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**Report of the twenty-ninth session of the  
Asia and Pacific Plant Protection Commission**

**7–11 September 2015  
Bali, Indonesia**



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# The 29<sup>th</sup> APPPC

Asia and Pacific Plant Protection Commission  
Bali, Indonesia • 7–11 September 2015





## **1. Opening of the session and organizational matters**

### **1.1 Attendance**

More than seventy participants from 21 countries plus observers from Japan and CABI were present at the meeting.

### **1.2 Introductory remarks by the Chairperson of the Local Organizing Committee**

Dr Arifin Tasrif, Director of Centre for Quarantine Compliance, Cooperation and Information, Indonesia opened the meeting, welcoming all participants to Bali. This session was conducted in cooperation with Ministry of Agriculture of Indonesia. Some logistic arrangements including a field visit for the meeting were introduced.

### **1.3 Opening remarks by the Chairperson of the 28<sup>th</sup> Session**

Dr Kyu-Ock Yim, Chairperson of the 28<sup>th</sup> Session of the APPPC and Chairperson of the IPPC Commission on Phytosanitary Measures (CPM) from the Republic of Korea congratulated Indonesia on holding the meeting. She believed that the Indonesian government took great pride in providing the opportunities for APPPC members to discuss future strategies and work plans and to share experiences and information. Dr Yim noted that the APPPC has developed so that it now contributes to the Asia and Pacific region and influences the APPPC member countries and other international organizations.

Dr Yim thanked Dr Piao and his team for their commitment and work. Without this work the APPPC would not have the status it has. Dr Yim also thanked all participants for the support of their countries.

### **1.4 Welcome address by FAO**

The dissertation of the Deputy Regional Representative for Asia and the Pacific, FAO, Mr Vili A. Fuavao, was presented by Dr Piao Yongfan, Executive Secretary of the APPPC. Mr Fuavao thanked the organizing committee for arranging this meeting and the outgoing Chair of the commission for her work. The APPPC is now working more with the IPPC and also has a number of collaborative endeavours with other organizations which have achieved results within the region. FAO continues to support the IPM work within the region. The regional workshop on IPM case studies demonstrated a large number of successful programmes in Asian countries which had substantial roles of promoting sustainable agricultures and food security – a core component of FAO strategic objective (SO-2).

Mr Fuavao continued saying that work has continued on pesticide management in the region but there are still a number of challenges to be met and programmes to be developed. Significant progress has been made to improve pesticide management in line with the “International Code of Conduct on Pesticide Management” and other relevant international treaties such as the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

This year marks the 70<sup>th</sup> anniversary of FAO. During the seven decades, FAO has made a great contribution to increasing food production. The Director-General of the FAO, Dr Graziano da Silva has stressed that the FAO has to sharpen its focus around the five strategic objectives. Mr Fuavao noted that these strategic objectives and the Director-General’s vision show us the opportunities that there are for national and regional plant protection organizations to contribute to in the future.

### **1.5 Inaugural address by Mrs Banun Harpini, Director-General of Agricultural Quarantine Agency, Ministry of Agriculture, Indonesia**

Mrs Harpini delivered the address on behalf of Excellency Mr Andi Amran Sulaiman, Minister of Agriculture of the Republic of Indonesia. She expressed her regret regarding the absence of the Minister who was attending a Ministerial meeting in Manila. She thanked the organizations that arranged this meeting. This meeting offered opportunities to develop programmes that recognized the many factors affecting agriculture. In his address the Minister stated that one of the main issues of concern to the agriculture sector were the challengers to food security. These included some limiting factors such as climate change, incursion of pests and plant diseases, the global economic situation, the rapid increase in population, the urbanization of populations, land shortages for agricultural practices, forest conservation, market access and promotion of agricultural products that threaten the achievement of food security in Asia-Pacific region.

In its strategic plan for 2015–2019, Indonesia dedicated priority to the major commodities namely rice, maize, soybean, sugarcane, chilli, shallot, cocoa and animal protein. A number of programmes have been designed to carry out the policy including intensification, increasing the availability and management of seed, and improving plant protection through integrated pest management, and the use of fertilizer and machinery.

To deal with climate change, risk mitigation is being taken by the government to prevent the introduction of pests and diseases. This is done through IAQA which is being supported to enhance and strengthen its roles and functions in agricultural quarantine at all entry points. Also, the government of Indonesia has recognized the tasks of IAQA to be more complex in its roles of trade facilitation, and its work in the area of biodiversity in Indonesia.

Mrs Harpini wished the participants a successful meeting.

### **1.6 Election of the Chairperson and Vice-Chairpersons of the 29<sup>th</sup> Session, the Drafting Committee and the adoption of the provisional agenda and timetable**

#### ***1.6.1 Election of the Chairperson and Vice-Chairpersons of the 29<sup>th</sup> Session***

The Chairperson elected was Dr Antarjo Dikin, Indonesia with vice chairs being from Republic of Korea, Thailand and New Zealand.

#### ***1.6.2 Election of the Drafting Committee***

New Zealand was elected as Chair of the drafting committee. Members of the committee were from Malaysia, Republic of Korea, India, Indonesia and Nepal.

#### ***1.6.3 Adoption of the provisional agenda and timetable***

The agenda and timetable were adopted.

## **2. Secretariat report on actions taken on the implementation of the work plan adopted by the Twenty-eighth Session of the Commission**

Dr Piao Yongfan, Executive Secretary of the APPPC, reported on the activities of the Secretariat and working groups since the 28<sup>th</sup> Session of the Commission.

The APPPC, IPPC and other regional plant protection organizations have a very good collaborative relationship and a number of supportive and joint activities have been organized in the current biennium. The APPPC/NAPPO/IPPC joint workshop on ISPM15 is an example of such collaboration.

## 2.1 Status of Plant Protection Agreement for Asia and the Pacific

There have been no further acceptances of amendments (1983/1999) and no new members of APPPC up to the end of August 2015. Bhutan expressed once again its intention of becoming a member and both the Secretariat and FAO's Legal Service provided the country with some advice on necessary follow up actions. Presently, twenty-five countries are contracting parties to the Plant Protection Agreement for Asia and the Pacific. These countries are Australia, Bangladesh, Cambodia, China, DPRK, Fiji, France, India, Indonesia, Lao PDR, Malaysia, Myanmar, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Samoa, Solomon Islands, Sri Lanka, Thailand, Timor-Leste, Tonga and Viet Nam.

Since the entry into force of APPPC's 1983 amendment on financial mandatory contribution on 4 September 2009, 18 countries have become mandatory financial contributors. These are Australia, Bangladesh, Cambodia, China, DPRK, Fiji, India, Indonesia, Lao PDR, Malaysia, New Zealand, Pakistan, Philippines, Republic of Korea, Sri Lanka, Thailand, Timor-Leste and Viet Nam.

With regard to the adoption of the amendments in 1999, six countries have adopted the first set of the amendments so far. These countries are Australia, Lao PDR, Philippines, Republic of Korea, Timor-Leste and Viet Nam. Meanwhile, three countries have adopted the second set of the amendments. These countries are Australia, Republic of Korea, and Timor-Leste. Detailed background information on amendments and status of acceptances is available from the webpage of the FAO Legal Office: [http://www.fao.org/fileadmin/user\\_upload/legal/docs/006s-e.pdf](http://www.fao.org/fileadmin/user_upload/legal/docs/006s-e.pdf)

## 2.2 Implementation of the work plan adopted by the 28<sup>th</sup> Session of APPPC

A number of follow-up activities have been undertaken in relation to the implementation of the work plan (2014-2015) adopted by the 28<sup>th</sup> Session of APPPC.

**Table 1. Implementation status of the work programme after the 28<sup>th</sup> Session until August 2015**

No.	Activity planned	Remarks
1	The systems approaches workshop	Organized in collaboration with support from Australian experts in Bangkok, Thailand, 4–8 Nov. 2013
2	Pre-CPM consultation for APPPC members: A pre-CPM consultation provided APPPC member with an opportunity for discussion of CPM agenda items, including the draft ISPMs which were presented for adoption by the CPM. These meetings facilitated a better understanding of the specific concerns of participants and allows the development of regional views on some issues. No funds were required.	Organized in 2014 and 2015 respectively by taking opportunity of participation of CPM-9 and CPM-10 by member countries in 2014 and 2015
3	Implementation of ISPMs: Joint work shop with NAPPO on ISPM 15	Organized in collaboration with NAPPO and China from 10–14 June, 2014, Beijing, China
4	ISPM 6 – Surveillance data management workshop	Organized in collaboration with Australia and Malaysia from 2–6 June, 2014 in KL, Malaysia
5	Regional workshop on review of draft ISPMs – continue	Organized in collaboration with Korean NPPO from 28 Oct.–1 Nov. 2013 in Seoul, 15–19 Sept. 2014 in Busan, Republic of Korea

**Table 1.** (continued)

No.	Activity planned	Remarks
6	Workshop on e-Phyto in 2014	Organized from 28–30 Oct. 2014 in Bangkok, Thailand in collaboration with NPPOs of Australia, New Zealand and Thailand
7	<p>SALB working group programme included:</p> <ul style="list-style-type: none"> <li>– Follow-up from the diagnostic training visit to Brazil with in-country training programmes and manual development (with translation) (not possible)</li> <li>– The group was to monitor training in countries and development of country translations of relevant materials as follow-up actions after previous regional assistance.</li> <li>– Twice-yearly surveillance programmes were developed.</li> <li>– Data from the region was collected and exchanged with a specific database being developed by the SALB working group (with the information exchange working group).</li> </ul>	Organized a workshop on SALB from 12–16 Jan. 2015, in Bangkok, Thailand in collaboration with NPPOs of Malaysia, Australia and Thailand
8	<p>Information exchange programme: Working group (led by Malaysia with Australia, Fiji, India, Indonesia, New Zealand, Philippines, Republic of Korea, Tonga, Thailand, and Viet Nam as members) on information exchange was to continue functioning. It included PRA, surveillance, SALB and other pests. Survey on implementation of RSPMs will be included too. This was to include regular website maintenance, monitoring status of country update, staffing assistance, publications, etc.</p>	<ul style="list-style-type: none"> <li>– Migration of the website</li> <li>– Continual quarterly based monitoring and summary, updates/uploads and migration to the new platform;</li> <li>– Staffing and assistance/maintenance</li> <li>– WG (pending, led by Malaysia)</li> </ul>
9	Planning group meeting in early 2015 (review progress, prepared a draft work plan proposal for next biennium and to discuss contents of the 29 <sup>th</sup> Session of APPPC).	Organized from 13–15 May, 2014 in Bangkok, Thailand
10	SC-IPM: Workshop on fruit fly management in 2014, Thailand (TF257)	Organized from 9–11 May, 2014 in Bangkok, Thailand in collaboration with DOAE/DOA, Thailand
11	SC-IPM: Case studies on IPM, joint workshop with regional PRR programmes, etc.	Organizing from 18–22 May, 2015 in Beijing, China in collaboration with NATESC, China
12	<p>SC-Pesticide management: Continuation of collaboration through regional network. A workshop on the revised code of conduct and implementation of PIC was held Information exchange-database of banned/restricted pesticides, etc. (without funding).</p>	<ul style="list-style-type: none"> <li>– Organized a workshop on risk assessment and phasing out HHPs (19–22 May, 2014 in Nanjing, China);</li> <li>– A database was established in APPPC web</li> <li>– Assist Cambodia in preparation of national action plan for implementation of PIC</li> </ul>
13	<p>SC-Pesticide management: Training on newly revised code of conduct on pesticide management</p>	<ul style="list-style-type: none"> <li>– Organized the training workshop from 26–30 Jan. 2015 in Nepal (including exercise on filling import response-PIC)</li> <li>– Pilot exercise and examine the pesticide registration toolkit in Hanoi, Viet Nam</li> </ul>

**Table 1. (continued)**

No.	Activity planned	Remarks
		in collaboration with AGP with participation of Malaysia, Myanmar, Nepal, Thailand and Viet Nam
14	Implementation of ISPM 14: Production of resource materials and one workshop	Led by Australia (2014-2015) will be held from 30 Nov.– 4 Dec. 2015 in Thailand
15	Training workshops on pest surveillance (continual follow up the global symposium action) – the manuals would be prepared by IPPC, if not, the APPPC might develop some.	Led by Australia and New Zealand (2014-2015) will be incorporated into the work plan of next biennium based on development of long-term programme of the surveillance
16	ISPM 31 – Sampling Grain for pests (including survey to determine methods used by countries).	Led by Indonesia, 2014-2015 will be re-discussed at the 29 <sup>th</sup> Session

Details of each activity with outputs were introduced by Chairs of three standing committees (SC-Plant Quarantine, SC-IPM and SC-Pesticide management) respectively in relevant agenda items.

### 2.3 Cooperation with counterpart organizations and members

During the past two years the Commission cooperated closely with counterparts to obtain their assistance and financial support. The joint workshop on ISPM 15 is a notable example: APPPC and the NAPPO collaboratively organized the workshop in June 2014 with the support from IPPC Secretariat, and a number of experts from Australia, Canada, Republic of Korea, New Zealand and USA kindly facilitated the discussions on various specified subjects.

Experts from New Zealand and Australia assisted in facilitation of the regional workshop on e-Phyto in October 2014 and a working group on e-Phyto.

Experts from Australia and Malaysia facilitated the training workshop on pest surveillance by using P-tracker in June 2014 followed by another workshop on SALB by using the P-tracker in Jan. 2015 respectively in collaboration with the NPPO of Thailand and the DOA, Thailand.

The NPPO of the Republic of Korea has provided regular financial support since 2006 to APPPC for organizing regional workshops on the review of draft ISPMs, which has enabled the APPPC to continue its initiative since 2000.

Australia provided additional funds for the programme of implementation of ISPMs to support the APPPC workshop on ISPM 6 and ISPM 14 in addition to supporting to the development of the regional standards for phytosanitary measures in the previous years.

Meanwhile a number of countries such as Australia, China, Republic of Korea, Malaysia, New Zealand, Nepal, Thailand and Viet Nam provided in-kind support to APPPC by hosting a number of regional workshops and trainings, and provided logistic arrangements, secretarial services and various inputs of expertise.

Experts from International Atomic Energy Agency (IAEA), Asia Institute of Technology (AIT) and Thailand Department of Agriculture and Extension (DOAE) as well as the Department of Agriculture (DOA) provided valuable inputs to the training workshop in May 2014 on biology, identification and area wide management of fruit fly. APPPC also facilitated provision of technical assistance to Indonesia

for the control of cassava pink mealybug in collaboration with the regional IPM project and experts from Thailand DOA and DOAE. In collaboration with the regional IPM programme, an expert from Thailand was sent to Viet Nam to provide technical assistance in management of sugarcane borer. In recognition of the successful and efficient implementation of project TCP/RAS/3311 “*Capacity building for spread prevention and management of cassava pink mealybug in the Greater Mekong Sub-region*”, funded by the FAO Technical Cooperation Programme (TCP), the Ministry of Agriculture and Cooperatives of Thailand will receive the FAO Edouard Saouma Award (2014-2015) at the FAO 70<sup>th</sup> anniversary celebration in Rome, Italy in November 2015.

## **2.4 Capacity development**

Prevention and reduction of risks of transboundary threats to food production, health and the environment is one of the focus areas of FAO, as it is a key requirement for achieving the goals set out in the FAO Strategic Objective 4 (SO-4). It is to be achieved by promoting, developing and re-enforcing policy and regulatory frameworks for food, agriculture, fisheries and forestry. It encompasses all policy and regulatory frameworks to manage risks associated with food and agriculture, including relevant environmental risks. A number of training workshops organized by APPPC during 2014-2015 provided opportunities for the NPPOs of member countries to improve their capacities in the implementation of ISPMs. These training workshops dealt with the following areas: pest surveillance (ISPM 6), systems approach (ISPM 14), e-Phyto (ISPM 12), wood packing materials (ISPM 15), SALB for maintaining pest free area in line with ISPM 4 as well as using P-tracker to promote fulfilling the pest reporting obligation in line with ISPM 17 and training on area wide management of fruit fly, the implementation of the revised code of conduct and Rotterdam Convention. In addition, a training workshop on the newly revised code of conduct on pesticide management provided an opportunity for member countries to improve their understanding of the new contents of the Code. A pilot workshop on the pesticide registration toolkit provided participating countries with not only an exercise on the use of the toolkit but also opportunities for inputs into for further improvements to make it more practical and user friendly.

A number of projects funded by FAO TCP or other FAO programmes with financial support from donor countries have been implemented in several member/non-member countries in the region. These contributed to the improvement of capacity in various areas, for example:

**GCP/RAS/286/ROK** – capacity development in pest surveillance and information exchange for GMS countries continually implemented in Cambodia, Lao PDR, Myanmar, Nepal, Thailand and Viet Nam. Trainings on identification of fruit fly, storage pest, phytoplasma, fungi, etc. and information management were conducted,

**TCP/MON/3404** – Strengthening of plant protection institutional capacity has been implemented. The implementation of the project also promoted south-south cooperation by facilitation of experts from Malaysia and India to contribute their expertise to the country,

**TCP/SRL/3402** – Management of risks associated with pesticide use in agriculture in Sri Lanka submitted for endorsement,

**TCP/NEP/3502** – Strengthening pesticide management in agriculture to reduce risks to health and environment – TCP project declared operationally active,

**TCP/INS/3403** – Strengthening and revitalization of integrated pest management implementation and pesticides Management system in Indonesia,

**GCP/RAS/229/SWE** on pesticide risk reduction in Southeast Asia,

**GCP/RAS/263/GFF** – Pacific POPS release reduction through improved management of solid and hazardous wastes,

**TCP/PHI/3501** – Development of a sustainable integrated pest management,

**GCP/RAS/268/AIT** – Area-wide integrated pest management of *Bactrocera* fruit flies in Southeast Asian countries, etc.,

**A new project** – Improving capacity and strengthening harmonization of phytosanitary measures for international movement of seed will start soon in Thailand and Viet Nam with financial support from Japan.

## **2.5 APPPC planning for 2016-2017**

An APPPC planning workshop was held in Bangkok, Thailand, from 13 to 15 May 2015 to review the status of implementation of the work plan adopted by the 28<sup>th</sup> Session and to prepare recommendations for the 2016-2017 biennium work programme. The planning workshop was attended by the Chair and Vice Chair of the 28<sup>th</sup> Session, the Chairs of the three standing committees, and the APPPC Standards Committee members. The recommendations prepared by the meeting were presented to the 29<sup>th</sup> Session for further discussion and adoption. The detailed outputs of the meeting will be given under Agenda item 11.2.

Dr Piao expressed his appreciation for the participation and contributions of countries.

## **3. Country reports of significant changes and developments since 2013 by member delegates and reports of relevant organizations and institutions by observers**

### **3.1 Australia**

In 2015, the Australian Government appointed a new head of the Department of Agriculture, Mr Daryl Quinlivan.

In the department in 2014, Dr Kim Ritman was appointed as the new Australian Chief Plant Protection Officer.

The name *Department of Agriculture, Fisheries and Forestry* (DAFF) is no longer used and the department's name has been shortened to the *Department of Agriculture*.

Australia's newly approved Biosecurity Act 2015 will commence on 16 June 2016, replacing the Quarantine Act 1908. Until commencement of the new legislation, the Quarantine Act 1908 remains the primary piece of biosecurity legislation in Australia.

Australia has developed a new import regulation system called BICON to replace ICON, which is Australia's existing import conditions and permit application system. BICON will make it easier for clients to find information about Australia's import conditions and permits and is due to be launched in late 2015.

A new post entry quarantine facility is being built in southern Australia, near Melbourne airport. All other facilities will close when it becomes operational and it is expected to commence operations in late 2015. Australia is reviewing quarantine conditions for imported seed, following incursions from several seed transmitted pathogens.

Surveillance activities in Australia are described and information provided on some native and invasive weed species. Pest management is outlined, explaining the management and funding of eradication programmes, as well as the agreed technical response plan. Where eradication programmes are not considered feasible, transition to management programmes are implemented and examples are provided for some of these programmes.

The Australian Pesticides and Veterinary Medicines Authority has built and delivered new online services and a new website. This means that applications for approval and registration of chemicals and payments of fees and levies can now be done through an integrated and secure online system.

### **3.2 Bangladesh**

People's Republic of Bangladesh is a country in south Asia. It is a small country with an area of about 147 570 sq km with about 160 million people. Ensuring food security for the vast population of Bangladesh is directly associated with the agricultural development of the country. Feeding the ever growing population remains the critical challenge for the country. Rice production has reached about 38 million metric tons from 10 million MT at the dawn of our emergence as an independent country. Climate of Bangladesh favours the rapid development of various pests and diseases on crops. Estimated crop loss by pest and diseases are 10–15 percent annually.

The plant protection activities of the country at national level are under the Director of Plant Protection Wing and Directorate of Plant Quarantine Wing of the Department of Agricultural Extension under the Ministry of Agriculture. Bangladesh has to import a huge quantity of food, seeds and other plants and plant products. Annually on an average 10 million metric tons of plants and plant products are imported through the plant quarantine stations of Plant Quarantine Wing. On an average ten metric tons of agricultural commodities are inspected by the plant quarantine stations per annum for the purpose of export and also need to issue huge number of phytosanitary certificates. With the introduction of some restriction by the European Union (EU) on sanitary and phytosanitary issues might have created adverse effects on the country's exports. But we have taken initiative to address the issue raised by the EU. We are implementing a programme titled exportable citrus and vegetable production, eradication of Salmonella of betel leaf to meet the EU requirements. We have selected some places (north-west region) of low pest prevalence areas for mango production, where we implementing Good Agricultural Practices (GAP), mangoes are now exporting to England.

The existing plant quarantine legislation known as “Destructive Insects and Pests Rules, 1966 (Plant Quarantine)” was framed as per provisions delineated under Sub-section (I) of Section 3, Section 5 of the Destructive Insect and Pests Act, 1914 (II of 1914). Plant Quarantine Act, 2011 has been approved by the Parliament in April 2011. Making rules under the Act is yet to complete. It is expected that by the end of this year the existing “Destructive Insects and Pests Rules, 1966 (Plant Quarantine)” will be repealed by the newly passed. “Plant Quarantine Act, 2011”. There is a provision for establishment of a separate authority titled “Plant Quarantine Authority” in the Act. Recently we have developed 10 (ten) plant quarantine centres laboratory and we have increased land border check post from 18 to 30. In the last two years we organized 25 training programme for the Quarantine officials to build their capacity. According to revised IPPC convention and the Agreement on the Sanitary and Phytosanitary Measures (SPS) we have formulated our ‘Quarantine Act-2011’. To implement the International Standards for Phytosanitary Measures (ISPMs) we have taken a project titled “Strengthening phytosanitary capacity in Bangladesh”.

