Analysis of the Application of the Phytosanitary Capacity Evaluation Tool

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Acronyms

ALOP	Appropriate level of protection
ANFOR	Association francaise de normalization
APPPC	Asia and Pacific Plant Protection Commission
CAC	Codex Alimentarius Commission
CD	Compact disk
CPM	Commission on Phytosanitary Measures
EPPO	European Plant Protection Organisation
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
IAEA	International Atomic Energy Agency
IAPSC	Inter-African Phytosanitary Council
ICPM	Interim Commission on Phytosanitary Measures
IFAD	International Fund for Agricultural Development
IICA	Inter-American Institute for Cooperation in Agriculture
IPP	International phytosanitary portal
IPPC	International Plant Protection Convention
ISO	International Standards Organization
ISPM	International Standard for Phytosanitary Measures
IWG	Informal working group
NPPO	National plant protection organization
OECD	Organisation for Economic Co-operation and Development
OIE	World Organisation for Animal Health
PCE	Phytosanitary capacity evaluation
PLANTI	ASEAN Plant Quarantine Centre and Training Institute
PRA	Pest risk analysis
PVS	Performance, vision, strategy
RPPO	Regional plant protection organization
RSPM	Regional standard for phytosanitary measures
SIA	Sustainability impact assessment
SPS	Sanitary and phytosanitary
SPTA	Strategic planning and technical assistance
STDF	Standards and Trade Development Facility
SWOT	Strengths, weaknesses, opportunities, threats
TA	Technical assistance
TCP	Technical cooperation programme
UEMOA	West African Economic and Monetary Union
USAID	United States Agency for International Development
WATH	West African Trade Hub
WTO	World Trade Organization

Table of Contents

Executive Summary

The Phytosanitary Capacity Evaluation (PCE) Tool was developed in 1999 to assess the capacity of NPPOs in relation to implementation of ISPMs and the rights and responsibilities described in the IPPC. The tool has been revised, expanded and translated based on recommendations of an Informal Working Group on the PCE and the experience of over 60 countries that have used it. It has become a significant component of the IPPC's 4th Strategic Direction *"The development of the phytosanitary capacity of members by promoting the provision of technical assistance" (Article XX of the IPPC),* and its application is built into many of FAO's Technical Cooperation Programme Projects funded in response to requests from countries for assistance in developing their phytosanitary systems.

At its sixth session in 2004, the ICPM expressed the need for a review of the impact of the tool. The IPPC Secretariat contracted CABI Africa to conduct what initially was to be a regional review, but was changed in 2005 to become a global study. The components of the study were outlined as:

- Critical assessment of the PCE as a needs assessment tool, with recommendations for enhancements;
- Review of the educational value of the tool in training and awareness raising;
- Assessment of the impact on strategic planning at the national level;
- Assessment of impact on other organizations internationally, including IPPC, FAO and donor and development organizations.

The study was undertaken through a combination of:

- A questionnaire survey of NPPOs;
- Interviews with key informants (PCE facilitators, donors, FAO staff, SPS experts, researchers and others);
- Questions to RPPOs;
- Desk study of IPPC and other documents.

The limited response of NPPOs to the survey on use and impact of the PCE was supplemented by results from previously conducted studies and reviews, comments from the advisory group, RPPOs and FAO Regional Centres, and interviews with key informants. Other tools developed through FAO for capacity assessment in food safety and biosecurity were examined, along with the multiple approaches to phytosanitary capacity evaluation that have been created as part of individual donor projects. The results of initiatives of the World Bank and the STDF were taken into account. The use and development of the Performance, Vision and Strategy tool for national veterinary services and the more recent one for NPPOs was given particular attention. The European system for auditing compliance with its regional legislation was considered, along with its approach to third country reviews.

The study revealed a positive impact of using the PCE, especially at national level, but a number of shortcomings were also noted. Key findings are:

- In most cases, the PCE has been effectively used for focusing attention on gaps in capacity, communicating findings domestically, and securing funding from FAO.
- The objectives of the PCE have shifted over time, and the issue of compliance with specific ISPMs could be better addressed using some other mechanism.
- Specific areas of NPPO capacity such as participation in standard setting activities should be included in such a tool.
- The tool has had some value for training and awareness raising, but is not designed for that purpose and is not the most effective approach.
- Some countries have used the PCE to support strategic planning at the national level, while others use alternative methods.

- Many countries are not close to the overall capacity described, so a tool that allows review of and planning for individual sectors within plant health would be appropriate.
- There is little uptake of the tool by donor and development organizations.
- There are frequent references to the PCE as a source of data necessary to incorporate phytosanitary capacity building needs into broader national and donor plans.

The study team concluded that the approach of having the PCE attempt to cover all objectives for assessment actually weakens the tool. Furthermore, it noted a lack of cohesive strategy for technical assistance overall, with an over reliance on this one tool. It was always the intention of the designers and users of the PCE that other tools would be developed. At this juncture, with the review of the entire Strategic Plan, it is timely to clarify what role the IPPC will play in technical assistance and to consider a broader approach to evaluation and assessment tools.

The report offers options that address all ten identified common objectives for assessing capacity. Short term action is recommended in two areas as particularly appropriate to the IPPC:

- Capacity to safeguard national phytosanitary interests and resources
- Credibility and trustworthiness before trading partners

The first objective may be supported by a self evaluation tool such as the PCE. It is recommended that the new PVS tool be included under this objective for the purpose of rapid appraisal and laying the basis of a national strategy, while an improved PCE provide details that will support development of a business plan or action plans for individual sectors of the system. There are sufficient changes to be made to the content and framework of the PCE, however, that this work should go to a bidding process. Both tools will be of greatest use to developing countries, but could be used by other countries as well.

The second objective, which will be of use to all members, can be addressed with minor enhancement to the reporting obligations already being addressed by the IPP. The same harmonized questionnaire will organize information that eventually may form the basis for equivalence, mutual recognition and other agreements. This new tool will be more similar to the concept of evaluating national veterinary systems as part of the import risk assessment, which is described by OIE in the Animal Health Code.

Fifteen specific recommendations are made concerning:

- Future development of the PCE
- Other tools in phytosanitary evaluation
- An overall technical assistance strategy

1. Introduction

1.1 Objectives of this study

The International Plant Protection Convention (IPPC) is an intergovernmental treaty formulated over fifty years ago to ensure coordination in preventing the spread and introduction of pests of plants and plant products, and to promote appropriate measures for their control. The IPPC is governed by its contracting parties through the Commission on Phytosanitary Measures (CPM) which adopts International Standards for Phytosanitary Measures (ISPMs), set priorities for a detailed work plan, and takes decisions on the body's strategic goals. The IPPC Secretariat coordinates the activities of the CPM and the numerous standing and ad hoc working groups that support it. The convention is hosted by FAO and headquartered in Rome.

Technical assistance and information exchange are two of the fundamental precepts of the convention and its aim (Article XX). This is recognized in the Strategic Plan (IPPC, 2006), where technical assistance and information exchange are two of the six strategic directions. The first goal under the strategic direction on technical assistance is to "Maintain methods and tools for individual countries to evaluate their phytosanitary capacity, requirements for technical assistance and progress in capacity development". Under the strategic direction for information exchange, the only goal (establish procedures on information exchange) is supported by activities including the development of a capacity building tools area in the International Phytosanitary Portal (IPP), the official website for the convention.

Since it was first developed in 1999, and officially adopted in 2001, the Phytosanitary Capacity Evaluation (PCE) tool has constituted one of the principal methods for achieving the IPPC's strategic direction on technical assistance. With improvements over that time, it has become an essential part of FAO Technical Cooperation Programme (TCP) projects on plant health. The World Trade Organization (WTO) and many other bodies refer to the PCE as the source for information on technical assistance needs of countries for phytosanitary capacity. It has been cited as "highly regarded" by the sister standard setting bodies (the World Organisation for Animal Health and Codex Alimentarius Commission), and indeed it was among the early efforts to develop a detailed guide on evaluation of national SPS-related capacity.

Despite its importance, there has never been a peer review of the PCE to determine if it is meeting its objectives, and if these objectives match the intention of the IPPC's strategic direction. New tools and approaches have emerged in SPS, and even in plant health, that take a different approach from that of the PCE. The majority of donors have noted the PCE, but often have chosen not to employ it in their own development projects. We now have experience from its application in over 60 countries to draw upon for such a review.

