# Plant quarantine (2007-2010)

Period	Plant quarantine: Australia
2007- June 2009	Australian IPPC activities Dr Bill Roberts, Biosecurity Australia, was elected as the Southwest Pacific representative on the IPPC Bureau. David Porritt, Biosecurity Australia is one of three Southwest Pacific representatives on the Standards Committee. Australian experts on Technical Panels are Rob Duthie (Fruit Flies) and Mallik Malipatil (Diagnostic Protocols).
	Information exchange has been carried out using the IPP. This has included pest reports and the first nationally endorsed diagnostic protocols, for plum pox virus and apple brown rot (Monilinia fructigena).
	Awareness of IPPC activities and consultation on draft standards continued throughout 2007 and 2008, including contributions to Pacific activities.
	Biosecurity Australia Biosecurity Australia provides science based quarantine assessments and policy advice that protects Australia's favourable pest and disease status and enhances Australia's access to international animal and plant related markets. It develops new policy, usually through an import risk analyses (IRA), and also reviews existing quarantine policy on imports of animals, plants and their products. An IRA is required where there is no quarantine policy or a significant change in existing quarantine policy is to be considered. IRAs identify and classify potential quarantine risks and develop policies to manage them.
	Border quarantine inspections The Australian Quarantine and Inspection Service (AQIS) inspect approximately 900 000 entries of sea or air cargo. The majority of detections of insects, fungi and contaminant weed seeds in horticultural products, grains and seeds and timber are sent for treatment without detailed taxonomic investigation. In addition, a small number of detections of quarantinable pests occur in products that have been released from quarantine. Over 60% of post quarantine detections are of insects, mainly associated with detections are furniture and wooden items (including bamboo, cane and wicker). This is thought to reflect the difficulty in detection on arrival due to the cryptic nature of wood boring insects.
	Australian Fumigation Accreditation Scheme (AFAS) AFAS is a management system for overseas agencies, a training and accreditation for fumigators, a registration system for fumigation companies and acceptance by Australia of fumigation certificates issued under AFAS. The scheme provides capacity building for overseas quarantine agencies in monitoring and registering fumigators and to enhance the technical expertise of

Period	Plant quarantine: Australia
	these fumigators and providing training for methyl bromide fumigations. It also assists fumigators in maintaining a high standard of fumigation performance and compliance with AQIS requirements and facilitates export trade.
	It has been implemented in Indonesia, Malaysia, Thailand, India, Papua New Guinea and the Philippines leading to reduced fumigation failures. Full implementation of AFAS is scheduled in China in 2009 and discussions have commenced with Viet Nam.

Period	Plant quarantine: Australia (Based on the country report presented at APPPC 25 <sup>th</sup> session in August 2007)
Up to 2007	Plant Quarantine (Import Risk Analysis - IRA) Australia has recently reformed its import risk analyses (IRA) process to increase transparency and timeliness, enhance consultation with stakeholders and increase the level of scientific scrutiny. The reforms will not compromise Australia's conservative approach to quarantine or change their science based risk analysis.  Timeframes for the completion of IRAs have been imposed through regulations, improving timeliness and predictability for stakeholders. The regulations provide for a standard or expanded IRA process, depending on the complexity of the science and nature of the biosecurity risks. A standard IRA will be completed within 24 months and an expanded IRA within 30 months. The new process has the flexibility for timeframes to be suspended in certain circumstances, such as when Biosecurity Australia is waiting for scientific information considered essential to complete the IRA. The role of the Eminent Scientists Group (ESG) has been strengthened. The ESG's role will now include assessing conflicting scientific views provided to it and reviewing the conclusions of draft final IRA reports to ensure they are scientifically-based on the material presented.
	A high level <b>Department of Agriculture, Fisheries and Forestry group</b> has been established to prioritize import proposals, thus assisting Biosecurity Australia to develop its work programme. The group will also monitor the progress of IRAs undertaken by Biosecurity Australia. Biosecurity Australia has completed the IRA for New Zealand apples under the previous IRA process and will also finalize the Philippines banana IRA under the old IRA process. The Chief Executive of Biosecurity Australia will announce the transition arrangements for other IRAs currently underway closer to the commencement of the new process. <b>ISPMs and RSPMs</b> Australia continues to be active in standard setting, both internationally and through the APPPC, with Australia involved in the draft ISPM on Sampling of

Consignments and the Technical Panels on Phytosanitary Treatments and Fruit Flies as well as the production of the draft RSPM on Scales.

Plant Pests, Risk Analysis, Phytosanitary Management
Australia continues to detect and respond to incursions of emergency plant pests.
The approach rate of timber borer pests remains high and will be the subject of a pathway risk analysis to review existing approaches to phytosanitary

management. Long running eradication programmes include 6 invasive weed

Queensland, European House Borer in Western Australia. Grapevine leaf rust has been eradicated from the Northern Territory following a four-year programme.

species, citrus canker, red imported fire ant and Wassmania fire ant in

**Period** Plant quarantine: Bangladesh 2009-2010 The Plant Quarantine Section of the Plant Protection Wing (NPPO) has followed the IPPC instructions on the Phytosanitary Export Certification and Phytosanitary Import Regulatory Systems in international trade. NPPO is also implementing the International Standards for Phytosanitary Measures (ISPMs) of IPPC into Bangladesh. Newly framed 'Bangladesh Plant Quarantine Act 2009' has been placed in the Parliament. It is expected that the Act will be passed soon. Plant Quarantine section of Plant Protection Wing is procuring modern equipments for diagnosing the insects pests of quarantine importance. Some of the laboratory equipments have already been procured and started functioning. We have selected some places of production of Mango. Moreover, we have undertaken a program for production of citrus and some vegetables to meet the requirements of EU. This program will be started within April, 2011. In case of emergency, phytosanitary actions will be taken by the authority for any interceptions and non-compliances. NPPO is taking measures against the dishonest traders. So far, NPPO has blacklisted 4(four) vegetable & allied products exporters and three other exporters will be suspended for exporting

Period	Plant quarantine: Bangladesh
2007-June 2009	The Plant Quarantine Section of the Plant Protection Wing (NPPO) has followed the IPPC instructions on the Phytosanitary Export Certification and Phytosanitary Import Regulatory Systems in international trade. NPPO is also implementing the International Standards for Phytosanitary Measures (ISPMs) of IPPC into Bangladesh.

potatoes to EU.