Under “strengthening phytosanitary capacity in Bangladesh” project the following activities have been taken:–

Activities	No. of event	Starting year of implementation	Year of completion	Remarks
Construction of Central Packing House for export of fruits and vegetables	1(6 000 m <sup>2</sup> )	2013-2014	2014-2015	Sorting, grading, treatment, packaging, inspection etc. in one place under the direct supervision of the inspector
Establishment of post entry quarantine centre	7 (250 m <sup>2</sup> )	2013-2014	2015-2016	
Workshop	20	2012-2013	2014-2015	For building awareness among the stakeholders
Study tour (Abroad)	20	2012-2013	2013-2014	Policy makers
Training (In country)	40	2012-2013	2015-2016	Plant quarantine official (8 different events)
	150	2012-2013	2015-2016	4 500 Exporters, packers and handlers
Training (Abroad)	36	2013-2014	2014-2015	Quarantine officials esp. working in lab.
Procurement of Lab. Equipment	296 equipments for 10 labs.	2013-2014	2015-2016	Lab equipments for detection of bacteria, virus, nematode and fungi etc. (at the cost of 7.00 million dollar)
Establishment of heat treatment plant	4	2012-2013	2013-2014	
Establishment of Methyl bromide fumigation plant	4	2012-2013	2014-2015	
Capacity building for e-Phytosanitary Certificate	HQ	–	2014-2015	

Table: Showing activities under strengthening phytosanitary capacity in Bangladesh” project

Pest surveillance and forecasting system of the country have been upgraded recently. The infestation of brown plant hopper (BPH) and stem borer were high during last two years. Besides, outbreak of bacterial leaf blight and blast in rice crop during 2009-2010 and 2012-2013 crop seasons created some threats on the total rice production in the country. Fruit and shoot borer infestation of vegetable and fruits also noticed this year. Different species of mealy bug and White fly are also noticed in various crops. We are providing plant doctor clinics to the farmer with the technical assistance of CABI.

Different pest control approaches are being practiced to manage the pest incidence in the country. Among these integrated pest management (IPM) approach is given more emphasis for the management of pests in the country. In view of the importance of IPM in Bangladesh, a national IPM policy has also been developed. Research institutions have developed several new IPM technologies. The research institutions are now putting emphasis on IPM particularly on bio-control and non-chemicals (bio-pesticides) for pest management.

Private sectors have also come forward for mass rearing and marketing of parasitoids and predators. Pesticide free vegetables and some fruits are available in a limited scale but marketing channel need to be developed. The Government has started the GAP particularly of exportable vegetables and fruits. Safe food production through IPM approach created a great enthusiasm among the producers and consumers under the guidance of the different government agencies.

“The Pesticide (Amendment) Act, 2009 and the Pesticide Rules 1985 amended up to 2010” are in force. A total of 243 generic pesticides have been registered for use in agriculture and 60 for use in public health. Total number of trade name of agricultural & public health of these pesticides is 4 122. There is a Pesticide Technical Advisory Committee headed by the Executive Chairman of Bangladesh Agricultural Research Council (BARC), Ministry of Agriculture. Based on formulation, the Government has banned nine pesticide compounds under WHO class 1a and 1b for agricultural purposes.

### 3.3 Cambodia

The Plant Quarantine Office under the Plant Protection, Sanitary and Phytosanitary Department (PPSPSD) of the General Directorate of Agriculture (GDA) (PPSPSD/GDA) was given a key role in inspecting and certifying plant products intended for export. With the accession of Cambodia to the WTO, the Government has realized the critical role of phytosanitary measures as an integral part of the SPS Agreement. For effective and smooth operation, MAFF has prepared a sub-decree on regional plant quarantine office which has now been agreed by all concerned institutions and submitted to the Government for final approval. This new sub-decree will empower the Plant Quarantine Office to deploy the officers to work at the land and seaport check points of the country, where the supporting infrastructure and necessary facilities need to be established with well functions. The implementation of the works has still encountered many challenges which mainly include inadequate qualified personnel and facilities, especially in reference to pest surveillance, management of pest outbreaks and invasive species. With regard to pest outbreaks the country still faces problems occasionally with brown plant hoppers, Golden apple snails, army worm in rice, coconut beetle in palm trees and pink mealy bug and witches broom in cassava production. Occurrences of rice blast and bacterial leaf blight have also observed in some provinces. Although many efforts have been made to manage these pests, the problems still persist.

Key activities implemented include training of trainers courses and FFS on rice, vegetable, corn, water melon, rice-fish-vegetable, mung bean, cassava crops and fruit fly management, refresher courses, pesticide health hazards, technical farmer congresses, system of rice intensification, study tours and exchange visits, workshops and meetings, field experiments, establishment of farmer clubs, training on organic agriculture and chemical-free vegetable production. Introduction and promotion of biological control, e.g., parasitoids (*C. plutellae*, *Asecodes*), pathogens (*Trichoderma*) and predators (earwigs), have been included in IPM-FFS as to provide farmers with alternatives to chemical pesticides. In close collaboration with all involved organizations and development partners the national IPM programme has trained 956 trainers, 3 126 farmer trainers and more than 300 000 farmers through season-long FFSs. Moreover, the programme has also worked with school teachers and students and formed more than 900 farmer clubs involving more than 17 000 farmers. A recent study to compare the technical recommendation with farmer practice from 270 FFS have confirmed that the technical recommendation plots produced higher yields (+ 1 342 kg/ha) with lower expenses (-80 USD/ha) and higher net profits (+ 399 USD/ha) than those of farmer practice plots.

MAFF was mandated to be a key responsible institution for the pesticide management and 3 departments are in charge of different tasks: (1) the Department of Agriculture Legislation (DAL) acts as regulatory authority in charge of pesticide registration, licensing, inspection, (2) PP SPS Department plays a role as technical adviser in field evaluation of pesticides (chemical, biological), and (3) the National Agricultural Laboratory of the GDA works on analyzing pesticides quality. Cambodia has signed and ratified the Stockholm Convention (POP), Montreal Protocol (Ozone Depletion Materials) and Basel conventions with full developed action plans for implementation of the first two conventions with focal points placed in the Ministry of Environment (MOE) and DAL in MAFF is the focal point for the Rotterdam Convention. MAFF has made strong efforts to reinforce pesticide management in Cambodia by issuing an order to all relevant units to strengthen pesticide

management and quality control including across border trade, distribution, sale and use of agrochemicals in the country including development of labels in local Khmer language in line with the FAO code of conduct on the distribution and the use of pesticides.

The food safety in Cambodia is cross mandatory responsibility by relevant ministries such as the Ministry of Health, MAFF, Ministry of Industry and Handicaps and Ministry of Commerce (MOC). However, each ministry still has limited capacity to implement the works related to surveillance of contamination (chemical, physical and biological) in food, food toxicity and food borne diseases. A number of regulations were established to address food safety and good manufacturing practices such as industry standard, food hygiene for human consumption GAP and organic standards, phytosanitary inspection, animal health and products derived from animal production inspection and agricultural materials standard. The Cambodia National Codex Committee was established by sub-degree and the contact point is located in the Department of Export Inspection and Fraud Repression of the MOC. The important development is that the RGC is in the process of preparing Food Law and food safety is essential part of the law.

### 3.4 China

During the period of 2013-2014, 8 National standards and 3 Industry standards of agricultural pests, 18 Industry standards of forestry pests were issued effectively. *Chalara fraxinea* T. Kowalski was added in the quarantine pests list of entry based on pest risk analysis.

In 2013, 4 883 pests were intercepted for 610 746 times annually, including 53 757 times for 319 quarantine pests and 556 989 times for 4 564 non-quarantine pests. In 2014, 5 460 pests were intercepted for 804 400 times annually, including 74 133 times for 349 quarantine pests and 730 267 times for 5 111 non-quarantine pests.

In 2013 and 2014 great efforts were taken to control *Cydia pomonella* (L.) for establishing and maintaining the pest free areas (PFA). Since *Leptinotarsa decemlineata* (Say) invaded Jilin and Heilongjiang province from Russia in 2013 and 2014 respectively, the emergency control activities were acted. And strict methods, like destroy infected tree and spay pesticide for killing *Diaphorina citri* ( Kuwayama), were taken for controlling Huanglongbing in Guangdong and Jiangxi province to protect citrus industry.

Outbreaks of some pests on major crops occurred in responses to significant changes in cropping systems, climate conditions, and crop varieties during the period of 2013-2014, among them, wheat scab (*Gibberella zeae*), potato late blight, army worm [*Mythimna separate* (Walker)], rice brown plant hopper (*Nilaparavata lugans*), rice leaf folder (*Cnaphalocrocis medinalis*), rice blast (*Magnaporthe grisea*) and corn leaf diseases were most severe and destructive ones. Regional actions were coordinated by the National Agro-technical Extension and Service Center (NATESC), Ministry of Agriculture for controlling migratory pests locusts, meadow moth, army worm, rice brown hopper, rice leaf roller and regionally epidemical diseases-wheat scab, wheat stripe rust, rice blast and rice sheath blight. The annual control acreages of major crop pests reached 559 million hectares in 2013 and 563 million hectares in 2014 respectively.

During the period of 2013 to 2014, advice of General Office of the State Council to reinforce the biological control of forestry pest further was formulated by the State Council, which was the first time on deploying prophylaxis, treatment and quarantine forestry pest work on national level. Two newly invaded forestry pest, *Sirex noctilio* Fabricius and *Opisina arenosella* Walker were controlled effectively by using eradication measures. The management and elimination of pine wilt disease (*Bursaphelenchus xylophilus* (Steiner et Buhner) Nickle) and fall webworm (*Hyphantria cunea* (Drury)) were strengthened, which caused the epidemic area declined continuously.

In order to protect human health and environmental safety, pesticide management was strengthened and pesticide registration system was improved in 2013 and 2014. The Regulation on Pesticide Administration and its supporting polices such as the pesticide registration data requirements, the measures for the administration of pesticide product labels and instructions, the measures for the Administration of pesticide test institutions were being revised.

### **3.5 Fiji**

The agriculture sector (non-sugar) in Fiji is driven by majority of subsistence and semi-subsistence farmers. The Fiji 2020 agriculture sector policy agenda was launched by the prime minister of the Republic of Fiji in August 2014. The policy's main purpose is to establish a diversified and economically and environmentally sustainable agriculture economy in Fiji. One of the policy objectives is to build modern agriculture in Fiji as an organized system of production which involves farmer field schools that promotes integrated production and pest management.

The Ministry of Agriculture's (MoA) Plant Protection Section is mandated to provide technical support on plant pest diagnostics and advisory services on management of pests (insects, diseases and weeds) and pesticide regulatory in Fiji. The Fiji Pesticide Act, No. 41 of 1971 is currently being revised with the support from the attorney general's office. A total of 338 pesticide trade names have been registered for use in agriculture and households. The plant protection section is headed by the Principal Research Officer and reports to the Director Research.

Important pest of concern include: taro beetle (*Papuana uninodis*), coconut rhinoceros beetle (*Oryctes rhinoceros*), coconut stick insects (*Graeffea crouanii*), fruit flies (*Bactrocera passiflorae* and *B. xanthodes*), chilli anthracnose (*Colletotrichum spp.*), wedelia (*Sphagneticola trilobata*) and African tulip tree (*Spathodea campanulata*). These pests continue to be a problem despite attempts by the MoA and other stakeholders to control them. The MoA in collaboration with Biosecurity Authority of Fiji and some support from The Secretariat of the Pacific Community (SPC), carries out monitoring and surveillance of economic pests such as fruit fly and surveys of pests and updating of the pest list database for Fiji.

The Biosecurity Authority of Fiji (BAF) was established under the biosecurity promulgation in December 2008 and become a full-fledged authority in January 2011. It is a Commercial Statutory Authority under the Public Enterprise Act 1996. BAF is mandated to protect Fiji's agricultural sector from the introduction and spread of pests of plants and animals and facilitate access to viable agro-export markets and ensure compliance of Fiji's agro-exports to overseas market requirements.

### **3.6 India**

The Directorate of Plant Protection Quarantine and Storage (DPPQS) under Department of Agriculture and Cooperation, Ministry of Agriculture and Farmers Welfare is the National Plant Protection Organization (NPPO). The headquarters of DPPQ&S is located at Faridabad (Haryana) with operational offices all over the country. Joint Secretary (Plant Protection), Ministry of Agriculture and Farmers Welfare is the official contact point for IPPC and APPPC. The DPPQS is led by the Plant Protection Adviser who is responsible for the implementation of policies and programmes related to plant protection.

The major activities in plant protection sector include quarantine inspection of imported agricultural commodities; phytosanitary certification to enable export of plants and plant materials; technical facilitation to help gain market access for agricultural commodities; containment and eradication of exotic pests; surveillance and monitoring of crops for insect-pests, diseases and weeds; issuance of advisories to farmers and extension functionaries; control of desert locusts; regulation and quality assurance of pesticides; promotion of integrated pest management; development of human resource in plant protection and monitoring of pesticide residues. The DPPQS is the nodal agency of the

Government of India in the sphere of plant protection in agriculture. The NPPO works in tandem with research institutions and state governments to fulfil its mandate. The DPPQS is comprised of following divisions:

- Plant Quarantine
- Integrated Pest Management (IPM)
- Locusts Control
- Central Insecticides Board & Registration Committee (CIB & RC)
- Central Insecticides Laboratory
- National Pesticides Reference Repository (NPRR)
- National Pesticides Investigational Laboratory (NPIL)
- Monitoring of Pesticides Residue at National Level (MPRNL)

The legal foundation of quarantine regulation is provided by the central legislation, viz. Destructive Insects & Pests Act, 1914 (2 of 1914). Plant Quarantine (Regulation of Import into India) Order, 2003 notified under the said Act, elucidates details of the regulatory framework for all aspects related to import of agricultural commodities and wood packaging material. All regulatory provisions for import of plants and plant materials into the country are available at <http://www.plantquarantineindia.nic.in>

India being a contracting party to IPPC, a phytosanitary certification system has been established. The National Plant Protection Organization uses the expertise of more than 159 plant protection specialists from national and state governments to issue phytosanitary certificates, in accordance with the requirements of importing countries and standards laid down by the IPPC. List of phytosanitary certificate issuing authorities is available at: <http://plantquarantineindia.nic.in/PQISPub/pdf/files/Appendix-1.pdf>. 366 416 phytosanitary certificates have been issued during 2014-2015 where as 112 516 import release orders have been issued during the same period. Besides, pest risk analysis based phytosanitary import regulations for 29 agricultural commodities have also been notified during the same period.

IPM programme based on crop specific farmers' field school approach is implemented through 35 central integrated pest management centres and state governments. A pest diagnostic unit is proposed to be set up at CIPMC Faridabad to help farmers in the diagnosis of pests/diseases. 69 revised IPM package of practices in IPM technology have been made available to extension functionaries for the benefit of farmers. The Government of India has promoted 352 bio-control laboratories for promotion of bio-control agents. Consumption of pesticides in India is 56 519.77 MTs (technical grade) during 2014-2015 while bio-pesticide consumption is 5 203.66 MTs. Ministry of Agriculture & Farmers Welfare is also implementing a programme "Monitoring of Pesticides Residue at National Level" to determine pesticide residues in agricultural produce and irrigation water.

India is signatory to FAO code of conduct on distribution and use of pesticides. The legal provisions for pesticides regulation in India is provided by the 'Insecticides Act, 1968'. The import, manufacture, sale, transport, distribution and use of pesticides is regulated under the Act with the objective of ensuring efficacy and safety of the product. So far 260 pesticides have been registered for use in India. The details of registered as well as banned pesticides are available at <http://www.cibrc.gov.in>. The guidelines for registration are revised from time to time by the Registration Committee.

The salient features of plant protection activities in India are:

- The PRA based Plant Quarantine Order, 2003 is updated from time to time in accordance with WTO-SPS Agreement. Uniform pre-printed phytosanitary certificates with enhanced security features are used by all PSC issuing authorities.
- 22 National Standards for phytosanitary measures, and standard operating procedures and guidelines have been developed for key phytosanitary activities and are available at: <http://plantquarantineindia.nic.in/PQISPub/html/Accredited.htm>

- Capacity building group to deliver hands on training has been constituted.
- Accreditation system for fumigation, heat treatment, hot water treatment, VHT, irradiation treatment has been implemented.
- More than 512 methyl bromide, 350 ALP and 330 forced hot air treatment providers have been accredited so far. The list of accredited treatment providers is available at <http://plantquarantineindia.nic.in/PQISPub/html/Accrediteded.htm>
- Modern diagnostic facilities put in place.
- Revised system for export certification of fresh fruits and vegetables has been implemented in line with a SOP.
- Pack houses have been registered for pest free export of fresh fruits and vegetables.
- Strengthened backward linkage for export of fresh fruits and vegetables through registration of the farmers/farms.
- Survey and surveillance programmes undertaken for establishment and maintenance of pest free areas for mango nut weevil/pulp weevil and brown rot/ring rot of potato.
- Single window system is being implemented through integration of plant quarantine information system (PQIS) with Customs electronic data interchange system.
- New Legislation on pesticides management is under consideration by Parliament.
- Online pesticide registration system launched.
- National Pesticides Reference Repository (NPRR) and National Pesticides Investigational Laboratory (NPIL) are being set up.
- Additional bio-pesticides testing facilities being established in different states.
- Capacity building, training and human resource development in plant protection by National Institute of Plant Health Management, Hyderabad.

### 3.7 Indonesia

#### General information

In order to implement the provisions on phytosanitary measures according to the International Plant Protection Convention, Indonesia formed a National Plant Protection Organization (NPPO) which consists of several institutions under the Ministry of Agriculture, i.e. the Indonesian Agricultural Quarantine Agency (IAQA), the Directorate General of Food Crops, the Directorate General of Horticulture and the Directorate General of Estate Crops. IAQA is appointed as the focal point of the NPPO by the Minister of Agriculture (MoA's) Decree number 264 of 2006. As focal point of the NPPO, IAQA is responsible for coordinating with other institutions to conduct plant protection activities such as: issuance of phytosanitary certificates, surveillance, inspection, disinfection, risk analysis, protection of endangered areas, etc.

#### Phytosanitary matters (Plant quarantine)

##### *Update on Indonesian regulations on plant quarantine*

In 2013–2015, Indonesia stipulated MoA's regulation number 73 of 2013 regarding *Requirements and guidelines for quarantine installation establishment for private*, MoA's regulation number 44 of 2014 regarding *The entry and exit point of pathway of quarantine animal disease and pathway of quarantine pest*, MoA's regulation number 38 of 2014 regarding *Implementation of plant quarantine measures outside the entry and exit point*, and MoA's regulation number 04 of 2015 regarding *Food safety control for importation and exportation of fresh food of plant origin (FFPO)*.

Related to food safety regulation, MoA's regulation number 04 of 2015 will be fully implemented and supersedes MoA's regulation number 88 of 2011 on 17 February 2016. Starting from the date of enactment (17 February 2016), the exporting countries that have not been granted for recognition of its food safety control system or registration of its food safety testing laboratory will not be permitted

to export their FFPO to Indonesia. Therefore, in order to avoid any disturbance on food trade, IAQA encourages the APPPC member countries to promptly submit their application for recognition of its food safety control system or registration of food safety testing laboratory.

#### *Intercepted pests in quarantine inspection*

While Indonesia is a major export destination for various agricultural commodities, it also has a megabiodiversity which has to be protected and preserved against harmful pests. Therefore Indonesia has been strengthening its quarantine inspection at entry points to prevent the introduction of pests that potentially threaten biodiversity of Indonesia.

During 2014, a number of quarantine pests were intercepted through quarantine inspections on imported consignments, such as *Burkholderia glumae*, *Pantoea stewartii*, *Pseudomonas syringae* pv. *syringae*, *Pseudomonas viridiflava*, *Clavibacter michiganensis* subsp. *michiganensis*, *Helminthosporium solani*, *Erwinia chrysanthemi*, *Tilletia laevis*, *Tilletia indica*, *Aphelenchoides fragariae*, *Ditylenchus destructor*, *Ditylenchus dipsaci*, *Globodera rostochiensis*, *Pratylenchus vulnus*, *Sphacelotheca reiliana*, *Urocystis agropyri*, *Stenocarpella macrospora*, *Peronospora manshurica*, *Trogoderma granarium* and Raspberry ringspot nepovirus (RpRSV).

#### *Pest risk analysis, quarantine measures for export and import*

Determination of phytosanitary measures for importation of agricultural commodities is based on Pest Risk Analysis (PRA). Until now, IAQA has produced 174 documents of PRA.

In 2014, inspection for import products has reached 96.978 times and emergency phytosanitary treatments on import products were 1.370 times. The current policy taken by IAQA for import is more emphasis on pre-clearance programme as one of options for risk management.

Regarding export, IAQA has issued 122.255 documents of phytosanitary certificates during 2014. IAQA still received 20 notifications of non-compliance from trading partners which always promptly followed by corrective actions to avoid non-compliance in the future. IAQA has developed phytosanitary certification system based on management risk at production site, at processing unit until to the end of product prior export.

### **Pest management**

#### *Pest surveillance*

Indonesia conducts regular pest surveillances to monitor new establishment of pests. Every two years, the status of pests is evaluated among the NPPO members. Pest surveillance is regularly conducted to monitor and evaluate the status of pests under collaboration with the NPPO members. Eradication of pest outbreaks was also conducted under collaboration with the NPPO members and local governments.

Pest surveillances on food, horticultural and estate crops are conducted by pest observers and technical staff of the pest and disease observation laboratory and the Food Crop Protection Centre, the National Pest Forecasting Centre, and the Directorate of Food Crop Protection. The implementation of surveillance follows the Decree of the Director of Food Crop Protection number 52 of 2012 on *Guidelines for observation and reporting of food crop pests and disease* and the decree of the Director of Food Crop Protection number 12a of 2012 on *Operating standard of pest and disease laboratory*.

## **Pesticide management**

### *Regulation on pesticide registration*

The distribution and use of pesticides must be registered according to the provisions of the ministerial decree on requirements and procedures of pesticide registration. In 2011, Indonesia reviewed the regulations and stipulated a new MoA decree number 24 of 2011 regarding *Requirement and procedure of pesticide registration*. The Indonesian Government has strong concerns to reduce the use of non-ecofriendly pesticides in sustainable agricultural practices.

The use of pesticides in Indonesia shall be registered through the Center for Plant Variety Protection and License, the Ministry of Agriculture. There are 3 types of pesticide license, including trial license, temporary license and permanent license. Technical requirements for the status of pesticide use license include the evaluation such as quality assurance, safe for human and environment and effective control for specific pest. Licensed pesticides in Indonesia consist of 3 541 pesticides from different trademarks.

