

Pest Risk Analysis in developing countries, capability and constraints

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In 1995 there were two key events that had irrevocable consequences for national plant protection organizations (NPPOs) globally, the conclusion of the GATT Round of trade negotiations with the acceptance of agreements of agriculture and sanitary and phytosanitary matters (the SPS Agreement), and the development and adoption of the first International standards for Phytosanitary Measures (ISPMs). Although Article 14 recognised the difficulties that developing countries would face in meeting their obligations under the SPS Agreement, and imposed a five-year moratorium on compliance, this has not been sufficient for many of them.

This paper reports on activities to empower developing countries to meet their international obligations to develop technically valid import restrictions through the application of Pest Risk Analysis (PRA), and to indicate the constraints and suggest inputs to remedy the problems encountered. It will be dealt with under the following general headings

- Genesis of the PRA training programme and format
- PRA Workshop delivery process
- Review of impact on NPPOs
- Problems/needs analysis
- Solutions
- Future initiatives.

Genesis of the PRA training programme and format

As the manager of the PRA section of the Australian Quarantine and Inspection Service (AQIS), Plant Policy Branch, I was aware of the concerns that our developing country neighbours and APPPC/PPPO members had when we began to produce PRA reports that were compliant with the PRA Guidelines (ISPM #2). We were soon receiving requests for assistance and AQIS did provide some training both overseas and in Australia for PRA experts. Out of these requests a series of explanatory background texts were produced that were used for local and overseas training presentations.

At the Second meeting of the Pacific Plant Protection Organisation (PPPO) in 1998 the participants determined that the development of national capability in PRA was a priority, and in 1999 a Workshop developed a methodology that could be adopted by most of the regional countries. This methodology recognised that Phases 1 and 2 of ISPM#2 could be undertaken by countries, if technical resources were available. But for the PPPO region the primary constraint was the absence of a range of quarantine pest management options at points of entry. Therefore, quarantine pests would have to be classified in terms of the risk they posed and the availability of onshore treatment facilities.

These pest categories are as follows

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- Critical quarantine pest – no capability to treat at import – all treatments pre-export or prohibition
- Non-critical quarantine pest – can be treated at point of entry – but pre-treatment preferred
- Non-quarantine (non-regulated) pests – no requirement.

Following the adoption of this standard at a regional level, and it should be noted that PPPO countries only have capability to undertake qualitative PRAs, the next stage was the development of a Workshop Manual that would be used for a series of national Workshops and would serve as a reference text for quarantine officials. The key demand of the PPPO NPPOs was for a participative environment and the experience of conducting a commodity PRA under supervision.

The content of the IRA Workshop is given in Table 1. It is likely that similar formats are used by others to undertake training in IRA. (SPC, 2000)

Table 1.
IRA Workshop programme. Session plan.

Module	Teacher activities	Learner Activities
1 Background to SPS	Provide a brief history of the development of phytosanitary decision-making with emphasis on the regional perspective and the connection between trade issues and the need for decisions to be technically justified to meet global obligations under the WTO and IPPC. The activities of a number of organisations in the region with responsibilities for trade and plant protection/ quarantine are also described.	Listen and ask questions to clarify as necessary. Participate in a discussion of the roles of regional agencies in trade facilitation and plant quarantine. Discuss the level of trade between the PICs and Pacific Rim countries and the national import and export trade statistics and the possible impact of Free Trade areas in the Region to this.
2 National Context	Explain the international context of all aspects of phytosanitary control with specific reference to the national legislation and administration. Undertake a linkage of the system with trade pattern of the country	Listen and ask questions to clarify as necessary. Discuss the legislation of the country that relates to phytosanitary control and the powers that these give to officials. Identify linkages with other government agencies and discuss if the legislation is relevant and sufficient for the NPPOs tasks.
3 International context	Explain the role of international organisations in phytosanitary control, particularly the IPPC, WTO and regional organisations.	Listen and ask questions to clarify as necessary. Discuss membership of international organisations and the claimed benefits and obligations of the membership.
4 Standards and ISPMs	Explain the meaning of a standard, how phytosanitary standards are developed and the current range of standards applicable globally. Explain the principles of plant quarantine and in particular the role of the principle of risk analysis, the interaction of other principles in meeting WTO and IPPC principles of transparency and minimal impact and the classification of pests as quarantine pests.	Listen and ask questions to clarify as necessary. Discuss if the principles of plant quarantine are understood through the examples of scenarios where they might apply in normal trade. Discuss the linkages between the Principles and the application of standards; some such as transparency could be dealt with in detail from the perspective of a country being the exporter or the importer.
5 PRA standard	Explain the process of pest risk analysis in detail, the steps (Initiation, Assessment and Management) and the information	Listen and ask questions to clarify as necessary. Consult reference texts at the appropriate stage in the RA process.