In case of emergency, phytosanitary actions will be taken by the authority for any interception and non-compliance. NPPO has also drafted Bangladesh Plant Quarantine Act, 2009 and submitted it to the Ministry of Agriculture for approval.
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Period	Plant quarantine: Cambodia
2007-June 2009	Regional capacity building Activities emphasise SPS awareness, PRA, diagnostics of plant pests, management of pest reference collections, information management and economics of SPS barriers to trade. It is delivered by a mixture of in-country training workshops and reciprocal training visits by ASEAN and Australian technical experts.

Period	Plant quarantine: Cambodia (Based on the country report presented at APPPC 25 <sup>th</sup> session in August 2007)
Up to 2007	Phytosanitary Database and Staff Capacity Building Progress was mainly made in the establishment of the national phytosanitary
	database and staff capacity building on pest surveillance, pest list and SPS for ASEAN and the placement of plant and animal quarantine staff at the international airport. Constraints to plant quarantine include the absence of plant quarantine check points at river-ports, seaports and border areas. Awareness on phytosanitary inspections was still low and the plant quarantine infrastructure remain much below ISPM standards. The key challenge was to develop a strategy to include plant and animal quarantine staff in the team of inspectors at entry points.

Period	Plant quarantine: China
2009- 2010	During the period of 2009-2010, a number of regulations and standards were formulated. In addition, two new pests were added in the list of quarantine pests of entry based on pest risk analysis.
	In 2009, the pest interception cases in the import cargoes reached the number of 268131. Among them 189 were quarantine pests and 3715 were non-quarantine pests. In 2010, the pest interception cases in the import cargoes were 400497 and among which 217 were quarantine pests and 3437 were non-quarantine pests.

These cases involved consignments coming from 187 countries and regions. China notified relevant countries of the non-compliance through bilateral or multilateral channels according to the ISPMs.

The national survey of Solenopsis mealybug (*Phenacoccus solenopsis* Tinsley) was conduct in 2009 and 2010 since the pest was first detected at the end of 2008. Based on the PRA and limited distribution in China, the new pest was added to the domestic quarantine pest list in 2010 and measures had been taken to control it. In 2010, Sunflower black stem disease (*Leptosphaeria lindquistii* Frezzi=*Phoma macdonaldii* Boerma) was detected in China first time, and the national survey was conducted since then. The new disease was added in the quarantine pest list.

In 2009 and 2010, great effort was also taken to control the codling moth for establishing and maintaining the Pest free areas (PFA) for codling moth. *Radopholus similes* had been successfully eradicated in several sites of Guangdong Province which was detected in seedling imported into China.

Period	Plant quarantine: China
2007- June 2009	During the period from 2007-2008, a number of regulations and technical specifications/standards were formulated. These included, among others, the Regulations on the Quarantine and Supervision of Wood Packaging Materials for Entry/Exit Cargo, the Regulations on the Inspection, Quarantine and Supervision of Entry and Exit Fruits, quarantine protocol for the domestic movement of agricultural plants and plant products, plant quarantine protocol for propagating tubers and seedlings of sweet potato in producing areas. In addition, the People's Republic of China's new list of 435 quarantine pests of entry was issued in 2007, based on pest risk analysis.  Meanwhile, more national inputs have been provided for the control of plant quarantine pest and the infrastructure construction of plant quarantine. Combined operations against major plant quarantine pests have been conducted by relevant provinces. Pest free areas (PFA) for codling moth are on the way to be established. The central government has helped 100 counties to build plant pest early warning and control stations as well as quarantine and testing labs. Efforts have also been made to provide technical trainings for plant quarantine technicians.  In 2007, the 25 <sup>th</sup> session of APPPC was hosted in Beijing, China. A number of
	Chinese experts were invited by IPPC /SPS/APPPC/APEC or sent by the Chinese government to participate in setting and revising relevant international and regional standards for phytosanitary measures. Two APPPC regional phytosanitary standards were drafted. New ISPMs and RSPMs of Asia and the Pacific region during 2007-2008 were implemented. Bilateral consultation mechanism for phytosanitary issues with many countries was found and a large

amount of pest information was provided for counterparts in conducting relevant risk analysis.

During 2007-2008, the pest interception cases in the import cargoes reached a new record height of 390,000. Moreover, 2,600 pest species were found. These included 150 dangerous species in 20,000 cases and the other 2,450 varieties in 370,000 cases. These cases involved 170 countries and regions. China has notified relevant countries of the non-compliance through bilateral and multilateral channels.

Period	Plant quarantine: China (Based on the country report presented at APPPC 25 <sup>th</sup> session in August 2007)
Up to 2007	During the period of 2005-2007, China completed the legislative approval procedures to join the IPPC.
	The Chinese Government made great efforts to fulfill the requirements of the IPPC and the SPS agreement during the past two years. All new phytosanitary measures were set up based on PRA guidelines. Some pest-free areas were set up in accordance with the requirements of the relevant ISPMs.
	International Cooperation In the development of bilateral cooperation, China signed Bilateral Plant Quarantine Cooperation Agreements with several countries. There is also continued cooperation with Kazakhstan on the control of migratory locusts along the borders.
	ISPMs and RSPMs Chinese experts were involved in the establishment of some international and regional ISPM and RSPM standards and protocols.

