

The International Plant Protection Convention

IPPC Regional Workshop 2016

IPPC Implementation Pilot Programme on Surveillance: toward Concrete Actions

Outline

1. Surveillance in the context of the IPPC
2. ISPM 6 - Guidelines for Surveillance
3. Implementation challenges of the ISPM6 (IRSS study)
4. Feedback
5. The IPPC pilot programme on surveillance

Surveillance

- An official process which collects and records data on pest presence or absence by survey, monitoring or other procedures (ISPM 5).
- Is the foundation upon which other areas of plant health systems are built.
- Is an obligation and responsibility of National Plant Protection Organizations (NPPO).

Group exercise

- Breakout into groups of 3 to 4.
- Identify differences between general surveillance and specific surveys.
- Discuss how they can be implemented in a country.
- In plenary:
 - Group 1 reports
 - Subsequent groups report only findings that have not yet been listed.



ISPM 6 - Guidelines for surveillance

General surveillance

Process whereby information on particular pests which are of concern for an area is gathered from many sources, wherever it is available and provided for use by the NPPO.

Specific surveys

Procedure by which NPPOs obtain information on pests of concern on specific sites in an area over a defined period of time.

Implementation of ISPM 6

Review of the implementation of ISPM6 – IRSS study, 2011:

- IRSS initiated 2011 focuses on ISPM6 as requested by Standards Committee
- ISPM6 survey administered to 177 contact points in the 7 FAO regions
- 60% response rate - feedback received from 107 countries
- Questionnaire also sent to Regional Plant Protection Organizations and shared with staff of FAO



Implementation of ISPM 6

Conclusions of the IRSS survey:

- Country feedback generally indicates an un-coordinated approach to surveillance despite the existence of organizational structures, documented mandates and strategic plans for surveillance
- Little by way of a clear framework for formal liaising between NPPOs and other organizations involved in pest surveillance in regards to surveillance results
- A common feature: inadequate resource allocation and a lack of appropriate technical resources for surveillance
- The overall situation weakened in most countries by policies, laws and regulations not aligned with contemporary global phytosanitary requirements, not explicit on essential actions to support surveillance

Implementation programme for IPPC and ISPMs

- An increased focus on implementation is essential for working towards preventing the spread and introduction of plant pests.
- Characteristics of the implementation programme are:
 - Topic focused
 - New way of working
 - Global participation
 - Long term benefits

Implementation programme: pilot on surveillance

- Collect current resources (e.g. manuals, guidelines, programmes, publications)
- Consider the revised ISPM 6 draft during member consultation (contracting party commenting opportunity)
- Develop and use resources and tools (e.g. IPPC Plant Pest Surveillance manual)

Follow up of 2015 IPPC Regional Workshops

A questionnaire was completed by participants of the 2015 IPPC Regional workshops. Information was collected on:

- Surveillance activities
- Current or upcoming surveillance projects
- Available resources
- Suggestions to help countries to implement surveillance activities

Follow up of 2015 IPPC Regional Workshops

Surveillance activities (1/5)

Near East and North Africa:

Type of activity	Countries	Activities
Surveys based on regulation	Jordan	Implementation of the legislation on <i>Rhynchophorus ferrugineus</i>
Surveillance unspecified	Jordan and Egypt	Implementation of ISPM 6
	Morocco	General surveillance by the NPPO
Eradication	Tunisia	Eradication plan for newly detected pests and general surveillance for tomato, olive, date palms, cereals, potato, etc.
Specific survey – by commodity	KSA	Routine surveillance activity, as on date palm
	Lebanon	Surveys on potatoes, citrus, stone fruits, pine
	Libya	Surveys on fruits, vegetables and cereals

Follow up of 2015 IPPC Regional Workshops

Surveillance activities (2/5)

Near East and North Africa:

Type of activity	Countries	Activities
Specific survey – by pest	Egypt	Fruits Flies, potato brown rot and <i>Rhynchophorus ferrugineus</i>
	Jordan	Specific surveillance for <i>Tuta absoluta</i> and <i>Fusarium oxysporum f. sp. albedinis</i>
	KSA	Specific surveillance for <i>Tuta absoluta</i> and <i>Rhynchophorus ferrugineus</i>
	Lebanon	Fruits Flies, potato brown rot
	Libya	<i>Bactrocera zonata</i> , <i>Rhynchophorus ferrugineus</i> , <i>Tuta absoluta</i> at entry points and in the country
	Mauritania	Surveillance programmes on granivore bird, invasive alien plants and palm pests
	Sudan	Locusts, harmful birds and fruit flies
	Morocco	Various activities on <i>Bactrocera zonata</i> , <i>Bursaphelenchus xylophilus</i> , Sharka and Tristeza viruses, <i>Rhynchophorus ferrugineus</i>
	Palestine	<i>Bactrocera olea</i> , <i>B. zonata</i> , <i>Ceratitis capitata</i> , <i>Rhynchophorus ferrugineus</i>
	Qatar	<i>Rhynchophorus ferrugineus</i> , <i>Tuta absoluta</i>
	Tunisia	<i>Bactrocera zonata</i> , <i>Erwinia amylovoraa</i> , <i>Rhynchophorus ferrugineus</i> , ToLCNDV, <i>Dacus</i> spp, <i>Toxoptera citricidus</i> , <i>Trioza erytrae</i>
	UEA	Drawing epidemiological maps of date palm pests