Biological agents are used in agricultural practices to achieve food safety standards. Various biological agents and bio-pesticides have been developed by the Farmer Unit of Biological Agents Services (PPAH). Biological agents that have been developed in PPAH are *Trichoderma* sp., *Metarhizium* spp., *Beauveria* spp., *Pseudomonas fluorescens*, *Paeni bacillus polymixus* (previous *Corynebacterium* spp.), *Gliocladium* spp., red bacteria, *Nomuraea* spp, parasitoid *Trichogramma* sp., *Spodoptera litura*, Nuclear Polyhydrosis Virus (SINPV). Botanical pesticides that have been developed by PPAH are produced from leaves and seed of neem (mimba), lemongrass, brotowali, pepaitan, garlic, jeringau, galangal, and soursop. Organic fertilizers which have been developed include Trichokompos, liquid and solid organic fertilizer, and bokashi.

### *Update on Indonesian regulations on pesticide*

Minister of Agriculture stipulated a new regulation, MoA's regulation number 39/Permentan/SR.330/7/2015 concerning *Registration of pesticide*, in order to increase the effectiveness of the registration and legal certainty in the provision of issuing registration's number and pesticides licenses. The regulation also regulates the type of active ingredients and additive ingredients of pesticides which defined as banned pesticides.

### *Progress on the ratification of the Rotterdam Convention*

Indonesia has ratified the Rotterdam Convention on Prior informed consent procedure for certain hazardous chemicals and pesticides in international trade by the Law number 10 of 2013.

## **ISPM implementation**

Plant quarantine regulations in Indonesia are very dynamic matters and supported by technical procedures that comply with ISPM. ISPM had been fully, mostly, partially, and none implemented were 17%, 42%, 19%, and 22% respectively.

## **Other matters**

### *Status of the 1999 Amendment of the Plant Protection Agreement for Asia and Pacific (APPPC)*

Regarding the 1999 Amendment of the Plant Protection Agreement for Asia and the Pacific (deleting measures to exclude 'SALB' of *Hevea* from the region), Indonesia needs further discussions with other natural rubber producing countries before submit the acceptance of the amendment.

### **3.8 Lao PDR**

Rice is a major crop grown in Lao PDR accounting about 68 percent of total cultivated area of 1.8 million hectares. Rice is typical glutinous or sticky variety as the preference consumption of majority of Lao people. Sticky rice occupies almost 90 percent, the remaining is mandarin variety or non-sticky rice. Total paddy rice production is reached 3.1 million tons in 2009. Beside paddy rice other important crops are maize, waxy corn, job's tear, coffee, tea, cardamom, soybean, mungbean, other beans, sugarcane, peanut, sesame, cassava, cotton, tobacco, other root crops, various vegetables, fruit trees, etc.

In the wet season most production areas are planted to rice and, hence, fewer vegetable crops are cultivated. Various kinds of fruit trees are grown scattered throughout the country, largely produced and marketed for domestic consumption. Most commercial production of vegetables is surrounded in sub-urban areas of large cities. It also takes place at higher elevation areas and on the plateau. The remaining vegetable production areas are located along the Mekong riverbank and its tributaries from the north to the south. In general, pest and diseases of commercially produced vegetables are managed with undesirable dosage application of chemical pesticide. Weed management of commercial production of exporting crops mainly used herbicides including Paraquat, Glyphosate and Atrazine. Major export crops are milled rice, coffee, maize, banana, water melon, job's tear, sliced dry cassava, herbal plants, spicy fresh leafy vegetables for Asian culinary and non-timber forest products as crop-based.

In general, the tropical monsoon climate is conducive of pests and diseases to the country. Its incidence and severity become economically high risk with the development of new export crops, off-season production and introduction of new high yielding crop varieties. Climate change and increased trade of agriculture products in the region bring the risk of introduction of new pests and diseases to Lao PDR. The coffee berry borer, coconut hispine beetle, cassava pink mealybug, locust, sugarcane phytoplasma, citrus canker, other diseases damaged planted tree such as eucalyptus and agar wood are recent examples of such invasive plant pests. List of plant pests and diseases encountered in Lao PDR is regularly updated by the Plant Protection Center under the Department of Agriculture.

### **3.9 Malaysia**

The function of the National Plant Protection Organization (NPPO) of Malaysia is carried out by the Plant Biosecurity Division, DOA (PBD) in Peninsular Malaysia and DOA Sabah and DOA Sarawak in their respective states. On the other hand, Department of Malaysian Quarantine and Inspection Services (MAQIS) is responsible for inspection at the entry points in Peninsular Malaysia. There are several profile changes in the NPPO including the new appointment of Director of the PBD, Ms Faridah Aini Muhammad and the Pesticide Board Secretary, Mr Halimi Mahmud.

There are several changes the work procedure, in particular, the web-based application on the processing and issuance of the Phytosanitary Certificate (PC) that was implemented in 2014. Finally, this online system will be paperless in which certain trading partners, the PC will be sent using e-Cert. Several quarantine procedures have been enhanced to strengthen the import and export of agriculture products. Malaysia has updated the import requirement for the 9 items starting 1<sup>st</sup> January 2015. In addition, the import condition for cereal and grain from Khapra Beetle endemic countries requires import permit and PC starting from 1 January 2015. During 2013-2014, DOA has also received auditors from Australia, China, European Union (EU), New Zealand, Singapore and Thailand for market access.

In the aspect of the Phytosanitary Capacity Development (PCD), Malaysia has conducted a total of 50 PCD programs in 2013–2015 including 15 PCD involving international participants with the assistance of international organizations. Malaysia leads the ASEAN Regional Diagnostic Network

(ARDN) in collaboration with Australia and ASEANET for the purpose of enhancing the capability in identification/diagnosis of plant pests and diseases within the ASEAN region.

Surveillance activities were focused on major agricultural commodities such as rice, pineapple, vegetables, flowers, oil palm and rubber. The result of these surveillance activities indicates there is no large outbreak of pests and diseases except rice where some of the pests do infest quite a significant hectare. Surveillance on the South American Leaf Blight (SALB) conducted by Malaysia Rubber Board (MRB) and mango seed weevil by DOA shows that Malaysia is free from both pests. Activities on containment towards eradication of several invasive species including papaya dieback, banana bacterial wilt, red palm weevil and Mexican itch grass have been conducted successfully in reducing the infestation. Integrated Pest Management (IPM) is adopted as the main approach in pest control under Malaysian Agro Food Policy. This approach has been implemented in several projects throughout Malaysia.

Under pesticide management, a few changes have been made to enhance the implementation and control on the usage of pesticide in Malaysia. During 2013-2014, 7 pesticides have been banned and phase-out process for paraquat has been initiated in 2014. There is also a revised guideline on residue data requirement for pesticide registration to harmonize with other ASEAN countries.

### **3.10 Myanmar**

Myanmar has a total land area of 676 552 square kilometre. From north to south, it stretches 2 085 kilometres, and from east to west about 930 kilometres. Only 66-67 million hectares are utilized for farming. The main agricultural crops are rice, pulses, oil seed crops (groundnut, sesame and sunflowers), industrial crops (jute, cotton, rubber) and horticultural crops (fruits and vegetables). The Department of Agriculture, Ministry of Agriculture and Irrigation is the only government agency responsible for agricultural production, research and development, extension and plant protection. The Plant Protection Division (PPD) is one of the divisions of the Department of Agriculture. The main vision of the Plant Protection Division is to be a trusted, reliable, competent and efficient provider of plant protection services, to assist the nation to safely export and import agricultural commodities, to ensure sound management of pesticides, to help farmers to minimize the impact of pest damage by applying integrated pest management approaches and to educate stakeholders (farmers, trader, government employees and general public) on all aspects of plant protection.

The PPD is the National Plant Protection Organization (NPPO) in Myanmar. Its major task is to undertake plant pest control measures, manage pesticides at state/regional and district levels, and issue phytosanitary certificates.

The PPD is legally responsible for issuing phytosanitary and import certificates according to the Plant Pest Quarantine Law. The marketing and management of pesticides are controlled according to the Pesticide Law.

The Plant Quarantine Law is being reviewed in line with the WTO-SPS Agreement and the Pesticides Law in line with FAO. NPPO has made all efforts possible to cooperate in this particular task. The implementation status of existing international and regional standards of phytosanitary measures still need to be further developed.

There were some pest outbreaks for the last two years, rice stem borers outbreaks in Sagaing region in 2013-2014 and golden apple snail outbreak in lower Myanmar in 2014-2015. Biological control research forms part of the Integrated Pest Management Programme and is being carried out in Taik-gyi Township by rearing and mass release of *Trigograma* parasitic wasp. This wasp was mass reared in Plant Protection Division campus and Palaik. Farmers' Field School (FFS) were established in 2000; in the beginning, the emphasis was only for the rice farmers. 469 farmers in 2013-2014 and

905 farmers in 2014-2015 have been trained for the proper use of pesticides and weedicides effectively and safely. To the present, the 6 538 farmers have been trained since 2000.

The importance of Plant Protection has been recognized and Myanmar will make all efforts possible for better cooperation with international agencies, donors, private sectors among APPPC member countries and with some other nations as well.

### **3.11 Nepal**

Agriculture is the mainstay of the Nepalese economy, providing a livelihood for 65 percent of the population and accounting for 38.1 percent of GDP. It offers employment opportunity to 80 percent of the total population of 28.15 million.

The Department of Agriculture (DOA) bears overall responsibility for the agricultural growth and development of agriculture sector. Agriculture sector still has got prime role to play in Nepalese economy. The Department of Agriculture (DOA) has twelve directorates providing technical services. One of the important directorate is Plant Protection Directorate (PPD), which is the national focal point of Plant Protection Services as well as National Plant Protection Organization (NPPO). Under PPD, there are one National Plant Quarantine Programme, the Pesticide Management Office, five Regional Plant Protection laboratories, Five Regional Plant Quarantine Offices and 10 plant quarantine check posts located in the centre, region and border points of India and China, respectively. Under the Department of Agriculture, 75 District Agriculture Offices are providing services in the district level. From each district one Plant Protection Officer is responsible for general crop protection service to farmers, implementation of pesticide use and Plant Protection Act as a pesticide inspector, and linking plant quarantine functions (especially post-entry quarantine) to the farmers.

Pesticides are widely used in agriculture to increase the yield, improve the quality, and extend the storage life of food crops. In Nepal, there are 67 pesticides importers. Ten thousands three hundred nintin six resellers have received training on safe use of pesticides and storage management. One thousands five hundred sixty one types of pesticides by trade name, 117 common names have been registered for use under Pesticides Act 1991 and Rules 1993. According to the latest estimate, the annual imports of pesticides in Nepal is 410 Mt. (a.i.) with 33.81 percent insecticides, 39.94 percent fungicides, 24.57 percent herbicides, 1.63 percent Rodenticides, 0.035 percent bio-pesticides and 0.015 percent others, respectively. The gross sales and values account NRs. 569.95 million (\$5.6 million) per year (PRMS, 2014).

Nepal imports chemical pesticides mostly from the India and China. Use of chemical pesticides in Nepal is very low (396 g a.i./ha). Pesticide use, however, is much more in areas with intensive commercial farming of vegetables, tea, and cotton. About more than 85 percent of pesticides are using only in vegetable crops in Nepal. The trend of pesticide use is increasing in Nepal by about 10–20 percent per year and expenses on pesticide in market-oriented vegetables and fruit production has been a major cost factor. Nepal has banned 16 types of hazardous chemical pesticides including POP, Phosphamidon, Organo-mercury fungicides, Endosulfan and phorate. Recent study showed that terai region apply 59 percent pesticides followed by hill (20%), valley (17%) and high hill (4%) respectively. In certain mid-hill pockets close to urban markets, the pesticide use is considerably high.

Ministry of Agricultural, Plant Protection Directorate has developed policy for judicious use of pesticides and safety regulations, such as biological, botanicals, and safe chemicals including indigenous knowledge of farmer's practices, as basic component of Integrated Pest Management. These are the basic components of IPM. The IPM-FFS was initiated in Nepal in 1997 with the support of Food and Agriculture Organization (FAO). It has been an important approach of pest control strategy which encourages applying measures that causes least disruption of agro-ecosystem. Therefore, establishment and functioning of bio-agent rearing laboratory, studies of locally available botanical

pesticides and residue study laboratories can exploit locally available natural resources of pest management and substantially help farmers, researchers, and policy makers to implement related acts and regulations effectively. Last year, PPD has established Rapid Bioassay Pesticide Residue Analysis Laboratory in the whole sale vegetable and fruit market at Kathmandu and success to minimize the residue in the vegetables and fruits.

The Integrated Pest Management (IPM) approach in Nepal was initiated in Nepal since 1997 within the Community IPM support Programme. During this stage, the programme was financially supported through FAO and was also operated in support of FAO and Plant Protection Division. Over the time, this programme has been run by Plant Protection Directorate (PPD) and been executed by the Ministry of Agriculture and Co-operatives, Nepal. The financial support from first phase (2003–2007) and for second phase (2008–2013) was received through Norwegian Government. PPD was coordinating role for its operation, where FAO-Nepal was remaining in the backstopping part in some of the selected intensive IPM districts. After completion of the IPM project, Nepal Government has internalized the programme and running continuously by the financial support of Nepal Government.

Nepal ratified IPPPC on 8 May 2006, although the country became a member of APPPC in 1965. It has been a signatory to all major international conventions related to plant protection and environmental issues. Acceptance of the revised Plant Protection Agreement (1983 and 1999) has been forwarded by the Plant Protection Directorate to Government of Nepal and hope will be deposited of acceptance to APPPC as soon as possible from Government side. Nepal became a member of WTO in 2004 and thus has committed and given high priority to fulfil the obligations, more particularly those related to SPS Agreement.

Plant Protection Act 1972 (Revised 2007) and Rules 1974 (Revised 2010) have been regulated since 1972 and 1974, respectively to comply with the principles of harmonization and equivalence. Plant protection and quarantine laboratories are being equipped to meet the standards set by IPPPC and get accreditation. To comply with WTO requirements, actions are progressing in delineating endangered area, area of low pest prevalence and pest-free area. Quarantine pests are being identified. To establish scientific basis of these zoning activities, pest surveillance and monitoring are being strengthened.

Now NPPO Nepal has officially declared total of 254 Pests of 18 commodities and endorsed 33 different NSPMs and directive on domestic quarantine. Out of 33 NSPMs, Nepal has prepared 16 national standards since 2013 to date. Web based pest information management software has been prepared and manpower from whole country are trained to handle in one phase. Local e-phyto service is going to start immediately from this fiscal year FY72/73.

Survey and surveillance programmes undertaken for establishment and maintenance of pest free areas for citrus orchards. Survey protocol for some important pest of citrus are published (fruit flies and some disease of Chinese quarantine concern) and implementing the survey programme throughout the country. NPPO also completed field based Surveys on the pests of 5 highly exported medicinal herbs. The Agriculture Development Strategy (ADS) is going to launch in this year and expected to guide the agricultural sector of Nepal over the next 20 years. Over the course of this period, the structure of the agricultural sector in Nepal will change considerably and agribusiness and non-farm rural activities will grow relatively to agriculture. Strengthened linkages between agriculture and other sectors in the economy will be critical to the reduction of poverty particularly in rural areas where the development of non-farm activities based on agriculture will be fundamental for the growth of an overall robust economy, a more balanced rural economy, and employment generation. The ADS action plan and roadmap are formulated in order to move towards the ADS vision formulated by stakeholders as follows: **“A self-reliant, sustainable, competitive, and inclusive agricultural sector that drives economic growth and contributes to improved livelihoods and food and nutrition security.”**

### 3.12 New Zealand

The Ministry for Primary Industries' (MPI) broad mandate allows for a wide view of issues and opportunities across the full value chain of primary production – from the paddock, forest or ocean, through to the processing and transportation system, all the way to the market, and ultimately the consumer. This scope allows for the deployment of staff across regulatory systems, such as compliance staff that hold warrants for fisheries, animal welfare and food safety. This increases the ability to respond to emergencies and breaches of regulations. MPI also provides independent policy advice to the government on all these matters.

In 2015 MPI is reviewing the New Zealand biosecurity strategy and developing a new strategic document to guide the biosecurity system for the next 10 years. This new strategy will be publicly available when completed. Biosecurity is a top priority for the Minister for Primary Industries. Key areas of new investment include: detector dogs, mobile X-ray machines, the introduction of a passenger clearance levy, an emerging risk system, and off-shore pathway assurance. Over the last 3 years New Zealand has been designing and implementing a new system for import health standards. New Zealand has in excess of 270 active requests for new market access requiring MPI to conduct risk analysis and development of new or revised Import Health Standards.

For surveillance for early detection of key insect pests, MPI is working with Plant and Food Research to investigate combining lures for several top priority pests into one surveillance trap. The development of integrated technologies in cell phones is revolutionising MPI's ability to process reports from the public of suspect new exotic pests and diseases.

MPI's Gypsy moth surveillance programme consists of approximately 1 500 delta traps containing disparlure placed at high risk sites. MPI's Fruit fly surveillance programme consists of approximately 7 650 Lynfield traps which are baited with one of the following lures: Cuelure, Trimedlure or Methyl Eugenol. MPI has initiated a Brown marmorated stink bug public awareness campaign in order to detect this pest as soon as possible if it arrives.

A project has been initiated to implement a single dedicated programme focused on delivering enhanced general surveillance. The outcome of the project will be to provide direction and coordination for MPI's general surveillance activities across all sectors (animal health, plant health, environment and aquatic).

A single male Queensland fruit fly (*Bactrocera tryoni*) was detected in a cue-lure trap in Grey Lynn, Auckland and reported to MPI on 17 February 2015. This trap was part of MPI's Fruit Fly Surveillance Programme. A total of 14 adult flies have been detected, 13 males through trapping and the single female collected by a member of the public. Based on the surveillance work to date MPI is confident that this is an isolated population and that eradication is achievable and likely.

The two main pieces of legislation covering the regulation of pesticides are:

1. Agricultural Compounds and Veterinary Medicines (ACVM) Act 1997 administered by Ministry for Primary Industries (website <http://www.mpi.govt.nz/importing/agricultural-compounds-and-veterinary-medicines>); and
2. Hazardous Substances and New Organisms (HSNO) Act 1996 administered by the NZ Environmental Protection Authority (website [www.epa.govt.nz](http://www.epa.govt.nz)).

Under the ACVM Act there are 1 448 registered agricultural chemicals with 367 active ingredients as at 25 August 2015.

### 3.13 Pakistan

Agriculture is the backbone of the economy of Pakistan. It is the main source of food, cloth and shelter in the country. Agriculture has vital role in rural sociology and provides employment to around 70 percent of population. Agriculture caters raw material to agro-based industries. The country is considered first ranked in agricultural production. Export earnings contributes in foreign exchange and Gross Domestic Production (GDP).

Agricultural productivity in Pakistan is prone to problem of pests and diseases that cause 20–50 percent economic losses. The Department of Plant Protection (DPP) with its well-versed wings viz. Locust Control, Aerial Pest Control, Pesticides Management & Registration, Plant Quarantine and Planning Wings performs regulatory, advisory, research and extension roles in the arena of plant protection in Pakistan.

Pakistan become signatory of the International Plant Protection Convention (IPPC) in 1954. The Department of Plant Protection, Government of Pakistan (DPP) is functioning as National Plant Protection Organization (NPPO) for Pakistan. The country evolved *Pakistan Plant Quarantine Rules, 1967* in light of Destructive Insect and Pests Act, 1914 and later on promulgated its own Act with the title: *Pakistan Plant Quarantine Act, 1976*. The mandate of DPP is to enhance the phytosanitary (plant health) capabilities of the country and to check pest and disease spread on crops. With signing of WTO-SPS negotiated IPPC in 1997, this mandate is to facilitate trade of agricultural commodities under WTO agreement on Sanitary and Phytosanitary (SPS). The DPP has signed 24 MoUs/Protocols with various countries on high-risk commodities to streamline the bilateral trade of agro-commodities. By keeping constant vigil through locust outposts established in interior of the deserts, regular field service, monitoring by e-locust/geographical information system (GIS), ground operations and Pak-Iran and Pak-India boarder meetings under FAO programmes, the Department of Plant Protection safeguarded 300 000 square kilometres area of Balochistan, Thar and Chohlistan deserts from catastrophic out breaks of locusts during the last five years.

Through aerial spray operation programmes, the Department of Plant Protection kept under control Dubas bug (*Ommatitus lybicus*) in the 13 000 acres Date Palm growing area of Balochistan during the last five years.

To avoid any shortage of pesticides, cope resistant pests, encourage local industry, save biodiversity and environment and ensure import, formulation, refilling-repacking and sale of quality and newly developed and safe pesticides at cheaper prices, the Department of Plant Protection is regulating the import and registration of agricultural pesticides in the country.

The DPP has been working on capacity building of Pakistani exporters and importers in compliance of WTO – Sanitary and Phytosanitary (SPS) regime/International Standards for Phytosanitary Measures (ISPMs) through signing of MOUs with fruit and vegetable exporters, importers and merchants associations, development of action plans for exports, awareness seminars/workshops, internship of students, surveillance programmes for development of pest free areas, on-farm supervision of growers, registration of mango orchards, registration of 29 hot water treatment plants, 33 packing houses for export of mango, establishment of 02 Vapour Heat Treatment (VHT) plants, survey of 250 citrus orchards, initiation of sea-freighted export of fresh mango fruit to European Union countries by opting system approach based controlled atmosphere (CA); initiation of projection on good agricultural practices (GAP), common facility packing houses, commercial scale VHT, pesticides testing, and individually quick frozen (IQF) technology etc.

### 3.14 Philippines

The Department of Agriculture's Bureau of Plant Industry (BPI) is the Philippine National Plant Protection Organization. One of its primary functions is crop protection. This BPI function is being implemented by the Crop Pest Management Division (CPMD) formerly the Crop Protection Division and the Plant Quarantine Service presently named the National Plant Quarantine Services Division (NPQSD) under the approved Rationalization Plan of the government.

The Philippine Department of Agriculture (DA) manages the implementation of the SPS Agreement. The DA Policy Research Service (PRS) is the SPS Notification Authority and Enquiry Point. SPS measures are implemented through the DA regulatory agencies which are responsible over animal and plant health protection. The BPI is responsible for SPS measures related to plant health. It conducts pest risk analysis, issues phytosanitary certificates and implements measures regulating international and domestic movement of plants and plant products. It maintains the country's pesticide residue analysis laboratories under the Plant Product Safety Services Division.