	requirements needed to successfully conduct a PRA for a pest or commodity. ISPMs 2 and 11. The minimum reporting requirements and format of a report and the responsibilities of the PQ personnel for the development and implementation of recommendations.	Discuss the application of the IRA process and how it might be conducted in the country and the range of activities it might apply to. Discuss the various levels of IRA that need to be conducted, full IRA or cigarette packet methods. Also the way in which decisions were taken in the past which led to effective trade.
6 Information	Examine the types of technical information that is required to undertake an IRA, including the use of grey literature, and where it might be found. Reliability of records are discussed, and the used of the currently available internet and CD-Rom databases is examined. The retention of all information for future use is emphasised.	Listen and ask questions to clarify as necessary. Discuss the level of information available to the officials, library etc and demonstrate that they are capable of using the CD-ROM databases. Participate in a discussion of the technical expertise required to undertake these tasks and if the NPPO can find this in the service, nationally or whether the resources would be required from SPC or other organisations.
7 PRA methodologies	Explain the types of PRA undertaken by AQIS and MAF NZ and their development into a standard for PPPO countries. Outline the format of the PPPO PRA report and its documentation. Where relevant explain other PRA methodologies, NAPPO and EPPO standards.	Listen and ask questions to clarify as necessary. Consult reference texts at the appropriate stage in the RA process. Discuss the use of the PPPO methodology and its evolution and application by the NPPO. Analyse the types of management options available to indicate if three categories of pest can be addressed. Discuss the likely frequency of these activities.
8 Biocontrol, LMOs	Explain the ISPM#3 <i>Code of conduct for the import of exotic biological control agents</i> and the recent developments within the IPPC for the drafting of an ISPM for LMOs to recognise the CBD.	Listen and ask questions to clarify as necessary. Consult reference texts at the appropriate stage in the RA process. Discuss the role of IPM and biocontrol in pest management in the Pacific Region through examples of biocontrol agent imports into the country. Did the system of approval and evaluation follow the guidelines.
9 Administration support for PRA	Explain the administrative and technical resources needed to undertake IRAs for importation of Commodities, Biocontrol agents and GMOs. Explain the systems in Australia and the US and the systems in place that support decision-making and implementation at a national level. Explain the systems approach, its complexity and use for imports and exports.	Participate in discussion of the likely risks of the use of biocontrol agents, GMOs and their benefits; the role that phytosanitary services have in approving imports, the legislation and links to the responsibilities of other agencies.
10 PRA Exercise	Practical sessions on doing a PRA/IRA	Participate in the conduct of a PRA/IRA.
11 Analysis session	Interact with the trainees to determine the national deficiencies at legislative, technical and operational levels that are required to conduct and implement IRAs. From inputs determine a national risk analysis structure that could be national or international	Participate by inputs into the discussions as a result of experiences in undertaking IRA activities. Plan how this could be done in the future, what administrative structures need to be in place and where the technical resources would be found.

Participants are provided with the IRA Manual in plain English as hard copy, a file with reference texts, and copies of the PowerPoint overheads as note pages.

Modules 1-9, considered as background information are delivered in 2 days, Module 10, the IRA exercise takes 2 and a half days, and the analysis evaluation Module is undertaken during the last half day.

The objectives of the workshop can be summarized as

- To give experience to participants in undertaking a limited PRA on a commodity importation
- Monitor the relevance and application of the PRA standard under national conditions
- Gauge the country capacity to undertake PRAs
- Identify inputs required at a national level
 - For regional (SPC) action
 - International support.