Follow up of 2015 IPPC Regional Workshops

Surveillance projects (3/5)

Near East and North Africa:

Countries	Activities
Egypt	Develop the NPPO and establish a national database for surveillance on most important crops including Citrus, potatoes and grapes.
Jordan	Capacity development FAO project of the management of <i>Tuta absoluta</i> in the Near East region
KSA	Project of national inventory of the main pests in the country
Lebanon	General survey project for grapes, pome and pine.
Mauritania	Past FAO project on the management of aquatic plants, one on the management of <i>Tipha</i> spp., and one on <i>Rhynchophorus ferrugineus</i>
Morocco	Next 5 years surveillance projects will focus on: <i>Globodera pallida</i> et <i>Globodera rostochiensis</i> , <i>Ralstonia solanacearum</i> , <i>Xylella fastidiosa</i> and Citrus greening disease
Palestine	Project to start with the IAEA on exotic fruit flies
Tunisia	Next 5 years surveillance projects will focus on: <i>Xylella fastidiosa</i> , Tristeza virus, <i>Dacus</i> spp.
UEA	Mapping the distribution of plant insects and plant diseases (GIS database, infrastructure)



Follow up of 2015 IPPC Regional Workshops

Available resources (4/5)

Near East and North Africa:

Countries	Activities
Egypt	Publications related to surveillance from research centers and universities and central administration
Lebanon	Guideline for production and export of ware potato to the EU
Libya	Brochures, manuals
Mauritania	Manual on integrated control on pests
Morocco	Phytosanitary surveillance protocoles, datasheets on sharka and tristeza viruses, <i>Rhynchophorus ferrugineus</i> , <i>Bursaphelenchus xylophilus</i> and <i>Bactrocera zonata</i>
Qatar	Publications on pests
Tunisia	Phytosanitary surveillance protocole and datahseet for Tristeza virus, surveillance network for <i>Xylella fastidiosa</i> .

Follow up of 2015 IPPC Regional Workshops

Challenges reported by countries (5/5)

Near East and North Africa:

Countries	Activities
Egypt	More access and exchange of information on pest status and outbreaks, training in surveillance and resources
KSA	Workshops and seminars on surveillance, preliminary PRAs, technical consultancy
Lebanon	More income.
Libya	Technical and financial support
Mauritania	Phytosanitary Capacity development
Morocco	Building of a network for the exchange of information, building of a rapid alert system and of a database, capacity development, manuals to identify pests, development of phytosanitary laboratories
Palestine	Formulation of a pest surveillance strategic plan, budget and staff training
Qatar	Technical assistance to build a list of quarantine pests
Sudan	Capacity building and high tech tools and labs.
Tunisia	Manual on phytosanitary prospection and sampling, network for sharing information, rapid alert system for <i>Xylella fastidiosa</i> , capacity development in diagnostic, building of a database, manuals to identify pests,
UEA	Resources, capacity development of inspectors

Follow up of 2015 IPPC Regional Workshops

Surveillance activities (1/5)

Eastern Europe and Central Asia:

Type of activity	Countries	Activities
Surveys based on regulation	Belarus	Annual surveys conducted to determine the national phytosanitary status on the basis of existing legislation
	Montenegro	Surveillance activities are conducted in accordance with the Law on Plant Health Protection
Surveillance unspecified	Montenegro	The Department for Plant Health Protection undertakes the whole chain of activities: surveillance, pest risk assessment, keeping records, notification of pests, etc.
	Armenia	Implementation of ISPM 6, annual 40 hours training conducted on practical and theoretical surveillance aspects, monitoring and sampling activities conducted and funded by the government.
	Turkey	General survey is applied through the Phytosanitary Application Program in 81 Provincial Directorates.
	Serbia	The Department for Plant Health and Plant Quarantine within the Plant Protection Directorate performs: monitoring, inspections, reports and education of plant holders and others.
	Uzbekistan	Information on pests is collected from many sources (e.g. EPPO, the Russian Federation). The state regional inspectors conduct annual surveys, send samples to the Central Laboratory, and quarantine procedures are applied on this basis
	Georgia	The National Food Agency of the Ministry of Agriculture of Georgia conducts surveillance with data collection and records and involves farmers, laboratories and scientific centers.
	Azerbaijan	Regional plant protection centers collect plant pests distribution information used to implement phytosanitary measures.
	Tajikistan	Survey and detection surveys are conducted, controls are undertaken for export and import of plant products.

Follow up of 2015 IPPC Regional Workshops

Specific surveillance (2/5)

Eastern Europe and Central Asia:

Type of activity	Countries	Activities
Specific survey – by pest	Armenia	Detection surveys for <i>Phthorimaea operculella</i> , <i>Tuta absoluta</i> and <i>Phylloxera</i> spp. conducted with FAO
	Azerbaijan	Detection and monitoring surveys were conducted on <i>Ambrosia artemisiifolia</i> , <i>Phthorimaea operculella</i> , <i>Solanum rostratum</i> and <i>Hyphantria cunea</i>
	Belarus	Monitoring survey for <i>Diabrotica virgifera virgifera</i> , <i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i> (potato ring rot) and <i>Tuta absoluta</i>
	Georgia	The State Control Plant Protection Programme 2015 surveyed the following quarantine and dangerous pests: <i>Ralstonia solanacearum</i> ; <i>Clavibacter michiganensis</i> subsp. <i>sepedonicum</i> ; <i>Synchytrium endobioticum</i> (new detection); <i>Erwinia amylovora</i> ; <i>Globodera pallida</i> ; <i>Globodera rostochiensis</i> ; <i>Carposina sasakii</i> ; <i>Ceratitis capitata</i> ; <i>Rhagoletis pomonella</i> ; <i>Bactrocera dorsalis</i> . <i>Cydalima perspectalis</i> (box tree moth) and box tree blight disease causal agent have been registered <i>Buxus colchica</i> .
	Serbia	Surveillance, specific surveys and emergency phytosanitary measures are conducted
	Turkey	Specific survey carried for 28 harmful organisms
	Tajikistan	Detection surveys for <i>Globodera rostochiensis</i> , <i>Leptinotarsa decemlineata</i> .

