) – *Dr Julie Flood, Global Director, Trade and Commodities* Bioservice (CABI's Policy on Access and Benefit Sharing Compliance under the Nagoya Protocol, including plenary discussions) – *Dr David Smith, Director, Biological Resources*
1000 – 1115	Focusing on invasive species – the livelihoods threat facing Asia-Pacific Introduction by CABI - *Dr Dennis Rangi, Director General, Development and Mr Phil Abrahams, Business Development Director* Presentations from representatives affected by or working with invasives within the region: Farmer/Entrepreneur affected by the problem to give his account about livelihood impact – *Dato' Syed Abdul Rahman* Governmental/research official on national biodiversity concerns – *Palasuberamaniam s/o Kalianan, Deputy Director, Plant Diagnostic Expert Section, Department of Agriculture, Malaysia* International expert on transboundary issues with focus on trade – *Dr Wan Fanghao, Professor, Department of Biological Invasions, Chinese Academy of Agricultural Sciences, PR China*
1115 – 1130	Networking Break
1130 – 1300	Breakout Discussions 2: Key Invasives Issues (3 groups)
1300 – 1400	Lunch
Chairpersons: Dr Nguyen Hong Son, Vice President, Vietnamese Academy of Agricultural Sciences, Vietnam and Mrs Andrea Powell, Chief Information Officer, CABI	
1400 – 1500	Concepts for addressing invasive species together
1500 – 1540	Presentation and Discussions of the Integrated Priority Areas and Issues from Sub-regional Groups
1540 – 1730	Breakout Discussions 3: Other Issues of Strategic Areas and Action Plans (3 groups) (Networking Break at 1615 – 1630) Group 1: Knowledge Business (open data and mobile information delivery) Group 2: Plantwise (issues in relation to Plant Health System Development, Knowledge Bank and M&E) Group 3: Trade and Commodities (CABI's role in facilitating trade and market access)
1815 – 2000	Cocktails

Friday, 6 November	
Session 4: Crystallizing Key Issues into Recommendations/Action Plans and Partnerships for Implementation	
Chairpersons: Dr A.S.M. Anwarul Huq, Member Director, Bangladesh Agricultural Research Council and Mr Morris Akiri, Regional Director, CABI Africa	
0830 – 0915	Reporting back
0915 – 1000	Agreeing on Priority Areas and Issues For Action, and Discussing Recommendations and Action Plans
1000 – 1045	Discussions on collaboration with international, regional and sub-regional bodies and other partners (e.g. the private sector)
1045 – 1100	Networking Break
Session 5: Conclusions	
Chairpersons: Mr. Nasrul Haqiim bin Mohd Nasir, Principal Assistant Secretary, International Division, Ministry of Agriculture and Agro-based Industry and Dr Dennis Rangi, Director General, Development, CABI	
1100 – 1130	Wrap-up Discussions
1130 – 1145	Closing Remarks *Dr Trevor Nicholls, Chief Executive Officer, CABI*
1145 – 1200	Vote of Thanks *Dr Vibha Dhawan, Member, Governing Board, CABI*
1200 – 1300	Lunch

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