This is also a timely review. The revised version of the convention (IPPC, 1997) came into force in October, 2005, thereby allowing the formation of the Commission on Phytosanitary Measures (CPM) to replace the Interim Commission on Phytosanitary Measures (ICPM) at the annual meeting in April 2006. An external review of the overall operation of the IPPC is in progress and will report at CPM 2. At this juncture, at its first session the CPM has agreed to a complete review of the current Strategic Plan, and specifically delayed further action on the PCE until this new plan can be formulated and agreed. Therefore this is a unique opportunity to consider the PCE itself and its role in technical assistance under the coordination of the IPPC.

CABI Africa was commissioned to undertake this review. Details on the terms of reference, which were significantly altered six months into the study, appear in Annex 1. The study is

based on information derived from a survey of National Plant Protection Organizations (NPPOs), questions to the Regional Plant Protection Organizations (RPPOs), interviews with key informants (including facilitators of the PCE, donors, other standard setting bodies, consulting experts, researchers/academics among others), review of literature, and personal observation from participating in various activities of the IPPC. While a few completed PCE data sets were also made available, there was no comprehensive analysis of PCE results in and of themselves. A study by Canale (2004) had analyzed the trends in the results of the application of the PCE in 54 countries, so it was not necessary to duplicate that study. The emphasis in this study is thus on evaluating the PCE as a tool, rather than on an analysis of capacity building requirements that its use has identified.

1.2 The PCE Tool

The PCE comprises three components:

- A series of 'modules', each consisting of a number of questions relating to the theme of the module.
- A set of templates to assist preparation of a strengths, weaknesses, opportunities, threats (SWOT) analysis, priority actions and a logical framework.
- Background documents.

1.2.1 Modules

There are eleven modules in the PCE, though module 3 comprises 6 submodules (Table 1). Annex 2 shows an example module.

Table 1. The PCE Modules

Module	Title
1	Country background
2	Phytosanitary legislation
3	Pest diagnostic capabilities
3.1	Human resources, facilities…
3.2	Entomology equipment
3.3	Fungal and bacterial equipment
3.4	Nematology equipment
3.5	Virology equipment
3.6	Weed science equipment
4	Pest risk analysis
5	Surveillance
6	Pest free areas, places and sites of production
7	Pest reporting
8	Pest eradication
9	Inspection systems at points of entry and exit
10	Export certification
11	Institutional aspects

The questions in each module are answered in a variety of ways; Yes/No, pick lists, typed entry. Each question has the facility to type textual comments. The questions cover a wide variety of topics (Table 2), and there are 614 questions in total (Table 3).

Table 2. Topics covered by PCE questions (topic categories defined by the authors)

Topic	Description	Example question
Legislation	Existence and content of relevant legislation	2.20. Does the legislation require a person to declare plants, plant products and other regulated articles for commercial or non-commercial purposes?
Human resources – numbers	The numbers or existence of staff with particular types of expertise	4.5. How many specialists in Mycology / Bacteriology?
Human resources – capacity	Training and other issues concerning human capacity and its development	3.1.14. Are Plant Virologists (specialists) considered necessary for the NPPO?
Facilities	Buildings, laboratories	9.16. Are there designated insect-proof rooms for inspections at all entry points?
Equipment	Laboratory, field, computers	5.13.12. Polythene bags
Procedures, documentation	The existence or implementation of procedures and associated documentation	6.2. List the pests (give scientific names) for which pest free areas have been declared.
Organisation	Aspects of NPPO capacity not captured elsewhere - organisational structure, management, funding, planning.	11.9. Does the NPPO structure allow for expediting the decision making and implementation process?
Background data	Statistical and factual data such as information on pests, ports, exports and imports.	1.12. Total Dollar Value of Exports (US$)
Other	Questions asking if there are any other relevant questions to be considered.	8.12. Are there any other questions considered appropriate to determine the strengths and weaknesses of the Pest Reporting capabilities of the NPPO? If YES, list them in the comment box.

Table 3. Number of questions in each module for each category of topic.

Question Category	PCE Module Number																
	1	**2**	**3.1**	**3.2**	**3.3**	**3.4**	**3.5**	**3.6**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**Total**
Legislation		47	1						3	1			2	2	3	12	**71**
HR Numbers			42						32	8	1		1	10	1		**95**
HR Capacity			19						5	4			4	3	1	2	**38**
Facilities			11											2			**13**
Equipment				19	34	26	38	17	9	12				43			**198**
Procedures			5						20	18	15	14	4	16	28		**120**
Organisation	5															30	**35**
Background data	20													9			**29**
Other		1	1	1	1	1	1	1	2	1	1	1	1		1	1	**15**
Total	**25**	**48**	**79**	**20**	**35**	**27**	**39**	**18**	**71**	**44**	**17**	**15**	**12**	**85**	**34**	**45**	**614**

The questions and their answers can be printed or exported to Word and Excel files. A new set of responses can be saved as a different version, for example for different respondents or different dates. Once a new version is created the previous active one is locked and cannot be further edited. Different versions can be viewed individually or in comparison.

1.2.2 Templates

Three types of template are provided.

Strengths, Weaknesses, Opportunities, Threats (SWOT) matrix. The template provides for typing in strengths, weakness, opportunities, threats, actions required and priority rating (5 level pick list). A matrix is constructed for each of the 16 modules (sub modules), and a row can be added to the table for each activity type selected (from a pick list or user-defined).

Priority matrix. This matrix is compiled automatically by extracting the priorities and actions entered in the SWOT matrix, so cannot be edited.

Logframe matrix. This matrix is constructed for each module and provides the 4 columns of a logframe for entering text, at objective and output levels.

All matrices can be stored, printed and exported. The matrix templates are given in Annex 2.

1.2.3 Background documents

The following documents are provided on the CD.

- ISPMs
- IPPC New Revised Text 1997
- WTO SPS Agreement
- Convention on Biological Diversity
- Cartagena Protocol

1.2.4 Documentation and instructions

The 18 page user-manual is concerned entirely with the use of the software. No guidelines on how to answer questions are given.

There is a one page Introduction to the PCE on the CD which gives brief instructions on how to go about filling in the questionnaire.

1.3 History and development of the PCE

1.3.1 History

The PCE originated in a 'pilot project' conducted by New Zealand in 1999. The project developed a questionnaire for the assessment of phytosanitary capabilities, to identify needs and priorities. The emphasis was on developing countries, although the questionnaire was designed such that it could also be used in developed countries.

The questionnaire was piloted in 6 countries (Cook Islands, Fiji, Solomon Islands, Indonesia, Bangladesh and Vietnam). A consultant visited each country and facilitated completion of the questionnaire, and gathered comments on its suitability. The countries all agreed that a key aim of the questionnaire should be to determine an NPPO's ability to meet the obligations and requirements of the IPPC and ISPMs. The countries also requested more detail than originally envisaged, so the preliminary version had 457 questions.

The pilot study was discussed and endorsed by ICPM-2, and pilot studies requested in other countries. The data collected were envisaged to contribute to a database of developing

country members of the ICPM as a basis for prioritizing and coordinating technical assistance. A second data set was envisaged of technical assistance projects though that was never implemented. (The Standards and Trade Development Facility Database more recently had a similar aim, now absorbed into the Doha Development Agenda Trade Capacity Building Database http://tcbdb.wto.org).

ICPM-3 in 2001 was a key meeting, at which recommendations from Technical Consultations on Technical Assistance held in Bangkok in 2000 were adopted. These included:

- The questionnaire become known as the Phytosanitary Capacity Evaluation
- The PCE be transferred to the IPPC Secretariat who should be responsible for maintenance and updating
- The PCE be expanded to include institutional and regulatory aspects of national phytosanitary systems.
- Consultants to assist with data collection and evaluation and formulation of national plans for technical assistance
- Resources for FAO to maintain the PCE

In addition the Secretariat noted the need to translate the PCE into Members' languages.

ICPM-4 was presented with a report by the Chair on results from the use of the PCE in over 20 countries, and endorsed further updating to take into account new standards. The translation into other FAO languages was also endorsed, along with the creation of a CD version. ICPM-5 again encouraged further development and application of the tool, and at ICPM-6 (2004), it was reported that the SWOT, logframe and priority matrices had been added, the CD-version was available, and work on translation had started. The multilingual version (Arabic, English, French, Spanish) was completed in November 2004.