Period	Plant quarantine: Dem People's Rep of Korea
2009-2010	The National Plant Protection Organization (NPPO) of the Democratic People's Republic of Korea (DPRK) recognizes the importance of PRA in plant protection in the country. The NPPO assesses the risk of pests corresponding with their real condition. The Central Plant Protection Station (CPPS), the Ministry of Agriculture, which is charge of national plant protection, and the Korea Export & Import Commodity Inspection & Quarantine Committee(KIQC), and the State Administration for Quality Management (SAQM) jointly assess the risk of pests occurred in the plant materials and manage the risks of pests, based on the results of pest risk analysis.

Country	Plant quarantine: Korea, DPR
2007-June 2009	In 2007, CPQS updated the "Animal and Plant Quarantine Regulations on Border" and compiled new "Minor Regulations of the Border Animal and Plant Quarantine" with the support of SAQM.  In 2008, the State Administration for Quality Management (SAQM) sent a delegation to China for technical exchange in the field of phytosanitary measures and regulations.  CPQS, MOA, will train more phytosanitary staff and uplift the level of pest risk analysis with the support of SAQM which will provide the advanced inspection equipment with cooperation of AQSIQ, China.

Period	Plant quarantine: India
2007-June 2009	Plant Quarantine regulatory measures are operative through the " <b>Destructive Insects &amp; Pests Act, 1914</b> ". The purpose and intent of this act is to prevent the introduction of pests/diseases into India and transport from one State to another of any insect, fungus or other pest which is or may be destructive to crops. The Directorate of Plant Protection, Quarantine & Storage was established under Ministry of Agriculture (Department of Agriculture & Cooperation) in 1946 and is entrusted with the implementation of Plant Quarantine Regulations issued under the Destructive Insects & Pests Act, 1914. Ministry of Agriculture issued a notification "The Plant Quarantine (Regulation of Import into India) order 2003".
	The new regulation is in enforce from 01.01.2004 and has been amended time to time. The existing Plant Quarantine Stations will be strengthened and there is possibility to establish some more stations with a view to enforce the quarantine regulations more effectively so as to keep the exotic pests and diseases at bay and to facilitate safe global trade in agriculture/horticulture by assisting the producers and exporters by providing a technically competent and reliable Phytosanitary Certification system to meet the requirements of trading partners. In Plant Quarantine, besides ongoing activities, the thrust area pertains to Pest Risk Analysis (PRA) and post entry quarantine surveillance. This has become essential in the light of World Trade Organization (WTO) agreement, which will facilitate more and speedier movement of plants, planting materials globally.

Period	Plant quarantine: India
	The Sanitary and Phytosanitary Agreement of WTO envisages application of phytosanitary measures based on scientific justifications. Therefore, it is imperative to conduct all Plant Quarantine inspections as per the International Standards/guidelines. Accordingly, the National Standards for Phytosanitary Measures for some of the important activities have been developed and adopted. The Standards which are critical for exports have been prioritized. To streamline Plant Quarantine activities, efforts have been made to fully computerize the Plant Quarantine Stations for speedy and transparent functioning.
	Inspection of agricultural commodities meant for export is done as per the requirements of importing countries under International Plant Protection Convention (IPPC) 1951 of FAO, now as per revised text of IPPC and the model certificate prescribed there under, Phytosanitary Certificates are issued. The export inspections involve sampling and detailed laboratory tests in case of seeds and planting material for propagation whereas visual examination under lens and washing tests, etc are carried out for consumption plant material.

Period	Plant quarantine: Japan
2007-June 2009	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 25th session of the APPPC.

Period	Plant quarantine: Lao PDR
2009-2010	Lao PDR is a least developing country, with agriculture being its main sector of natural economy. Lao PDR is a party member of international treaties such as International Plant Protection Convention (IPPC), which provides standards for phytosanitary measures on how to prevent the spread and introduction of pests of plants and plant products. Since the country has limited resources and lacks experience on how to deal with these subjects, both in the short term and the long term, it will place emphasis on securing common and effective action to prevent the spread and introduction of pests of plants and plant products, and to promote appropriate measures for their control. Its application is much wider than the protection of cultivated plants.

#### **Legal framework**

- "Prime Minister Decree on Plant Quarantine" No.66/PM, dated 21 March 1993.
- "Ministerial Agreement on Plant Quarantine Regulation" No.0369/MAF, dated 02 July 1993.
- "Ministerial Notice on Role and Function and Standard for Entry/exit Plant Quarantine Stations for implementing the Prime Minister Decree No.66/PM" No.0754/MAF.DoA.06, dated 14 July 2006.
- "Plant Protection and Quarantine Law, No. 06/NA" has been approved by the National Assembly on 9 December 2008 and promulgated by Presidential Decree No. 241 of 18 December 2008.

## **Set-ups**

1999 - Agricultural Regulatory Division, Department of Agriculture, MAF.

2002 - Reformed Plant Protection Center.

2000 - 9 land border and river port plant quarantine border posts.

2008 - 15 international plant quarantine border posts located in 10 provinces

#### **Assistance from donors**

#### NZAID

NZAID conducted "NZAID Project on Phytosanitary Capacity Development" for three years (2001-2004) to establish strategic plan on phytosanitary and national phytosanitary database (NPD). Now "Phytosanitary Capacity Building Project for the Mekong Region" is ongoing as a second phase project focusing on specific training topics on pest surveillance, pest diagnostic, pest specimen curation and preservation.