Module 10 is the focus of this type of Workshop, with the participants being given information resources on pests and in following the PRA Guidelines are mentored through the process to achieve the production of a small report on the outcome in terms of a decision to import/prohibit and the technical justification for the regulatory position. As information sources are usually a limiting factor copies of the CABI Crop Protection Compendium (CABI CPC) (CABI, 2001) are provided and where possible Internet linkages to other databases such as Ecoport are made available.

Because of time constraints the identification of quarantine pests is restricted to about 12 pests in Phase 2, with a variety of pests being chosen that provide different technical assessment profiles. At Module 2 of the programme import proposals or problems with access are discussed and these are used to select the PRA topics that are undertaken in Module 10. It is important that the participants select the topics as they usually have an interest in the outcome and have ownership of the reports that are produced. It is also important to realise that these 'restricted' IRAs cannot be considered to present any obligation towards the NPPO as the exercise is by its nature incomplete. Nonetheless some topics that have been selected result in few potential quarantine pests and so can be considered as effective drafts of IRAs for the commodity. If possible a range of topics is selected that reflect the types of trade that take place and the different risk profiles that emerge from this trade, such as –

- Plants for planting
- Seed for propagation
- Fresh fruit and vegetables
- Commodity for processing/consumption
 - Grain
 - Soybean

In the case of plants for planting the emphasis is on systemic pathogens such as bacteria and viruses, for seed for propagation the issue is the seed borne nature of a range of pests, fresh fruit and vegetable commodity pathways focus on fruit flies and other internally borne

pests, and finally the importation of commodities requires expertise in stored product pests. Teams of four or more participants are formed with a mix of technical expertise and responsibilities being made whenever possible. Most workshops have been a mix of quarantine staff and other government officials and some have included importers and exporters.

Outputs from the various stages of the PRA exercise form the basis of the Workshop PRA report and follow ISPM 2.

- Stage 1 Initiation - list of potential quarantine (regulated) pests by subtraction
- Stage 2 Assessment – identification of pests as quarantine pests
- Stage 3 Management – Identification and selection of management options
- Stage 4 Communication – PRA report
 - Import conditions for commodity
 - Working instruction for Operational Manual
 - List of quarantine pests for legislation.

List of potential quarantine (regulated) pests by subtraction.

The list is readily obtained from the CABI CPC by subtracting the list of pests in the importing country from those present in the exporting country. The lists need to be checked against current records, and it is often the case that pests in the importing country have not yet been included in the CPC. At this point the list of pests is associated with the crop, not necessarily the part of the crop traded as the commodity.

Identification of pests as quarantine pests.

Before participants can begin to assess the quarantine status of the potential quarantine pests a comprehensive datasheet of information is compiled from the CPC and other sources. The complexity of the decision-making at this phase depends upon the technical expertise available within the teams. The technical justification for the capacity for entry, establishment and spread are extracted from the datasheet and included in a form that is attached initially to the datasheet, but which eventually is included as part of the PRA report. Working as teams to assess the datasheet information is encouraged as experience has shown that this is the most productive scenario. It is also the most difficult stage in developing countries as the lack of technical expertise hampers clear evaluation of biological and lifecycle information. At this stage the number of pests may increase above that originally selected so that vector relationships identified in the datasheet can also be assessed.

In terms of risk most developing countries can only make broad-brush assessment such as high/medium and low.

Identification and selection of management options.

In most developing countries the range of management options to address the risk of the import of identified quarantine pests is limited. The PPPO system allocates specific categories to pests depending on whether they can be managed at point of entry or not. In some countries all pest risks have to be managed offshore. To assist in allocating management procedures to pests a table is used that lists the options available from point of production to point of entry in chronological order, and pests are assigned to these as appropriate. Once all the quarantine pests are allocated to the management procedures the

production of the regulatory position and a set of import conditions can be easily compiled by transposing the table in sequence.

Where treatments are not available in the country of import, and the country of export cannot undertake an equivalent treatment trade cannot take place.

