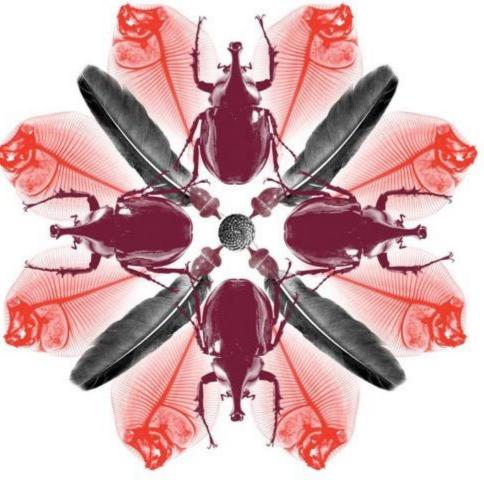


<u>APPPC Surveillance Implementation Strategy</u> <u>A Regional Perspective</u>



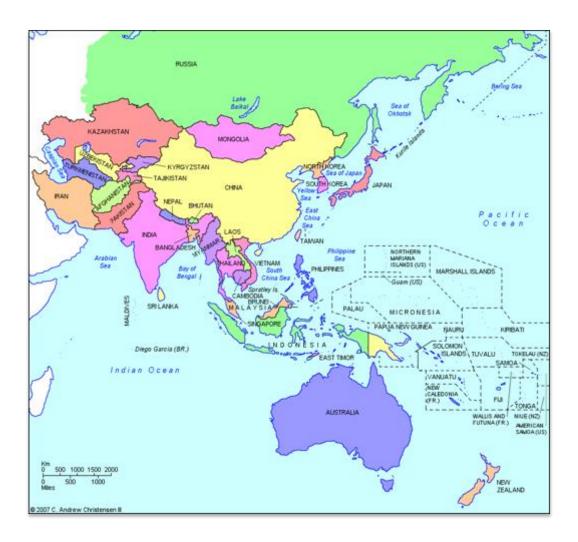


IPPC International Symposium on PFAs and Surveillance



Department of Agriculture

Asia Pacific Plant Protection Commission (APPPC)



- <u>Twenty five</u> countries are currently members of the Commission:
- Australia, Bangladesh, Cambodia, China, Democratic People's Republic of Korea, Fiji, France, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Samoa (Western), Solomon Islands, Sri Lanka, Thailand, Timor-Leste, Tonga, Vietnam



Asia Pacific Plant Protection Commission (APPPC)

- The Asia-Pacific Plant Protection Commission (APPPC) was convened in 1956 and administers the Regional Plant Protection Agreement for Asia and the Pacific.
- The commission coordinaties and promotes the development of regional plant protection systems, assisting member countries to develop effective plant protection regimes, setting standards for phytosanitary measures, and facilitating information sharing are among its key objectives.
- The Commission provides a regional forum for cooperation and the full implementation of the Plant Protection Agreement for the Asia and Pacific region.



Australian Government

Department of Agriculture

REPORT OF THE GLOBAL SYMPOSIUM ON PLANT PEST SURVEILLANCE

29 October – 2 November, 2012

Anyang, Seoul, Republic of Korea

Executive summary

This symposium was established to develop assistance for countries in the implementation of International standard on phytosanitary measures (ISPM) 6: *Guidelines for surveillance*. It also set up for the first time priority setting for the development of manual guides based on comprehensive questionnaire results and manual framework description by an expert group with global representation.

Countries were to be assisted in the production of national manuals on surveillance. This was done by:

- Identifying the priority areas for attention. Information gathered by the IRSS questionnaire on ISPM 6 was used for this purpose.
- With these areas identified, manual frameworks were constructed by the meeting participants. These frameworks contained chapter headings with additional outline material included as appropriate.