CPM-1 considered proposed changes to the Strategic Plan in relation to technical assistance including some related to the PCE. Given the CPM's decision to conduct a full review of the strategic plan, no decisions on individual components (such as the PCE) were made.

A chronological account of the decisions made by ICPM concerning the PCE is given in Annex 3.

1.3.2 Decision making on PCE development

The ICPM/CPM is the ultimate decision making body, but its decisions are guided by the documents presented to it. These are compiled by the secretariat from the work of the following bodies. Table 4 lists meetings and workshops which specifically addressed the design and/or use of the PCE.

There is no formal mechanism by which suggestions for changes or modifications to the PCE are received and addressed. There is no known analysis or compilation of comments from the numerous meetings that comment on or address the PCE, although copies of reports are available in most cases and may have been read by the IWG-PCE. In general, recommendations and suggestions from informal groups or workshops are discussed by the SPTA, which, with assistance of the secretariat, puts papers with invited decisions to the ICPM/CPM.

Table 4. IPPC meetings (other than ICPM/CPM) at which the PCE has been discussed

Date	Meeting	Location
6 - 7 March, 2000	Strategic Planning	Bangkok, Thailand
8 – 10 March, 2000	Technical Assistance	Bangkok, Thailand
4 – 6 October, 2000	Strategic Planning (2nd Informal)	Bangkok, Thailand
1 – 5 October, 2001	Strategic Planning and Technical Assistance	FAO, Rome, Italy
24 – 28 June 2002	PCE Facilitators Workshop/Working Group	FAO, Rome, Italy
11 -12 July, 2002	ICPM Strategic Planning Focus Group	FAO, Rome, Italy
15 – 18 October, 2002	ICPM Informal Working Group on Strategic Planning and Technical Assistance	FAO, Rome, Italy
9 – 20 November 2002	Workshop on the International Standards for Phytosanitary Measures, Phytosanitary Capacity Evaluation and Pest Risk Analysis	Senegal
25 November – 6 December 2002	Workshop on the International Standards for Phytosanitary Measures, Phytosanitary Capacity Evaluation and Pest Risk Analysis	Nairobi, Kenya
15 – 26 September, 2003	Phytosanitary Capacity Evaluation and Phytosanitary Measures (Regional workshop)	Tunisia
13 – 17 October, 2003	Strategic Planning and Technical Assistance	Rome, Italy
Feb 2004	Training workshop of expert facilitators to assist in maintenance and implementation of the PCE	St Vincent
5 – 7 July, 2004	Focus Group on Strategic Planning and Technical Assistance	Rome, Italy
19 -30 July, 2004	Phytosanitary Capacity Evaluation and Phytosanitary Measures (Regional workshop)	Kuala Lumpur, Malaysia
16 – 27 August, 2004	Phytosanitary Capacity Evaluation and Phytosanitary Measures (Regional workshop)	Nairobi, Kenya
15 - 26 September 2004	PCE-ISPM workshop	Cairo, Egypt
11 - 15 October, 2004	Strategic Planning and Technical Assistance	Rome, Italy
7 – 11 March, 2005	Informal Working Group on Technical Assistance	Rome, Italy
14 – 18 March, 2005	Phytosanitary Capacity Evaluation Facilitators Workshop	Rome, Italy
19 – 29 July 2005	Regional Workshop on the International Standards, Pest Risk Analysis and Phytosanitary Capacity Evaluation	Kuala Lumpur, Malaysia
15 – 19 August 2005	Regional Workshop on the International Standards, Pest Risk Analysis and Phytosanitary Capacity Evaluation	Port Spain, Trinidad and Tobago
11 -14 October, 2005	Strategic Planning and Technical Assistance	Rome, Italy
November 2005	FAO Plant Protection Officers Workshop on Capacity Building with respect to the work programme of IPPC and FAO TA programme	Bangkok, Thailand
15 – 27 May, 2006	Regional Workshop on the International Standards for Phytosanitary Measures, Phytosanitary Capacity Evaluation and Pest Risk Analysis	Nairobi, Kenya
2 – 6 October, 2006	Strategic Planning and Technical Assistance	Rome, Italy
4 – 8 December, 2006	Informal Working Group Meeting on Phytosanitary Capacity Evaluation	Nairobi, Kenya

SPTA. The SPTA was initially established as two open ended working groups on strategic planning and technical assistance by ICPM-2 in 1999. ICPM-2 decided that the two groups should meet back to back in 2000, and they have met annually ever since as a single working group. At the request of ICPM the SPTA has undertaken a range of tasks in planning and prioritizing the work programme, funding of the IPPC being a significant focus. The time it has spent on technical assistance has thus decreased over the years. Membership of the body was not defined until ICPM-7 adopted interim terms of reference specifying a core group of 10 members including one for each FAO region. CPM-1 agreed to formalize the SPTA, which would meet under its interim terms of reference to develop formal terms of reference and rules of procedure.

IWG-TA. Despite the existence of the SPTA, a separate informal working group on technical assistance was held in March 2005.

IWG-PCE. Two documented meetings described as informal working groups on the PCE have been held, in 2005 and 2006, but earlier meetings took place to discuss the PCE for which documents have not been seen. A meeting in June 2002 has been referred to as a PCE facilitators' workshop but also as a working group. The IWG-PCE is not referred to in the IPPC Procedural Manual (2006).

Workshops. A range of different workshops have been held that have included discussion on the content and application of the PCE. A number of these have included training facilitators to act as consultants to countries using the PCE within their region.

1.3.3 Objectives of the PCE

The objective of the original New Zealand project was to develop a template for needs and priorities analyses of the phytosanitary systems of developing countries. It was envisaged at the outset that the tool would subsequently be used on a global scale, and that it would provide information to a Technical Assistance body of the ICPM to examine requests for phytosanitary capacity building. It was envisaged that the ICPM body would provide guidance on the suitability of capacity building projects, and would assist a country with the production of a strategic plan for developing its phytosanitary system. While this general objective appears to have remained in subsequent development of the tool, there are a number of points on which there has been some ambiguity or shift in emphasis.

Target countries. The broad aim of the New Zealand pilot project was to assist with capacity building in developing countries, but it was also stated that the tool could be used for both developing and developed countries. None of the countries that have used the PCE is 'developed' and developed country NPPOs have no plans to use the tool, preferring to use other methods.

Use of the results. The original intention was that all the results of the PCE would be collated by a technical assistance body of the ICPM so that it could advise on capacity building needs and coordinate technical assistance. Thus the results were intended to be for both external and internal use. With time the emphasis has shifted to internal use, and ICPM-3 adopted a recommendation that PCE results be kept as confidential as desired by the particular country. There is now no consolidated database of PCE results as originally proposed, and the NPPO survey indicates that the results are usually not shared outside the country (see section 2.4).

Single or repeated use. The PCE provides a snapshot of a country's phytosanitary capacity at a particular time, as the basis for planning capacity building. So in principle it could be used repetitively to monitor changes, although this does not appear to have been an original objective. However, the PCE software was subsequently modified to allow different versions to be stored, and the IWG-PCE (2005) gave a 'very high' priority rating to

modifications to allow different versions to be used to track progress over time. Even with this facility, there is no ranking within most categories that would show improvement over time. This would be more easily monitored through a quantitative framework, whether based on data or expert opinion.

Capacity evaluated. The original aim of allowing a country to assess its capacity to meet its obligations under the IPPC and ISPMs focused particularly on technical aspects, such as legislation, procedures, human resources, equipment. ICPM-3 adopted a recommendation that it be further developed to include institutional and regulatory aspects, resulting in the addition of module 11. This included some aspects of capacity less directly related to the IPPC and ISPMs, but in general the original technical focus remained. A suggestion to include other stakeholders' views as part of the PCE was at one point discussed and a module drafted, but was not eventually included, and the IWG-PCE (2005) gave only a medium priority to exploring options for including stakeholder' priorities in the PCE. There is also a need to review the tool from the perspective of environmental concerns, such as invasive species control, given the collaboration with the CBD on these issues (Canale, 2005).

Awareness and education. The use of a tool such as the PCE inevitably builds awareness for those using the tool and for those to whom the results are presented. This benefit of the PCE might have been anticipated at its creation, but recognition of its value in this area has increased, to the extent that the IWG-PCE (2005) recommended that interactive learning tools on IPPC and ISPMs be developed with very high priority as an integrated component of the PCE or as standalone tools. The proposed alteration to the strategic plan at CPM-1 modified the recommendation by dropping the mention of standalone tools.