The Fertilizer and Pesticide Authority (FPA) was transferred to the Office of the President under the Office of the Presidential Assistant for Food Security and Agricultural Modernization (OPAFSAM) since May 5, 2014 under EO No. 165. FPA is responsible for implementation of international pesticide conventions and in establishing and enforcing maximum residue limits for pesticides in local and imported raw agricultural commodities. Maximum Residue Limits (MRLs) for pesticides is based on standards of the Codex Alimentarius Commission.

In terms of capacity building, the NPQSD conducted thirteen (13) local trainings/workshop and 40 international trainings and workshops were attended by plant quarantine officers.

In order to guarantee efficient and effective operation of PQ activities, respond to reports of pest outbreaks and ensure compliance with the provisions of International Standards for Phytosanitary Measures (ISPM) of the IPPC, a total of six (6) and PQ policies, rules regulations and protocols were formulated and/or amended by the Technical Working Group on Quarantine in 2013 and also six during the year 2014. Market access requests to export fruits and vegetables were the following: banana to continental USA; mango to Australia; mango to USA; banana to Guam, Hawaii & Marianas Island; banana, shallot and pineapple export to Indonesia and export of plant products to Viet Nam.

The CPMD in coordination with the Regional Crop Protection Centers (RCPC) and concerned Regional Field Offices (RFOs) conducted pest monitoring and surveillance in 16 regions of the country. Insect pests and diseases of significant importance like army worm, coconut and lanzones scale insects, rodent, rice black bug, rice grain bug, bacterial leaf blight and tungro were observed in almost all regions. Pests of major concern include coconut scale insect (CSI), cassava witches' broom and rice black bug. The CSI outbreak led to the issuance of the **Executive Order No. 169 – by President Benigno Aquino**. Protection, avoidance, management and suppression (PAMS) is now being initiated as a crop protection strategy.

### 3.15 Republic of Korea

#### Plant Quarantine Regulations

QIA is under process to revise Plant Protection Act in order to establish a legal basis for introduction of "Electronic Phytosanitary Certificate" by the end of 2015.

#### International Cooperation of Plant Quarantine

QIA held a mini-seminar on "Participation in IPPC meeting" utilizing the IPPC manual with invitation an expert from the IPPC Secretariat during the ASEAN training in 2014.

QIA also hosted the APPPC workshop on ISPM in Seoul and Busan, in 2013 and 2014, respectively, to discuss the draft ISPM and to collect opinions of the Asia-Pacific region.

In 2015, QIA again will host and financially support the APPPC workshop on review of draft ISPM in Jeju in October. The IPPC global symposium on implementation of IPPC e-Phyto will be hosted in Incheon, Rep. of Korea in November with financial contribution from Rep. of Korea for hosting and participation.

### **Updating of the list of regulated pests**

There are 2,043 pest species designated as quarantine pests including 73 species of prohibited pests by QIA as of September 2015. In accordance with ISPM 19, QIA uploaded the list of Korea's quarantine pests on IPP

### **Surveillance**

In May 2015, fire blight (*Erwinia amylovora*) outbreaks were reported in pear trees and apple trees in Republic of Korea and QIA and Rural Development Administration (RDA) is conducting field survey, epidemiologic investigation and emergency control. As of July 2015, eradication measures (destroy of the infected orchards with deep burial) have been completed in all 43 affected orchards and host plants in 100 m radius (additional 36 pear and apple orchards were destroyed). This outbreak has been notified to IPPC and trading partners immediate.

### **3.16 Samoa**

Functions of the Quarantine Division at the border include prevention of exotic pest introduction and facilitation of pest free exports. The regulatory and enforcement sectors deal with Implementation of Laws and Regulations and Implementation of Bilateral Agreements.

The Ministry of Agriculture's Quarantine Division has been allocated funding by the Food Agriculture Organization under its technical cooperation Programme (TCP) Assistance to revise the Bio-security Act 2005.

The Samoa Invasive Species Emergency Response Plan (SISERP) has been revised from the earlier ERP to take into account and be compatible with the many institutional and legislative changes in Samoa since 2003 including the passage of the "Quarantine (Biosecurity Act) 2005", the "Disaster and Emergency Management Act 2007", the National Disaster Management Plan (Government of Samoa 2006 and 2011) and the National Invasive Species Action Plan (Government of Samoa 2008).

The installation of the 3 new x-ray machines greatly assisted with the clearance of passengers and luggage during the Third International Conference on Small Island Developing States (SIDS) Conference held in Apia in September 2014. In November 2014, the Quarantine division received a new containerized fumigation chamber. The facility has been operational for 8 months to date. Procurement of this facility was made possible under the Pacific Horticulture and Agriculture Market Access (PHAMA) Programme. The construction of new PEQ was made possible via World Bank funding under the Samoa Agriculture Competitiveness Enhancement Project (SACEP).

The Quarantine service in collaboration with the Crops division, carry out monthly surveillance for exotic fruit flies. Over 60 lure traps are strategically positioned on the two main islands.

The Ministry of Agriculture and Fisheries continue to carry out several control measures to make sure the beetle populations remain below the threshold level. Biological control measures using the fungus and virus are applied in the villages on a monthly basis. Physical and cultural controls are encouraged at the community level.

There are ongoing training and awareness programmes with farmer groups on safe use and application of pesticides. Encouragement in the use of PPE when applying pesticides in the field to reduce applicator exposure, storage of pesticides and safe disposal of empty containers to avoid poisoning from re-use of containers for food/water storage.

### 3.17 Sri Lanka

Three ministries are responsible for implementation of plant protection and phytosanitary matters; namely, Ministry of Agriculture, Ministry of Mahawali Development and Environment, and Ministry of Health and Indigenous Medicine. However, Department of Agriculture in the Ministry of Agriculture plays the major role on plant protection, phytosanitary measures, pesticide and pest management, implementation of Plant Protection and Pesticide Acts in Sri Lanka.

During 2014, key organizational changes took place in the National Plant Quarantine Service (NPQS) in Sri Lanka. Accordingly, from year 2014 the NPQS is being administered by the Seed Certification and Plant Protection Center (SCPPC) which is one of the directorates of the Department of Agriculture (DOA) within the ministry of Agriculture, responsible for all the plant protection activities in Sri Lanka. NPQS is still serving as NPPO in Sri Lanka. Furthermore, completion of the regulated pest lists and regulations for Plant Protection Act No. 35 of 1999, improvement of export inspection area at NPQS, new recruitment of plant quarantine officers, supply of pest identification and surveillance equipment, and implementation of capacity building programme for quarantine offices were also carried out during this period.

At present, the enforcement convention on pesticides is undertaken at a relatively satisfactory level in light of the Control of Pesticides Act No. 33 of 1980 and regulations made thereunder. Over 37 highly toxic pesticides were banned from 1970 to date of which Glyphosate was the most recent addition. However farmers are still using pesticides though there are strong Integrated Pest Management (IPM) programmes to manage pest mainly for rice and vegetable cultivation. With respect to bio- and botanical pesticides, there was no significant development during this period. Therefore, well organized programme is necessary to develop and popularize the bio-pesticides among farmers. Biological control programmes implemented by Plant Protection Service have gained considerable momentum in the management of several pests mainly for two invasive aquatic weeds such as *Salvinia* and water hyacinth. Farmer and officer training programme on IPM and GAP were also carried out during this period.

No alien pest was identified during this period. However, large number of interceptions was recorded due to presence of pests and non-fulfilment of the import requirements. Continued interceptions by European Union (EU) consignments due to the presence of harmful organisms in foliage, fruits and vegetables is one of the major challenges faced during this period. The NPPO Sri Lanka elaborated an action plan to address the problem and to overcome the situation by improving the plant health checks and procedures for issuing phytosanitary certificates, establishing the division of agribusiness counselling to monitor the cultivation, harvest and post-harvest handling including transport and packing of plant produce destined to export and encouraging to follow integrated pest management practices at field level through newly recruited CAB (counselling for agri-business ) officers by the Department of Agriculture. Island wide fruit fly and melon fly management programme also implemented successfully with multi stake holder participation.

Government has given high priority to removal of high risk pesticides from the market. Furthermore, registration of pesticides, re-registration of pesticides registered six years before 2013 after providing proven tests on bio-efficacy, registration of companies engage in pesticide business, advertisement for pesticides, stricter vigilance on illegal import of pesticides, actions on pesticide empty container management programme etc. also implemented to minimize the risk of pesticides under the Control of Pesticides Act No. 33 of 1980. Pesticides quality and pesticide residue analysis of food product

also started after establishment of testing laboratory under registrar of pesticide. Status management of obsolete pesticides was also shown that there were insignificant stocks of obsolete POP pesticides in Sri Lanka and there are no records of production and/or formulation of POP pesticides in Sri Lanka and hence production discards are almost non-existent.

The implementation of ISPMs has been carried out in stages, depending on the requirement in trade, staff capacity and the degree of complexity. Therefore, NPPO, Sri Lanka identified some ISPM areas with lack of staff such as ISPM 6, ISPM 10, IPM 26, ISPM 18, ISPM 15e etc. and the country is expecting some implementation assistance such as training, manuals etc.

### **3.18 Kingdom of Thailand**

#### **General information**

During 2013-2014, there have been several major events and developments in plant protection in Thailand. The Ministry of Agriculture and Cooperatives (MOAC) has assigned the National Bureau of Agricultural Commodity and Food Standards (ACFS) as the focal point for WTO-SPS/TBT (Codex Alimentarius, OIE and IPPC), the Department of Agriculture (DOA) as National Plant Protection Organization (NPPO), the Department of Agricultural Extension (DOAE) is the agency provide advice, training of pest management and pesticide advisory in the country.

#### **Phytosanitary matters**

##### **(1) Import and export**

DOA has published import requirements justified by pest risk analysis in the Government Gazette on 30 import requirements of 22 kinds of plants and plant products from 9 countries and had issued 305 308 and 325 361 copies of paper Phytosanitary Certificate (PC) respectively in 2013 and 2014. There are 351 registered producers, 243 for HT and 108 for MB which have been certified by DOA and allowed to stamp IPPC mark on treated wood packaging materials.

##### **(2) Capacity building workshops**

(2.1) In 2013, the regional training workshop on biological control agents (BCA) was facilitated by the Department of Agricultural Extension (DOAE) in collaboration with APPPC Standing Committee on IPM. The objectives of the workshop were to provide participants with updated information and training course on the BCA.

(2.2) In 2003, ACFS facilitated the APPPC systems approach workshop, which was organized under collaboration between Department of Agriculture, Fisheries and Forestry (DAFF), Australia and FAO Regional Representative for Asia and the Pacific (FAO-RAP). The workshop focused on integrated measures in systems approach for pest risk management in line with ISPM No.14.

(2.3) In 2013, the inception workshop of project “Support to capacity development in implementation of pest surveillance and information management in Southeast Asian (GCP/RAS/286/ROK)” which was organized by FAO-RAP in collaboration with Korean Government. It has emphasized on the importance of pest surveillance.

(2.4) In 2014, DOA facilitated the organization of APPPC workshop on building understanding and preparedness for electronic phytosanitary certification. The workshop provided an opportunity for participants to review the existing electronic systems relating to phytosanitary certification and the systems that are under development, in addition to look at the issues and gaps of future systems and areas for collaboration.

### **(3) Information exchange**

Thailand through ACFS posted information on both IPPC and APPPC websites. They were, for example, DOA's specific survey on pest status entitled "Absence of *Pantoea stewartii* subsp. *stewartii* from Thailand", 15 items of rules or legislations of pesticides under Hazardous Substance Act (No. 3) B.E. 2551 (2008) and the event of the 9<sup>th</sup> international symposium on fruit flies of economic importance (ISFFEI).

### **(4) Establishment pest list database**

Since 2013, ACFS has developed a system to verify the reported or published pest names of Thailand by facilitating the examination of the accuracy and updating the information at the same time. The name of pests after verification and updating have been gradually placed in database and proposed to the Verification of Phytosanitary Database Committee for approval. This database would be the most updated pest lists of Thailand which can assure a high level of accuracy.

### **Surveillance activities**

DOA has conducted the specific surveys in line with ISPM 6 to obtain information on diseases in crops to determine their status on specific sites of each crops over a defined period of time. Since 2010 until now, there have been many specific surveys such as:

(1) Survey on leaf blight and vascular wilt disease of maize (*Pantoea agglomerans*) to support declaration that corn seed production area for exportation are free from this disease. The survey was taken during 2010–2013 at 155 sites of corn seed production area for exportation throughout the country.

(2) Survey on smut fungi, disease of shallot and garlic (*Urocystis cepulae*) to support declaration that shallot and garlic production areas for exportation are free from this disease. The survey was taken during 2011–2013 at 393 sites of shallot and garlic production area for exportation throughout the country.

(3) Survey on disease(s) caused by *Pseudomonas syringae* pv. *syringae* to support declaration that Thailand free from this disease, particularly it has never been detected on onion and garlic. The survey was taken during 2010–2013 at 10 provinces in the onion and garlic production areas for exportation. It has taken 93 samples to identify in the DOA's laboratory using Arginine dihydrolase test and PCR method, both results showed all samples were negative.

(4) Survey on corn downy mildew to support declaration that the cause of disease is *Peronosclerospora sorghi* not *Peronosclerospora philippinensis*. The survey was taken during 2010–2013 in 184 sites of corn seed production area throughout the country.

### **Pest management**

DOAE has been monitoring the outbreak situations in the fields of 2 pests, the pink cassava mealybug (*Phenacoccus manihoti*) and black-headed caterpillar (*Opisina orenosella*) and recommended using integrated pest management approach to control them. The IPM measures for pink cassava mealybug were such as cultivation, pesticide treatment of cassava stem cuttings, survey and observe the infestation, use of biological control agent (*Chrysopa basalis* and *Anagyrus lopezi*), and use of clean cassava stem cuttings. For black-headed caterpillar, DOA has conducted research on chemical control by trunk injection for coconuts taller than 12 meters. DOAE has taken the research results from the DOA and recommended that farmers should cut and burn the leaves that were destroyed before injection.

## **Pesticide management**

Thailand as a member of Rotterdam Convention, Stockholm Convention and Montreal Protocol has managed pesticides in line with the mentioned conventions and protocol. The major functions in pesticide management include pesticide registration and development of recommendations on pesticides uses. DOA issues a notification on registration and licenses which requires that data for registration of pesticides must be generated by laboratories that are Good Laboratory Practices (GLPs) certified according to OECD Standard. This requirement also applied to toxicological data of technical grade materials and finished products. The registration and license certificate in the manufacturing country must be certified by the competent authority, representative of the country and shall be recognized as an international document (legalized). As of 2014, 98 pesticides were banned in Thailand including EPN and dicrotophos.

### **3.19 Timor-Leste**

The National Plant Protection Organization (NPPO) of Timor-Leste has been involving the Plant Protection Department of the National Directorate of Agriculture and Horticulture (PPD-NDAH) and Plant Quarantine Department of the National Directorate of Quarantine and Bio-Security (PQD-NDQB) to manage and run the activities which are related to the objectives of NPPO.

PPD-NDAH has the role to run the activities of controlling pests and diseases by applying the integrated pest management (IPM) and pesticide management (PM) in the country.

The legislation and regulation of Timor-Leste give relevant duties and authorities to PQD-NDQB for the implementation of WTO-SPS Agreement to conduct supervision on phytosanitary measures in the part of import and export, uses plant quarantine measures for inspection, isolation, observation, treatment, detention, refusal for entry into the country, destruction and release of agricultural products which are using air, water and land transports.

Annual surveys on pests, diseases and weeds in Timor-Leste are conducted jointly with the Australian Department of Agriculture/experts from the northern Australian Quarantine Strategy (NAQS) entomologist, botanist and plant pathologist. The Australian experts have also been providing training and help us in identifying all the sample survey in Timor-Leste, and from that result, we have made the pest list in software database P-tracker. Mostly, all samples are stored in Timor-Leste and largely backed up in Australia. This is in accordance with the regulation of ISPM 6 and ISPM 19.

All kinds of chemical pesticides that are currently in use by farmers in Timor-Leste are imported because Timor-Leste does not produce either chemical or organic pesticides. Any importation of chemical pesticides needs the authorization from the National Directorate of Agriculture and Horticulture (MAF). The Government of Timor-Leste always adopts the regulations of World Health Organization (WHO) in regard to the use of pesticides. The types of chemical pesticides that are authorized to be imported into Timor-Leste are: Class I (High risk), II (Medium risk), and III (Low risk), such as pesticides under the class of Carbamat, Carbofuran, Carbaril. However due to lack of personnel in the field, the control of the movement of pesticides into the country is weak, causing, in many cases, the importation of unauthorized pesticides into the country.

One of the major constraints to improve the capacity of the PQD-NDQB to implement SPS-WTO Agreement on plant health sanitary controlling is limited budget allocation. Since 2013, our annual budget allocation still cannot cover all relevant activities.

Due to that situation, Timor-Leste has not been able to implement the SPS in accordance with the recommendations and the international standards.

In addition, lack of infrastructure has prevented us to implement quarantine measures for observations. Therefore, samples of the interceptions of quarantine pests have not been collected.

However, the Government of Timor-Leste planned to allocate budget for the establishment and provision of adequate infrastructure, lab equipment and material, software database, legislation, regulations, human resource, etc., for the implementation of phytosanitary certificate in accordance with International Standards for Phytosanitary Measures (ISPM) 12 next year (2016).

### **3.20 Kingdom of Tonga**

(extracted from the full country report)

The Quarantine and Quality Management Division is the OCP for IPPC and APPPC. The NPPO is the Ministry of Agriculture, Food and Forestry (MAFF). There has been intensive efforts in trade facilitation by the NPPO through market access requests of fresh agricultural produce and also to improve current export systems.

#### **Trade**

The Ministry of Agriculture, Food and Forestry is the WTO-SPS representative for Tonga and was involved in Tongas WTO policy review in February 2014 at Geneva, Switzerland and in other regional trade agreements.

Bilateral talks were held with the NPPO of New Zealand, Samoa, American Samoa.

All fresh fruitfly host commodities pathways to New Zealand via the high temperature forced air facility were suspended by NZ MPI in March 2015. Talks between New Zealand MPI and Tonga MAFFF are currently ongoing towards resolving the issues of concern and eventually lifting the suspension.

#### **Legislation**

The Biosecurity Bill was resubmitted to parliament in 2014 but was returned with the need for amendments.

The first Food Safety Act 2014

#### **Research activities**

##### **1. *Colocasia esculenta* breeding for resistance to taro leaf blight (TLB)**

*C. esculenta* is a major root crop for domestic consumption and exports. None of the cultivars grown in Tonga are resistant to TLB which has established in nearby countries. Several TLB resistant cultivars of *C. Esculenta* have been introduced to Tonga from regional collections for breeding purposes.

##### **2. *Efficacy of Insecticides to control the diamond-back moth *plutella xylostellae*.***

New insecticides are being trialled for efficacy in the control of DBM on brassicas.

#### *Pesticide Imports and Safety*

The total volume of pesticides imported to Tonga has increased at an alarming rate by 59 percent from 2012 to 2013, and by 11 percent from 2013 to 2014.

The main reasons for the huge increase in use of herbicides are: first, the increase range of uses, not only for weeds control of commercial crops but has extended to weeds control of subsistence food crop production, residential homes and public infrastructures, etc.; second, the high cost of manual labour of about \$5 to \$8 per hour favours the lower cost of herbicides.

For fungicides and insecticides, the production of squash for export since 1987 has been the main user of fungicides and insecticides, and to a lesser amount for production of watermelon and vegetables.

Tonga is a party to the Rotterdam Convention in 2010.

### **Sea containers**

Tonga has joined the sea container hygiene scheme which is a government-to-industry agreement developed to manage the biosecurity risks associated with sea containers arriving in New Zealand from countries in the Pacific region. Tonga has 3 accredited sea container cleaning facilities within this scheme. The scheme has led to huge improvements in the compliance of sea-containers entering New Zealand from Tonga.

Interceptions of giant African snail, common garden snail, other impurities have led to numerous cases of non-compliant containers entering Tonga. The relevant NPPOs have been notified formally.

### **Notification**

The website for Tonga NPPO has been upgraded [www.quarantine.gov.to](http://www.quarantine.gov.to). A facebook page has also been established as **Tonga Quarantine**.

### **Conclusion**

Despite the pressure at the national level to increase the trade in fresh agricultural produce there is also the need to focus on a holistic approach to in terms of plant protection. Where there is the importance of all stake holders playing their role in a public private partnership. There is also the need to strengthen the NPPOs role in the improvement of import and export systems. Good export systems can only be strengthened with good border security and import systems as there is a growing threat of exotic species worldwide that are spreading quickly across the globe.

### **3.21 Viet Nam**

The role of state management over plant protection has been emphasized. This is proved in the efforts to develop the Law on Plant Protection and Quarantine for some years. This Law came into force on 1 January 2015 and replaced the Ordinance on Plant Protection and Quarantine. Under the law, Decrees and Circulars have been issued by the Government and Ministry of Agriculture and Rural Development respectively to provide for plant protection, plant quarantine and pesticide management. Such legislation also learned from the tendency of regulatory harmonization.

In an attempt to reduce pesticide risks, a lot of environmentally sustainable approaches have been being promoted in plant protection activities. Based on the success of the integrated pest management (IPM) programme supported by FAO and various agencies in 1990s and 2000s, IPM continues to be focused on the Government agenda and developed to different crops. Particularly, besides the application to the crops for domestic use, it is being promoted for the export produces like dragon fruit.

Plant quarantine is paid increasing attention, to both domestic quarantine and import/export, to prevent quarantine and exotic pests from damaging Viet Nam's agriculture. The relevant legislation has been developed and transparently published to facilitate international trade. Capacity of the inspectors and related staff in quarantine sectors has been much enhanced to help them intercept quarantine pests and deal with such interceptions.

For pesticide management, Viet Nam observes the FAO international code of conduct on pesticide management and is moving towards more environmentally friendly pesticides to have products with

residue under maximum residue levels. However, one of the big challenges now is management of pesticide containers.

In order to strengthen the legislation implementation, the enforcement from Plant Protection Department and its network is being enhanced. Particularly, besides the specialized inspection over pesticide trading and manufacturing facilities, pesticide use in the field is increasingly focused in Viet Nam.

### **3.22 Country, regional and international organization reports**

#### **3.22.1 Japan**

Japan continues to improve its plant protection systems in conformity with the International Plant Protection Convention, the WTO-SPS Agreement and relevant international standards on phytosanitary measures since the 26<sup>th</sup> session of the APPPC.