#### • AusAID

AusAID is implementing "Sanitary and Phytosanitary Capacity Building Program" to enhance SPS capacity in Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand and Vietnam as a part of "Asia Regional Development Cooperation Program". The project is seeking to extend its activities.

#### • JICA

JICA is supporting an in-country and third country training program on Phytosanitary aiming to train plant quarantine staffs in the area of plant quarantine inspection.

### • World Bank (WB)

WB is producing a paper entitled "Sanitary and Phytosanitary (SPS) management Capacity Building Action Plan" which consolidates the methods to strengthen SPS in Lao PDR. The project is trade focused, not fully to strengthen or develop the capacity on phytosanitary development.

#### **National goal and objectives**

1. Conduct physical and instrumental awareness on newly approved Plant Protection and Quarantine Law.

- 2. Continue using and improving (National Phytosanitary Database) NPD system, since it is already developed half way by the previous NZAID project.
- 3. Improve inspection system at the main entry/exit points.
- 4. Develop national guidelines and procedural manuals on plant quarantine and plant protection accordingly as stipulated in the new plant quarantine law in compliance with WTO/SPS requirements.
- 5. Improve pest surveillance systems as well as pest inventory and insect pest collection for major high economic potential crops.
- 6. Improve pest diagnostic capability.
- 7. Improve pest risk analysis capability.
- 8. Improve export certification system.
- 9. Develop eradication standards for national pests of plants and plant products.
- 10. Integration of plant and animal quarantine activities at the entry/exit points;
- 11. Develop a repository of plant pest information on selected major crops based on general surveillance data by collating data/information on all previously recorded pests in the country and entering the data/information in the pest status records component of the national phytosanitary database (NPD).
- 12. Develop and strengthen physical facilities (premise and equipment) required for plant pest diagnosis. These include a two-level reference laboratory capable for diagnosis of a wide range of plant pest in the various disciplines in central laboratory that should be set in the Plant Protection Center (PPC) in Vientiane, and the development of smaller regional laboratories furbishing with necessary rudimentary equipment capable for identification of plant pest at a more basic level at strategic location in the provincial offices near major entry/exit points and major crop production areas. In this context, the post-entry plant quarantine station should be also taken into account.
- 13. Develop the human resource capabilities for undertaking pest diagnosis in the various phytosanitary and plant health disciplines.

Lao PDR currently has minimal or no capabilities for the identification of some significant pest groups including virus like organisms, bacteria, fungi and weeds.

The capacity to identify arthropod pests is also mainly limited to a small number of common pests which are known to occur on rice in Lao PDR. Hence, this is another critical area which needs urgent attention but one which will take a few years for developing all the intangible assets (e.g. human resource, technical capabilities) and tangible assets (including laboratories and equipment).

The NPPO currently has very limited capacity to minimize the probability of

new pest introductions or for early detection of new pest introduction and respond to such introductions before the pest becomes widely established. Hence this is another important area for capacity development.

The NPPO has virtually no capacity or competencies to raise PRA to international standards. The lack of technically skilled manpower in Lao PDR, at least in the short term, presents the NPPO with major challenges.

Strategic options to consider in the short term include awareness building and training programs for the development of basic skills for undertaking PRA with management and technical staff from the NPPO, NAFRI, NAFES and the Faculty of Agriculture of the National University of Laos with donor agency assistance; development of computer assisted tools to facilitate learning and for undertaking PRAs, improving the resources required for undertaking PRAs (modern books, access to the internet, CD-ROMs with pest and crop information, etc).

In the medium term to long term, the development of the capacity of the National University of Laos to teach PRA as part of its curriculum in plant protection would be a cost effective way of building sustainable systems in the country. Advanced level training for specialists from the University to acquire the skills and establish a course in PRA would assist in developing the foundation for capacity building in this fundamental area for phytosanitary activities.

The NPPO has also very limited capacity to undertake pest diagnosis in almost all the disciplines. The gaps are substantial in all areas: skilled human resources, systems, documented procedures, physical assets (including appropriate laboratories and equipment) and laboratory management capabilities.

The most serious area of concern is the shortage of technically skilled manpower in Lao PDR, leaving the NPPO with limited options for the rapid development of high level technical pest diagnostic skills in this critical or core area.

Specific surveys are procedures by which a NPPO obtains information on pests of concern on specific sites in an area over a defined period of time. The verified information acquired may be used to determine the presence or distribution of pests in an area or in a host or commodity, or their absence from an area (in the establishment of pest free areas).

Historically, specific survey programmes have mainly been focused on rice established under field based Integrated Pest Management (IPM) Programmes for a relatively small number of readily observable pests. Most of the data collected under these programmes were in the nature of monitoring surveys on pest-predator population levels especially on insect pests to determine if interventions were required to control the pest populations. Hence, the objectives of the IPM surveys and the methodologies employed were significantly different from what is required for developing a comprehensive pest surveillance system on a wide range of crops with stringent requirements for pest diagnosis (identification and verification) as outlined in the ISPMs.

Neither the NPPO nor any of the non-NPPO agencies can currently meet the technical requirements for diagnostic services in most of the disciplines.

Capacity building for pest diagnosis is an urgent and high priority area of need but one in which substantial inputs are required both from the government and from donor agencies.