Three basic areas of manual frameworks on surveillance were covered. These were:

- Surveillance operational guidance
 Surveillance technical support
- Surveillance technical support
 Surveillance management support

Under these headings, twenty manual frameworks were constructed:

- 1. Plant pest surveillance development
- Training manual guide for field surveys
 Information sharing and reporting (including warning)
- Information sharing and reporting (in
 Auditing and verification
- Audulting an
 Databases
- 6. Response surveillance (plan/planning) including delimitation and trace-back
- 7. Prioritisation target pests

8. Trapping

- 9. Sampling and inspection 10. Procedures for traceability
- 11. Operational mapping/modelling
- 12. Crop loss-damage assessment
- 13. Response threshold

Plant pest diagnostics
 Surveillance tools

- 16. Information management
- 17. Training (lab procedures and diagnostics)

18. Policy and management

Report of the Global symposium on plant pest surveillance / October-November 2012/ page 1

<u>Global Symposium on Plant Pest Surveillance,</u> <u>29 October - 2 November 2012</u> <u>Republic of Korea</u>

- The symposium discussed and addressed the issue of implementation of International standard on phytosanitary measures (ISPM) 6: *Guidelines for surveillance*.
- The symposium set priorities for the development of manual guides based on NPPO questionnaires.
- The symposium Identified priority areas for national and regional attention. Information gathered by the IRSS questionnaire on ISPM 6 was used for this purpose.
- With these key implementation areas identified, manual frameworks were constructed by the meeting participants. These frameworks contained chapter headings with additional outline material included as appropriate.



Australian Government Department of Agriculture

IPPC Surveillance Implementation Pilot

Ke MAN CONCE	
International Plant Protection Convention	15_CDC_2015_Nov
Concept Note - Pilot Project on Surveillance	Agenda item:4.5

Concept Note

Putting the IPPC and standards into action - a pilot project on Surveillance

Context of the Action

Pests of plants, including invasive alien species are having unprecedented impacts on the economy, agriculture sustianability, food security and the environment as their global movement is accelerated as a consequence of trade and influenced by climate change. In the International Plant Protection Convention (IPPC), pests are defined as any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products (this includes invasive alien species). Preventing the introduction and spread of pests calls for global cooperation among countries to minimize the impacts of pests of plants.

The IPPC is an international plant health agreement signed by 182 contracting parties aiming to protect cultivated and wild plants by preventing the introduction and spread of pests of plants. The IPPC provides contracting parties an international forum for cooperation, the setting of international standards, the sharing of information and implementation activities which strengthen contracting parties abilities to implement the Convention and its standards.

The IPPC is governed by its Commission on Phytosanitary Measures (CPM) and it agreed during 2015 to develop a long-term IPPC implementation programme as a practical contribution to all four IPPC strategic objectives, namely:

- protecting sustainable agriculture and enhancing global food security through the prevention of pest spread;
- protecting the environment, forests and biodiversity from plant pests;
- facilitating economic and trade development through the promotion of harmonized scientifically based phytosanitary measures, and:
- developing phytosanitary capacity for members to accomplish the preceding three objectives.

This directly contributes to the Food and Agriculture Organization of the United Nations (FAO) goal to eradicate hunger and poverty, plants being the base on which food security relies.

This implementation programme will start with a pilot project focusing on surveillance, which is defined as an official process which collects and records data on pest occurrence or absence by survey, monitoring or other procedures. Surveillance is the foundation upon which other areas of a plant health system are built. Enhancing surveillance activities therefore has positive consequences on the whole functioning of phytosanitary systems in place, and in particular certification activities, assurance of the accuracy of pest freedom, trust in between trading partners, etc. Furthermore, pest surveillance is one of the national plant protection organization's (NPPO) obligations and responsibilities that requires the cooperation and networking of a number of national stakeholders. Specific International Standards for Phytosanitary Measures (ISPMs), in particular Carbate for surveillance), provide the framework for this topic. Baseline surveys performed through the Implementation Review and Support System (IRSS)¹, the results of the Phytosanitary Capacity Evaluation (PCE)² tool and the

1 The Implementation Review and Support System (IRSS) is an evaluation tool which identifies your country's plant protection challenges and best practices. How does this help your country? By generating global and regional information, a broader reach of country feedback improves upon the development of IPPC standards, taking into account as many country implementation challenges as possible.

International Plant Protection Convention

Page 1 of 6

- Biosecurity and National Plant Protection Organisations within the Asia Pacific region initiated several activities from the surveillance implementation pilot including hosting a workshop to develop surveillance reference materials for three global priority pests.
- APPPC and IPPC surveys and workshops also identified implementation and adoption gaps and prioritised the development of plant pest surveillance manuals and new tools for the implementation of these priorities (i.e. data collection, management and reporting).