The Ministry of Agriculture, Forestry and Fisheries (MAFF) is mainly responsible for plant protection and plant quarantine services to control and prevent the introduction of pests of plants and plant products. The Plant Protection Station (PPS) of MAFF is responsible for implementation of import/export inspections and supervision of disinfestation treatment. The PPS of Japan consisted of 5 head offices, 16 sub stations, 45 branches and 889 plant quarantine officers who are authorized by the NPPO to implement appropriate inspection/certification.

MAFF is working closely with pest control stations run by prefectural governments to conduct monitoring surveys to detect infiltrating pests at an early stage, and engage in emergency eradication, where necessary. Domestic certification systems are under operation for seed potatoes and major fruit tree seedlings and regulating the movement of plant from outbreak area to non-outbreak area.

MAFF provided the specific guidelines for the crop of rice, cabbage, citrus, soybean, tomato, strawberry, pear, apple, tea, chrysanthemum and sugarcane to facilitate implementation of IPM for individual famers.

MAFF revised the Enforcement Ordinance of the Plant Protection Act (Ministerial Order) in February 2014 to stipulate the list of quarantine pests with a view to meeting the requirements of the IPPC. MAFF continues to update the list based on PRA.

The training course on disinfestation technique using thermal treatment on fruit fly has been organized since 1988 with trainees being invited from countries which are affected by fruit fly. As a multilateral contribution, Japan financially supported through a trust fund a field project on phytosanitary capacity-building, targeting 10 countries, from 2007 to 2011. The project was implemented by the FAO. Japan provided trust fund for the IPPC Secretariat to support its activities on capacity developing for the purpose of comprehensive improvement of the phytosanitary capacity in developing countries, especially of Asian countries from 2012 to 2014.

## **4. Overview and update of the IPPC**

This report was presented by Dr Kyu-Ock Yim, Chairperson of the IPPC Commission on Phytosanitary Measures. Since the 28<sup>th</sup> APPPC session in Jeju, Republic of Korea, two CPMs had been convened. Between the CPMs there were many regular meetings such as those for the Bureau, Financial Committee (FC), Strategic Planning Group (SPG), Standards Committee (SC), Capacity Development Committee (CDC), National Reporting Obligation Advisory Group (NROAG), Subsidiary Body for Dispute Settlement (SBDS), e-Phyto Steering Group, and special meetings on the Standards framework, Implementation programme and concept of standards etc.

## **CPM Chairperson and Vice Chair**

Dr Kyu-Ock Yim, Republic of Korea was elected as a CPM Chairperson in the 9<sup>th</sup> CPM 2014. She chaired the 10<sup>th</sup> CPM 2015 and expressed sincere thanks to the Contracting Parties and delegates of CPM 10. In her Bureau update she said “It was the first CPM for me as a chairperson and I know it would not be successful without your active participation and cooperation. I felt warmly supported and a strong collective interest to move issues and decisions forward throughout the CPM week...”. And CPM 10 Ms Lois Ransom, Australia was elected as the Vice Chairperson. According to the agreed rotation rule the Southwest Pacific region will provide the next CPM Chairperson who will be elected at CPM 11 2016.

## **New Secretary, Dr Jingyuan Xia**

Dr Xia, the new IPPC Secretary started his work in May 2015. In the June Bureau meeting, Dr Xia expressed his vision of the IPPC and stressed the importance of increasing the visibility of the IPPC. The Bureau recognized his expertise, leadership and knowledge of the FAO systems and his strong relationships with key officials in various international organizations.

## **Secretariat enhancement evaluation**

The Secretariat enhancement evaluation was established at CPM-9. The result of the evaluation report was submitted early 2015 but CPM 10 did not have enough time to discuss it in detail. The CPM 10 authorized the Bureau to review the comments, engage with the new Secretary and FAO in a plan to initiate feasible actions, including the development of a practical mechanism to monitor and track the implementation work of the IPPC.

Generally all the recommendations were supported except the suggestion regarding biennial full CPM sessions and abolishment of various committees including the FC, SPG, CDC, SBDS, NROAG etc. The Bureau rejected these recommendations, mainly because they were seen as beyond the scope of this evaluation. However, the Bureau recognized the value of revisiting these suggestions in future, especially those that are feasible in conjunction with the review of CDC.

The concept of restructuring the Secretariat into two main units, the Standard Setting Unit and Implementation Facilitation Unit, was well supported. However, the Bureau suggested that the attribution of tasks and timing of this staff restructure implementation should be decided by the Secretary. In addition, the Secretary suggested that a third important core function, ‘communication and partnership’ should be established.

The detailed bureau response is in the report of CPM Bureau on the IPP. This evaluation was financially supported by Australia, USA and the Netherlands. Many experts contributed through interviews and reviews of the report.

## **e-Phyto**

The e-Phyto programme is an area of IPPC activities that needs real and timely progress. The e-Phyto hub feasibility study was reported in the CPM 9 and the Contracting Parties strongly supported the development of a hub at the CPM 10. However, the STDF/WTO did not approve the IPPC proposal regarding the funding of the development of global hub. The Bureau sent a letter to the e-Phyto Study Group directing the group to revalidate the benefit and feasibility of the global hub as well as considering the costs and requirements for undertaking a pilot of a global hub system on a small scale. The STDF will be approached for funds again and other possible donors may be contacted with the revalidation results to expedite the hub development.

The global symposium on e-Phyto implementation to be held in Republic of Korea in November 2015 will provide more information not only on technical aspects but also on the adaptation of e-Phyto into existing phytosanitary certification systems, legal and capacity aspects, and country experiences with various stages of e-Phyto implementation.

### **International year of plant health (IYPH)**

The proposal of IYPH was widely supported in CPM 10. During the FAO conference in June 2015, Finland made an intervention which was supported by 14 countries and it will be included as an agenda at next FAO Council and Conference.

### **Standard setting**

CPM 9 adopted 4 ISPMs<sup>1</sup> which includes Appendix 1 to ISPM 12 on e-Phyto but 8 drafts were officially objected and returned to the SC. CPM 10 adopted 9 ISPMs but agreed to return 3 drafts back to the SC. Standard setting is the most authentic activity of the IPPC which requires huge resources. However, recently quite a few drafts have not been adopted at CPM. To have more strategic and efficient standard setting procedure, the Framework for Standards and Implementation, the concept of standards and the ISPM adoption procedure are under discussion.

### **Finance**

The regular budget from the FAO has been approved for next 2 years at the same level as previous years. However, concern was raised that the IPPC multi-donor trust fund was running short due to reduced contributions (less than 40 percent of 2014's input) and increase in contracted staff. Owing to many critical activities dependent on trust funds, more active efforts for sustainable funding are necessary and at the same time a strategic approach to increase the FAO regular budget is required. The FC, the Bureau, and the Secretariat continue to seek an improved mechanism for funding especially in conjunction with IYPH. The many activities of IPPC such as IYPH, implementation pilot programme, capacity development projects and translation etc. that largely depend on the trust funds. This year the multi-donor trust fund is at a very low level and this may cause cancellation of important activities in 2016.

## **5. Developments with the amendments of the Plant Protection Agreement for the Asia and Pacific region and development of the APPPC**

### **5.1 Update on the acceptance/ratification of the Agreement**

Dr Piao reviewed the situation. There has been no change since the last meeting. Three countries (Australia, Republic of Korea, and Timor-Leste) have endorsed the amended agreement.

## **6. Progress report on information exchange within the region background**

Exchange of information on plant protection including plant quarantine, pest surveillance, pest outbreaks and pest management as well as pesticide management has played an integral part of Asia and Pacific Plant Protection Commission's (APPPC) activities. The advent of the internet provides opportunities for the APPPC and non-APPPC members in Asia and the Pacific to use a website as an effective and efficient platform to exchange their plant protection information more efficiently.

In collaboration with the Secretariat of the International Plant Protection Convention (IPPC), a new website ([www.apppc.org](http://www.apppc.org)) of APPPC has been developed in 2011. To make it user-friendly, the initial

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<sup>1</sup> Link to IPPC adopted standard

overall structure of the APPPC website has been mainly based on the contents of the APPPC publication on plant protection profiles from Asia-Pacific countries as an entry-point. Following the launch of the website, it was expected to get feedback from the member countries for their ideas about how to improve the website so that it meets more effectively with the member countries' needs.

The APPPC website serves as a platform to exchange plant protection information, including plant quarantine, integrated pest management (IPM) as well as pesticide management. To avoid duplication of the required information on plant quarantine to be uploaded into the IPP under IPPC, automatic cross-linking between the APPPC website and the IPP has been established in this specific area.

It was suggested that APPPC members regularly update their country information on the APPPC website. This would include new developments in plant protection including changes of regulations, legislation, policies, organizational change, implementation of ISPMs/RSPMs, pest outbreaks and control, list of regulated pests, registered and/or prohibited pesticides, ecological approach, training activities, projects, publications, etc. in addition to the required report. It was also recommended that each member country may establish an internal mechanism of information collection, verification, dissemination and uploading.

### **Updates on information exchange activities through APPPC website**

The APPPC Secretariat monitors the information exchange activities on a regular (quarterly) basis and encourages the members to make use of this information exchange platform. The APPPC Secretariat also produced and distributed detailed analytical report based on the regular monitoring results periodically.

The APPPC Secretariat has continually worked on improving the APPPC website adjusting it to integrate similar sections and sub-sections, make it more compact and minimize duplications. Emphasis was placed on enabling users of the website to find similar information at the same location and included the transfer of information from the following sections to their respective related sections:

- a) Information from Standards Committee to Plant Quarantine,
- b) Information from Standing Committee on Plant Quarantine to Plant Quarantine,
- c) Information from Standing Committee on Pesticide Management to Pesticide Management, and
- d) Information from Standing Committee on IPM to Pest Management.
- e) Information from surveillance and pest outbreaks to Plant Quarantine and Pest Management,
- f) Subsection Development of Regional Standards on Phytosanitary Measures moved under List of RSPM.

Furthermore,

- a) The old website was updated and new websites provided and links to the FAO pesticide website for the official information on explanatory reference on the new Code of Conduct. A new amended Code of Conduct with brief explanation on the differences between previous and new version was uploaded.
- b) Websites and links to the FAO IPM website for the official information on explanatory reference materials were uploaded.

As was requested after different APPPC meetings a number of new pages were created such as:

- a) New tab-e-Phyto under the APPPC Standing Committee on Plant Quarantine. All information related e-Phyto is now uploaded to this page as well as useful websites and links to the IPPC e-Phyto

- b) Page “Pesticide database” under the APPPC Standing Committee on Pesticide Management. The database includes lists of registered pesticides, prohibited, banned and restricted pesticides respectively.

Current “News” and “Calendar” pages received additional features, such as:

- a) New column to the calendar on which section is belonged to specific event.
- b) New sorting method based on various locations so the news items can be sorted by “originally located”.
- c) New sorting method based on various locations so the publications items can be sorted by “originally located”.

Some pages of the APPPC website were deleted to avoid redundancy and duplication. This also was done due to inactivity from the countries on the specific pages. Thus, following pages were deleted:

- a) Deleted pest surveillance and pest outbreaks page
- b) Delete implementation of ISPMs/RSPMs in the region and its contents.
- c) Deleted page “others”

The APPPC Secretariat is regularly sending correspondence to the IPPC official contact points on recent improvements of APPPC website, news from relevant international organizations, international conventions, RPPOs, NPPOs, FAO and IPPC. Thus, the following information (but not limited to), was communicated through the APPPC website and as well as send via email in some cases:

- a) NPPOs were informed on regular NRO communication from IPPC
- b) Communication to NPPOs on the document Management of Huanglongbing and its vector, the Asian Citrus Psyllid, *Diaphorina citri* which is available on the NAPPO website for country consultation
- c) Communication calling for relevant information with regard to the proposal for the inclusion of a severely hazardous pesticide formulation containing Dimethoate 400g/l (Emulsifiable concentrate EC) in Annex 3 of the Rotterdam Convention was posted on APPPC website
- d) Information about achievements and news of some NPPOs was posted on APPPC – such as Nepal, implementation of NPPO activities in Nepal as rules of IPPC and number of surveillance protocols
- e) Ministry of Agriculture and Cooperatives of Thailand has been selected the winner of the FAO Edouard Saouma Award 2014-2015
- f) First e-Phyto APPPC News from the Working Group
- g) Reports and materials from each workshop that was convened in 2014-2015

Some additional news, events and websites/weblinks were posted under relevant pages. Continues communication with the IPPC Secretariat, requesting for their support in implementing the proposed changes. In addition, APPPC regularly update APPPC calendar, keep track of OCP changes in courtliness (Australia, Bangladesh, Malaysia, Myanmar, etc.).

APPPC Secretariat also has produced and distributed to all member countries as well as uploaded to the APPPC and RAP websites a number of publications such as:

- RAP Publication 2015/01 Progress in pesticide risk assessment and phasing out of highly hazardous pesticides in Asia
- RAP Publication 2014/10 APPPC RSPM No. 10 *Approval of fumigation facilities*
- RAP Publication 2014/09 APPPC RSPM No. 9: *Approval of irradiation facilities*
- RAP Publication 2014/03 Report of the 28<sup>th</sup> session of the Asia and Pacific Plant Protection Commission

In addition, information exchange activities also include regular website maintenance, monitoring status of country updates, staffing assistance, publications, communication and providing guidelines on use/ uploading the information to the APPPC website.

## **7. Progress report on plant quarantine in the Asia and Pacific region**

### **7.1 Report by the Chairperson of the Standing Committee**

The Chairperson of the Standing Committee, Dr J. Hedley, New Zealand, reported on the following activities for the 2014-2015 biennium, funded by sponsors and APPPC funds available from the operational funding mechanism.

The meetings held included:

- 14<sup>th</sup> APPPC Asia regional workshop for the review of draft ISPMs, 28 October–1 November, 2013, Seoul, Republic of Korea,
- 15<sup>th</sup> APPPC Asia regional workshop for the review of draft ISPMs 15–19 September 2014, Busan, Republic of Korea,
- Pre-CPM meeting with APPPC members, 30 March 2014, FAO, Rome
- Pre-CPM meeting with APPPC members, 15 March 2015, FAO, Rome
- APPPC systems approach workshop, 4–8 November 2013, Bangkok, Thailand
- APPPC surveillance information management workshop, 2–6 June 2014, Kuala Lumpur, Malaysia
- APPPC-NAPPO joint workshop on implementation of ISPM 15: Regulation on wood packaging in international trade, 10–14 June 2014, Beijing, China
- APPPC workshop on building understanding and preparedness for electronic phytosanitary certification, 28–30 October 2014, Bangkok, Thailand
- APPPC workshop on biosecurity implementation of south American leaf blight of rubber, 12–16 January 2015 in Bangkok, Thailand
- APPPC working group meeting on the preparation of the work plan For 2016-2017, 13–15 May 2015, Bangkok, Thailand

Details of the meetings and workshops are provided below:

*14<sup>th</sup> APPPC Asia regional workshop for the review of draft ISPMs, Seoul, Republic of Korea, 28 October–1 November 2013*

The following drafts were examined and commented on by participants:

- Movement of growing media in association with plants for planting in international trade.
- Phytosanitary procedures for fruit fly (Tephritidae) management. Minor amendments were proposed
- Minimizing pest movement by sea containers.

*15<sup>th</sup> APPPC Asia regional workshop for the review of draft ISPMs, Busan, Republic of Korea, 15–19 September 2014*

The following drafts were examined and commented on by participants:

- Amendments to ISPM 5: Glossary of Phytosanitary Terms (1994–2001)
- International movement of used vehicles, machinery and equipment (2006–2004)
- International movement of seeds (2009–2003).

*The Pre-CPM meeting with APPPC members, 30 March 2014, FAO, Rome*

*The Pre-CPM meeting with APPPC members, 15 March 2015, FAO, Rome*

The countries attending these meetings (15 in 2014 and 13 in 2015) used the pre-CPM meetings to be updated on issues by the Bureau members and to discuss matters of particular concern to those members attending the meetings.

*APPPC systems approach workshop, 4–8 November 2013, Bangkok, Thailand*

The key principles of systems approaches (SAs) were outlined and then discussed in a series of exercises. The first involved the consideration of the principles and the way they affect the use of measures. The process of pest risk analysis was described with the stages of initiation, pest risk assessment and pest risk management. A second exercise outlined the chain of events in pathways (a pathway being any means that allows the entry or spread of a pest) concerning pests with several commodities. The options for pest risk management that a SA provides were studied. The third exercise discussed the biological characteristics of quarantine pests along with factors that influenced risk including the influence of commodity end-use, of commodity processing, of plant propagation materials and of audit and verification procedures. Participants then looked at the building of an SA. System features such as the use of independent and dependent measures, traceability, management of records, verification/audit, and the management of contingencies were discussed. The importance of industry cooperation and compliance were stressed.

In the next exercise participants were asked to consider developing an export SA and in the final exercise were asked to build export market access requests followed by access negotiations. The results of the negotiations were then documented for presentation. The workshop evaluation indicated the workshop had been well received.

*APPPC surveillance information management workshop, 2–6 June 2014, Kuala Lumpur, Malaysia*

This workshop, a continuation of the APPPC work programme on ISPM 6, was to train biosecurity surveillance staff in the use of electronic field surveillance data collection tools for the collection of field data, data consolidation, data verification, data management and analysis. The agenda included detailed presentations on the use of the electronic surveillance data collection, the P-tracker (pest tracker) including a field day to demonstrate the tools and collect surveillance data. The system is known as the Surveillance Information Management System (SIMS) and uses a tablet or smart phone with a suite of software applications. This was followed by discussions on the consolidation and verification of data, and on the management and analysis of the surveillance data.

*APPPC-NAPPO joint workshop on implementation of ISPM 15: Regulation on wood packaging in international trade, 10–14 June 2014, Beijing, China*

This workshop was organized by the APPPC and the North American Plant Protection Organization (NAPPO) and hosted by the Ministry of Agriculture (MOA) and the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) of the People's Republic of China.

Each of the 15 countries present noted their experiences in the implementation of ISPM 15. This information showed that: each of the countries present had implemented ISPM 15 for export, although a few countries had not yet implemented for import; ISPM 15 had significantly reduced the likelihood of the introduction of forestry pests; the majority of non-compliances are associated with WPM without the mark, and infestation is probably higher where WPM is not marked. There still continues to be a significant number of pest interceptions associated with WPM with the ISPM 15 mark.

The workshop made a series of recommendations including that NPPOs: with technical experience should share information related to their procedures by posting these on the IPPC phytosanitary resources page; should consider the addition of serial numbers, date codes, and other security elements (outside the IPPC mark) which may assist in protecting the mark by adding components of traceability; should update contact information on the IPP and should consider publishing a specific contact point for issues related to wood packaging; and should undertake outreach and education particularly of those exporters found to be using non-compliant wood packaging materials. The meeting also recommended to CPM that it considered holding an international workshop on ISPM 15 to improve harmonized implementation and compliance.

*APPPC workshop on building understanding and preparedness for electronic phytosanitary certification, 28–30 October 2014, Bangkok, Thailand*

Each participating country presented a report on their situation with the use of electronic and hard copy phytosanitary certificates. Australia, the Netherlands and New Zealand described developments in electronic certification. Participants reviewed the results of the pre-meeting survey discussing, as regards e-Phyto, benefits, obstacles, industry's' roles, constraints to the hub, elements of model legislation and a generic system for e-Phyto.

A series of action recommendations were developed at the country level, the regional level, for the e-Phyto Steering Group (the IPPC international steering group), and for the Commission on Phytosanitary Measures (the IPPC governing body). The most important point was that there was general agreement among participants that the APPPC should establish an APPPC e-Phyto guidance committee.

*APPPC workshop on biosecurity implementation of south American leaf blight of rubber, 12–16 January 2015 in Bangkok, Thailand*

The workshop was for rubber growing countries of the APPPC region and included training exercises that covered: the effect of SALB PRA and ISPMs/RSPMs; agriculture trade procedures for commodities from south American SALB infested countries; surveillance systems to maintain pest free areas (PFAs); the introduction of P-tracker as a tool for surveillance data management and sharing of information; the management of SALB; quarantine guidelines; and the creation of public awareness for SALB and for other important leaf diseases, exotic insects and diseases of rubber. The surveillance information management systems (SIMS) as well as the use of P-Tracker on recording and maintaining PFA of SALB were introduced and followed by a day of field practice collecting pest data.

*The APPPC working group meeting on the preparation of the work plan for 2016-2017, 13–15 May 2015, Bangkok, Thailand*

The planning workshop reviewed the status of the present work plan adopted at the 28<sup>th</sup> session and prepared recommendations for the 2016-2017 biennium work programme. The planning workshop was attended by the Chair and Vice Chair of the 28<sup>th</sup> session, the Chairs of the three standing committees, and the APPPC Standards Committee members. The recommendations prepared by the working group were for presentation at the 29<sup>th</sup> session for further discussion and adoption.

The working group considered the activities of the three work areas of plant quarantine, IPM and pesticides. The work programme for the remainder of the 2014-2015 was discussed. This included: the 29<sup>th</sup> session and next regional workshop on the review of draft ISPMs were planned and would take place; the information exchange activity and sampling workshop will be discussed at the 29<sup>th</sup> session; the next surveillance training session was moved to February 2016; a long term plan for surveillance in the region is to be developed.

Recommendations for the 2016-2017 work programme were considered. The recommendations to be presented to the 29<sup>th</sup> session for discussion included: PFAs or ALLPs; an RSPM for a hot water treatment for fruit flies in mangoes; a 6 year plan for work on surveillance in the regions including workshops on information management; a proposal for assistance to 6 countries to adopt the e-Phyto global framework; the continuation of the SALB work particularly in relation to diagnostics; and work on information exchange, integrated pest management (including a fruit fly workshop and expert workshop on sharing farmer empowerment) and pesticide management (including a workshop on illegal counterfeit pesticides).

Associated estimated costings for the activities for remaining period of 2014-2015 and for the 2016-2017 work plan were drafted. The level of assessed contributions of contracting countries was discussed. This resulted in the recommendation to request a 5% increase for the 2016-2017 period in consideration of impact of inflation followed by a 10% increase for the 2018-2019 biennium.

### **Report by the working group on SALB**

The report was presented by Ms Faridah Aini Muhammad, Director of Plant Biosecurity Division, Department of Agriculture Malaysia.