The NPPO needs a management system that ensures that all requirements, including certification specifications, legislative requirements and administrative requirements are satisfied; identify a person or office responsible for the export certification system; identify the duties and lines of communication of all personnel with certification related responsibilities; and ensure that adequate personnel and resources are available to undertake the following functions:

- maintenance of information on importing country phytosanitary requirements as needed;
- production of operational instructions to ensure that importing country phytosanitary requirements are satisfied;
- inspection and testing of consignments and associated conveyances;
- identification of organisms found during inspection of consignments;
- verification of the authenticity and integrity of phytosanitary procedures;
- completion and issue of phytosanitary certificates;
- document storage and retrieval;
- training;
- dissemination of certification-related information;
- review regularly the effectiveness of its export certification system; and
- development of bilateral protocols, if necessary.

Period	Plant quarantine: Lao PDR
2007-June 2009	Lao PDR has not yet fully implemented all 27 ISPMs adopted by CPM. The status of pest surveillance is essentially an ad hoc event with no long term planning program in place, very limited resources and limited management capacity. Human resource development is the major issue of concern. The development of documented systems and processes, alignment of current activities with the requirements of international standards, improving the physical resources (equipment and transport) are all issues which the NPPO has to address to develop or improve the plant pest surveillance systems in Lao PDR. Because pest surveillance is a national issue, formalized collaborative systems with the provincial departments of agriculture and forestry (PAFO/DAFO), National Agriculture and Forestry Research Institute (NAFRI), the National Agriculture and Forestry Extension Service (NAFES) and the National University of Laos (Faculty of Agriculture) needs to be developed or strengthened.  Protecting the Lao People's Democratic Republic's Plant Health Status and Facilitating Safe Trade in Plants and Plant Products, the NPPO of Lao PDR is dealing its mandates with the Prime Minister Decree on Plant Quarantine promulgated on 1993 and so far to be in compliance with the WTO-SPS Agreement the National Assembly has approved new Plant Protection and

Quarantine Law on December 2008. This new law determines the mandate of the NPPO to become a highly effective, efficient and professional with the capacities and competencies to protect the nation's plant health status and biodiversity and promote market access for plants and plant products in compliance with international agreements and standards.

As the role and responsibilities of the NPPO has been made more explicit under the WTO/SPS regime and stipulated in the New Revised Text of the IPPC (1997), there is an increasing demand for government organizations to be more efficient, transparent and accountable for their activities or actions both globally with the trading partners and nationally with their stakeholders. Identified strategic areas for further development towards 2010 and 2020 including increasing rice production and production of other crops including maize, coffee, cassava, soybean, green bean, peanut, sugarcane, sugar palm fruit, sesame, vegetable and tropical fruit require to pay critical attention to all economic sectors reforms; to develop human resources in various areas, and to support modern industry development.

At present, potentially more than 9 land border posts are going to play a major role in connecting Lao PDR to the neighboring countries. Lao PDR is also likely to become a major land route for the movement of agricultural products in the GMS countries. Hence, for instance, in the strategic planning process, careful assessment need to be undertaken on the anticipated or projected increase in activities at the various entry/exit points. There entry/exit points are likely to need improved facilities for phytosanitary inspections, testing, certification, etc. Capacity building and infrastructure investment must be prioritized accordingly to correct need.

Period	Plant quarantine: Malaysia
2007-June 2009	As for plant quarantine organization, a agency known as Malaysia Quarantine Inspection Service (MAQIS) has been introduced in the organization. This agency is responsible for the inspection services for all agriculture products includes plants, animal and fish at the entry check points in Peninsular Malaysia since August 2008. In addition to that, there is a policy among ASEAN countries, whereby the international entry points are operating under CIQS system as one stop centre to facilitate trade and tourism. There is an appointment of new Director General in Department of Agriculture (DOA) Peninsular Malaysia (2008), Sabah (2007) due to retirement.  Treatment facilities in Malaysia have been improved with the purchase of 3 Vapour Heat Treatment units, each with a 5 ton capacity, to carry out phytosanitary treatment for the purpose of market access to Japan and other potential markets. Establishment of two export centre in Kuala Lumpur International Airport and Serdang Selangor to carry phytosanitary treatment,

processing and packaging.

Electronic permits for import and export had been introduced for import and export of commodities since 2007. The Repository and Culture Collection Centre had also been established in 2007 to serve as biological centre with the aim of acquisition, authentication, production, preservation, development and distribution of standard reference for pest and beneficial organisms specimens as well as to address phytosanitary concerns.

In order to facilitate trade and market access of agriculture produces/products, Malaysia had also carried out the following phytosanitary measures:

- Pest risk analysis for papaya, jack fruit, rambutan, pineapple, and star fruit had recently been completed in order to facilitate market access to USA.
- Malaysia has established three accreditation schemes namely, Malaysia Fumigation Accreditation Scheme (MAFAS), Malaysia Heat Treatment Accreditation Scheme (MAHTAS), and Malaysia Phytosanitary Certification Assurance Scheme (MPCA) to mitigate pest risk, expedite export with minimal phytosanitary requirements.
- ISPM 15 for import will be implemented at the end of this year 2009.
- Revised import requirement for mango seed weevil (Sternochetus mangiferae) and guava fruit fly (Bactrocera correcta)
- Gazetting papaya die-back as a quarantine pest for the control and eradication of this disease on papaya
- In the final stage of developing national pest list for commodities such as oil palm, rubber and forest trees.

Since 2007, several significant events have taken place in the area of crop protection. Most notably is the enhancement of officer capability in identification/diagnosis of plant pests and diseases. This is made possible with the establishment of the biotechnology unit and the availability of polymerase chain reaction (PCR) technique which has enabled the foresaid activities to be carried out with a greater degree of accuracy and precision, thus, making appropriate remedial measures to be speedily dispensed to the targeted clients. Working closely with the Chemistry Department, this technique (PCR) is also being employed to detect for the presence of GMO in agricultural produce, specifically edible seeds, imported into the country.