PRA report.

Once the regulatory position is decided this is then developed into:

1. a list of regulated pests that is included in legislation and reported to the RPPO in accordance with IPPC Article 7.2
2. import conditions that are sent to the exporting country and to the WTO for global transmission in accordance with IPPC Article 7.2, and
3. a working instruction that may be incorporated into the NPPO Operational manual for the guidance of Inspection staff.

Strategic outputs from the workshops can be considered at a national and international (generally bilateral) level in terms of impact on PRA awareness, capacity, capability and constraints.

National.

PRA awareness.

Countries are exposed to the global framework for phytosanitary decision-making and the need for technical justification of the measures imposed, particularly the need for transparency. The linkages between the outputs of PRA to legislation and operational capacity have been highlighted, together with those between the PRA ISPMs and the other standards. The need for a national phytosanitary strategy is realized.

PRA capacity.

In recognizing the need for the formation of teams of technical professionals to undertake the PRA exercise countries examine their own capacity to undertake this requirement unaided.

PRA capability

In managing the risk identified in the PRA countries are made aware of their capability to comply with international standards particularly those that relate to operational activities.

PRA constraints

Developing countries are rarely capable of conducting PRA exercises unaided and within the context of the Workshop are encouraged to identify the constraints that they have and develop strategies to address these problems.

Bilateral

Awareness of global status of PRA

In developing the regulatory framework and conditions for their own imports countries, are examining those conditions that are being imposed by their trading partners and are examining them in terms of compliance with the principles of plant quarantine. Some countries now consider themselves in a position to question the validity of these conditions and will require re-negotiation of those they consider to be restrictive, such as the treatment

of non-regulated pests, inspection after treatment and the requirement for certification where no quarantine risk has been identified.

Constraints to performing PRA.

At the conclusion of each Workshop an evaluation of the performance and constraints is undertaken, and identified issues are –

- Information sources
 - Quantity and quality of information.
 - Pathway identification limited to host and pest at this time
 - plant part components/infection that constitute the traded commodity cannot be identified for many commodities
 - Particularly non-temperate commodities
 - Plant part affected as against infected/infested
 - Not always relevant to phytosanitary matters
 - Entry, establishment and spread from field data
 - Rarely from commodities in the trade pathway.
 - Incomplete local pest record data
 - dated
 - unreliable
 - Unrecorded/unreported
 - Absence of pests overestimated leads to trade restriction
 - Compilation of datasheets for assessment
 - Minimal datasheets insufficient to make decisions
 - Limited access to technical data
 - Reliance on abstracts rather than original data
 - Abstracts favour publications of data derived from experimental controlled conditions, rather than field
 - Under controlled but artificial conditions
 - Many host only experimental hosts
 - Economic impact difficult to interpret
 - Particularly under small scale experimental conditions manipulated to favour pest, host or control procedures
 - English the dominant technical language
 - Internet access expensive and unreliable.
 - Quantity and quality of technical staff.
 - Limited technical expertise
 - Critical mass may be needed for beneficial professional interaction. Nil risk still prevalent as a policy
 - Treatment on non-regulated pests
 - Multiple interventions for single pest
 - Lack of management options (Phase 3 Outputs)
 - Equipment
 - Facilities
 - Trained staff
 - Funds for services rendered (fees for service)

- Retained by the NPPO within its budget

Communication (Phase 4 Outputs)

- Inexperience in writing working instructions
 - Lack of Operational Manual
 - Unclear lines of communication internally
 - Responsibilities and delegations unclear
 - National and international
- Legislation non-SPS compliant to accept the pest lists

These constraints on capacity to undertake and to implement the outcomes of PRA are not necessarily restricted to developing countries and therefore the suggested activities to assist countries to cope with their SPS and IPPC obligations could find wider application. The inputs are considered under the following general headings

Information.

Quality of information

Recent accurate pest distribution data compiled in accordance with international standards.

Phytosanitary based data as against plant protection requirements (biological associations rather than cause and effect)

Parts infested/infected

Entry establishment and spread

Quantity of information

Original scientific papers not abstracts

Field data on economic impact rather than laboratory information.