The 28<sup>th</sup> session of APPPC held in Jeju, Republic of Korea in 2013, agreed to conduct a workshop on solving issues related to the implementation of standards and import procedures with focus on surveillance system and import conditions. The APPPC workshop on biosecurity implementation of SALB of rubber was convened from 12–16 January 2015 in Bangkok, Thailand with participation of twenty-nine (29) delegates from twelve (12) countries as well as experts from Australia and Malaysia in collaboration with the Department of Agriculture of Thailand. The objectives of the workshop are to (i) train and establish a core group in implementing the SALB PRA and RSPMs/ISPMs in rubber growing countries of the APPPC region; (ii) harmonize and standardize the collection and reporting of SALB surveillance data based on ISPM 6 using electronic devices (*p-tracker*); (iii) justify and maintain SALB pest free area in line with ISPM 4; (iv) fulfil the pest reporting obligation in line with ISPM 17. The consultants covered all the above topics and the participants also shared their country status reports providing information on the rubber producing areas of their countries, their previous efforts to make use of the training materials and, most importantly, their future plans on protection of SALB to be conducted in their countries particularly using the surveillance programme.

The workshop identified the importance of the experts training programme in Brazil especially in identification of real sample and methods in laboratory identification. Because of the uncertainties in organizing the training workshop from the Brazil's government, the plan was cancelled in 2013. However, a new arrangement has been initiated by the APPPC Secretariat and the NPPO of Malaysia to continue the training but as yet nothing has materialized. The rubber growing countries of APPPC believe the training should be continued and involving all the rubber growing countries. They also request financial support to participate in the training especially for the least developing countries of the APPPC.

The format on the information exchange of SALB status information has been compiled after the training workshop in Bangkok, Thailand. The proposed information exchange involves surveillance data collection by each rubber growing country and possibly an electronic device for standardization. For countries that do not have the device, data collection should generate similar format of the datasheet as in the electronic device. It was agreed during the workshop the information should be shared through the APPPC Secretariat.

## **8. Progress report on integrated pest management (IPM) in the region by the Chairperson of the APPPC on IPM and the regional project on IPM**

Mr Yang Puyun, China, Chairperson of the APPPC Standing Committee on IPM and the regional project on IPM presented the report.

During the period of 2013–2015, countries in Asia and Pacific have undertaken efforts at intensifying food production to meet food needs of the increasing populations. However, higher incidences of plant pests and diseases have been occurring. There is a continued need for countries in the Asia-Pacific region to develop sound policies and implementation support programmes for sustainable crop production intensification.

Most countries in the Asia and Pacific region have promulgated their national IPM policies to support IPM development in support of more sustainable crop production intensification. IPM and the promotion of good agriculture practices (GAP) continue to play a key role in national efforts to achieve food and nutrition security, poverty alleviation and food safety.

### **APPPC member country progress in IPM**

Over the last two years, APPPC member countries have continued to implement IPM programmes as part of their agricultural development and national food security agendas. Several countries have strengthened pesticide management in support of more effective implementation of their national IPM policies. Several countries in the region increased public funds to support IPM as part of sustainable crop production intensification efforts.

In addition, alternative pest management practices were introduced to replace use of chemical pesticides emphasizing social and environment-friendly strategies, tactics and technologies of pest management in national IPM programmes. Technical innovations on IPM were strengthened including cultivation techniques and non-chemical technologies to support IPM, which includes ecological engineering, bio-pesticides, classical biological control and conservation and sustainable use of natural enemies for natural pest population regulation etc.

In the APPPC member countries during the past two years, lessons have been learned on scaling up IPM to reach more small-holder farmers. These efforts have been taken for improving the key role of extension agents for more effective IPM promotion and capacity building of smallholder farmers in particular. Their role has focused on initiating and establishing community IPM activities and facilitating learning in farmers field schools about sustainable agriculture. IPM upscaling efforts build on the empowerment of IPM farmer FFS alumni to take over the roles of government IPM training implementers for more effective farmer-to-farmer diffusion. The new initiatives include: technical services provided both by civil societies and private enterprises; and extension innovations by resorting to modern information technologies in scaling up IPM to reach larger numbers of small holder farmers.

### **Regional activities conducted by the APPPC IPM Standing Committee (SC)**

In order to share experiences on IPM implementation in terms of innovations, sustainability and institutionalization, the APPPC IPM SC organized two regional workshops during the past two years.

The APPPC IPM SC in cooperation with the Government of Royal Kingdom of Thailand through the Department of Agricultural Extension, Ministry of Agriculture and Cooperatives organized a training workshop on *Bactrocera* fruit fly surveillance, taxonomy and identification and area-wide management in Bangkok, Thailand on 9–11 May 2014. A total of 28 participants from 16 APPPC member countries, including resource persons and FAO staff attended the regional training course. The training course provide the participants with technical knowledge on fruit fly monitoring,

identification and management including SIT application etc. and facilitated the exchange of practical experiences and new knowledge on area-wide fruit fly management options.

The APPPC/FAO workshop on IPM case studies for sustainable crop production intensification, (SCPI) jointly organized by the Government of PR China and the APPPC IPM SC, was held in Beijing, China from 19–22 May 2015. A total of 40 participants from 13 countries in Asia involved in the implementation of IPM programme in their countries attended this workshop. The participants of the workshop presented and discussed findings of IPM case studies, shared experiences in particular about adoption and implementation of IPM for sustainable crop production intensification under the FAO's Save and Grow policy guidelines, and defined the follow up strategies to continue to support IPM development and application for SCPI under the Save and Grow policy. The collected successful cases of IPM for SCPI under the FAO's Save and Grow policy in the workshop have been documented.

### **FAO roles in IPM in the region**

During the last two years, FAO continued its assistance to APPPC member countries for *inter*-country exchange and assistance for innovation of national IPM programmes and pesticide policy reform. This assistance included support for strengthening national IPM Farmers Field School programmes and capacity building for spread prevention and management of invasive crop pests and diseases. Below a summary of projects implemented by FAO. For further information: [www.vegetableipmasia.org](http://www.vegetableipmasia.org)

*The programme “Toward a non-toxic environment in Southeast Asia” and FAO regional project on pesticide risk reduction (GCP/RAS/229/SWE-period 2007–2018)*

The Swedish government funded and Swedish Chemical Agency implemented longer-term programme “Toward a non-toxic environment in Southeast Asia” aims at a reduction of health and environmental risks by strengthening capacity for management of industrial and agricultural chemicals in Southeast Asia, most notably in Cambodia, China (Yunnan, Guangxi and Hainan), Lao PDR, Myanmar, Thailand and Viet Nam. Programme partners include FAO (Regional Office for Asia and Pacific and HQ-Pesticide Risk Reduction Group) and regional civil society organizations (Pesticide Action Network Asia-Pacific and the Field Alliance). As part of this programme, FAO supports policy reform and strengthening of the regulatory control of pesticides as well as enhancing capacity to innovate and scale up integrated pest management (IPM) and pesticide risk reduction training. By December 2014, 70 484 farmers had participated in ‘fortified’ Farmers Field Schools or focused 3-day pesticide risk reduction farmer trainings supported by FAO with trust fund project resources in the Greater Mekong Sub-region since inception of the GCP/RAS/229/SWE project in 2007. Thousands of additional farmers benefited from participation in local government and/or other donor funded FFS and pesticide risk reduction programmes implemented during this period with FAO technical and coordination support. For further information on this programme, see weblink: <http://www.vegetableipmasia.org/docs/Index/229%20SWE%20website.pdf>

### *Management of cassava pink mealybug*

During the 2011–13 period, FAO implemented a technical cooperation project (TCP) “Capacity building for spread prevention and management of cassava pink mealybug in the Greater Mekong Sub-region”. This project (TCP/RAS/3311) has provided support for the countries (Cambodia, China, Lao PDR, Thailand and Viet Nam) to develop pest-spread prevention strategies and ecological bio-control options to manage the invasive pest species, cassava pink mealybug (*Phenacoccus manihoti*). With Thailand providing technical expertise and making available parasitoids, FAO facilitated the introduction, mass rearing and field releases in other GMS countries of the cassava pink mealybug species-specific parasitoid, *Anagyrus lopezi*. In September 2014, Indonesia announced the field release of this parasitoid, also imported from Thailand, in an effort to manage incursions of the pink mealybug in cassava production on the main island of Java. In June 2015, FAO announced that the Ministry of Agriculture

and Cooperatives (MOAC) in Thailand was awarded the Edouard Saouma 2014-2015 Award for its key role in the successful implementation of this regional TCP. For a brief on

This project, see weblink: <http://www.vegetableipmasia.org/docs/Index/Technical%20Cooperation%20Programme.pdf>

#### *Area-wide Management of Bactrocera fruit flies in fruit and vegetable crops*

During the period 2010–2013, FAO implemented a regional project GCP/RAS/268/AIT “*Area-wide integrated pest management of Bactrocera fruit flies in Southeast Asian countries*” with technical and funding support from the Asian Institute of Technology. FAO supported fruit fly IPM training and action research activities in the GMS region. Smallholder farmers learn about innovative and effective management practices (lures, protein baits and sanitation) to be applied on area-wide basis. Project results have shown that consistent application of this innovative and area-wide management approach can result in substantially higher yields, better quality of fruits and vegetables and higher profits for smallholder farmers. The project includes functional collaboration with private sector partners for the testing and supply of innovative management tools/inputs. FAO released the terminal report for this project in July 2015. For more details on project progress, see website: [http://ipm.ait.asia/?page\\_id=27](http://ipm.ait.asia/?page_id=27)

#### *Sustainable crop production intensification*

FAO launched in 2011 its latest policy advice to member countries for the sustainable intensification of crop production, promoted under the banner of *Save and Grow*. <http://www.fao.org/ag/save-and-grow/>

FAO launched in 2013 a regional rice initiative with pilot field work in the countries of Indonesia, Lao PDR and Philippines. This initiative, currently running up to December 2015, is aimed at facilitation of support for sustainable rice intensification. The initiative develops case studies, promotes better policies and supports the field implementation for better appreciation and management of the multiple goods and ecosystem services provide by rice-based landscapes. The initiative supports training of smallholder rice farmers in the practical application of the *Save and Grow* policy guidelines for Sustainable Intensification of Rice Production (SIRP). IPM is promoted as an integral part of the Save and Grow-SIRP Farmers Field Schools. For more details: <http://www.vegetableipmasia.org/programs/view/120>.

## **9. Progress report on pesticide management in the region by the Chairperson of the APPPC Standing Committee on pesticides**

Mr Halimi Mahmud, Malaysia Chairperson of the APPPC Standing Committee on Pesticides presented the report.

Asia-Pacific has made significant progress in strengthening pesticide management and control systems in the region since the last APPPC. Various activities related to awareness, capacity building and sharing of information on sustainable pesticide management in accordance with the internationally accepted standards and norms have been carried out either by individual country or in group with assistance from international bodies or donor countries. In addition to participating in APPPC activities, some member countries have been very active in organizing and participating in related international and regional pesticide activities during the period.

The APPPC Secretariat in collaboration with the Government of Nepal organized an awareness workshop, *Regional workshop on code of conduct on pesticide management* in January 2015, in Kathmandu which was attended by 28 participants from 12 Asian countries. It was aimed at

strengthening pesticide management capacities and to assist countries to fulfil their obligations under the code of conduct and also the Rotterdam Convention. Significant progress has also been made in facilitating information sharing between member countries, with the placement of information on pesticides management on the APPPC website. Information on registered pesticides, banned/severely restricted pesticides and the status of pesticides listed in Rotterdam Convention, Stockholm Convention and Montreal Protocol in 15 member countries are currently available at the APPPC website.

Efforts towards upgrading the capacity and capability of pesticide regulatory personnel in the pesticide registration decision making process continue to be carried out in the Asia-Pacific countries during the period. A regional workshop on *Practical aspects of pesticide risk assessment and phasing out of highly hazardous pesticides (HHPs)* was jointly organized by FAO in collaboration with the Government of China in May 2014, and was attended by representatives from 15 member countries. This workshop was aimed mainly at countries with limited resources for implementing their regulatory system for the control of pesticides. In particular it concerned it looked at risk assessment based on internationally acceptable procedures and also explored mechanisms for collaboration among the Asian countries for the phasing out of HHPs. In addition, capacity building on pesticides residues has been further strengthened during the period when the FAO collaborated with the Government of China to organize *Training workshop on pesticides residue evaluation and estimation of MRLs* in November 2014, China.

Following the successful outcome of FAO-TCP project in assisting ASEAN toward harmonization of pesticide regulatory system, in particular the pesticide data requirement for registration, this has been complemented by the ASEAN-GIZ project through the endorsement of the ASEAN guidelines on the Regulation, Use and Trade of Biological Control Agents (BCA) at the 36<sup>th</sup> meeting of the ASEAN ministers on agriculture and forestry in September 2014, Myanmar.

ASEAN member countries continue to make significant progress in the harmonization of MRLs in the region. The ASEAN EWG on pesticide residue met twice during the period, in Brunei Darussalam in January 2014 and in Cambodia in January 2015. Currently more than 800 MRLs on various commodities have been adopted as harmonized ASEAN MRLs and are in the process of being adopted in the region. Two other separate workshops on pesticides residues have also been organized to upgrade the capacity of personnel in member countries i.e. *Seminar to promote the harmonization on MRLs setting process in the ASEAN region*, which was jointly organized by MAFF, Japan and ASEAN Secretariat, held in Japan in January 2015. In November 2014, representatives from few member countries were invited to attend *the ASEAN-WTO pesticide residue data generation GLP training*, held in Bali, Indonesia.

Asia-Pacific countries have been very active in providing support and inputs to related activities carried out by the international bodies. Some member countries were invited to participate in the FAO consultation workshop on the development of the *pesticide registration toolkit*, which was held in Viet Nam in June 2015 to further improve the toolkit. In addition, the Rotterdam Convention Secretariat also organized and invited DNAs from selected APPPC countries to participate in a workshop in the development of *Rotterdam Convention final regulatory action toolkit* to assist and encourage parties to make final regulatory actions to ban and severely restricted pesticides/chemicals that meet the requirements of the Rotterdam Convention.

Other pesticides related international and regional events organized in the Asia-Pacific region participated by many member countries include:

- The 46<sup>th</sup> and 47<sup>th</sup> *Codex Committee on Pesticide Residues (CCPR)* held in China in May 2014 and April 2015, respectively.
- *Asia-Pacific preparatory meeting* for the conferences of the parties to the Basel, Rotterdam and Stockholm Conventions (May 2015) for the Asia-Pacific region was held in Jakarta in

March 2015 to provide opportunity for parties to discuss regional priorities and regional positions.

- *Regional workshop in support for the ratification and effective implementation of the minamata convention on mercury* which took place in March 2015, in Jakarta.
- *ASEAN-United States Patent and Trademark Office (USPTO) workshop on measures against illicit trade in counterfeit agricultural chemicals* in March 2015, Kuala Lumpur, Malaysia.

### **Update on the Rotterdam Convention on prior informed consent and international code of conduct on pesticides management**

Ms Yun Zhou of PIC Secretariat, FAO, Rome presented the update.

The Rotterdam Convention Secretariat took the opportunity of the 29<sup>th</sup> APPPC session to inform member countries about the global development of the Basel, Rotterdam and Stockholm Conventions and the code of conduct, and to discuss about the regional needs and opportunities for collaboration.

### **Global highlights**

The triple conferences of the Parties of the Rotterdam, Stockholm and Basel Conventions took place from 4–15 May 2015 in Geneva, with about 1 200 participants from 170 countries. As highlights, four new chemicals are listed (three under the Stockholm and one under the Rotterdam Conventions – **polychlorinated naphthalenes**, **hexachlorobutadiene**, and **pentachlorophenol** and its **salts** and **esters**; and **methamidophos** respectively). Of high significance was also the adoption of the technical guidelines of e-waste under the Basel Convention, which provide much-needed guidance on how to identify e-waste moving between countries, with the aim of controlling illegal traffic. Currently about 90 percent of e-waste is dumped in developing countries, posing severe hazards to human health and the environment.

The listing of methamidophos in Annex III to the Rotterdam Convention enters into force in September 2015 and replaces the current listing of methamidophos SL  $\geq 600$  g/l. Parties are requested to submit to the Secretariat import response for methamidophos as to whether they consent, do not consent or consent with specific conditions to the future import of the pesticide.

Meanwhile several chemicals considered were not listed (**paraquat** and **fenthion formulations**, **trichlorfon** and **chrysotile asbestos**) due to lack of consensus of parties. They will be deferred to the next COP. An intersessional working group has been established to review the effectiveness of the process of listing new chemicals. The triple COPs adopted the programme of work and budget for 2016/17.

Several new candidate pesticides are under consideration for listing by the Chemicals Review Committee: atrazine, carbofuran, carbosulfan and dimethoate EC 400 g/l.

The new international code of conduct on pesticide management was approved by the FAO Conference in June 2013. Subsequently, several technical guidelines and tools have been under development or revision with the objective of helping countries to apply the revised Code effectively. This includes the new guidelines on highly hazardous pesticides (HHPs), the guidelines on personal protection, the guidelines on bio-pesticides, the revision of the guidelines on legislation, as well as the registration tool kit.

The fourth session of the international conference on chemicals management (ICCM4) of the SAICM will take place in Geneva from 28 September to 2 October 2015. ICCM4 will consider, among others, a proposed strategy to address HHPs prepared by FAO, WHO and UNEP.

## Regional progress

Over the last two years, progress has been made in the ratification and implementation of the Rotterdam Convention. As of September 2015, there are 154 parties worldwide, 18 parties among the APPPC members (Australia, Cambodia, China, DPR Korea, India, Indonesia, Lao PDR, Malaysia, Nepal, New Zealand, Pakistan, Philippines, Republic of Korea, Samoa, Sri Lanka, Thailand, Tonga and Viet Nam). We welcome Indonesia as a new party since September 2013.

With regard to the status of implementation by the APPPC members, one country submitted import responses for all 47 chemicals and pesticides in Annex III, one country for all 33 pesticides, while other countries still need to submit import responses for one or more pesticides or industrial chemicals. In 2014 and 2015, one country submitted 18 notifications of final regulatory action. Over the same period, no proposals for severely hazardous pesticide formulation have been received from APPPC members while one proposal was received from Georgia.

The Secretariat in cooperation with APPPC has provided technical assistance to countries for the effective implementation of the Convention. A national stakeholder consultation and training workshop took place in Cambodia in July 2014 which resulted in a national action plan for the implementation of the Convention being developed. Subsequently, Cambodia submitted 32 import responses for pesticides listed in Annex III. A training session on the Rotterdam Convention was conducted during the regional workshop on code of conduct in Nepal in January 2015. Subsequently, Lao PDR submitted 33 import responses for all pesticides listed in Annex III and Nepal submitted 18 notifications of final regulatory action. A national training and action planning workshop in Lao PDR is planned.

The technical assistance programme of the Rotterdam Convention covers a broader range of topics and is needs driven. Priority areas identified for the next biennium include:

- Assist parties to prepare notification of final regulatory action for banned or severely restricted pesticides including risk evaluation.
- Assist parties to monitor and report on severely hazardous pesticide formulations causing problems under conditions of use in developing countries or countries with economies in transition.
- National stakeholder workshop for training and development of national action plan for the implementation of the Convention.
- Identify sustainable alternatives to newly listed pesticides in Annex III, including those under consideration for listing.

The Rotterdam Convention Secretariat took the opportunity of the 29<sup>th</sup> APPPC session to discuss with member countries on needs and opportunities for technical assistance at national or regional level in the upcoming biennium.

## 10. Consideration of the report of the 25<sup>th</sup> technical consultation among regional plant protection organizations (RPPOs)

This was presented by Dr Piao.

The 26<sup>th</sup> technical consultation among regional plant protection organizations (TC-RPPOs) was hosted by the **International Regional Organization for Animal and Plant Health (OIRSA)** in collaboration with Plant and Animal Protection of the Ministry of Agriculture, Livestock and Food of Guatemala. The meeting was held at the Antigua, Guatemala, on 10–14 November 2014. The meeting was attended by representatives from the IPPC Secretariat, the CPM Bureau and eight RPPOs: Asia and Pacific Plant Protection Commission (APPPC), Comité de Sanidad Vegetal del Cono Sur (COSAVE),

European and Mediterranean Plant Protection Organization (EPPO), Inter-African Phytosanitary Council (IAPSC), Near East Plant Protection Organization (NEPPO), North American Plant Protection Organization (NAPPO), Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA), and Pacific Plant Protection Organization (PPPO).

The TC analyzed the impacts of discussions and agreements during the past meeting. This is a standing issue in the agenda and a table on the 2014 impacts is as follows:

Meeting or activity	Identified impact
Bureau	Strategic decisions on diagnostic protocols, RPPO recognition, issues to be addressed in the special and side sessions
CPM 9	Special session on new technologies for inspection and on new developments in PRA
SC	Support in the identification of experts
CDC	Review of technical resources
IPPC workshops	Coordination and cooperation

Each participating RPPO presented their activities over the past year within their region.

The representatives from the IPPC Secretariat and the CPM Bureau updated the TC on IPPC and CPM business. This was followed by discussions which resulted in outputs of several on proposals/inputs to future CPM and IPPC Secretariat.

The TC decided to put forward the following proposals for CPM 11 special topic sessions, which are not in any particular order of priority:

- Lessons learned from jurisprudence: Revisiting the role of science in phytosanitary disputes at the WTO.
- Examination on new trade patterns.

On side sessions for the CPM 11, the TC suggested:

- Implementation of ISPMs 15, 13 and 32.
- ISPM vs. private standards (global GAP and others)
- Contingency planning
- Systems approaches
- Research and science co-ordination

The TC noted the APPPC contribution to the CPM 10 side session on e-Phyto sharing the results of a recent workshop in the APPPC region.

Several recommendations were developed and agreed on for helping the IPPC Secretariat with their activities and to fulfil the technical consultation work plan.

The standing plan 2014 and the 2015 work plan were discussed.

The full report is available from the IPP (<https://www.ippc.int/en/publications/2735/>)

## **11. The APPPC work programme for 2016-2017**

### **11.1 Introduction of the outputs of the APPPC working group meeting on planning for the next biennium**

The working group members considered the status of activities of the three work areas – plant quarantine, IPM and pesticides. The work programme for the remainder of 2015 included the development of a long term plan for surveillance; a case study workshop for IPM in May 2015; the continuation of information exchange activities; the regional workshop on draft ISPMs in October 2015 in Republic of Korea; ISPM 14 workshop for December 2015 in Thailand. Other items were delayed till later in the biennium. Recommendations for the 2016-2017 biennium included work on pest free areas as part of the surveillance work plan; an RSPM for hot water treatment for fruit flies in mangoes; information systems for pest surveillance and reporting; a proposal for a pilot project concerning e-Phyto; additional projects for SALB; a long term plan for work on surveillance; an IPM programme with an expert workshop on sharing farmer empowerment; workshop on illegal pesticides; and an information exchange working group that would develop a range of activities.