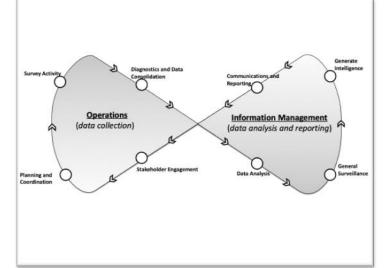


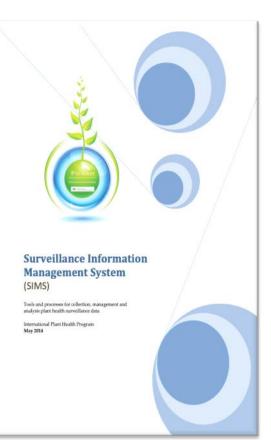
2014 APPPC Surveillance Information Management Systems (SIMS) Workshop

IPHP Field Surveillance Sequence (P-tracker) 2015

Field Name	Pre-Populated Field Va	alues	
SurveyID	- Country / Locati	on/Year	
CollectionID	- TBC (Collectors Unique Collction Id Code)		
CollectionDate	- Date of Record		
HostCommon	- Eg. Rubber Tree		
HostGenus	- Eg. Heven		
HostSpecies	 Eg. Brasiliensis 		
PestOrder	- Eg. Capnodiales		
PestFamily	 Eg. Mycospaerellacea 		
PestGenus	- Eg Microcylus		
PestSpecies	- Eg.uki		
PestCommonName	 Eg. South American Leaf Blight (SALB) 		
PestCalegory	- Fungus		
Location Level1	- Country Location / District or Province Location		
Location_Level2	 Immediate Location (Suburb, Town, Village) 		
Latitude	- GP5 coordinate		
Longitude	- GPS coordinate		
Collector	- Participant Details		
CollectionMethod	- Hand Collection		
	- Trapping		
	- Observation		
RecordType	Specimen	a physical specimen has been collected	
	Observation: present	visual inspection indicates the pest is present	
	Observation: absent	visual inspection indicates the pest is absent	
DiagnosticResult	Positive	positive diagnostic result for the pest (present)	
	Negative	negative diagnostic result for the pest (absent)	
	Unknown	unable to identify the pest	
	Pending	the result of diagnostics are not yet confirmed/complete	
Unit	 Individual Plants 		
	- Hectare		
	- Square Metre		
	- Transet		
NumberInspected	- Total Number of Host Plants Identified		
NumberPositive	- Total Number of Host Plants with Pest Positively Identified		
IdentificationMethod	- Visual Inspection		
	- Isolation		
agentification scenoe		- DNA	
apenili kason sienoe	- DNA		
IdentificationDate	DNA Date of Formal Ident	alication	
	- Date of Formal Ident	ilication Hitter Performing Identification	
MentificationDate	- Date of Formal Ident	Hicer Performing Identification	





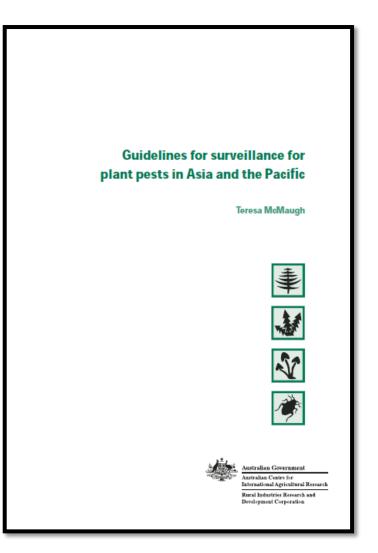




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<u>APPPC 6-Year Surveillance</u> Implementation Strategy



- APPPC approved the coordination and delivery of a series of six annual regional surveillance implementation workshops for the regional harmonisation of ISPM6 (*Guidelines for Surveillance*).
- The strategy aimed to strengthen regional surveillance systems and management capabilities, supporting the implementation of international and regional surveillance standards (ISPM 4, ISPM 6, ISPM 26 and RSPM No.3) through the provision of technical training, supporting reference documents, online learning resources and field surveillance tools.



APPPC Surveillance Implementation Strategy (2016-2022)





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THE SURVEILLANCE SYSTEMS AND MANAGEMENT WORKSHOP

68 - 108 June 2016

CONCEPT PAPER FOR THE SURVEILLANCE SYSTEMS AND MANAGEMENT WORKSHOP

64 - 184 June 2016

1. Background

Biosecurity and National Plant Protection Organisations within the Avin Pacific region have been involved in several activities with an atm to identify issues and promism for implementing international standard anotocident with honecertry surveillance. Recent APPPC and IPPC workshops have identified gaps and prioritized the development of plant pest surveillance manuals and new tools for the implementation of theor priorities 6.2. data collection, management and reporting).