Follow up of 2015 IPPC Regional Workshops Surveillance projects (3/5)

Eastern Europe and Central Asia:

Countries	Activities
Armenia	Surveillance activities undertaken in the framework of the regional and international programmes
Azerbaijan	Improvement of diagnostic capacities, further training planned.
Belarus	Plans for 2016: monitoring and management of <i>Trogoderma granarium</i> (Khapra beetle), development of pest management measures against <i>Diabrotica virgifera virgifera</i>
Montenegro	Surveillance of various pests at the national level.
Georgia	Plan to monitor all quarantine pests listed for Georgia within the next 5 years, possibly being involved in regional and international programmes.
Serbia	Survey of pests of potato, pome fruits, vine, raspberry, blueberry, tomato, walnut, ornamental plants, forestry and specific pests: <i>Ceratitis capitata</i> , <i>Tuta absoluta</i> , <i>Drosophila Suzuki</i> , <i>Bemisia tabaci</i> , <i>Scaphoideus titanus</i> .
Turkey	Annual survey programme.
Uzbekistan	FAO programmes and financial support for the organization of regional and international workshops.
Tajikistan	Trainings and workshops on surveillance and surveys of quarantine pests are conducted within a FAO project.

Follow up of 2015 IPPC Regional Workshops

Available Resources (4/5)

Eastern Europe and Central Asia:

Countries	Activities
Azerbaijan	Programme on prevention of the distribution and containment of <i>Ambrosia artemisiifolia</i> , <i>Phthorimaea operculella</i> and <i>Solanum rostratum</i>
Montenegro	Website http://www.fito.gov.me/uprava
Georgia	The phytosanitary laboratory was constructed and equipped in 2015, a scientific centre was also established by the Ministry of Agriculture.
Serbia	Contingency plans for potato ring rot (<i>Clavibacter michiganensis</i> subsp. <i>sepedonicus</i>), <i>Ralstonia solanacearum</i> (potato brown rot disease); technical guidance for the identification of harmful organisms; Website http://www.uzv.minpolj.gov.rs ; brochures on harmful organisms.
Turkey	Phytosanitary Application Programme, leaflets, trainings
Uzbekistan	Surveillance material, leaflets and scientific articles.
Tajikistan	National law and regulation, rules and norms related to plant quarantine and list of regulated articles

Follow up of 2015 IPPC Regional Workshops

Challenges reported by countries (4/5)

Eastern Europe and Central Asia:

Countries	Activities
Armenia	Technical support for laboratories, trainings
Azerbaijan	Better training of staff, strenghtening phytosanitary laboratory capacities, setting a national database
Belarus	Capacity for surveillance
Montenegro	Surveillance activities are conducted in accordance with the Law on Plant Health Protection
Georgia	Conduct a Phytosanitary Capacity Evaluation (PCE)
Serbia	Sufficient funds for regular training of staff on surveillance, procurement of equipment and field work
Uzbekistan	Financial ressources, training of inspectors, transportation means
Tajikistan	Training of staff, modern equipment for laboratory testing, improvement of quarantine pests diagnostic

Follow up of 2015 IPPC Regional Workshops

Surveillance activities (1/5)

Pacific:

Type of activity	Countries	Activities
Surveillance unspecified	Caledonia	Monitoring of biosecurity information from Australia, New Zealand, CABI, UICN, IRD, etc.
	Vanuatu	General quarantine surveillance at sea ports
	Samoa	General surveillance on 20 crops including surveys, control measures, public awareness and research.
	Salomon	General surveillance activity conducted with the Department of Agriculture from Australia
Specific survey – by commodity	French Polynesia	Commodity and host surveys

Follow up of 2015 IPPC Regional Workshops

Specific surveillance (2/5)

Pacific:

Type of activity	Countries	Activities
Specific survey – by pest	French Polynesia	Specific surveillance programmes for <i>Bactrocera xanthodes</i> , <i>Wasmannia auropunctata</i> (little fire ant) and <i>Brontispa longissimi</i>
	Caledonia	Monitoring network for fruit flies (Tephritidae), surveillance activities at the entry point for invasive ants
	Guam	Specific surveillance for fruit flies survey, <i>Oryctes rhinoceros</i> , invasive ants, citrus pest and greening citrus disease, insect pests in ornamental and landscape plant nurseries
	Tokelau	Specific surveillance for Yellow crazy ant, red fire ant, <i>Oryctes rhinoceros</i> , mealy bugs, giant African snail, leaf blight
	Vanuatu	Specific surveillance for fruit flies at main ports, invasive alien plants, little fire ant.
	Samoa	Surveillance of fruit flies with traps, <i>Oryctes rhinoceros</i> , <i>Brontispa</i> sp., Giant African Snail, fruit percing moth, taro pests and termites
	Salomon	<i>Conopomorpha cramerella</i> , Giant African Snail, <i>Oryctes rhinoceros</i> , <i>Xanthomonas axonopodis</i> , Bogia Coconut Syndrome (BCS)
	Nauru	Delimiting survey of yellow crazy ants, setup of fruit flies traps
	Tuvalu	Surveillance of coconut scales