The costs of the 2016-2017 programme were estimated for presentation at the 29<sup>th</sup> session. It was proposed that 5 percent increase in assess contributions instituted for this coming biennium with a 10 percent rise for the next biennium.

### **11.2 Group discussions and reports of the work plans by the Chairpersons of the Standing Committee of Plant Quarantine, Integrated Pest Management and Pesticide Management**

#### ***11.2.1 Standing Committee on Plant Quarantine***

Discussions on the proposals included the following points:

#### **Surveillance work plan, year one and two**

The Standing Committee considered and approved a six year work plan for surveillance. This is presented in Annex 2. The first two years of this programme are included in the 2016-2017 biennium programme.

Year one – The initial workshop activity of the series will cover the fundamentals of surveillance systems and management responsibilities of an NPPO in establishing and maintaining plant health surveillance systems and reporting on surveillance systems in accordance with ISPM 6 (revised Oct. 2015) and the IPPC obligations. Participants will work on specific protocols relevant to their countries following the workshop. The workshop will include pre- and post- assessment exercises.

Year two – The second workshop activity will cover the fundamentals of designing, planning, coordinating and delivering surveillance activities and programmes in accordance with international and regional standards (ISPM 6, RSPM No.7 etc.). Participants will work on specific protocols relevant to their countries following the workshop. The workshop will include pre- and post-assessment exercises.

#### **e-Phyto – implementing a global e-Phyto framework into APPPC countries**

This proposal is a pilot project to assist 6 countries to participate in “e-Phyto IPPC Hub” pilot project – two in each of the next three years. All progress would be reported to the APPPC. Australian officials would help to develop a country’s system. There will be a workshop (2016 or 2017) to share the experiences gained by the countries involved with other APPPC countries.

## **Regional workshops on the review of draft ISPMs**

These workshops will be hosted by Republic of Korea in 2016 and 2017.

## **Development of RSPM on hot water treatment of mangoes for fruit fly species**

A specification will be drafted by Australia (lead country), Pakistan, Indonesia and India. This will be followed by the collation of information from countries that apply HWT for mangoes. The information will be considered by the Standards Committee for further action.

## **SALB working group to continue its work**

Each country will translate presently available SALB training materials. Malaysia will maintain the SALB blog for rubber growing countries. The visit to Brazil to discuss SALB diagnostics and scientific research and developments will continue to be pursued by the SALB working group. If the visit takes place, it will be followed by a workshop in the region.

## **ISPM 15**

It is proposed that the APPPC follow the international developments in work associated with ISPM 15 implementation. Should an international workshop take place, the APPPC will consider the participation of some APPPC developing countries. Collaboration will be facilitated by the APPPC ISPM 15 working group.

## **ISPM 31 – Sampling**

At least one workshop is proposed during 2016-2017 to consider sampling procedures for different consignments (e.g. seed or commodities for consumption). The workshop content will be proposed by Indonesia (lead country), Thailand, Pakistan and the Philippines. The objectives of the workshop are to identify critical gaps for full implementation of ISPM 31 and to propose amendments of ISPM 31 in the revision or to build regional standard of sampling methods depending on type of consignment. A potential follow-up workshop would be considered with Indonesian funding.

## **Information exchange**

Working group on information exchange will continue. The working group will develop a detail action plan to facilitate information exchange. The information exchange programme will also include website maintenance update and monitoring, staffing assistance and publication.

## **Planning group**

This was agreed to and will take place in May 2017 prior to the 30<sup>th</sup> session.

### ***11.2.2 Standing Committee on Integrated Pest Management***

The APPPC Standing Committee on IPM elected the new Chair, Thailand (Mrs Watchreeporn Orankanok) and Vice Chair, Nepal (Mr Dilli Ram Sharma). The committee agreed to undertake two key activities (with APPPC funding) during the biennium 2016-2017, as follows:

(1) Workshop on supporting capacity building on integrated control of fruit flies of economic importance. The workshop will be held in Viet Nam (lead country) in 2016 with Thailand and China providing technical support such as resource persons and materials (e.g. protein baits) for the activity.

(2) Workshop on farmer empowerment on enhancing and utilizing multiple goods and services in ecosystems and landscapes for sustainable crop production intensification. The activity will be held in Thailand (lead country) in 2017 with Nepal supporting the organization of the workshop.

Other activities will be undertaken during the biennium, as follows:

(1) Workshop on management of cassava witches' broom. The countries that will participate in the activity include: Philippines, Viet Nam, Thailand, Lao PDR, Cambodia, Indonesia. Collaboration with CIAT will be explored.

(2) Workshop on the management of coconut rhinoceros beetle. The countries that will participate in the activity include: Timor-Leste, Samoa and other Pacific countries. Collaboration with the Asia-Pacific Coconut Commission will be explored. Indonesia signified support to provide technical resource persons for the activity. These workshops will be organized if and when additional funding (outside of APPPC resources) are secured.

The APPPC Standing Committee on IPM identified the following types of information proposed for sharing through the APPPC website and/or the FAO regional IPM/pesticide risk reduction programme website, depending on how detailed the information is:

1. Success stories/case studies on IPM
2. Training modules/curriculum/reports of the Standing Committee on IPM
3. News/results articles/SC-IPM workshop announcements
4. IPM policies/protocols
5. Roster of IPM Experts
6. Information on international market access for products/produce of IPM farmer groups

The Chair of the Standing Committee on IPM (Thailand) will serve as the focal point to liaise with the APPPC Secretariat on providing information for sharing/uploading while the Vice Chair (Nepal) will coordinate the collection of information from the countries. The country representatives (11 member countries and one observer country<sup>2</sup>) who participated in the meeting of the Standing Committee on IPM will provide the information from their respective countries. Upon request by the Chair of the Standing Committee on IPM and/or the APPPC Secretariat, the FAO-regional IPM/pesticide risk reduction programme will consider the proposal for technical or financial support for 2016-2017 work plan implementation.

### ***11.2.3 Standing Committee on Pesticide Management***

The Standing Committee on Pesticide Management meeting was chaired by Malaysia and attended by Bangladesh, China, Fiji, Indonesia, Thailand, Japan, and RC Secretariat.

The meeting discussed several issues relating the challenges faced by the member countries such as registration of bio-pesticide. These included: the lack of testing protocols, data requirements for registration, counterfeit/fake/imitation pesticides, meeting obligations under Rotterdam Convention, training needs for FRA, ICR, requesting assistance from the RC Secretariat, phasing out HHPs, and the handling/proper use of pesticide in Fiji. To address these issues the meeting proposed as follows:

- a. To organize training or a workshop on the registration of bio-pesticides (third quarter of 2016)
  - Categorization of bio-pesticide
  - Data requirements
  - Evaluation procedures

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<sup>2</sup> Cambodia, China, Indonesia, Malaysia, Myanmar, Nepal, Philippines, Samoa, Timor-Leste, Thailand, Viet Nam and Japan.

- Test protocol on efficacy, toxicology, and formulation
- Labelling
- Application technique

The training workshop is tentatively planned to be carried out in the third quarter of 2016 and Thailand will be the lead country.

- b. Each party to submit import responses for all chemicals in Annex 3, if have not yet done so, to the Rotterdam Convention Secretariat, in particular for methamidophos as it is now listed as active ingredient.
- c. To seek assistance from RC Secretariat to organize a regional training workshop on RC and other relevant international instruments. (first quarter of 2016)
  - Key provisions of the RC
  - Preparation of notification of final regulation action
  - Synergy of the RC, SC, and BC
  - FAO pesticide registration tool kit

The training workshop is tentatively planned to be carried out in the first quarter of 2016 and Indonesia will be the lead country.

- d. Progress report on national action plan for Lao PDR.
- e. Information exchange on sustainable alternatives to hazardous pesticides.
  - invite countries to submit information on alternative to banned pesticides
  - to compile and share such information

The invitation to member countries to submit the information will start at the beginning of 2016. A compiled database on alternatives will be forwarded to APPPC Secretariat when completed and this activity will be led by Malaysia.

### **11.3 Proposal for the work plan by the Secretariat of the APPPC and discussion on the approval of the APPPC work plan (2016-2017)**

APPPC work programme for the 2016-2017 biennium

#### **11.3.1 Specific activities (2016-2017)**

##### **11.3.1.1 Implementation of ISPMs in the region:**

11.3.1.1.1 **A pre-CPM consultation** will provide APPPC member with an opportunity for discussion of CPM agenda items more specifically, including the draft ISPMs which will be presented for adoption by the CPM. This meeting facilitates a better understanding of the specific concerns of participants and allows the development of regional views on some issues. No extra funds are required as this involves the participation of only member countries at CPM in 2016 and 2017 respectively.

##### **11.3.1.1.2 Surveillance programme**

(1) The initial workshop activity of the series will cover the fundamentals of surveillance systems and management responsibilities of an NPPO in establishing and maintaining plant health surveillance systems and reporting on surveillance systems in accordance with ISPM 6 and the IPPC obligations. Participants will work on specific protocols relevant to their countries following the workshop. The workshop will include pre- and post-assessment exercises.

(2) The second workshop activity will cover the fundamentals of designing, planning, coordinating and delivering surveillance activities and programmes in accordance with international and regional standards (ISPM 6, RSPM No. 7 etc.). Participants will work on specific protocols relevant to their countries following the workshop. The workshop will include pre- and post-assessment exercises.

#### 11.3.1.1.3 **e-Phyto** – implementing a global e-Phyto framework into APPPC countries

This proposal, a pilot project to countries to participate in “e-Phyto IPPC Hub” pilot project – two in each of the next three years. All progress would be reported to the APPPC. Australian officials would help to develop a country’s system. There will be a workshop (2016 or 2017) to share the experiences gained by the countries involved with other APPPC countries.

#### 11.1.1.4 **ISPM 15**

It is proposed that the APPPC follow the international developments in work associated with ISPM 15 implementation. Should an international workshop take place, the APPPC will consider the participation of some APPPC developing countries. Collaboration will be facilitated by the APPPC ISPM 15 working group.

#### 11.3.1.1.5 **ISPM 31**

One workshop is proposed to consider sampling procedures for different consignments (e.g. seed or commodities for consumption). The workshop content will be proposed by Indonesia (lead country), Thailand, Pakistan and the Philippines. A potential follow-up workshop would be considered with Indonesian funding.

#### 11.3.1.1.6 **Regional workshops on review of draft ISPMs**

The 17<sup>th</sup> and 18<sup>th</sup> regional consultations will continue in 2016 and 2017 respectively, and wish to receive continual funding from Republic of Korea.

#### 11.3.1.2 *Development of RSPM for hot water treatment for fruit flies in mangoes*

A specification will be drafted by Australia (lead country), Pakistan, Indonesia and India. This will be followed by the collation of information from countries that apply hot water treatment (HWT) for mangoes. The information will be considered by the Standards Committee for further action.

#### 11.3.1.3 *SALB working group will continue*

Each country will translate presently available SALB training materials. Malaysia will maintain the SALB blog for rubber growing countries. The visit to Brazil to discuss SALB diagnostics and scientific research and developments will continue to be pursued by the SALB working group. If the visit takes place, it will follow by a workshop in the region.

#### 11.3.1.4 *Information exchange programme*

Working group on information exchange will continue covering areas of plant quarantine, IPM, pesticide management. Three activity areas were identified: sharing information on capacity building activities; plant quarantine and sharing information on best practices including pest incursion and eradication; sharing information on experts in specific areas. The working group on information exchange will be led by Malaysia. Working group will develop a detail action plan to facilitate information exchange. Information exchange programme will also include website maintenance, update and monitoring, staffing assistance and publication.

#### *11.3.1.5 The planning group meeting for work plan (2016-2017)*

This would be held before the 30<sup>th</sup> session in 2017.

#### *11.3.1.6 The IPM Standing Committee*

Training or/and workshop(s) for promotion of cooperation and sharing expertise, experience and information.

Organize workshop on:

- Fruit fly training, Viet Nam in 2016, China will provide technical resources and materials like protein baits.
- Farmer empowerment with IPM/ecological approach in support SCPI (hosted by Thailand in 2017). Thailand will provide in-kind contribution with 15 000 USD for the workshop on farmer empowerment, which will be held in Thailand in 2017.

Other activities, without funding from APPPC, addressing cassava witches broom, coconut rhinoceros beetle and information exchange have been planned. The information exchange on IPM covers:

- Success story/case studies on IPM in each country
- Training modules/curriculum (e.g. report of standing committee)
- News/results articles
- IPM policies/protocols
- Roster of IPM experts
- Information of international market access of IPM products.

The detail contents and leading countries for relevant activities have been described in the report of the work plan for Standing Committee on IPM (agenda 11.2.2).

#### *11.3.1.7 The Pesticides Standing Committee*

The intent is to organize one training or workshop on registration of bio-pesticide (third quarter of 2016). Additional activities, without funding from APPPC, include the implementation of the Rotterdam Convention especially submission of import responses, a training workshop on the convention with the assistance of the Convention Secretariat as well as training on use of the pesticide registration toolkit. Information exchange activities have also been included in the work plan. The detail contents and leading countries for respective activities have been described in the report of the work plan for Standing Committee on Pesticide Management (agenda 11.2.3).

### ***11.3.2 Estimated budget for specific activities in 2016-2017***

The estimated costs for the specific activities in 2016-2017 which are to be supported by the mandatory contributions from contributing contracting countries are given below:

**Table 1. Proposed work plan and estimated costs for 2016-2017 in US\$**

No.	Activity planned	Remarks	Estimated budget (US\$)
1	<p><b>Surveillance programme</b>                      (1) The initial workshop on fundamentals of surveillance systems and management responsibilities of an NPPO in establishing and maintaining plant health surveillance systems and reporting on surveillance systems in accordance with ISPM 6</p>	Led by Australia, 2016	45 000
2	<p><b>Surveillance programme</b>                      (2) The second workshop on fundamentals of designing, planning, coordinating and delivering surveillance activities and programmes in accordance with international and regional standards (ISPM 6, RSPM No .7 etc.)</p>	Led by Australia, 2017	30 000
3	<p><b>e-Phyto</b>                      Workshop (2016 or 2017) to share the experiences gained by the countries involved with other APPPC countries</p>	Led by Australia/e-Phyto WG-APPPC 2016-2017	40 000 (with in-kind support from participating countries)
4	Regional workshop on review of draft ISPMs	Republic of Korea, 2016, 2017	Korea fund
5	<p><b>RSPM</b> – hot water treatment for mangoes                      A specification will be drafted. This will be followed by the collation of information from countries that apply HWT for mangoes.</p>	Led by Australia (lead country) with support from Pakistan, Indonesia and India.	25 000
6	<p><b>SALB</b>                      SALB working group will continue                      – Visit to Brazil                      – A workshop</p>	Led by Malaysia	40 000
7	<p><b>ISPM 15</b>                      Should an international workshop take place, the APPPC will consider the participation of some APPPC developing countries.</p>	Facilitated by the APPPC working group on ISPM 15	10 000
8	<p><b>ISPM 31</b>                      – One workshop is proposed to consider sampling procedures for different consignments (e.g. seed or commodities for consumption).                      – a potential follow up workshop</p>	<p>Led by Indonesia assisted by Thailand, Pakistan and the Philippines.</p> <p>Led by Indonesia</p>	<p>30 000</p> <p>Potential funding from Indonesia</p>
9	<b>Pre-CPM consultation</b>	At the CPM venue	No cost
10	<p><b>Information exchange programme</b>                      – The working group will continue                      – Website maintenance, update and monitoring at quarterly basis                      – staffing assistance                      – publications</p>	The WG will be led by Malaysia	60 000

**Table 1. Proposed work plan and estimated costs for 2016-2017 in US\$ (continued)**

No.	Activity planned	Remarks	Estimated budget (US\$)
11	<b>Planning group meeting</b> for the 30 <sup>th</sup> Session of APPPC	May 2017	25 000
12	<b>SC-IPM</b> Training workshop on fruit fly	Led by Viet Nam with support from China and Thailand	25 000
13	<b>SC-IPM</b> – Workshop on farmer empowerment with IPM	Led by Thailand with support from Nepal	25 000 (+ <i>additional funding from Thailand</i> )
14	<b>SC-Pesticide management</b> – training or workshop on registration of bio-pesticide – training on PIC/toolkit	Led by Thailand  Led by Indonesia	50 000  Funded by RC Secretariat
15	<b>30<sup>th</sup> Session of APPPC</b>		FAO
	Sub total		405 000 (from assessed contributions)
	13% of service charge		52 650
	Total		457 650

*Note:* Total estimated cost of proposed programme for the next biennium (2016-2017) is US\$457 650 including overhead charges

The Secretary noted the programme. The Session approved the work plan.

#### **11.4 Financial report of the 2014-2015 biennium as well as the proposal of the budget and the scale of assessments for the mandatory contributions by the contributing contracting members for the 2016-2017 biennium**

##### ***11.4.1 Financial report of the 2014-2015 biennium***

Until 27 August 2015 fifteen out of eighteen contributing contracting members provided full mandatory contributions during 2014-2015. Three countries (Fiji-41\$, Sri Lanka-4 178\$ and Timor-Leste-36\$) have not yet provided their contributions. It is hoped that the contribution would be made by these countries soon without further delay. It was noted that there was no contribution from Sri Lanka since 2010 until 27 August 2015 (see below table 2 & 3).

**Table 2. Status of contributions as at 31-12-2014 (expressed in USD)**

<b>Member Governments</b>	<b>Outstanding 31-12-2013</b>	<b>Contribution due for 2014</b>	<b>Received up to 31-12-2014</b>	<b>Outstanding 31-12-2014</b>
Australia	0.00	39 155.00	39 155.00	0.00
Bangladesh	0.00	18.00	18.00	0.00
Cambodia	0.00	18.00	18.00	0.00
China	0.00	39 155.00	39 155.00	0.00
Fiji	(133.00)	87.00		(46.00)
India	0.00	19 168.00		19 168.00
Indonesia	0.00	9 959.00	9 959.00	0.00
DPR Korea	0.00	173.00		173.00
Republic of Korea	0.00	39 155.00	39 155.00	0.00
Lao PDR	0.00	18.00	18.00	0.00
Malaysia	(8 794.00)	8 088.00		(706.00)
New Zealand	0.00	7 282.00	14 564.00	(7 282.00)
Pakistan	8 145.62	2 447.00	13 566.62	(2 974.00)
Philippines	(1 270.00)	4 433.00	3 163.00	0.00
Sri Lanka	2 738.00	720.00		3 458.00
Thailand	0.00	6 879.00	6 879.00	0.00
Viet Nam	0.00	1 209.00	1 209.00	0.00
Timor-Leste	0.00	18.00		18.00
<b>Total</b>	<b>686.62</b>	<b>177 982.00</b>	<b>166 859.62</b>	<b>11 809.00</b>

**Table 3. Status of contributions as at 27 August 2015 (expressed in USD)**

<b>Member Governments</b>	<b>Outstanding 31-12-2014</b>	<b>Contribution due for 2015</b>	<b>Received up to 27-08-2015</b>	<b>Outstanding 10-08-2015</b>
Australia	0.00	39 155.00	39 155.00	0.00
Bangladesh	0.00	18.00	18.00	0.00
Cambodia	0.00	18.00	18.00	0.00
China	0.00	39 155.00	39 155.00	0.00
Fiji	(46.00)	87.00		41.00
India	19 168.00	19 168.00	38 336.00	0.00
Indonesia	0.00	9 959.00	9 959.00	0.00
DPR Korea	173.00	173.00	346.00	0.00
Republic of Korea	0.00	39 155.00	39 155.00	0.00
Lao PDR	0.00	18.00	18.00	0.00
Malaysia	(706.00)	8 088.00	7 382.00	0.00
New Zealand	(7 282.00)	7 282.00	7 282.00	(7 282.00)
Pakistan	(2 974.00)	2 447.00		(527.00)
Philippines	0.00	4 433.00	4 443.00	(10.00)
Sri Lanka	3 458.00	720.00		4 178.00
Thailand	0.00	6 879.00	6 879.00	0.00
Viet Nam	0.00	1 209.00	1 209.00	0.00
Timor-Leste	18.00	18.00		36.00
<b>Total</b>	<b>11 809.00</b>	<b>177 982.00</b>	<b>193 355.00</b>	<b>(3 564.00)</b>

The total amount of the contributions received from 1 January 2014 until 27 August 2015 is about US\$360 000 (including interest). The real amount carried over from previous biennium was \$155 000. In addition, the additional fund from Australia (TF258) carried over from previous biennium is about \$115 500. The total available fund (TF257 and TF258) for 2014-2015 is US\$631 000. The actual expenditures until 27 August from the assessed contributions (TF257) and fund from Australian (TF258) for activities planned for the 2014-2015 biennium were about 287 000\$ and 89 200\$ respectively, which are totalled \$376 200. As the regional workshop on systems approach (ISPM 14) would be convened from 30 November to 4 December in 2015, there is need to allocate US\$50 000 for the workshop as one of current biennium activities as planned. Therefore total expenditures from current biennium would be \$426 200. The balance of this biennium would be about \$204 200 (TF257: \$177 800+TF258: \$26 400). About US\$204 200 could be carried over to the next biennium (2016-2017), which will be the essential amount for covering the cost of main activities in the first year as usual by filling a gap of time period of receiving assessed contributions from countries in the first year.