Recent expects needs assessments at IPPC numbers have identifiab bioaccurity surveillance activities as being both a priority and capacity development need freeghout the Asia Pacelic region in recognition of this capacity development need and the recent development of surveillance manule, bioaccurity surveillance specialists will define a section of annual workshop activities (source at syrve period), on the inoptementation of ISPMO (*Qualeloss for Surveillance*) and include management of neuroidance stytems.

The initial workshop on 'Plant Hould Sorvellance System and Management Horizshop' will immediate participants as the fundamental of surveillance systems and management responsibilities at an NPPO. This will also be relevant to establishing and maintaining plant health surveillance systems in accordance with SSPM 4 (serveed Out '15) and the PPC edugations. In a proposed their this workshop will be delivered in Janc 2016, funded by the APPPC, and delivered by the Australian Department of Apricedures and Ware Fostorece (DAWR).

The Thata Hould Sarveillance Systems and Management Brackshap will be coordinated by the APPC Secretariat and delivered by DAWR plant headth mereillance specialism over a Sovieday workshop in a location TBC. The Australian Department of Apricultura and Water Researces has significant experiment in the evolution and implementation of sinverillance systems and hus consolication experiment in the delowary of bioscenary capacity development activities throughout the Sovith East Asian and Pacific regime.

Biosecurity surveillance managers from each of the members of the APPPC are includ to participate in the workshop.

Complyage de wehing or Arvellance Mongmont Jonese Dec 2010 page 2

- Plant Health Surveillance Systems Management (2016)
- Surveillance Planning, Coordination and Delivery (2017)
- Surveillance Information Management Systems (2018)
- Surveillance Statistical Analysis, Mapping and Intelligence (2020)
- Surveillance Communication, Reporting and Response (2021)
- Plant Health Surveillance Pest-Free Areas Case Study (2022)



APPPC Regional Surveillance Workshops (Thailand & China 2016-2018)











FAO Regional Surveillance Programs

Department of Agriculture







Cassava Mosaic Disease Sarvey Methodology (Draft)



CMD Surreillance Background

- CMD is transmitted by whiteflies (Bowisia tabaci) and also through planting infected cattings. The virus is not seedborne in cassava. However, the virus is disseminated in the stem cuttings used avoitably for propagation. As part of the effort to mitigate the effects of these diseases and guide control interventions, surveys are conducted regularly to monitor changes in disease incidence, severity and spread.
- The symptoms of CMD in cassava are usually <u>conspicatous and obvious</u>, and much of the evidence on the occurrence, incidence and spread of discuse is based on <u>visual</u> <u>abservations</u>.
- Symptoms are sometimes indistinct, especially in dry conditions when vegetative growth is restricted, or when plants develop symptoms of mineral deficiency, or are severely attacked by cassava green mite (*Monosychelho* tanajou) or cassava menlybug. (*Physicaccus aumbolis*).



Disease Symptoms

- The symptoms of CMD occur as characteristic leaf mosaic patterns that affect discrete areas and are determined at an <u>early stage of leaf development</u>.
- Leaf chlorosis may be <u>pale vellow or nearly white</u> with only a tinge of green, or just discomble miler than normal







APPPC Surveillance Implementation STDF SIMS Project





Future Opportunities for Regional & Global Surveillance Implementation

- APPPC regional surveillance initiatives and experience is now being used to promote broader global surveillance implementation and harmonisation. These include;
 - Development of an e-Learning surveillance training course based on APPPC workshop materials and group exercises
 - Development of a APPPC regional surveillance reference and resource portal (linked through IPPC Web Site) to support, maintain and promote the regional network and new surveillance members
 - Development of a Global Surveillance Project Register to include regional APPPC projects and promote NPPO and regional projects (FAO TR4, FAW, CMD regional initiatives)
 - Development of a Global Surveillance Experts Register to promote regional NPPO surveillance specialists and subject matter experts (surveillance data collection, training etc.)
- Future opportunities to roll out the APPPC surveillance implementation model across other RPPO's utilising regional subject and training experts