Period	Plant quarantine: Myanmar
2007-June 2009	The Plant Protection Division, Myanma Agriculture Service of the Ministry of Agriculture and Irrigation is legally responsible for issuing phytosanitary certificates and import certificates, according to the Plant Pest Quarantine Law.

The certificates for import and export are issued at the headquarters of the Plant Protection Division as well as at the eight border entry points and two inspection stations. As regards the consignment transits, the post entry quarantine studies have been carried out with limitations.

In relation to the ISPMs, Myanmar, as a developing country, has some technical barriers to implement the ISPMs. Myanmar has a very limited number of experts in the field of entomology, plant pathology, weed science and post-harvest quarantine. That in facts is a major obstacle for the implementation of ISPMs. Capacity building and human resource development are absolutely critical issues in Myanmar.

Period	Plant quarantine: New Zealand
2007-June 2009	In December 2006, the Director-General of MAF announced that MAF's two biosecurity businesses Biosecurity New Zealand (BNZ), and MAF Quarantine Service (MQS) would be structurally integrated. The new integrated organisation commenced operations on the1st of July 2007, and is now known as MAF Biosecurity New Zealand (MAF BNZ).
	Around \$NZ500 million is spent annually on biosecurity in New Zealand, with activities undertaken by central government, regional councils, industry and private landowners. It is estimated government agencies are responsible for \$NZ304 million of this.
	MAF have approximately 1000 full time and part-time staff, based across New Zealand and overseas. They include vets, scientists, quarantine inspectors, directors, managers, administrators, advisers, Detector Dogs and their handlers, analysts, investigators, legal experts, policy makers, communicators, strategist and business services staff.
	Seventy five new organisms associated with plants and plant products were recorded as new to New Zealand by MAF BNZ in 2007/2008. MAF BNZ has officially responded to the presence of a number of these organisms.
	New Zealand continues to develop and review import health standards based on pest risk assessment in accordance with the International Standards for Phytosanitary Measures. Since the 25th session of the APPC, import health standards have been developed for a range of plants and plant products.
	New Zealand continues to be active in the development, implementation and promotion of international and regional standards.

Period	Plant quarantine: Pakistan
2007-June 2009	In 2008, the number of phytosanitary inspections amounted to 70,244. The country's international trade in 2008 increased significantly with the export of rice amounting to 2.7 million metric tons while the export of fresh and dry fruits amounted to almost 600,000 metric tons. The number of conventional phytosanitary certificates which were issued amounted to 70,244.  Pakistan Plant Quarantine Act and Rules are being revised. The Central Plant Quarantine Laboratory and three regional labs are being completed. Equipment is being installed and recruitment of personnel is under process. A total of 08 PRA of different crops are completed for 52 insects, 72 pathogens and 8 plants but they are being made in conformity of ISPM-4.  The main constraint faced by the country is lack of trained personnel for PRA preparation. Training of personnel is also required in collection of information and preparation of different PRA's according to ISPM and surveillance lab analysis.  In relation to the implementation of ISPMs, although many areas have been identified for full implementation, few are not fully implemented, mainly due to lack of resources and personnel.

Period	Plant quarantine: Philippines
2009-2010	The Bureau of Plant Industry's Plant Quarantine Service (BPI-PQS) is the office under the Office of the Director mandated to implement national laws and international guidelines regarding phytosanitary issues and concerns. Among these are the importation, exportation, domestic movement of agricultural plant and plant products phytosanitary risk management activities prior to trade and maintenance of the integrity of the plant industry of the country. To fulfill this mandate, the BPI-PQS embarked on various physical and institutional capacity building activities in 2009-2010 and has remained proactive in developing the capacity of its personnel and physical capital.  The BPI-PQS has remained vigilant in securing the country's borders from pests as it has reinforced the capacity of its ports of entry by training Plant Quarantine Officers locally and abroad. The BPI-PQS has been a recipient of training programs which cover Sanitary and Phytosanitary matters, especially
	times of emergency, such as pest outbreaks and food safety risks. Specific topics are prevention of pest incursion, pest eradication and risk management. This is in addition to its function of issuing Plant Quarantine Certificates

(Import Permit) for plants, plant products and planting materials.

In the field of export, the BPI-PQS has continued to search for market opportunities for its agricultural commodities. Bilateral relations are created and the existing ones are enhanced through information exchange and mutual cooperation. The export programs of the Philippines (mangoes, pineapples, papayas, etc.) to different trading partners have continued to prosper despite some adjustments to Phytosanitary measures of the international phytosanitary community.

Domestic movement of plants and plant products is continuously monitored by the BPI-PQS to maintain the integrity of the plant industry and protect the spread of pests on-shore. This is done since the Philippines maintains pest-free areas and areas of low pest prevalence. Pest eradication programs were also launched in order to minimize, if not eliminate, the risks that existing pests pose. This paves the way for the opening up of possible markets for the high-value commodities of the country.

The BPI-PQS has remained active in its participation in different national and international SPS forums, seminars and training activities. This approach is done through coordination with other government departments (e.g. the Department of Trade and Industry, the Bureau of Customs, the Department of Health) and international organizations (the WTO, FAO, ASEAN, and the EU).