**Table 4. Costs for activities in 2014-2015 supported by the trust fund from mandatory contributions (TF257) and additional contribution from Australia (TF258) together with other funding source (US\$)**

No.	Activity Planned	Expenditure (US\$)			Remark
		TF257	TF258	FAO	
1	Pre-CPM consultation for APPPC members	No expenditure			<i>Organized in 2014 and 2015 respectively in Rome</i>
2	Implementation: Joint work shop with NAPPO on ISPM 15 (10–14 June, Beijing, China)	20 000	8 000	2 600	Together with in kind support from China and NAPPO
3	ISPM 6 – Surveillance data management workshop (2–6 June, Malaysia)	30 000	69 000	1 700	
4	Regional workshop on review of draft ISPMs – continue (15–19 Sept. 2014, Busan, Rep. of Korea) (19–23 Oct. 2015, Jeju, Rep. of Korea)				Korea funds
5	Information exchange programme: – <i>Working group</i> – <i>APPPC website maintenance/ monitoring status of country update</i> – <i>staffing assistance</i> – <i>publications, etc.</i>	32 000		9 600	
6	Planning group meeting to review progress, prepare a draft work plan proposal for next biennium and to discuss contents of the 29 <sup>th</sup> Session of APPPC (13–15 May 2015, Bangkok, Thailand)	8 000			
7	Workshop on e-Phyto (28–31 Oct. 2014, Bangkok, Thailand)	13 000		15 500	Together with in kind support from Thailand

**Table 4. Costs for activities in 2014-2015 supported by the trust fund from mandatory contributions (TF257) and additional contribution from Australia (TF258) together with other funding source (US\$) (continued)**

No.	Activity Planned	Expenditure (US\$)			Remark
		TF257	TF258	FAO	
8	SALB working group: (12–16 Jan. 2015, Bangkok, Thailand)	30 000	2 000		
9	SC-IPM: 1) Workshop on fruit fly management (9–11 May 2014, Bangkok, Thailand) 2) Workshop on IPM case studies (18–22 May 2015, Beijing, China)	30 000 33 000		1 800	
10	SC-Pesticide management: 1) Workshop on pesticide risk assessment and phasing out HHPs (19–22 May, Nanjing, China) 2) Training workshop on newly revised code of conduct (26–30 Jan. 2015, Nepal) 3) Workshop on pesticide registration toolkit (1–5 Jun. 2015, Hanoi, Viet Nam)	21 000 37 000		35 000 1,500 27 300	
Subtotal of the costs:		<b>254 000</b>	79 000	95 000	
Overhead charge (13% of total amount)		<b>33 020</b>	<b>10 270</b>	N/A	
<b>Total expenditures</b>		<b>287 020</b>	<b>89 270</b>	<b>95 000</b>	TF257+TF258: 376 290
		<b>471 290</b>			

Workshop on systems approach (ISPM 14) will be convened from 30 November–4 December 2015 in Thailand, which has been scheduled with allocation of \$50 000. By adding this to the above total expenditures in the table, the total amount of expenditures until the end of this biennium would be about **US\$521 300**, and out of this figure the expenditures from assessed contributions and from Australia account is about. US\$426 200.

#### ***11.4.2 Proposed budget for covering estimated costs of specific activities supported by the mandatory contributions from contributing contracting countries for 2016-2017***

Based on the work programme adopted under the agenda 11.3, specific activities to be supported by the mandatory contributions during 2016-2017 and their estimated costs are listed in the Table 4. Total estimated costs (2016-2017) is **US\$457 650** (US\$405 000 +13% total costs), the available amount of funds would be **US\$577 900**, which consists of **US\$373 748** (being the total assessed contribution from contributing contracting members) and **US\$204 200** (to be carried over from the 2014-2015 biennium). The estimates are based on the assumption that all 18 countries will make their mandatory contributions timely and that the estimated costs are the minimum. In addition, some activities would be taken place at early 2016, while most contributions would be made late of the year. Therefore there is need to consider some flexible amount of funds (beyond actual amount of the budget planned) for backstopping potential expenditures of such activities as well as emergency actions.

**Table 5. Estimated costs of specific activities supported by the mandatory contributions for 2016-2017**

No.	Activity planned	Remarks	Estimated budget (US\$)
1	<b>Surveillance programme</b> (1) The initial workshop on fundamentals of surveillance systems and management responsibilities of an NPPO in establishing and maintaining plant health surveillance systems and reporting on surveillance systems in accordance with ISPM 6	Led by Australia, 2016	45 000
2	<b>Surveillance programme</b> (2) The second workshop on fundamentals of designing, planning, coordinating and delivering surveillance activities and programmes in accordance with international and regional standards (ISPM 6, RSPM No. 7 etc.)	Led by Australia, 2017	30 000
3	<b>e-Phyto</b> Workshop (2016 or 2017) to share the experiences gained by the countries involved with other APPPC countries	Led by Australia/e-Phyto WG-APPPC 2016-2017	40 000 with in-kind support from participating countries
4	Regional workshop on review of draft ISPMs	2016, 2017	Korea fund
5	<b>RSPM-hot water treatment for mangoes</b> A specification will be drafted. This will be followed by the collation of information from countries that apply HWT for mangoes	Led by Australia (lead country) with support from Pakistan, Indonesia and India.	25 000
6	<b>SALB</b> SALB working group will continue – Visit to Brazil – A workshop	Led by Malaysia	40 000
7	<b>ISPM 15</b> Should an international workshop take place, the APPPC will consider the participation of some APPPC developing countries.	Facilitated by the APPPC working group on ISPM 15	10 000
8	<b>ISPM 31</b> – One workshop is proposed to consider sampling procedures for different consignments (e.g. seed or commodities for consumption). – potential follow up workshop	Led by Indonesia assisted by Thailand, Pakistan and the Philippines.  Led by Indonesia	30 000  (potential funding from Indonesia)
9	<b>Pre-CPM consultation</b>	At the CPM venue	No cost
10	<b>Information exchange programme</b> – The working group will continue – Website maintenance, update and monitoring at quarterly basis – staffing assistance – publications	The WG will be led by Malaysia	60 000
11	<b>Planning group meeting</b> for the 30 <sup>th</sup> Session of APPPC	May 2017	25 000

**Table 5. Estimated costs of specific activities supported by the mandatory contributions for 2016-2017 (continued)**

No.	Activity planned	Remarks	Estimated budget (US\$)
12	<b>SC-IPM</b> – Training workshop on fruit fly	Led by Viet Nam supported by China and Thailand, 2016	25 000
13	<b>SC-IPM</b> – Workshop on farmer empowerment with IPM	Led by Thailand with support from Nepal, 2017	25 000
14	<b>SC-Pesticide management</b> – training or/and workshop on registration of bio-pesticide – training on PIC/toolkit	Led by Thailand  Led by Indonesia	50 000 (+ additional fund from Thailand)  Funded by RC Secretariat
15	<b>30<sup>th</sup> Session of APPPC</b>		FAO
	Sub total		405 000 (from assessed contributions)
	13% of service charge		52 650
	Total		457 650

Total estimated cost of proposed programme for the next biennium (2016-2017) is US\$457 650 including overhead charges.

#### ***11.4.3 Proposed mandatory contributions for 2016-2017 by contributing contracting members***

The level of contributions was discussed at the APPPC working group meeting on the preparation of the work plan for 2016-2017, which was held in Bangkok, Thailand, from 13–15 May 2015. The working group noted that if there is no increase, the limited budget would make implementation of the work plan difficult and the potential carry-over to the next biennium (2018-2019) would be much smaller. This latter point may affect the implementation of the activities planned in the next biennium. The proposed recommendation to the 29<sup>th</sup> Session will be to request a 5 percent increase of total amount of the assessed contribution in comparison of current biennium budget, recognizing the impact of inflation and cost increases in the next biennium.

With 5 percent increase, the contributions would amount to 373 748, the potential amount to be carried-over from current biennium would be US\$204 200. The total fund would be about **US\$577 900**, which may meet the requirement for the implementation of proposed programme and potential carryover to the next biennium.

The calculation of the scale of each country for the next biennium (2016-2017) (Table 5) is based on “Assessment of member states” contributions of the United Nations regular budget for the year 2015 (ST/ADM/SER.B/910 dated 29 December 2014). It also maintained that 0.01 percent ceiling for assessing the rate of least developed countries (LDCs) and the 22 percent maximum assessment rate for all other countries.

**Table 6. Proposed mandatory contributions for 2016-2017 by contributing contracting governments**

APPPC member countries endorsing mandatory contributions	UN scale of assessments	APPPC scale for 2016-2017	Proposed contributions (US\$)		
			Two years (2016-2017)	2016	2017
Australia	2.074	22.000	82 224	(41 112) <b>39 155</b>	(41 112) <b>39 155</b>
China	5.148	22.000	82 224	41 112	41 112
Republic of Korea	1.994	22.000	82 224	41 112	41 112
DPR Korea	0.006	0.097	363	181.5	181.5
Fiji	0.003	0.049	181	90.5	90.5
India	0.666	10.770	40 253	20 126.5	20 126.5
Indonesia	0.346	5.595	20 912	10 456	10 456
Malaysia	0.281	4.544	16 984	8 492	8 492
New Zealand	0.253	4.091	15 291	7 645.5	7 645.5
Pakistan	0.085	1.375	5 137	2 568.5	2 568.5
Philippines	0.154	2.490	9 308	4 654	4 654
Sri Lanka	0.025	0.404	1 511	755.5	755.5
Thailand	0.239	3.865	14 445	7 222.5	7 222.5
Viet Nam	0.042	0.679	2 538	1 269	1 269
Bangladesh	0.010	0.010	37	18.5	18.5
Cambodia	0.004	0.010	37	18.5	18.5
Lao PDR	0.002	0.010	37	18.5	18.5
Timor-Leste	0.002	0.010	37	18.5	18.5
<b>Total</b>	<b>11.334</b>	<b>100.000</b>	<b>373 748</b>	<b>(186 874)</b> <b>184 817</b>	<b>(186 874)</b> <b>184 817</b>

*Notes:*

- (1) The calculation of the scale is based on “Assessment of member states” contributions of the United Nations regular budget for the year 2015 (ST/ADM/SER.B/910 dated 29 December 2014).  
Reference: [http://www.un.org/ga/search/view\\_doc.asp?symbol=ST/ADM/SER.B/910](http://www.un.org/ga/search/view_doc.asp?symbol=ST/ADM/SER.B/910)  
The total rate form the basis for calculating the % contributions of APPPC’s endorsing countries adds up to a full 100 percent.
- (2) It is proposed that the percentage share of contributions by each of the four least developed countries (LDCs) i.e. Bangladesh, Cambodia, Lao PDR and Timor-Leste does not exceed 0.010 percent, and the percentage of contributions by each of the three higher rated countries including Australia, China and the Republic of Korea does not exceed 22 percent.
- (3) The list of least developed countries is available on the website of the UN Office of the high representative for the least developed countries, landlocked developing countries and small island developing states (UN-OHRLLS) (<http://www.unohrlls.org>)
- (4) Australia maintains its present contribution at level of 39 155 per year due to administrative requirements of the country. This is reflected in the table. However for computational purposes the 5 percent increase level increase is retained in brackets.

The financial report and proposed budget of US\$457 650 for 2016-2017 were approved by the session. The assessed contribution level was adopted by the session with the exception of Australia which will maintain its contribution at the present level.

## **12. Date and venue of the 29<sup>th</sup> Session of the APPPC**

The Secretary noted that two countries had offered to host the next meeting – New Zealand and Thailand. It was suggested that New Zealand would host the 30<sup>th</sup> session and Thailand the 31<sup>st</sup> session.

The Commission agreed with this arrangement. New Zealand noted their appreciation of the opportunity to host the meeting. Some information on the area tentatively suggested for the meeting, Tauranga in the Bay of Plenty, was shown to the delegates.

## **13. Any other business**

## **14. Adoption of the report**

The report was reviewed and adopted.

## **15. Closing of the Session**

The Executive Secretary thanked the Republic of Indonesia for the organization and hosting of the meeting. The administrative officials were thanked.

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## Proposed APPPC surveillance implementation work plan (2016–2021)

### APPPC surveillance management systems workshop 2016

Biosecurity and National Plant Protection Organizations within the Asia-Pacific region have been involved in several activities with an aim to identify issues and priorities for implementing international standards associated with biosecurity surveillance. Recent APPPC and IPPC workshops have prioritized the development of plant pest surveillance manuals and new tools for the implementation of these priorities (i.e. data collection, management and reporting).

Recent capacity needs assessments of IPPC members have identified biosecurity surveillance activities as being both a priority and capacity development need throughout the Asia-Pacific region. In recognition of this capacity development need and the recent development of surveillance manuals, biosecurity surveillance specialists propose to deliver a series of annual workshop activities (over a six year period), on the implementation of ISPM 6 (*Guidelines for Surveillance*) and management of national surveillance systems.

The initial workshop activity of the series '*Plant health surveillance management systems workshop*' will introduce participants to the fundamentals of surveillance systems and management responsibilities of an NPPO. This will also be relevant to establishing and maintaining plant health surveillance systems in accordance with ISPM 6 (revised Oct. 2015) and the IPPC obligations. It is proposed that this workshop will be delivered in March 2016, funded by the APPPC and delivered by the Australian Department of Agriculture (DOA).

The recently developed IPPC '*manual on surveillance*' will be used as a framework for the workshop, and will include training modules aligned with the three key sections of the surveillance manual (national surveillance system management, surveillance planning and prioritisation, and surveillance operations and communication), with a specific focus on NPPO management and governance processes. The workshop will also include training modules specific to the 2015 ISPM 6 revisions (including updated surveillance protocols, general surveillance activities, minimum data standards, specimen reference collection requirements, diagnostics and pest reporting).

This workshop will aim to strengthen regional surveillance capabilities, specifically in the implementation of international and regional surveillance standards (ISPM 4, ISPM 6, ISPM 26 and RSPM No. 3) by providing technical training, reference manuals, online learning resources and surveillance tools. This will strengthen the management of regional plant pest risks, support member's plant pest status, enhance pest risk intelligence analysis and facilitate information sharing amongst the APPPC member countries.

The '*Plant health surveillance management systems workshop*' will be coordinated by the APPPC Secretariat and delivered by DOA plant health surveillance specialists over a five-day workshop in a location TBC. The Australian Department of Agriculture has significant experience in the development and implementation of surveillance systems and has considerable experience in the delivery of biosecurity capacity development activities throughout the Southeast Asia and Pacific region.

The delivery of these workshops will continue to strengthen regional surveillance data management and reporting capabilities, encourage the adoption of regional surveillance systems, promote the adoption of international and regional standards in plant pest surveillance and contribute to the broader objective of strengthening regional biosecurity capabilities.

## APPPC surveillance planning, coordination delivery workshop 2017

The second workshop activity of the series ‘*Plant health surveillance planning, coordination and delivery workshop*’ will introduce participants to the fundamentals of designing, planning, coordinating and delivering surveillance activities and programmes in accordance with international and regional standards (ISPM 6, RSPM No. 7 etc.).

The recently developed IPPC ‘*manual on surveillance*’ will be used as a framework for the workshop, and training modules will include the design and planning of surveillance activities (early detection, monitoring, delimiting etc.), the development and implementation of specific and general surveillance protocols and surveillance programmes and the design of pest risk frameworks to assist NPPO’s in prioritizing surveillance activities. The workshop will also include training modules specific to the 2015 ISPM 6 revisions (including updated surveillance protocols, general surveillance coordination and management, minimum data standards, surveillance diagnostics protocols etc.).

This workshop will aim to strengthen regional surveillance capabilities, specifically in the planning and design of a surveillance programme and prioritization of surveillance activities (priority pests, commodities, risk pathways and market access priorities). This will also include the coordination of emergency response surveillance activities (including delimitation and trace back surveillance), the fundamentals of operational planning and resourcing (financial, infrastructure and human resourcing), and the practical delivery of field surveillance activities.

The workshop will also include technical training on field data collection and submission processes, field communications and survey supervision, stakeholder engagement and community awareness, and the maintenance and governance of general and specific surveillance programmes. Workshop participants will be provided with technical training, reference manuals, online learning resources and surveillance tools to support these training activities.

The ‘*Plant health surveillance planning, coordination and delivery workshop*’ will be coordinated by the APPPC Secretariat and delivered by DOA plant health surveillance specialists over a five-day workshop in a location TBC. The Australian Department of Agriculture has significant experience in the development and implementation of surveillance systems and has considerable experience in the delivery of biosecurity capacity development activities throughout the Southeast Asia and Pacific region. The delivery of these workshops will continue to strengthen regional surveillance data management and reporting capabilities, encourage the adoption of regional surveillance systems, promote the adoption of international and regional standards in plant pest surveillance and contribute to the broader objective of strengthening regional biosecurity capabilities.

Workshop topic	Proposed timings	Workshop summary
<p><b>Plant health surveillance management systems (I)</b></p>	<p>March 2016</p>	<ul style="list-style-type: none"> <li>The initial workshop activity of the series will cover the fundamentals of surveillance systems and management responsibilities of an NPPO in establishing and maintaining plant health surveillance systems and reporting on surveillance systems in accordance with ISPM 6 (revised Oct. 2015) and the IPPC obligations.</li> <li>The recently developed <i>IPPC manual on surveillance</i> will be used as a framework for the workshop, and will include training modules aligned with the three key sections of the surveillance manual (surveillance programme management, surveillance operations and surveillance communication), with a specific focus on management and governance processes.</li> </ul>

Workshop topic	Proposed timings	Workshop summary
		<ul style="list-style-type: none"> <li>This workshop will also include training modules specific to the 2015 ISPM 6 revisions (including updated surveillance protocols, general surveillance activities, minimum data standards, specimen reference collection requirements, diagnostics and pest reporting).</li> </ul>
<p><b>Plant health surveillance planning, coordination and delivery (II)</b></p>	<p>March 2017</p>	<ul style="list-style-type: none"> <li>The second workshop activity will cover the fundamentals of designing, planning, coordinating and delivering surveillance activities and programmes in accordance with international and regional standards (ISPM 6, RSPM No. 7 etc.).</li> <li>Training modules will include the design and planning of surveillance activities (early detection, monitoring, delimiting etc), the development and implementation of specific and general surveillance protocols, surveillance programmes and the design of pest risk frameworks to assist NPPO's in prioritizing surveillance activities.</li> <li>The <i>IPPC manual on surveillance</i> will also be used to provide guidance and training on the operational delivery of surveillance activities (training, resourcing, field diagnostics, sample processing, communications, workplace health and safety etc.).</li> </ul>
<p><b>Surveillance information management systems (III)</b></p>	<p>March 2018</p>	<ul style="list-style-type: none"> <li>The third workshop activity will cover the fundamentals of surveillance information management systems, focusing on the core elements of data collection, consolidation, verification, management and data basing (incorporating both specific surveillance and general surveillance information).</li> <li>The workshop will follow on from the 2014 APPPC 'Surveillance information management systems' workshop, providing further guidance on the design and management of information management systems and the collection of specimen, negative, and observational data in accordance with international and regional standards.</li> </ul>
<p><b>Surveillance statistical analysis, mapping, intelligence generation (IV)</b></p>	<p>March 2019</p>	<ul style="list-style-type: none"> <li>The fourth workshop activity will cover the fundamentals of analysis, modelling and mapping of surveillance data and information, assisting NPPO's in establishing and maintaining plant health information systems to support decision making.</li> <li>Training modules will include the design and maintenance of plant health intelligence systems to incorporate statistical analysis of surveillance data and information (generated from specific surveillance and general surveillance) and the spatial mapping of specimen, host, observation and negative surveillance records.</li> <li>These training activities will assist NPPO's in managing and utilizing surveillance data more effectively through the development of pest lists, modelling of natural and regulated risk pathways (e.g. TAPPAS – tool for assessing pest and pathogen aerial spread), improved resource allocation (through risk based surveillance systems) and enhanced preparedness for pest incursions.</li> </ul>

Workshop topic	Proposed timings	Workshop summary
<b>Surveillance communication, reporting and response (V)</b>	March 2020	<ul style="list-style-type: none"> <li>The fifth workshop activity will cover the fundamentals of surveillance communication and reporting (to meet national, regional and international reporting obligations).</li> <li>Training modules will include the maintenance and management of national pest lists, plant pest reporting (nationally, regionally and internationally), generation of surveillance intelligence documents (risk reports, risk frameworks, spatial mapping tools), and information sharing initiatives to harmonise international and regional standards.</li> <li>The <i>IPPC manual on surveillance</i> will also be used to provide guidance and training on the communication and reporting of surveillance activities and programmes.</li> </ul>
<b>Surveillance pest free area establishment (VI)</b>	March 2021	<ul style="list-style-type: none"> <li>The sixth workshop activity will cover the fundamentals of surveillance systems and programmes to establish and maintain pest free areas (PFA's) in accordance with international and regional standards (ISPM 4, ISPM 6, ISPM 26).</li> <li>Training modules will include the planning and coordination of PFA surveillance programmes, maintenance and management of PFA surveillance records, plant pest reporting (nationally, regionally and internationally), surveillance verification and audit systems, and information sharing initiatives to harmonize international and regional standards.</li> <li>The <i>IPPC manual on surveillance and IPPC implementation of pest free Areas and related phytosanitary improvement measures guide</i> will also be used to provide guidance and training on the communication and reporting of surveillance activities and programmes.</li> </ul>

### Key discussion points and considerations

- IPPC manual on surveillance
- IPPC implementation of pest free areas and related phytosanitary improvement measures
- IPPC diagnostics manual
- National surveillance diagnostic protocols and IPPC diagnostic protocols
- E-learning training opportunities
- ISPM 6 revision (revised standard)

2016 Workshop I				
2017 Workshop II	2018 Workshop III	2019 Workshop IV	2020 Workshop V	2021 Workshop VI

**PLACE AND DATE OF SESSIONS OF  
THE ASIA AND PACIFIC PLANT PROTECTION COMMISSION**

First	–	Bangkok, Thailand	3 to 7 December 1956
Second	–	Kandy, Sri Lanka	2 to 7 December 1957
Third	–	New Delhi, India	7 to 12 December 1959
Fourth	–	Manila, Philippines	11 to 19 June 1962
Fifth	–	Canberra, Australia	26 November to 2 December 1964
Sixth	–	Kuala Lumpur, Malaysia	27 March to 3 April 1967
Seventh	–	Noumea, New Caledonia	15 to 23 July 1969
Eighth	–	Jakarta, Indonesia	4 to 11 October 1971
Ninth	–	New Delhi, India	2 to 9 November 1973
Tenth	–	Canberra, Australia	9 to 16 February 1976
Eleventh	–	Kathmandu, Nepal	22 to 29 September 1978
Twelfth	–	Chiang Mai, Thailand	27 October to 3 November 1980
Thirteenth	–	Manila, Philippines	18 to 23 April 1983
Fourteenth	–	Jakarta, Indonesia	5 to 10 August 1985
Fifteenth	–	Bangkok, Thailand	27 to 30 October 1987
Sixteenth	–	Suweon, Republic of Korea	26 to 30 September 1989
Seventeenth	–	Kuala Lumpur, Malaysia	2 to 7 October 1991
Eighteenth	–	Beijing, China	23 to 28 August 1993
Nineteenth	–	Los Banos, Philippines	27 November to 1 December 1995
Twentieth	–	Chiang Mai, Thailand	26 to 29 August 1997
Twenty-first	–	Yogyakarta, Indonesia	19 to 23 July 1999
Twenty-second	–	Ho Chi Minh City, Viet Nam	17 to 21 September 2001
Twenty-third	–	Kuala Lumpur, Malaysia	4 to 8 August 2003
Twenty-fourth	–	Bangkok, Thailand	5 to 9 September 2005
Twenty-fifth	–	Beijing, China	27 to 31 August 2007
Twenty-sixth	–	New Delhi, India	31 August to 4 September 2009
Twenty-seventh	–	Manila, Philippines	15 to 19 August 2011
Twenty-eighth	–	Jeju, Republic of Korea	23 to 27 September 2013
Twenty-ninth	–	Bali, Indonesia	7 to 11 September 2015

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