2. Use of the PCE

In this section information is presented on experience with the use of the PCE. Data from the NPPO survey are presented (see Annex 4 for the questionnaire and Annex 5 for the full results), together with information from the literature and from key informants (see Annex 6 for a list of informants). Table 5 lists the countries where it is known the PCE has been completed.

Table 5. Countries where the PCE has been completed (Information supplied by IPPC Secretariat).

Antigua and Barbuda	Guyana	Qatar
Bahrain	Haiti	Saint Lucia
Barbados	Honduras	Saudi Arabia
Belize	India	Senegal
Benin	Iran	St Lucia
Bhutan	Jamaica	St. Kitts and Nevis
Bolivia	Kenya	St. Vincent and the
Burkina Faso	Kuwait	Grenadines
Cambodia	Laos	Sudan
Colombia	Mali	Suriname
Costa Rica	Mexico	Swaziland
Cote d'Ivoire	Montserrat	Tanzania
Dominica	Mozambique	The Bahamas
Dominican Republic	Myanmar	The Gambia
Ecuador	Nepal	Togo
El Salvador	Nicaragua	Trinidad and Tobago
Estonia	Niger	Uganda
Gabon	Nigeria	United Arab Emirates
Grenada	Oman	Venezuela
Guatemala	Panama	Vietnam
Guinea Bissau	Peru	Zambia

2.1 The process

Although the PCE is seen as a 'self-assessment' exercise, since the New Zealand pilot project its application has almost always been facilitated by an external consultant. Canale (2004) states that optimum results have been obtained with a facilitator working with a group of national experts, but that the role of the consultant is reversed from the usual situation. However, although the process is seen as participatory, the range of those involved is narrower than is used in some other tools. The introduction to the PCE recommends 6-8 staff from the NPPO, and where possible, 2-3 non-NPPO staff from appropriate research institutes or agricultural universities. While most survey responses listed the above parties as those completing the PCE, occasionally an individual has been tasked with completing the PCE, with a meeting afterwards with other NPPO staff.

Thus there is no suggestion that a wider group of stakeholders be consulted, such as users' of NPPO services in the private sector. This is in keeping with the questions, many of which can only be answered by technical staff in the NPPO. Survey responses were consistent with the guidance on participation, there being only a few instances where the private sector or other producer representatives were involved.

One respondent was confused that the PCE was a membership body and another noted that their country did not have a proper NPPO to conduct the evaluation. The need for help to carry out the PCE, for example the need for a facilitator, was noted a few times.

One key informant found the process of going through all the questions to be disempowering to countries that had to answer in the negative to so many of them. The fact that so many questions illicit only a “yes” or “no” response also caused difficulties in situations where there was a reality somewhere in between. Some of the questions were simply not relevant to diverse situations, e.g. the level of education of an inspector will not reach those suggested by the PCE in many countries. There was also a comment that some judgment entered into a few of the questions, which might be better left as strictly information collection, leaving the conclusions to the analysis phase.

Another observation from key informants is that the PCE can be time consuming to complete, although this was not mentioned by any of the NPPO respondents. In one case where an individual collated all the data, the process took approximately one person month. Although the PCE is set up in modules, it seems designed to be done as whole.

While this study did not focus on details of the implementation process of the PCE, some specific points were raised by one facilitator regarding the function of the 2003 CD Rom version. The process for collecting and addressing such issues is described in section 1.3.2 above.

2.2 Overall value of the tool

The ICPM has repeatedly noted how valuable the PCE is, and the survey responses showed broad agreement with that conclusion. Figure 1 shows how useful the respondents felt the PCE to be at assessing a range of needs. In general the PCE was ranked as useful or extremely useful, though a few responses for each topic reached a neutral ranking, with three receiving ratings of “2”, or not very useful.

Some key informants supported the view that the content of the PCE does what it attempts to do reasonably well, particularly in the context it was originally developed, but questioned whether it still remains adequate in terms of content and process. All key informants considered the tool to be limited in its use for developing countries only, so that those from developed country NPPOs simply ignored it. One SPS Committee delegation simply stated that “it does not apply to developed countries and does not work for developing ones”.

It was also frequently commented that the level of detail in some questions does not match with that of others. This, and the overall structure of the tool, make it difficult to take the results into analysis, and then form conclusions or a strategy.

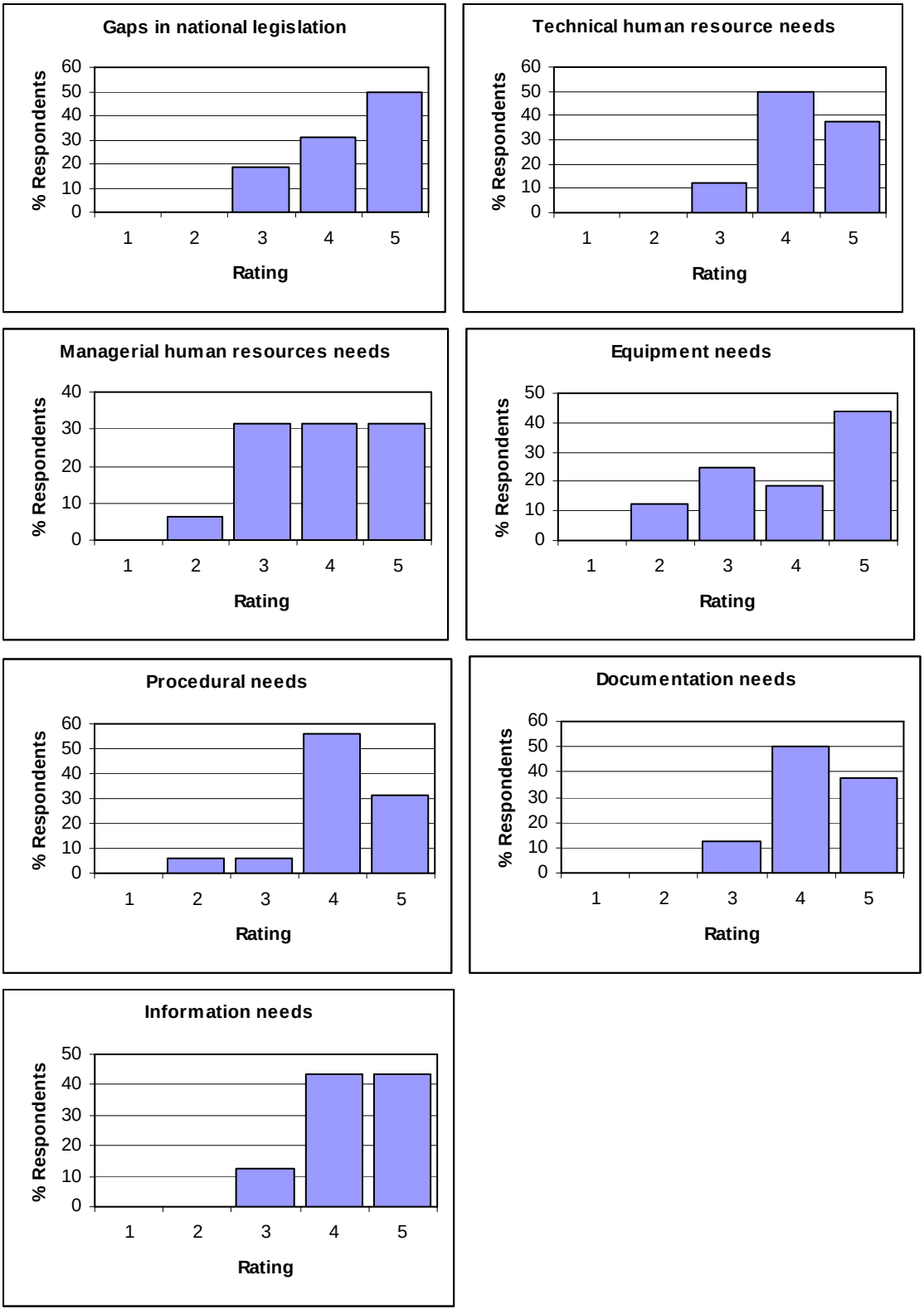

Figure 1. Survey respondents' rating of the usefulness of the PCE at assessing different types of needs. (Rating 1=not at all useful, 5=extremely useful).