Period	Plant quarantine: Philippines
2007-June 2009	The Plant Quarantine Service (PQS) came up with a series of activities, programs and developments during the Calendar Year 2007-2008, heading towards the three-point program focus of improving the PQS image, technical excellence and efficiency to further strengthen the PQS' capacity to render service and carry out its mandate.  In line with the PQS' thrust of improving its image and technical excellence, PQS conducted a series of Developing Personal Excellence Seminar for all PQS personnel to develop and improve working relationship through identification of one's self-concept, clarification of one's values and goals and team building process. A series of extensive technical trainings were also facilitated by the PQS which were participated by Plant Quarantine personnel nationwide. This includes <i>Training on Identification of Pests and Diseases of Fresh Fruits and Vegetables, Stored Products and Wood &amp; Non-wood Forest Products, Training on Identification of Fruit fly, Identification of Ornamental Plants and its Pests and Diseases, Training on Inspection Protocol on Musa Plantlets</i> and the 6 <sup>th</sup> General Plant Quarantine Training. This is part of the technical upgrading of the PQS to equip its personnel with knowledge and

learning experience for proficient performance of their duties. On top of these locally organized and funded training, PQS personnel attended numerous training conducted abroad. Moreover, part of PQS' focus of providing efficient and effective service to its clientele, new PQS buildings at the Port of Iloilo, Batangas and Bacolod were constructed and the diagnostic laboratory at the PQS South Harbor was renovated. PQS also acquired additional vehicles for smooth PQS operations. An 87 square meter treatment area was also constructed at the Central office for rapid export facilitation of cut flowers and ornamental plants.

With the Philippine Plant Quarantine's need to conform to the international quarantine standards, comply with the requirements of the importing countries and expand the Philippine market internationally, PQS formulated and modified rules and regulatory policies and lined- up plans and programs to meet the said needs. Protocols for export were developed and amended which includes Protocol for the Export of Fresh Asparagus to Japan, Revised Protocol for the Export of Fresh Cavendish Banana and Revised Protocol for the Export of Fresh Okra to Japan. PQS also formulated Guidelines for the Implementation of the Australian Fumigation Accreditation Scheme (AFAS) in the Philippines which signifies the readiness of the POS to implement high standard fumigation. Rules and Regulations for the Importation, Exportation and Domestic Movement of Irradiated Plants and Plant Products and the Use of Irradiation as Phytosanitary Treatment was also issued which provides another regulatory option for the Philippines with regards to phytosanitary treatment of fruits and vegetables for export. Recently, the PQS also set-up a total of 260 fruit fly traps all over the country. Ten sites per region were determined as strategic locations for setting of traps. Data gathered in the survey will show the population and changes of population of fruit fly within the coverage area. The survey is a continuing activity of PQS in which the information gathered will be readily available once needed by the countries importing mangoes and other fruits from the Philippines. Furthermore, additional areas were surveyed and identified by the Philippines as area free from Mango Pulp Weevil (Sternochetus frigidus) and Mango Seed Weevil (Sternochetus mangiferae). These includes the Province of Davao del Sur, Sarangani and City of General Santos. This provides a great opportunity for Philippine exporters given that there will be additional production areas as source of mangoes for export to other countries.

All these changes and developments reflect the Philippine Plant Quarantine's initiative of having an improved system in place, highly trained technical personnel, better buildings and laboratory facilities and good rules and regulatory policies to achieve its three-point program focus and proficiently perform the PQS mandate.

Period	Plant quarantine: Republic of Korea
2009-2010	National Plant Quarantine Service (NPQS) of the Ministry for Food, Agriculture, Forestry and Fisheries (MIFAFF) developed a '10-year plan for plant quarantine development' in 2007. There are 3 goals: (1) prevention of exotic pest, (2) protection of agricultural and natural resources and (3) contribution to agricultural competitiveness and national development.
	Since 2008, NPQS has placed strong emphasis on increasing work efficiency with differentiation of inspection methods according to pest risk and adaptation of IT to plant quarantine management system. NPQS has also facilitated export of agricultural products through active negotiation with trading partners and customer friendly inspection for export.

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	Since 2008, NPQS has placed strong emphasis on increasing work efficiency with differentiation of inspection methods according to pest risk and adaptation of IT to plant quarantine management system. NPQS has also facilitated export of agricultural products through active negotiation with trading partners and customer friendly inspection for export.

Period	Plant quarantine: Sri Lanka
2007-June 2009	There were some important changes in the organization during the period under review, Dr. D. H. Muthukudaarachchi was appointed as the Director of the Seed Certification and Plant Protection Centre and thus became the official contact point person for IPPC. The most senior officers working in plant quarantine stations were transferred out of their work places giving way to new officers. There was a policy decision to replace two most senior officers in every three years by other competent officials. The officer holding the Deputy Director post of the National Plant Quarantine Service (NPQS) retired from public service in 2007 and the following year, I was appointed as

recommendations.

Necessary discussions and the consultations were held to revise the regulations made under the Plant Protection Act. The draft was submitted to the World Trade Organization to revise comments from stakeholders. The required changes were made and the draft of regulations is under review for consistency with the Act. Legal implications on certain decision taken under the provisions of the Plant Protection Act resulted in discovery of some loopholes and the authorities appointed a committee to revise the act. The committee had several discussions on changes to meet the present day requirements and to make the act and the regulations consistent with IPPC

Quarantine pest intercepted during the import of planting material included *Phoma foveata, Clavieacter michiganensis spp., scpedonicus*, and *Geotrichum candidum*, on sweet potato *Ralastonia solanacearum* on ginger. In 2008, 757 questionable consignments were intercepted and destroyed due to unacceptable phytosanitary states. Upgrading of pest reference collection at the NPQS was done adding 80 specimens of insect pests found in the country.

Pest Risk Analysis (PRA) on powdery scab on potato was completed and PRAs on import of dragon fruit and mangosteen from Thailand and in vitro cultures of banana from the Philippines were started. After careful study and bilateral negotiations fresh grapes from Chile were allowed to enter into the country.