Resources to manage identified pest risk

Equipment

Facilities

Staff capability and capacity

Trained staff

PRA teams

Operational Manuals

Legislation

Policy based on managed risk

Linkages between trade facilitation and national development

Linkages to environmental impact.

Initiatives to address the deficiencies.

Quantity and quality of information.

The focus of information needs of phytosanitary practitioners needs to emphasise the provision of information that relates to pathway associations not cause and effect that has been developed for a diagnostic support dataset for plant protection practitioners.

- CABI is looking at the development of a phytosanitary decision support system and a Biosecurity Compendium
 - Consideration should be given to the provision of access to complete scientific articles rather than abstracts.
- PRA of timber and similar manufactured plant products is not adequately served by a plant protection compendium.
- Countries should be supported in efforts to compile pest lists in accordance with international standards and to publish them.
- Countries should make available pest datasheets that have been developed as a consequence of their PRAs to other countries
 - Possibly via an internet link

Quantity and quality of technical staff.

Evaluation of the national capacity of developing countries to conduct PRAs with their present staff indicates an inability to form PRA Teams with the breadth of professional expertise to complete the process to the international standard.

- Developing countries need training in the application of PRA within their own trading environment, and to have their capacity to comply with standards evaluated as an output.
 - SPC PPPO has developed an IRA Training Manual that may have global application as a suitable curriculum.
- Training courses with bilateral participation should be conducted so that the consequences of non-compliance with standards and the impact on the promotion of a free trade environment can be demonstrated.
- Pool of PRA experts at a global level who can be called on to assist countries in undertaking PRAs.

Lack of pest management options (Phase 3 Outputs).

Many countries lack the capability to deal with the identified pest risk at point of entry and so trade is restricted if pests are detected on inspection.

- Provision of funds from donor agencies to provide for identified deficiencies in pest management
- Capability within legislation for cost recovery and the retention of these funds within the plant quarantine service (NPPO).
- Linkage of the NPPO to importers and exporters so that their role in facilitation of trade is increased and recognized.

Lack of Operational Manual.

Many developing countries do not have instructional manuals that give clear guidance to inspectors at the workplace, and those that do are not structured so that the outputs of PRA can be incorporated readily. Manuals rarely identify the technical and legal basis for operations.

- Development of a manual that is ISPM compliant but that is also able to quickly incorporate the PRA decisions

- SPC PPPO is currently developing a web-based Manual (more correctly a phytosanitary information support system) that is designed to ensure compliance with standards with cross-reference and hyper linking between the ISPMs (particularly the Glossary), the legal framework and the operational activities (Ikin et al, 2001).
- In the re-formed East African Community (Kenya, Tanzania and Uganda) the development of a common Operational Manual and documentation processes is being undertaken.

Legislation non-SPS compliant to standards.

Many developing countries do not have legislation that is compliant with standards and in particular does not recognize that decisions are based on estimates of risk, that pests are classified into specific categories according to an internationally accepted definition and that the strength of the management measures selected should be proportional to the risk identified. As a prerequisite for sustainability, countries should have the capacity to levy fees for service that are retained within the NPPO budget.

- Development of a set of legal drafting guidelines that are ISPM compliant but can accommodate the legal framework of each country.
 - SPC PPPO has developed a set of legal drafting guidelines that is currently being used to revise national legislation. This Biosecurity Law Guideline includes legislation to cover animal, plant and human quarantine issues and provides for reference to other national laws concerning the environment (Ikin, 2001). This is being undertaken with input on environmental aspects from the South Pacific Regional Environment Programme (SPREP).
 - Within Africa a project is underway to harmonise the legal framework within the Inter-African Phytosanitary Council (IAPSC) countries
 - It would be useful for these two activities to be considered as the basis for a global set of guidelines as between them they are likely to cover all contingencies.

Finally, in the case of developing countries the primary constraint is the provision of funds to enable the NPPO to develop. In an effort to maintain the profile of regulatory control within the market for assistance, countries should consider the promotion of their NPPO as an agency with prime responsibility for the protection of the environment rather than a focus on agricultural production (Ikin, 2001).