One respondent to the NPPO survey commented that there was "no positive support [from the PCE] to the plant health sector" but rather a focus on trade and responsibilities of the Customs service. While this may indicate a lack of understanding of the responsibilities of the NPPO versus Customs, in many countries border duties are transferred or shared for pragmatic reasons. The PCE tool does not include new components or questions reflecting the more environmental requirements that arose under the augmented versions of the ISPM 11. The need to enhance the tool to take into account invasive species issues has already been noted (Canale, 2005).

At ICPM-5 it was reported that there was interest in the PCE approach being used or adapted for capacity evaluation in food safety and animal health. A presentation on the PCE had been made at a meeting of the WTO SPS Committee (G/SPS/R/28) where it was seen as a "particularly useful needs diagnostic tool". However, subsequent development of capacity evaluation approaches in the food safety and animal health sectors has adopted different approaches from the PCE, and key informants indicate that this was because the process by which the PCE is conducted and what it evaluates were not what was considered to be suitable in those sectors.

2.3 National planning

Planning can be described as the process of identifying a desired future state, and defining what needs to be done to reach that state, taking into account the present state. In the case of the PCE, the future state aimed at is one in which the NPPO is able to fulfil its obligations under the IPPC, and implement the ISPMs. By implication, the PCE provides a check-list of what is needed to be in that situation, and so where the plan needs to focus. According to Canale (2004), after answering the questions in each module, the user should then complete the SWOT, identification of activities needed to address weaknesses found, and resulting logical framework for that module, which thereby ties the assessment into a strategic planning process.

But planning is also about prioritizing actions, because sequencing can be important, some actions may be more important or critical, and because some may be more cost effective than others. The PCE prompts the user to undertake this prioritization, but provides no guidance as to how the prioritization should be done. For example, the PCE does not explicitly distinguish between the value or importance of establishing national phytosanitary legislation or purchasing a hand lens for the surveillance team.

Thus in its current form the PCE provides no guidance on turning the results of the capacity inventory into a plan. Notwithstanding this, the PCE has generally been perceived to be useful in national planning. Figure 2 shows the survey respondents' rating of the value of the PCE in conducting a SWOT analysis, determining priority actions, and developing a logical framework. 44% of the survey respondents have completed a strategic plan since conducting the PCE.

In assessing the value of the PCE in national planning, it is of interest to know what priorities have been identified as a result of using the tools. This is something the ICPM has requested to be informed of, and at ICPM-4 the Chairperson presented a report (ICPM02/3) of the outcomes of the PCE from over 20 developing countries in South America, Caribbean, Africa and Asia. The priorities for each module of the PCE were defined as Legislation (including regulations and institutional issues), Documented Operational Procedures and Training, or Infrastructure and Equipment.

Figure 2. Survey respondents' rating of the value of PCE in conducting a SWOT analysis, prioritizing actions and developing a logical framework. (Rating 1= not at all useful, 5=extremely useful).

For each PCE category (module), the top three priorities across all countries were as shown in Table 6. Canale (2004) presented the same analysis for 54 countries but for the top 3 priorities there was no change in the results. A detailed description was given of the deficiencies under each of the three categories of priority. This, it was argued, showed priority needs were the opposite of traditional technical assistance programmes prior to the adoption of the SPS Agreement, which tended to provide infrastructure and equipment.

Table 6. First five priorities for each PCE category in all countries (from ICPM02/3). (L=Legislation, including regulations and institutional issues; P=Documented operational procedures; E=Infrastructure and equipment).

	Priority				
PCE Category	**1**	**2**	**3**	**4**	**5**
Institutional Capacity	L	L	L	L	L
Legislation	L	L	P	L	L
Export Certification	L, P	L	E	L,P	E
Diagnostic Capacity	L, P	L	E	L, P	E
Exotic Pest Response	L	P	P	P	P
Inspection	L, P	P	P	P	E
Pest Surveillance	P	P	P	P, E	P
Pest Free Areas	P	P	P	P	P

In the NPPO survey 62% of respondents reported that the use of the PCE has led to the development of new or improved phytosanitary legislation, and 37% reported that the PCE

had been used to make or support policy decisions in plant health. This is consistent with the findings of the Canale (2004) study.

Another indicator for the value of the PCE in national planning is whether it has resulted in specific requests for funding to support the identified priority actions. 47% of respondents reported that proposals for funding phytosanitary capacity development had been submitted for funding from the national budget as a result of using the PCE.

2.4 International programmes

One of the original objectives of the PCE was that it would provide information to donors wishing to support phytosanitary capacity building programmes. However, in the NPPO survey only 25% of respondents said the results of the PCE had been used as the basis of a proposal for further funding, and only one project had been funded. The NPPO survey also suggests that there is little use of the PCE results in presenting the national situation externally. 25% of respondents reported having presented the results of the PCE to people outside the country, and several of these were to FAO or specifically the consultants on TCP projects.

These responses suggest that the PCE has not performed well in the role of attracting donor funding or contributing to the planning and design of development programmes. We interviewed some example donors in an attempt to understand if this conclusion is true and, if so, the reasons for this apparent failing.

2.4.1 FAO TCP

The PCE has been used extensively in the FAO Technical Cooperation Programme (TCP), and a large number of TCP projects have been conducted or are ongoing in this area. CPM-1 was presented with a list of 34 TCP projects implemented during the period 2001-2005, to a total value of about US$20m[1]. Many of these projects have included application of the PCE as one of the first project activities. However, as Canale (2004) noted, ideally the PCE would be used during project formulation, so that the results could guide the content of the capacity building project. On the other hand, TCP projects are often considered as the first phase of a more extended process. In this case it could be argued that the use of the PCE in the TCP project would provide the basis for the subsequent activity.

The fact that it is possible to design a TCP project before the PCE has been undertaken suggests that the broad outcomes of using the PCE can be reliably anticipated. For example, the lack of appropriate legislation can be recognized without using the PCE, and the TCP project designed accordingly. Furthermore, it would appear more useful to have a model plant health legislation completed to link with such a finding. The FAO's Legal Department have now completed a model food safety law, which is included in a publication on the topic (FAO, 2006).

The current evaluation of the IPPC will include an analysis of the phytosanitary capacity building TCP projects and may touch on the value of the PCE in that context. Other donors appear to use the PCE less, at times creating entirely new questionnaires of similar purpose.

2.4.2 World Bank

The World Bank is implementing a range of country assessments and action plans in relation to SPS standards. The PCE is of direct relevance to this activity and three examples show

[1] FAO's contribution to food safety capacity building was estimated at $29 million over a five year period (1996-2001), and has probably increased in annual expenditure since then. Special Trust Funds set up for food safety have over $50 million in funds. An earlier review (1992-96) found that food safety projects accounted for around 5% of all TCP project spending.

different views of its value. In Vietnam the PCE was implemented in 2001, as a result of which a Phytosanitary Capacity Development Strategic Plan 2004-2009 was developed. The use of the PCE was seen as providing a "sound basis for moving forward with specific capacity building initiatives" (World Bank, 2006), and the plan is being implemented with the support of donor agencies. Thus the PCE not only assisted the development of the NPPO, but with hindsight is seen to have contributed to the larger SPS capacity of Vietnam. A similar study by the World Bank in Zambia noted that although a PCE was not undertaken, the tool "did prove extremely useful in getting an indication of the specific actions needed to improve performance of the Plant Quarantine and Phytosanitary Service" (World Bank, 2006). Although the PCE was not undertaken by the consultant, it appears that information from the PCE conducted in Zambia was provided to the mission. The framework for the capacity assessment was the 'hierarchy of trade-related SPS management functions' (World Bank, 2005), with the PCE seen as one part of the evaluation. The third example is from Uganda, where, as part of a diagnostic trade integration study, SPS capacity was again assessed using the pyramid or hierarchy framework. No use was made of the PCE, and a footnote stated "Uganda has apparently implemented the IPPC's PCE, yet the conclusions and priorities remain unclear" (World Bank, 2006).