Period	Plant quarantine: Thailand
2007-June 2009	The Plant Quarantine Act B.E. 2507 (1952) amended by the Plant Quarantine Act (No.2) B.E. 2542 (1999) and Plant Quarantine Act (No.3) B.E. 2551 (2008) have been enforced by the Department of Agriculture (DOA), the Ministry of Agriculture and Cooperatives (MOAC).  The Plant Quarantine Act (No. 3) B.E. 2551(2008) which was published in the Royal Gazette in May 2008 contains 26 Sections which provide specifications and criteria for notification of plants, plant pests and carriers as prohibited articles, adding power to control the exportation of specific controlled plants, as well as enhancing power of plant quarantine officers toward an effective prevention of exotic plant pests and diseases.  In 2007-2008, the Department of Agriculture (DOA) gave five of Notifications of the Ministry of Agriculture and Cooperatives and eight of its own Notifications to strengthen the quarantine practices for both export plants and plant products and import prohibited articles.

Period	Plant quarantine: Viet Nam
2009-2010	Pest record/identification
	During 2009-2010, 248 cases of quarantine pest interception were reported, including:
	<ul> <li>In 2009: 59 cases, particularly:</li> <li>Bacterial wilt of maize (<i>Pantoea stewarii</i> (Smith) Mergaert et al) intercepted on maize imported into Viet Nam from Thailand.</li> <li>Potato tuber moth (<i>Phthorimaea operculella</i> (Zeller 1873) intercepted on potato imported from China.</li> <li>Khapra beetle (<i>Trogoderma granarium</i> Everts) intercepted on coconut oil-cake of Indonesia, wheat bran of Srilanca.</li> </ul>
	- In 2010: 189 cases. Especially, since August 2010 <i>Khapra beetle</i> ( <i>Trogoderma granarium</i> ) intercepted on corn, soya bean means, bailey and millet imported from India into Viet Nam.
	- In 2011, to 16 <sup>th</sup> February 2011, <i>Khapra beetle (Trogoderma granarium)</i> intercepted on 104 consignments imported from India into Viet Nam.
	New regulations/decisions
	<ul> <li>Decree.02/2007/ND-CP of the government on plant quarantine dated 5 January 2007.</li> <li>Decision No.34/2007/QD-BNN of 23 April 2007 publishing the list of regulated articles subject to pest risk analysis before importing into Viet Nam.</li> </ul>
	<ul> <li>Decision No.48/2007/QD-BNN of 29 May 2007, Regulation Procedure for issuance of the phytosanitary import permit for articles subject to pest risk analysis before importing into Viet Nam.</li> </ul>
	• Decision No.89/QD-BNN of 29 October of Minister of Agriculture and Rural Development promulgating regulations on state management on fumigation practice for regulated articles.
	• New Law on Plant Protection is being drafted and will be submitted to the National Assembly in 2013.
	Projects/program cooperation
	• Improvement of Plant Quarantine treatment against Fruit Fly on fresh fruits (JICA), finished in 2008
	<ul> <li>Dragon fruit has been approved and entered into US market since October 2008</li> <li>Two irradiation treatment facilities established in ABC Company and Son</li> </ul>
	• Two irradiation treatment facilities established in ABC Company and Son Son Company
	<ul> <li>One vapor heat treatment facility established by Yashaka Company</li> <li>Viet Nam Methyl bromide phase out plan: ongoing with WB funding</li> <li>NZAID phytosanitary capacity building in the Mekong region: going to terminate (NPD development is ongoing).</li> </ul>

Period	Plant quarantine: Viet Nam
2007-June 2009	Pest record/identification During the period from 2007 to 2008, 104 cases of quarantine pest interception were reported, including:
	- Bacterial wilt of maize (Pantoea stewartii (Smith) Mergaert et al) intercepted on maize imported into Viet Nam from Thailand.
	- Potato tuber moth (Phthorimaea operculella (Zeller 1873) intercepted on potato imported from China.
	- Khapra beetle (Trogoderma granarium Everts) intercepted on coconut oil-cake of Indonesia, wheat bran of Srilanca.
	New regulations/decisions: - Decree No:02/2007/ND-CP of the government on plant quarantine dated 05 January 2007.
	- Decision No 34/2007/QD-BNN of 23 April 2007 publishing the list of regulated articles subject to pest risk analysis before importing into Viet Nam.
	- Decision No 48 /2007/QD-BNN of 29 May 2007, Regulation on Procedure for the issuance of the phytosanitary import permit for articles subject to pest risk analysis before importing into Viet Nam.
	- Decision No 89/QD-BNN of 29 October 2007 of Minister of Agriculture and Rural Development promulgating regulations on state management on fumigation practice for regulated articles.
	- New Law on Plant Protection is being drafted and will be submitted to the National Assembly by the end of 2010 for endorsement.
	Projects/ program cooperation: - Improvement of Plant Quarantine treatment against Fruit Fly on fresh fruits (JICA), finished 2008.
	- Dragon fruit has been approved and entered into U.S market since October 2008.
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	- 1 vapor heat treatment facility is being built.

- Viet Nam Methyl bromide phase out plan: on-going with World Bank funding.
- NZAID phytosanitary capacity building in the Mekong region: going to terminate, (NPD development still on-going).

## **Achievements:**

- BPH and Grassy stunt viruses were successfully control in past two years by using IPM Community approach for BPH control/management with assistance from FAO/TCP Project.
- Coconut beetle was also under controlled by introduction of new parasites from Samoa under FAO/TCP Project.
- Many quarantine pests found in two years (104 times).
- Successful Technical Market Access to U.S, Japan.
- Established equipment of vapor heat treatment and irradiation for fresh fruits exported.
- National Capacity building in Phytosanitary was put in high priority in agriculture sector.