Follow up of 2015 IPPC Regional Workshops Surveillance projects (3/5)

Pacific:

Countries	Activities
French Polynesia	Upcoming project on <i>Oryctes rhinoceros</i> with a trapping network
Caledonia	Workshops for fruit flies identification, and identification of other insect pests.
Tokelau	Project on the monitoring and management of Yellow crazy ant until 2019.
Samoa	Surveillance projects undertaken on Giant African Snail, <i>Eudocima phalona</i> (fruit percing moth), and a control programme for <i>Oryctes rhinoceros</i> and a damage assessment on <i>Cylas formicatus</i> (Sweetpotato weevil)
Salomon	Projects on general surveillance activities
Tuvalu	Fruit flies and ants surveillance, eradication of yellow crazy ant and <i>Bactrocera xanthodes</i> and surveys on the islands
Nauru	Yearly plan for surveillance and monitoring.

Follow up of 2015 IPPC Regional Workshops

Available resources (4/5)

Pacific:

Countries	Activities
Caledonia	Entomologists from research insitutes to share their expertise.
Tokelau	Reports, pamphlets, documentary.
Samoa	Surveillance procedures and operation manuals.
Salomon	Surveillance team ready to share expertise, mapping system using GIS, remote macroscopy for pest ID, awareness campaigns in schools, festivals and village gatherings.
Tuvalu	Community outreach material

Follow up of 2015 IPPC Regional Workshops

Challenges reported by countries (4/5)

Pacific:

Countries	Activities
French Polynesia	An increased awareness from the authorities.
Caledonia	Additional qualified staff for laboratories.
Guam	Additional permanently funded staff.
Tokelau	Additional capacity development for officers, equipment and facilities, community participation is crucial.
Samoa	Ongoign funding, capacity building, increased public awareness, pest detection at borders, strenghten links in between border agencies, improvement of current surveillance procedures, better records of pests.
Salomon	Trainign and infrastructure, better pest identification delays.
Tuvalu	Increased funding, staffing, facilities and equipment, assistance and internet connection.
Vanuatu	Support from Governement and partners, establish Biosecurity as a corporate entity, secure funds, continue networking with local and regional partners.
Nauru	Consistency.

Follow up of 2015 IPPC Regional Workshops

Surveillance activities (1/5)

Latin America:

Countries	Activities
Argentina	Obtains data from institutions, organizations and entities that have intervention in the phytosanitary field. Implementation tools. Online system.
Bolivia	Obtains data from institutions, organizations and entities that have intervention in the phytosanitary field. Industry. Publications.
Brazil	Obtains data from institutions, organizations and entities that have intervention in the phytosanitary field. Also producers and rural extension offices
Chile	Detection, delimiting, monitoring, verification, reporting, reviewing literature
Ecuador	Risk analysis, contingency plans, measures for the control prevention and attention of phytosanitary problems. Phytosanitary library. Establish and maintain channels of communication.
El Salvador	Monitor, survey, prevent, control, eradicate
Guatemala	Work with producers and associations of specific commodities.

Follow up of 2015 IPPC Regional Workshops

Surveillance activities (1/5)

Latin America:

Countries	Activities
Honduras	Implemented a phytosanitary epidemiological program, with action plans for trapping, plotting, diagnostics, etc.
Mexico	Perform detection activates on pests of importance, such as trapping, surveys, plotting, etc.
Nicaragua	Collect information from groups outside the NPPO
Panama	Use databases, coordinate with Universities, public and private centers, solicit information from NPPOs and RPPOs, consult with international and national experts
Paraguay	Focus general surveillance on pests of importance for Paraguay
Peru	Inspections, notifications of occurrence, surveillance agents
Dominican Republic	Monitoring, trapping, laboratory analysis, use of pheromones
Uruguay	Technical information, laboratory analysis, work with Universities

Follow up of 2015 IPPC Regional Workshops Surveillance programs (2/5)

Latin America:

Countries	Activities
Argentina	HLB and Diaphorina citri, fruit flies, Lobesia botrana, Anthonomus grandis, Cydia pomonella, Sirex noctilio, Tremex fuscicornis , Leptocybe invasa, Thaumastocoris peregrinus, Lymantria dispar, Xylella and phytoplasmas, Pseudomonas syringae pv. Actinidiae, Helicoverpa armigera, Monilinia sp. y Erwinia amylovora, Nematodes and Phytonemus sp., Aphelenchoides besseyi, Argyrotaenia sp.
Bolivia	HLB, cotton weevil, fruit flies (Bactrocera spp.), vine moth
Brazil	Xanthomonas campestris pv. Viticola, Guignardia citricarpa, Phyllosticta citricarpa, Peronospora tabacina, Ceratitis capitata, Anastrepha fraterculus, Schizotetranychus hindustanicus, Anastrepha grandis, Moniliophthora roreri, Raoiella indica, Anastrepha grandis, Mycosphaerella fijiensis, Ralstonia solanacearum race 2, Papaya meleira virus, Papaya ringspot virus - type P- PRSV-P, Anthonomus tomentosus, fruit flies, Neonectria galligena, Dactylopius opuntiae, Opogona sacchari, Peronospora tabacina), Coconut Lethal Yellowing, Huanglongbing (HLB), Bactrocera carambolae