The general sense from interviews is that the Poverty Reduction and Economic Management Trade Unit, Agriculture and Rural Development Department section of World Bank does not endorse the PCE as a tool and prefers to work from the framework of their own vision of capacity (Figure 3). Much of the intellectual efforts of the World Bank central staff have focused on standard setting impacts and participation and export product-driven projects (World Bank 2005, unpublished). According to findings in the evaluation of Codex (FAO/WHO 2002), improved capacity was perceived as most important when economic returns were at stake. For example, training in hazard analysis and critical control point (HACCP) became crucial when export income was affected by some food safety issue. Support in improving food safety legislation, for example, was considered less important because there was no capacity to enforce measures domestically and multiple problems in the overall legislative process. The requirements of the trade partner thus became the priority, with the export sector leading in the push for compliance.

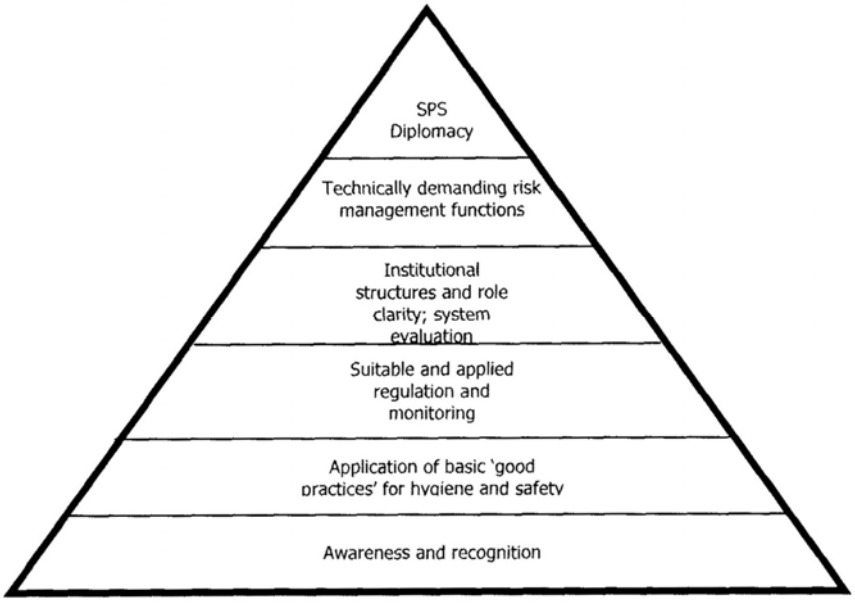

Figure 3. Hierarchy of trade-related SPS management functions. (From World Bank, 2005).

Export-driven demand for improved capacity also arises in plant health, particularly in lesser developed countries. While this has led to a much broader understanding among higher level politicians that plant health is part of the equation for increased agricultural exports and resulting inflow of foreign exchange, the down side is an increasing political pressure to promote exports. (Ironically, some of the most developed countries' NPPOs face this same pressure to promote imports, in line with the prevailing political agenda.)

2.4.3 Standards and Trade Development Facility (STDF)

In line with this same thinking, the STDF has funded a pilot project that developed a method for priority setting amongst competing SPS investments, based on the potential economic return from either new or enhanced export sectors (STDF project 20). Despite the original terms of reference asking for the results of the PCE to be linked to this method (WTO, 2004), the consultants chose to create a new questionnaire for producing the data on existing capacity and not utilize the PCE. There was also an issue of including only international standards and trading partner legal requirements, or expanding to cover market-driven requirements that are not strictly speaking part of the SPS rubric. A decision was made to allow these other types of requirements to be included in STDF projects when the objective was primarily trade expansion (STDF paper 150). The exclusion of the PCE does not indicate an overall policy of the STDF, which has the IPPC as a partner member, but rather the difficulty in linking the tool as it exists to an economic analysis.

The development of an animal health capacity assessment tool (Performance, Vision and Strategy for National Veterinary Services,) and its testing and application was supported to the level of $37,000 (STDF project 14), with a total of $500,000 in STDF funds going towards three capacity projects (as cited by the OIE website). This assessment tool, based on an IICA prototype, has been cited several times as one of the successes of the relatively recent STDF portfolio. Recently the STFD has approved a project of the Secretariat of the Pacific Community in the use of the Phytosanitary Capacity Evaluation tool.

2.4.4 USAID

Sanitary and phytosanitary capacity evaluations in West Africa have utilized the PCE approach (Humado, 2005). The eight UEMOA countries all implemented the PCE as part of a regional SPS harmonization programme (TCP/RAF/0176 and UTF/UEM/006). The USAID supported West Africa Trade Hub (WATH) noted that non-UEMOA countries needed to be included, so they undertook capacity assessments in Nigeria, Ghana and Guinea, and later in Sierra Leone. The WATH assessments followed the structure of the PCE, although it is not clear that it was used exactly as is. WATH also undertook a critique of the UEMOA assessments (WATH, 2005), and for the phytosanitary component noted the following. "Overall, there is too much emphasis on historical antecedents, and an uncritical presentation of equipment 'wish lists' rather than a prioritization of needs and allocation of very scarce resources" It was recommended that there was "more discussion of achievable objectives and realistic action steps based on the given resource constraints." It is not clear whether this criticism is seen as a result of the method used, or the way in which the results were presented. The critique also suggested that the identified SPS capacity building needs should be prioritized based on the identified priority exports.

Some USAID officials working in SPS in the global office were unfamiliar with the PCE until our interview. One USAID-commissioned report on SPS capacity building (Nathan Associates, 2003) covered a range of resources for SPS TA and reported guidance for carrying out SPS TA, but barely mentions the PCE. A new multi-year initiative funded by USAID under the African Growth and Opportunity Act for improvements in across SPS, and to be implemented by USDA/APHIS, compared application of the PCE with the Performance, Vision and Strategy (PVS) tool recently completed for plant health. The PVS may have some minor adjustments to it, but will serve as the starting point to establish base lines in participating countries for plant health. Despite this preference, the technical director

noted the need for a more detailed instrument, similar to the PCE but with a number of improvements in structure and content.

2.4.5 UNDP

An example project on plant health funded by UNDP in Tanzania was considered, and the consultant asked about her exclusion of the PCE. The consultant felt it did not produce the necessary information and therefore she created a new tool, focusing on costs of compliance with identified necessary improvements to the system. The programme office for these projects was contacted to ask about their knowledge of the PCE, but no reply has come.

2.4.6 Miscellaneous uses

Although the results of individual country PCEs are not available, some researchers have either obtained them from the NPPOs themselves, or used composite information for their own research projects.

The results of PCE use have also been utilized by CABI in studies in ten countries of the Caribbean and East Africa, in which the participation of small states in the knowledge networks associated with the IPPC and particularly ISPM3 was examined under the auspices of the IDRC (Kairo *et al*., 2005). The PCE was not implemented specifically for the study, but results from prior use were referred to as part of the assessment, and similar studies are beginning in south-east Asia.

A study by the Texas A&M University Bush School of Government and Public Service was entirely based on the PCE (Alford *et al*., undated). A survey was conducted in Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua, comprising less than 90 questions drawn or adapted from the PCE. Part of the reduction in questions was achieved by grouping some of the PCE questions; for example, Module 3.2 was reduced to a single question "Does the national organization have access to basic entomology laboratory equipment?", but a list given in parenthesis of the equipment items listed as separate questions in the PCE. The general conclusion was that capacity was lacking in human resources and equipment, and certification systems.

2.4.7 Identifying technical assistance needs

Further evidence on how countries view the use of the PCE in relation to the broader external context comes from a workshop on Implementation of the SPS Agreement held at WTO in March 2006 (G/SPS/R/41). The meeting focused on three areas, the third of which was how to effectively identify needs and request technical assistance. To provide information for the meeting participants were asked to respond to a short questionnaire, including the question "How does your country identify its technical assistance needs?" Responses from 32 countries were made available, at least 17 of which have used the PCE. However, none of the countries mentioned the PCE in response to the above question, although one country mentioned conducting a needs assessment for phytosanitary capacity building which was presumably referring to the PCE.

There may be several reasons for this apparent failure to recognize the PCE as a way of identifying technical assistance needs. First, it may be that the questionnaire was completed by the SPS focal point who was unaware of the use of the PCE. This ought not to be the case, but with high staff turnover is likely to be the situation in some countries. Second, there may not be a strong connection established between the use of the PCE and using the results to justify requests for assistance. This could occur because the PCE results are seen primarily for internal use to guide national planning.

2.5 Awareness raising

It has been suggested that one of the benefits of the PCE is that it has contributed to raising national awareness of the IPPC, ISPMs, and the role, needs and obligations of the NPPO. This can be envisaged as occurring in two main ways.