Internationally funds are more readily available for activities related to the maintenance of biodiversity through protection of the environment, than for 'classical' agricultural quarantine actions. So by expanding their area of concern somewhat, NPPOs may be able to access funding not previously available to them.

At a national level many countries feel the activities of the NPPO are perceived as regulating the importation of pests rather than the broader based process of trade facilitation. It is therefore important for NPPOs to undertake dialogue with importers and exporters to explain their current roles (post SPS) and to involve these stakeholders in decision-making, particularly at an operational level. This change in policy 'From policemen to partners' is likely to open avenues for collaboration and the provision of support from private industry. This support could be financial, or that necessary to raise the status or the profile of the NPPO at

a national level through political intervention. As noted elsewhere in this Symposium, the involvement in the decision-making process of those affected by the decisions of the NPPO is important, even though they may not be in agreement with the final outcome.

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Pest Risk Analysis in developing countries.

Capability and constraints

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NAPPO PRA Meeting Mexico

SPC Plant Protection Service

Content

- Genesis of the PRA training programme and format
- PRA Workshop delivery process
- Review of impact on NPPOs
- Problems/needs analysis
- **Solutions**
- **Future initiatives**



Background

- WTO SPS Agreement 1995
- Article 14
 - Differential implementation by developing countries
 - Approx 160 developing countries
 - 5 year moratorium on compliance



Pacific Plant Protection Organisation

PRA standard 1999

- Follows ISPM#2 in methodology
- Recognises countries limited pest management capability
- Regulated (Quarantine) pests
 - Critical Quarantine pest
 - Non-critical quarantine pest
 - Non-regulated pest



Pest categories

- **Critical quarantine pest** – no capability to treat at import – all treatments pre-export or prohibition
- **Non-critical quarantine pest** – can be treated at point of entry – but pre-treatment preferred
- **Non-quarantine (non-regulated) pests** – no requirement



PPPO 2000

- Implementation in-country in 2000
 - Funds from EU, AusAID and NZ ODA
- Development of PRA Workshop Manual
 - Modular framework
 - Participative and Practical
 - PRA Exercise on imported commodities
 - Feedback on performance



PPPO PRA Workshop Format

- Module 1- International context of phytosanitary control WTO ICPM
- Module 2 – National context Trade pattern
- Module 3 – IPPC and regional context
- Module 4 - ISPMs and their application
- Module 5 – ISPM2 and 11 process
- Module 6 – Technical requirements for PRA



PPPO PRA Workshop Format

- Module 7 – PPPO PRA system and of other organisations
- Module 8 – Risk analysis for biocontrol agents, LMOs and environment
- Module 9 – Administrative and legal issues
- Module 10 – PRA exercises/reports
- Module 11 – Analysis/evaluation of PRA capacity



PPPO PRA Workshop Format

- Module 7 – PPPO PRA system and of other organisations
- Module 8 – Risk analysis for biocontrol agents, LMOs and environment
- Module 9 – Administrative and legal issues
- **Module 10 – PRA exercises/reports**
- **Module 11 – Analysis/evaluation of PRA capacity**



PRA Workshop Timetable

- Modules 1-9 Background 2 days
- Module 10 PRA exercise 2½ days
- Module 11 Analysis/evaluation ½day



PRA Exercise

Objective

- To give experience to participants in undertaking a limited PRA on a commodity importation
- Monitor the relevance and application of the PRA standard under national conditions
- Gauge the country capacity to undertake PRAs
- Needs analysis - Identify inputs required at a national level
 - For regional (SPC) action
 - International support



PRA Exercise

Information resource

- Uses CABI Crop Protection Compendium as basic information resource as CDRom
 - Supplemented by
 - local information (grey literature)
 - Internet resources (where possible)
- Identifies 10-12 potential quarantine pests for full analysis only
 - A mini PRA – decisions not binding on NPPO
- Output – mini PRA report
 - Owned by the PRA team



PRA commodity types

Linked to Module 2

- Aim within the Workshop to examine PRAs for different commodity types as Teams 4+
 - Plants for planting
 - Seed for propagation
 - Fresh fruit and vegetables
 - Commodity for processing
 - Grain
 - Soybean