Follow up of 2015 IPPC Regional Workshops Surveillance programs (2/5)

Latin America:

Countries	Activities
Chile	HLB and its vectors, <i>Zeuzera pyrina</i> , <i>Erwinia amylovora</i> , fruit flies, <i>Achatina fulica</i> , Avocado sunblotch, <i>Lobesia botrana</i> , Plum pox virus, <i>Pseudomonas syringae</i> pv <i>actinidiae</i> (Psa), <i>Parlatoria oleae</i> , <i>Homalodisca vitripenni</i> , <i>Sirex noctilio</i> , <i>Leptocybe invasa</i> , <i>Fusarium circinatum</i> .
Ecuador	No specific pests indicated
El Salvador	Fruit flies, <i>Trogoderma granarium</i> , <i>Raoiella indica</i> , Red mealybug, Amarillamiento Coconut Lethal Yellowing, Citrus leprosis virus, Citrus canker, <i>Tilletia barclayana</i> of rice, <i>Tuta absoluta</i> , <i>Megacopta cribraria</i>

Follow up of 2015 IPPC Regional Workshops

Surveillance programs (2/5)

Latin America:

Countries	Activities
Guatemala	<p>HLB, Exoxortir (CEVd), Citrus Psorosis (CPsV), Cachexia xyloporosis (CCaV-XYV), Citrus leprosis (CiLV), Tristeza (VTC), Variegated Chlorosis, Citrus canker. Tuta absoluta and other pests of tomato and potato. Ditylenchus dipsaci, Ditylenchus destructor, Aphelenchoides besseyi, Opogona sacchari, Burkholderi aglumae, Maconellicoccus hirsutus, Anastrepha grandis, Clavibacter michiganensis, Globodera rostochiensis, Globodera pallida, Thrips palmi, Anastrepha fraterculus, Bactericera cockerelli, Coconut Lethal Yellowing, Aleurodicus dispersus, Erwinia Chrysanthemis, Pratylenchus brachyurus, Murgantia histrionica, Evergestis rimosalis, Lygus lineolaris, Tilletia barclayana, Iletia barclayana, Cucumber mosaic virus, Frankliniella occidentales, Phyllachora maydis, Monographella maydis, Coniothyrium phyllachorae, Hemileia vastratrix, Sciothrips cardamomi, Fusarium guttiforme, Fusarium oxisporum FOC4, Xylella Fastidiosa, Drosophila suzukii, Heilipus lauri, Conotrachelus aguacatae, C. perseae, Copturus aguacatae, Stenoma catenifer, Amorbia sp, Cryptasasma sp. nr lugubris, Euxoasorella, Histuran .sp., Holcocera sp., Netechma pyrrhodelta, Nicrothetis triples, Ceratitis capitata</p>

Follow up of 2015 IPPC Regional Workshops Surveillance programs (2/5)

Latin America:

Countries	Activities
Honduras	Ceratitis capitata, Tuta absoluta
Mexico	Fruit flies, Hemileia vastatrix
Nicaragua	No specific pests indicated
Panama	Ceratitis capitata, Anastrepha grandis, Bactrocera spp., and other fruit flies, HLB, citrus canker, Citrus chlorosis virus, Bactrocera cockelleri, Candidatus liberibacter solanacearum, Tuta absoluta, Thrips palmi, Lethal Yellowing of coconut, Raoelia indica, Rhynchoporus ferrugineus, Fusarium oxysporum, Trogoderma granarium, Frankiniella occidentalis, Cochinilla rosada, Hemileia vastatrix, Hypothenemus hampei, Mycena citricolor, Taphrina betulina, Programa fitosanitario de raíces y tubérculos, Cassava Frogskin Disease (CFSD), Scutelonema bradys, Fusarium guttiforme
Paraguay	Drosophila suzukii, Helicoverpa armigera, huanglongbing (HLB), Banana pests

Follow up of 2015 IPPC Regional Workshops Surveillance programs (2/5)

Latin America:

Countries	Activities
Peru	Huanglongbing (HLB), Diaphorina citri, Elsinoe australis, Xanthomonas axonopodis pv. Citri, Guignardia citricarpa, Tecia solanivora, Anthonomus grandis, Trogoderma granarium, Lobesia botrana
Dominican Republic	Mycosphaerella fijiensis, Ceratitis capitata, other fruit flies,
Uruguay	Guignardia citricarpa, Xanthomonas citri subsp. citri, Elsinoe australis, Sphaceloma fawcettii, Ceratitis capitata, Anastrepha fraterculus, Diaphorina citri, HLB, Citrus chlorosis virtus, Drosophila susukii, Trogoderma granarium, Fusarium circinatum, Listronotus bonariensis

Follow up of 2015 IPPC Regional Workshops Surveillance projects (3/5)

Latin America:

Countries	Activities
Argentina	National workshops by commodity, regional workshops for emerging pests, cooperation projects with other countries
Bolivia	Areas of exploration, identify more strategic areas for surveillance
Brazil	Implementing a national program to control fruit flies, standardize a plan for <i>Cydia pomonella</i> , revising existing plans for efficiency, establishing protocols for rapid response
Chile	Many developments and projected activities, including capacity development, analysis, mapping, monitoring, Inter-ministerial work, remote trapping, etc.
Ecuador	Maintain response system, define infestation free zones, and low prevalence zones. Finalize plans for better service with its users and general public.
El Salvador	Several pest projects with OIRSA, USDA, GOES, ICDF on pests of importance
Guatemala	Projects with SIATMA-CAFÉ on coffee, OIRSA on other pests, incorporating climate information, internal database on epidemiological surveillance systems

Follow up of 2015 IPPC Regional Workshops Surveillance projects (3/5)

Latin America:

Countries	Activities
Honduras	Surveys to detect <i>Fusarium oxysporum</i> (FocR4T), <i>Xylella fastidiosa</i> , fruit flies
Mexico	Continue strengthening established survey programs (trapping for fruit flies and surveying for coffee rust), strengthening practice drills before detection of pests, Organizing an international symposium on phytosanitary epidemiological surveillance, understanding the importance of pest surveys
Nicaragua	Creating an early alerts system for telephones and tablets for Android to the presence of coffee rust. Using funds from FAO and the NPPO. Also monitoring pests and commodities such as HLB and <i>Tuta absoluta</i> .
Panama	Projects funded with public funds: strengthen surveillance to prevent HLB, Thrips palmi, <i>Tuta absoluta</i> . Make Panama free of <i>Ceratitis capitata</i> . Funded by OIRSA: HLB surveillance, <i>Anastrepha grandis</i> detection.
Paraguay	Currently improving the system of official pest reports.

Follow up of 2015 IPPC Regional Workshops Surveillance projects (3/5)

Latin America:

Countries	Activities
Peru	National level: using climate and pest presence to identify areas of risk, using mobile devices to collect information, using remote and satellite information, developing an integrated platform and place for all plant and animal health information to be stored. Regional level: Sharing survey and risk analysis information with COSAVE and CAN country members.
Dominican Republic	Strengthening surveillance systems, implementing first-hand at a higher intensity. Strengthening the diagnostics laboratory.
Uruguay	Regional plans with COSAVE: HLB, Diaphorina citri, and Trioza erytraea.

Follow up of 2015 IPPC Regional Workshops

Available resources (4/5)

Latin America:

Countries	Activities
Argentina	Manuals, protocols, materials for distribution, online databases, registration databases, online complaint system
Bolivia	Surveillance strategies for implementation and manuals
Brazil	Operation manuals, standards, surveillance activities
Chile	“Technical Standards” document with includes various documents
Ecuador	Internationally, various ISPMs (2, 6, 8, 9, 10, 22). At the Regional level, CAN Decision 515. At the national level, Plant Health Laws and Regulations.
El Salvador	National plant health laws, manuals and procedures, surveillance actions, distribution materials, posters, brochures, technical guides, and radio programs
Guatemala	Various Manuals
Honduras	Various Manuals

Follow up of 2015 IPPC Regional Workshops

Available resources (4/5)

Latin America:

Countries	Activities
Mexico	Technical records, manuals, public notices, infographics, guides with symptoms and damage, leaflets, handouts, alerts, materials available on the NPPO website
Nicaragua	Manuals, protocols on emerging pests, technical standards, radio spots, videos, guides, practice drills
Panama	ISPMs, executive decrees, laws, brochures, posters, flyers
Paraguay	Posters, leaflets, procedures, action plans, images
Peru	Director Resolutions, General Directives,
Dominican Republic	Procedure manuals for quarantine, risk analysis, trapping, detection, control and eradication, etc.
Uruguay	Survey plans, records

Follow up of 2015 IPPC Regional Workshops

Challenges reported by countries (5/5)

Latin America:

Countries	Activities
Argentina	No answer provided
Bolivia	Provide more financial, logistical, and personnel resources
Brazil	Improve legislation, provide personnel and financial resources that match the needs of the service, invest in training of technicians, broaden surveillance for pests of economic importance
Chile	Develop monitoring, internship program, experts visit and network, mechanism for exchange of phytosanitary information
Ecuador	Publicize the existence of surveillance programs worldwide and count on external support on issues of experience, training, and computing platforms
El Salvador	Consultants are needed to improve methods on surveillance and diagnosis at the field level, because we have older and new inspectors, so we need to reinforce knowledge

Follow up of 2015 IPPC Regional Workshops

Challenges reported by countries (5/5)

Latin America:

Countries	Activities
Guatemala	Need resources to conduct surveillances. Also need to have alliances with academic and private sector to continue efforts and expand coverage of official services and work on model predictions to improve quality of information
Honduras	Applying technology for the Surveillance Program model to follow SENASICA of Mexico
Mexico	Continuous training programs for technicians involved in detecting pests of quarantine significance, harmonize detection methodologies of quarantine pests, know the actual status of pests of quarantine importance in the countries in the region, conduct practice drills and joint action plans upon detection of a pest of quarantine significance in the region
Nicaragua	Update all technical personnel for surveillance, PRA, and diagnostics to provide answers upon immediate detection. Training staff is paramount and would be valuable to Nicaragua to strengthen its monitoring system, PRA, and diagnostics

Follow up of 2015 IPPC Regional Workshops

Challenges reported by countries (5/5)

Latin America:

Countries	Activities
Panama	Support ongoing training of technical staff related to surveillance. Support management and acquisition of technology for early detection programs as required. Strengthening databases
Paraguay	Improve training aspects, especially those aimed at quarantine for both national and regional pests
Peru	Financial resources for personnel and equipment and to increase surveillance activities. Evaluate diagnostic systems for prioritized pests to strengthen the sensitivity of the system and share reference samples at the regional level. Harmonize platforms, formats, actions, and surveillance information among member countries of the IPPC. Need training on issues of surveillance, such as sensitivity, methods, remote monitoring, mobile applications, and occurrences of new pests

Follow up of 2015 IPPC Regional Workshops

Challenges reported by countries (5/5)

Latin America:

Countries	Activities
Dominican Republic	Create a national program for phytosanitary surveillance, with autonomy and technical staff dedicated only to monitoring. Update surveillance techniques for different target pests. Strengthen laboratory identification. Implement specific programs to define new pest goals.
Uruguay	Increase diagnostic capacity with specific tools and appropriate software, training in certain pests, etc.

Follow up of 2015 IPPC Regional Workshops

Surveillance activities (1/5)

Caribbean:

Countries	Activities
Antigua and Barbuda	Surveillance for Mango seed weevil, fruit flies, and Achatina fulica (Giant African Snail). Also take reports of pest situations receive from the public, investigate and necessary, and not results.
Barbados	General surveillance carried out at ports of entry. Any pests seen are recorded or suspicious regulated articles are sent on for further diagnostic work.
Belize	Current surveillance for HLB and Citrus leprosis virus, Spinki mite, Moniliophthora rorreri, Papaya Meleira Virus
Grenada	Plant Quarantine Officers conduct surveillance for pests at least one day
Guyana	General surveillance conducted by Quarantine at all official ports of entry and by extension agents. Includes fruit flies, Giant African snail, pink hibiscus mealybug, and red palm mite
Haiti	Surveillance for Crypticerya genistae, and various fruit flies

Follow up of 2015 IPPC Regional Workshops

Surveillance activities (1/5)

Caribbean:

Countries	Activities
Jamaica	General surveillance in Jamaica is currently for <i>Ceratitis capitata</i>
St. Lucia	Surveillance and monitoring throughout the year fro Moko and <i>Fusarium TR4</i> for banana, Lethal Yellowing of coconut, Tomato leaf miner
St. Vincent	Country-wide survey conducted in 2007 to update pest list for St. Vincent and Grenadines. Results are published. General surveys of plant nurseries are conducted at least once a year by NPPO
St. Kitts	Surveillance for fruit flies, Giant African snail, black sigatoka, tomato leaf miner, red palm mite
Suriname	When conducting PRA, use general surveillance to gather information of pests of concern, when compiling commodity or host pest lists

Follow up of 2015 IPPC Regional Workshops Surveillance programs (2/5)

Caribbean:

Countries	Activities
Antigua and Barbuda	Mango seed weevil, Giant African Snail, fruit flies
Barbados	West indian fruit flies
Belize	Ceratitis capitata, Tuta absoluta, Megacocta cribraria, Candidatus Liberibacter solanacearum, Paratrioza cockerelli
Grenada	Rhynchophorus ferrugineus, Diaphorina citri, Fruit flies, Anastrepha oblique, Rhynchophorus palmarum
Guyana	Carambola fruit fly, Mediterranean fruit fly, red palm mite and pink hibiscus mealybug
Haiti	Crypticerya genistae, Fruit flies, Anastrepha obliqua, Anastrepha suspense, Ceratitis capitata,

Follow up of 2015 IPPC Regional Workshops Surveillance programs (2/5)

Caribbean:

Countries	Activities
Jamaica	Anthonomous eugenii, Anastrepha sp., Spodoptera exigua
St. Lucia	Black Sigatoka Disease, Black Streak Virus (BSV), fruit flies, red palm mite of coconut, giant African snail
St. Vincent	Banana leafspot diseases, Ralstonia solanacearum
St. Kitts	Fruit flies, Giant African Snail, Icerya seychellarum
Suriname	Carambola fruit fly, Ceratitis capitata, Giant African snail, Oxycarenus hyalinipennis, Thrips palmi, Frankliniella occidentalis, Scirtothrips dorsalis, Planococcus minor, Crypticerya genistea

Follow up of 2015 IPPC Regional Workshops

Surveillance projects (3/5)

Caribbean:

Countries	Activities
Antigua and Barbuda	Eradication of giant African snail, Review of draft regulations for passage into law regarding surveillance, CPHD forum and FAO regarding palm pests and HLB
Barbados	Surveillance programs being proposed: <i>Tuta absoluta</i> , <i>Cylas formicarius</i> , Red palm weevil, <i>F. oxysporum</i> pv <i>cubensis</i> . Developing sampling plan/ protocol/ SOP
Belize	Surveillance for <i>Fusarium oxysporum</i> f.s. <i>cubense</i> , Tropical Race 4 in collaboration with the banana industry. Extending the fruit fly trapping program. Two national workshops on surveillance.
Grenada	Future surveillance focus on pest threats not yet present in Grenada. Also online fruit fly data entry, surveillance workshops, CABI plant health clinic, fruit fly monitoring system, etc.
Guyana	Reorganizing NPPO, and intensifying specific surveillance programs. NPPO to have fruit fly laboratory for rearing and identification

Follow up of 2015 IPPC Regional Workshops Surveillance projects (3/5)

Caribbean:

Countries	Activities
Haiti	Control program for <i>Crypticerya genistae</i> to be implemented, implementing integrated control programs, national program for detection and control of fruit flies
Jamaica	Do island-wide survey for <i>Anthonomus eugenii</i> and <i>Rynchophorus ferrugineus</i> . Planning refresher training for <i>Ceratitis capitata</i>
St. Lucia	Planning surveys for <i>Fusarium TR4</i> , Moko, BSV FOR <i>Musa</i> species, Red Palm Weevil of palm species, Lethal Yellowing of coconut
St. Vincent	Red palm weevil survey being conducted
St. Kitts	Surveillance for national and regulated pest lists and 10 th EDF project. Also working with USDA-APHIS on training and workshops, and DOA staff training workshop
Suriname	Planning a national surveillance project to update current pest list

Follow up of 2015 IPPC Regional Workshops

Available resources (4/5)

Caribbean:

Countries	Activities
Antigua and Barbuda	Brochures, flyers
Barbados	Literature, manual
Belize	Procedures, informational material
Grenada	Presentations on surveillance program
Guyana	Information sheets, pamphlets, manuals
Haiti	No information provided
Jamaica	Surveillance manual
St. Lucia	Surveillance protocols, manuals, posters, factsheets, brochures
St. Vincent	Surveillance program manual available, protocol
St. Kitts	ISPMs 4, 6, 8, CPHD Forum website with brochures
Suriname	Various resources

Follow up of 2015 IPPC Regional Workshops

Challenges reported by countries (5/5)

Caribbean:

Countries	Activities
Antigua and Barbuda	Facilitating national workshops on quarantine pests of Antigua and Barbuda for the staff conducting the activity would be useful. This could be in the form of providing presentation templates that can be used to conduct staff training at the national level.
Barbados	Obtaining lures, diagnostic kits, and training in surveillance, sampling methodologies, and diagnostic techniques (use of new methods)
Belize	A higher budget allocation for operational costs and additional personnel. Better coordination with industry to share resources and common objectives.
Grenada	More vehicles to conduct surveillance. Training more extension staff in pest surveillance and pest identification. Offering a travel allowance to staff willing to conduct surveillance using their own vehicles and GPS systems. Providing lab support, training and supplies. Providing enough computers and personnel for data entry.
Guyana	Providing resources in areas such as training, staffing, materials, and financial

Follow up of 2015 IPPC Regional Workshops

Challenges reported by countries (5/5)

Caribbean:

Countries	Activities
Haiti	Receive funds and technical assistance to develop biological control to eradicate <i>Crypticerya genistae</i> and fruit flies in Haiti
Jamaica	A surveillance unit that has oversight for surveillance, and pull the other agencies the contribute to surveillance activities. We have a surveillance committee that has this function, but is in addition to our regular job and does not get the attention required.
St. Lucia	More awareness and compliance related to Plant Quarantine, SOPs, by related border control officials

Follow up of 2015 IPPC Regional Workshops

Challenges reported by countries (5/5)

Caribbean:

Countries	Activities
St. Vincent	If survey protocols are developed for specific pests of importance to the region. Also, if information on materials and supplies to execute these surveys and where to source them are catalogued
St. Kitts	More staff, surveillance manuals, more materials, more financial support, diagnostic labs
Suriname	Financial resources from national budget and international donors. Have dedicated and skilled personnel. Have good infrastructure to conduct pest surveillance, whether general or specific. Training in survey techniques

Presentation of the project in the plenary of CPM 11

The CPM:

- Acknowledged the efforts of experts and their contracting parties who have collaborated with the IPPC Secretariat to identify and prioritize work activities for inclusion in the implementation pilot.
- Noted the work plan developed by the IPPC Secretariat and experts.
- Urged contracting parties, RPPOs and other relevant organizations to contribute resources to allow the implementation pilot project on surveillance to formally commence and stand a success with expected impacts.

CPM 11 - Small group on surveillance

At the initiative of the Republic of Korea, a small group met during CPM and agreed to:

- To work on 3 example pests under the coordination of a champion: *Xylella fastidiosa* (Europe - Italy), *Bactrocera dorsalis* complex (Asia - Korea/Africa) and invasive ants (Pacific - Australia).
- To collect information and technical resources, including through an IPPC Call.
- To organize an informal group in Thailand on 11-12 June 2016.
- To report back to CPM-12.

Results of the Thailand meeting - Small group on surveillance

- The group confirmed work on the 3 example pests (*Xylella fastidiosa*, *Bactrocera dorsalis* complex and invasive ants)
- Aggregated material on these species was reviewed and gaps were identified for each of the 3 species
- Available material will shortly be posted on the phytosanitary.info webpage

News and report of this meeting:

<https://www.ippc.int/en/news/working-towards-a-stronger-focus-on-ippc-implementation-the-working-group-on-the-pilot-project-on-surveillance-convened/>

Group discussion

- What are the priority pests for your region?
- How are these priorities dealt with at the national and regional levels?
- Which stakeholders are involved and how?

Get involved in the pilot on surveillance

How can you contribute concretely to the pilot project on surveillance as an NPPO, a Contracting Party, and as a region?

PAUSE FOR DISCUSSION!

Suggestions to get involved

- Contribute your surveillance resources
<http://www.phytopsanitary.info/contributed-resources>.
- Promote the importance of surveillance in your NPPO and other government agencies.
- Review your national and regional surveillance policies and legislation.
- Contribute funds to help support the pilot work activities.
- Demonstrate your progress at CPM 12!

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