Those taking part in the completion of the PCE can be expected to gain greater understanding simply by being part of the process. By providing a checklist of the issues that a NPPO needs to consider, the PCE is in effect a 'training course' on the subject. Learning is more effective when it is placed in context, and 'learning by doing' is more effective that 'learning by hearing', so being part of the PCE process can be a good learning experience for those involved.

This route to awareness raising reaches a limited number of people. We saw in section 2.1 that the introduction to the PCE anticipates only about 10 people to be involved in the PCE process, all of whom would be from the NPPO or other technical institutions, and the NPPO survey confirmed that this is generally what happens. Nevertheless, this group would usually comprise key people in the national phytosanitary system, so is an important group in which to raise understanding and awareness.

The NPPO survey supports this analysis. 75% of responds indicated that the PCE had enabled those involved to properly understand and promote the needs of the NPPO. 50% of respondents also felt that the use of the PCE had promoted more discussion amongst staff of the NPPO on how capacity could be built. Thus there is evidence that the use of the PCE does serve a useful function of awareness raising amongst those involved in completing the questionnaire. A key informant who is familiar with the use of the PVS for plant health reported that prior use of the PCE improved participation in the PVS process.

The second way in which the PCE may contribute to understanding and awareness is through enabling the NPPO better to present its needs to policy makers whose understanding and decisions can affect the environment within which it operates. The fact that the PCE has led to revised or new phytosanitary legislation suggests this is occurring, but the survey also provided some further indicators that this is happening.

56% of respondents had presented the results of the PCE within their country. In most cases this was by senior NPPO officials to higher level ministry staff including the Minister of Agriculture. In several cases the results were presented not by the NPPO but by the consultant facilitating the PCE. This would appear to detract from the empowerment of the NPPO, although it is recognized that an external 'expert' may receive more attention than an internal 'expert'. 62% of respondents also reported that the PCE had promoted coordination amongst different stakeholders, presumably through raising awareness of their respective roles and responsibilities, and particularly the NPPO's.

69% of respondents reported that the PCE results had been used to sensitize policymakers and other stakeholders to lobby for improvement of the NPPO. This had been done in a variety of ways, including personal contact, mailing a summary of the findings of the PCE, and holding workshops, seminars and conferences for policy makers and other stakeholders.

Thus there is both reason and evidence that use of the PCE has promoted awareness and understanding of the IPPC, ISPMs and the role of the NPPO. However, this does not mean that the PCE should be seen as an awareness raising tool. It is likely that any structured approach to assessing capacity and developing plans would raise awareness both through the involvement of people in the process, and through providing an organized justifiable case for capacity development. Envisaging the PCE as having an awareness raising objective

might therefore detract from its primary aim, and if ways are being sought to raise awareness in conjunction with use of the tool, then these might be best focused on guidelines on the process for completing the PCE (e.g. the involvement of a broader group of stakeholders) and on presenting the results, rather than on refocusing the objective of the tool itself.

2.6 Potential modifications

A final question in the NPPO survey related to improvements to the PCE. Figure 4 shows the mix of responses on particular areas suggested by the survey. Respondents added the idea of a component of the PCE that evaluates a country's participation in drafting standards and in stakeholder consultation. There was also a request for advice on the appropriate time interval for repeating the PCE. The possibility of dividing the PCE into more self contained modules was made, so that managers and technicians might work separately on their own areas of expertise.

Based on the thoughts of one key informant, who described phytosanitary capacity as "the ability to respond to an ever changing challenge", it would also be appropriate to evaluate the mechanisms in place for assessing new or emerging threats (horizon scanning), preparing contingency plans, securing financial and human resources on an emergency basis, including possibly drawing on and joining up with other inspectorates, and so forth, rather than limiting a review to the physical, legal or even human resources of the NPPO.

2.7 Conclusions

Those who have used the PCE, including NPPOs, facilitators and the IPPC Secretariat, in general find the PCE a useful tool, and feel it has had positive impact. The comments made by a range of key informants are more critical than those coming from NPPOs, which may be because the informants have wider experience with other types of evaluation tools or processes. Most NPPOs, on the other hand, are familiar only with the PCE for plant health, and alternatives were not presented in the NPPO survey.

The greatest impact has been at national level where in many countries the PCE has been used as an integral part of identifying capacity building needs and strategic planning. It has helped emphasize the importance of appropriate legislation, which in many developing countries has been out of date and not in keeping with obligations under the IPPC. Coupled with this the use of the PCE has assisted in building understanding of the IPPC and has enabled NPPOs to present their needs more effectively to government. The technical nature of many of the questions and the recommended process by which they are answered means the impact is primarily in the NPPO and associated ministries and public sector organizations, rather than the wider group of 'users' of national phytosanitary systems.

At international level the PCE is widely recognized and referred to as a tool for capacity evaluation in relation to the IPPC. But except as part of TCP projects, it is not widely used by technical assistance agencies, and countries often do not use or present the results of the PCE externally. Thus the PCE has met its aims of being a self-assessment tool, but it has been less successful at providing information to enable technical assistance to be coordinated and prioritized.

One informant said "The PCE is just a tool. It is a help to begin", and another said such tools are useful when they are made, but once used, their value diminishes. In the absence of any other guidance to NPPOs, the creation of the PCE was a significant advance, and its very existence has created impact. But these and other views make it clear that the PCE should be seen as part of a bigger picture.

This analysis of the impact of the PCE has implications for its future development. If the major benefits of the PCE in its current form have already been achieved, investment in regular minor modifications as at present may not be warranted. It is noted that some of the countries where the PCE has been cited as having most impact are those who used the early version before it was turned into a software package. We suggest below that the further development of TA tools to which ICPM/CPM is committed would best be focused on a "new" PCE alongside other related tools.

Further discussion on a restructured PCE is presented in later sections.