PRA exercise

- Team membership usually 4+
 - NPPO staff at all levels
 - Other government agencies
 - Importers and exporters
 - Technical resources
 - Universities
 - Research institutes



PRA exercise outputs

- **Stage 1 Initiation** - list of potential regulated (quarantine) pests by subtraction
- **Stage 2 Assessment** – identification of pests as regulated (quarantine) pests
- **Stage 3 Management** – Identification and selection of management options
- **Stage 4 Communication** – PRA report
 - Import conditions for commodity
 - Working instruction for Operational Manual
 - List of quarantine pests for legislation



PRA Format

Phase 1 Initiation

Pest list Tables

- Table 1 - Pests in exporting country
- Table 2 - Pests in importing country

- Table 3 - List of potential quarantine pests
Table 1 minus Table 2



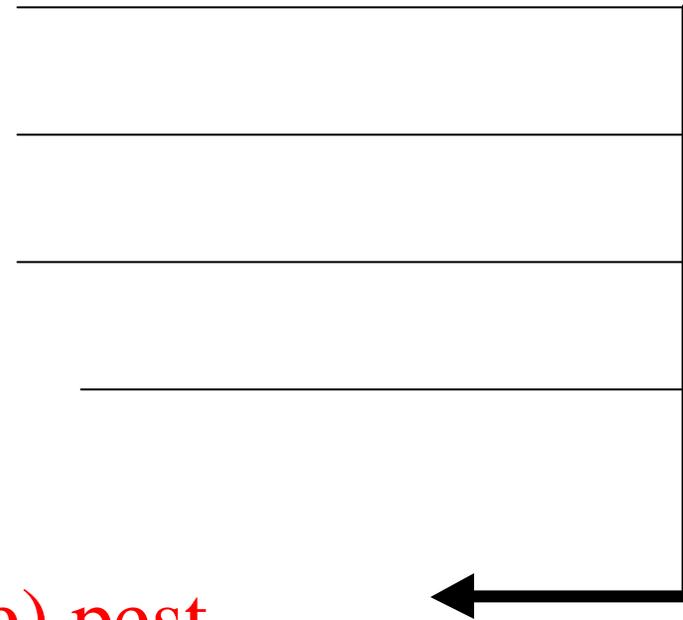
Phase 2 Assessment

- Technical assessment based on datasheet from Compendium
 - Supplemented by technical information from local expertise (where available)



Phase 2 Components

- Entry
- Establishment
- Spread
- Economic impact
- Regulated (Quarantine) pest



Pest assessment table

Entry	Technical notes from datasheet
Establishment	
Spread	
Economic	
Classification R/NR	
Risk level	High/medium/low



Phase 3 Management options

Regulated Pest	Management action
Pre-export	Area freedom/certification
	Treatment/certification
	Inspection/certification
Point of entry	Treatment
	Inspection



Phase 3 Management options

Regulated Pest	Management action
AAA aa	Area freedom/certification
BBB bb ; CCC cc	Treatment/certification
DDD dd	Inspection/certification
Point of entry EEE ee	Treatment
FFF ff ; GGG gg	Inspection



Workshop outputs

- PRA Report in standard format.
- Pest lists in Tables 1-4
- Pest Datasheets and assessment sheets
- Management Options Table 5
 - Import conditions
 - Working instruction
 - Regulated (Quarantine) pest list
- Presented by a PRA Team member Day 5



Communication

- **Import conditions** – for exporting country (IPPC Art 7. 2.(b)) /WTO contact point
- **Working instruction** – for Operational Manual/inspectors
- **Regulated (Quarantine) pest list** – legislation/RPPO (IPPC Art 7. 2.(i))



Workshop outputs

- National
- Awareness
 - Role of PRA in decision making
 - Matrix of ISPMs and PRA
- Capability
 - NPPOs doing PRAs building on workshop initiative
 - Draft PRAs for comment circulated
- Constraints
 - Most countries cannot undertake PRAs
 - Primarily lack of technical expertise



Workshop outputs

Bilateral - trading partners

- Re-assessment of their export requirements
 - Non compliance by trading partners with the principles of PQ as related to international trade
 - Trade restrictive
 - Please explain



Phase 1 Constraints

- Incomplete local pest record data
 - dated
 - unreliable
 - Unrecorded/unreported
 - Absence of pests overestimated – trade restrictive
- Pathway identification limited to host and pest at this time
 - plant part components/infection that constitute the traded commodity cannot be identified for many commodities
 - Particularly non-temperate commodities



Phase 2 Constraints

- Compilation of datasheets for assessment
 - Minimal datasheets insufficient to make decisions
- Limited access to technical data
 - Reliance on abstracts rather than original data
 - English the dominant technical language
 - Internet access expensive and unreliable
- Limited technical expertise
 - Critical mass may be needed for beneficial professional interaction



Phase 2 Constraints

- Information on specific host and pest combinations limited
 - Plant part affected v plant part infected/infested
 - Often the biology is known for only a limited number of commercial hosts
 - Entry/establishment
 - Little data from actual trading conditions
 - Spread
 - limited data available in mixed populations, most is derived from plant protection/control/epidemiological research in monocultures



Datasheet constraints

- Pest data - PhD effect
 - Experimental primarily for control measures
 - Distorted – favourable to pest
 - dated
- Economic impact
 - Interpretation of impact under artificial conditions to demonstrate control effect
 - Environment/variety/nutrition etc manipulated



Phase 3 Management constraints

Resources

- Lack of management options
 - Equipment
 - Facilities
 - Trained staff

Policy

- Zero risk mentality still prevalent
 - Multiple interventions selected
 - **Non regulated pests** treated or inspected



Phase 4 Communication

- Absence of Operational manual or legislative framework
 - Inexperience in writing working instructions- who does what, when, why and how
 - Unclear lines of communication and delegation of responsibility within NPPOs
 - In the end no one does the task as required



Inputs required

- Lack of -
 - Information - data
 - Resources
 - Capability and capacity
- Policy shift to the managed risk principle
 - Training in PRA
 - Policy makers
 - Inspectorate



Solutions

General - Data

- Recent pest survey data
- Plant parts infested and infected for major and minor hosts
- Information on entry and spread under trading conditions
- Original papers not abstracts
- field economic impact of pests under good agricultural practice (GAP)
- Access to other datasheets from national PRAs



Solutions

PRA process

- Technical assistance for DCs to complete PRAs
 - National /regional empowerment
 - Training in PRA
 - or
 - Experts as PRA team Mentors
 - Regional or external,
 - or
 - External PRA teams
 - At a cost?
 - Sustainability/commitment?



Solutions

PRA process Management

- Standard Guideline/Format for Operational Manuals
 - Linked to PRA management outcomes
- Guideline for drafting legislation
 - Compliant with IPPC, WTO and ISPMs
 - To replace 1983 FAO Guideline



Solutions

Policy Management

From Policemen to Partners

- Linkage between trade facilitation and development
 - Cost recovery for PQ services
 - Funds retained by service/parastatal status
 - Fund disbursed in cooperation with stakeholders
 - Bilateral PRA Workshops

Play the environment card for funds

- Linkage with environmental impact of pests
 - Quarantine pests/alien invasive species
 - PPPO/SPREP cooperation



PPPO PRA Support Activities

- SPC National pest surveys continue
 - Information to regional database
- PRA Workshops
 - Implementation evaluation stage underway
 - Manual used in Asia and Africa for training
- Legislation framework guideline
 - Agricultural and biosecurity/SPREP alien invasive species included as regulated organisms
- Operational manual
 - Web based/Hyperlinked to ensure harmonisation between ISPMs, legislation and procedures
 - Competency-based Inspector training





ORGANISATION NORD AMERICAINE POUR LA PROTECTION DES PLANTES
NORTH AMERICAN PLANT PROTECTION ORGANIZATION
ORGANIZACION NORTEAMERICANA DE PROTECCION A LAS PLANTAS
CANADA UNITED STATES MEXICO



NAPPO PRA Meeting Mexico

SPC Plant Protection Service