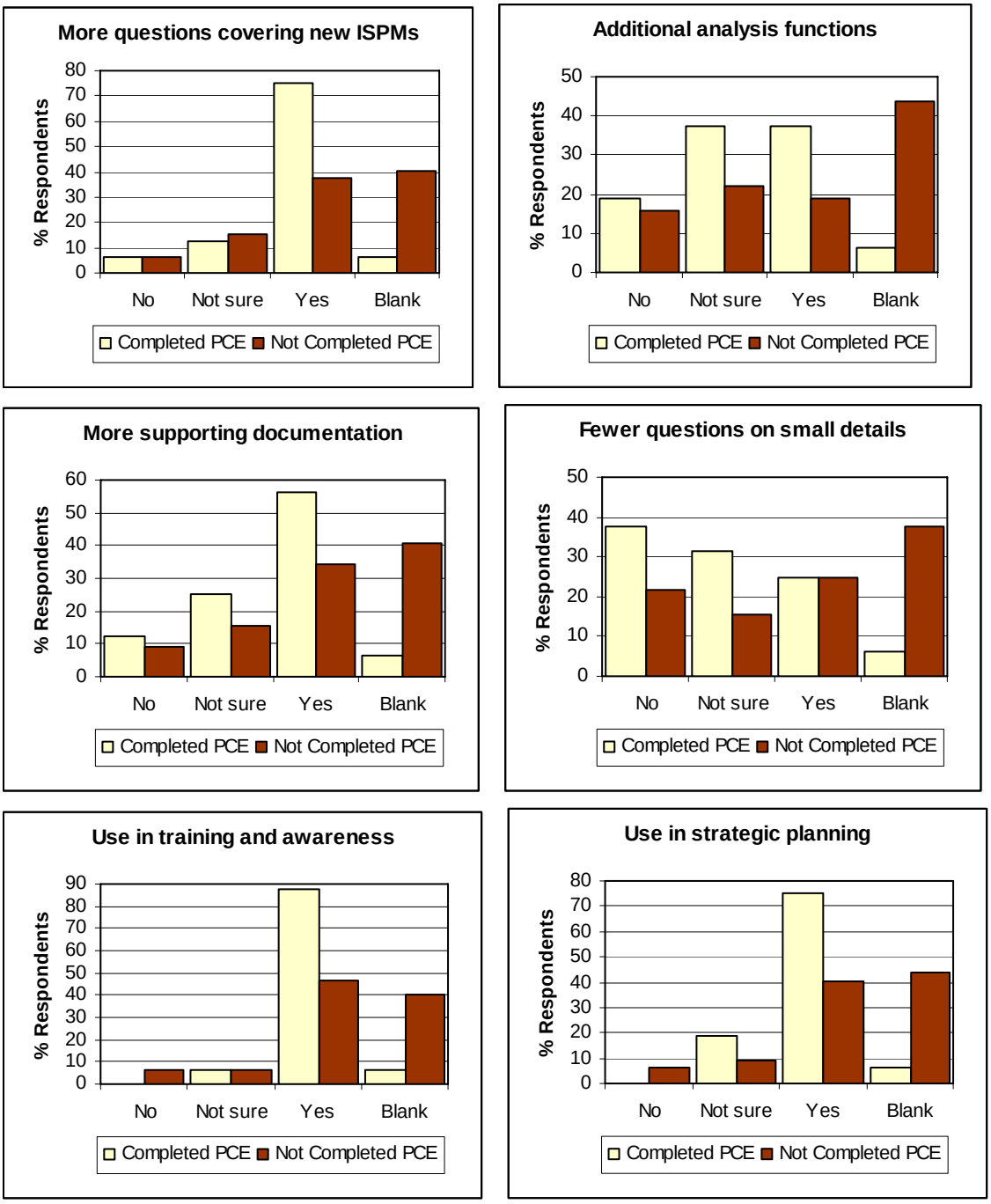

Figure 4. Survey responses to suggested modifications to the PCE from NPPOs who have and have not completed the PCE.

3. The nature of phytosanitary capacity and its assessment

In this section, we take the opportunity offered by the review to reconsider some fundamental issues relevant to the PCE. This is based on literature review as well as interviews with key informants.

3.1 What does capacity mean?

What may seem an obvious concept – capacity – is not so simple. There is no definition for phytosanitary capacity in the IPPC glossary (ISPM 5), in the convention text, or within the PCE. There is probably an assumption, as in the OIE standard (i.e. Chapter 1.3.3. of the Animal Health Code; see Annex 7), that compliance with the general principles laid out in the standards (in this case, ISPM 1, 2, and 11 in particular) implies a level of capacity. However, this implicit approach has not given sufficient support to those trying to do evaluations in the dozen years of OIE's evaluation standard (Tempelman *et al*., 2003).

The FAO's capacity assessment tool (FAO, 2006) adapts the UNDP definition (1998) of capacity to become "the ability of individuals, organizations and systems along the farm-to-table continuum to perform appropriate functions effectively, efficiently and sustainably in order to ensure the safety and quality of food for domestic consumption and for export." The Biosecurity Capacity Assessment Tool also employs this concept of performing functions, but in this case in order to "protect human life and health, animal and plant life and health and the environment and contribute to its sustainable use" (FAO, 2007). Of interest is the definition developed in the food safety tool for *capacity building*, which specifically notes the involvement all of the stakeholders (government agencies, food enterprises, and consumers), the ongoing nature of capacity building, and the need to address the capacity of the framework as well as those who work within it. This reflects the shift in thinking in a variety of fields away from trained staff alone, to a holistic view of capacity.

In the review of the entire operations of the Codex Alimentarius Commission (FAO/WHO, 2002), capacity building was defined as "work that strengthens the ability of people, groups, communities or institutions to build structures, systems and organizations to better achieve planned goals"; further, it states, this should be done in "a manner that reflects the principles of empowerment and equality" (section 6, FAO/WHO 2002). This aspect of the definition of achieving objectives highlights the need to design appropriate objectives and indicators of success, which is discussed further below.

3.1.1 What is phytosanitary capacity?

National phytosanitary capacity is one of the corner stones to protection of a country's agricultural and unmanaged plant resources, and facilitation of travel and trade. The International Plant Protection Convention seeks to secure "common and effective action to prevent the spread and introduction of pests of plants…and to promote appropriate measures for their control" (IPPC, 1997). This is achieved through individual countries applying the legislative, technical and administrative measures outlined in the convention text and through implementation of internationally agreed standards. In other words, individual national phytosanitary capacity is what determines a regional, continental and ultimately the global capacity to protect plant resources while facilitating the movement of people, plant products and conveyances that may carry plant pests incidentally.

A successful plant health system is comprised of multiple subsectors and is part of several larger frameworks. Each of these has an impact on and influences the other. While phytosanitary capacity will feed into, overlap with and impact national capacity for such other goals (as discussed in section 4), this section focuses on capacity of a country to prevent introduction and impact of exotic plant pests.

As a basis for designing tools to evaluate and build phytosanitary capacity, there needs to be some agreement on a concept of capacity that can apply to all countries: whether large or small, developed or developing, primarily importers or exporters, and regardless of the nature of plant resources or climatic conditions. Everyone recognizes that economic, political, social and environmental conditions greatly influence what is needed to constitute a good plant health system. These differences must be contemplated in the design of a tool, but it would be useful to have a tool that could be applied for any country.

When NPPOs and other Key Informants have been asked, "what does phytosanitary capacity mean?", responses included:

Safeguarded and trade ready.

The capacity to reliably prevent introduction and spread of plant pests on the national territory and reliably ensure compliance with phytosanitary requirements of countries – trading partners.

The human and non-human capacity/capability of the national plant protection and quarantine service (1) to fulfil its obligations to IPPC and WTO-SPS Agreement; and (2) to deliver quality service to the national community.

The ability to continually meet national priorities for the protection of plant resources and facilitation of travel and trade.

It is noteworthy that both the domestic and international responsibilities are reflected in these proposed definitions.

Whichever definition best represents the concept from the point of view of the CPM members, a general definition of phytosanitary capacity should be agreed upon before attempting to design, modify or apply an international evaluation tool**.**

3.1.2 Is there an ideal plant health system?

A plant health system designed to support expanded trade will be distinct from one focusing on protecting natural resources which tie in to income from tourism. Whether stated in the definition, or arising in the process of review, priority setting will be the basis for a realistic vision of phytosanitary capacity that allows for differences among countries, especially in so far as some countries will not meet the requirements of particular international standards or expectations of potential markets because that is not relevant to their situation – thus not a national priority. When a country does have an objective (e.g. to export a certain plant product or to protect a defined plant community), and still does not meet the requirements, then this indicates a need to increase the phytosanitary capacity in line with the national commitment.

While it is difficult to describe in detail a single benchmark system as the appropriate model for all situations, *performance* of a component or the entire system often can be measured against some ideal benchmark (Dunn, 2003) and almost always can be measured against the original objective. Key informants agree that there is not a single ideal plant health system, or model that applies equally to all countries' situations. There are, however, some good practices and useful models for particular components of the system. The FAO food safety evaluation tool suggests that a picture of the existing situation can be assessed to determine "where it can *realistically expect to be in the medium term* based on internationally recognized criteria or benchmarks" [emphasis added]. While this is similar to the benchmark

philosophy of the PCE, there is a different spirit to the vision of a 5 year plan that moves the national system towards the benchmark, without focusing too long on the gap.

Furthermore, although there is not a single ideal system, there are characteristics to strive for when considering the benchmark. These are described in Table 7, taken from a study on detection, identification and monitoring (DIM), but that would apply to all components of a phytosanitary system.

It is also worth noting that a successful national system does not necessarily have to have all components internal to its NPPO. Cooperation within a country among government agencies, research centres, universities, private laboratories, etc in order to fulfil NPPO obligations is well known. Even inspections and certifications may be carried out by a third party, if audited by the NPPO. While this practice is far more common in the fields of veterinary services and food safety, the practice is established under the IPPC in its definition of "official control" (supplement to ISPM 5).

It is also common practice to draw on regional or third country expertise and facilities, for example in the case of quarantine facilities for introducing new germplasm or biocontrol agents. The EC has been actively considering capacity on the regional scale, while the concept of centres of excellence in Africa rests on this precept, and the historic example of PLANTI in SE Asia supported regional capacity. CABI continues to provide a taxonomy and information service through the Global Plant Clinic (Boa 2005), which offers diagnostic support in the form of confirmatory identification of pests and diseases for developing countries without this capacity.

The present structure of the PCE assumes a requirement for all capacity to be internal, whereas the real question is whether there is access to the necessary expertise and facilities. We conclude that national phytosanitary capacity, therefore, is likely to go far beyond the capacity of the NPPO alone.

With the agreement of a simple, short definition of capacity, and decision about what benchmarks to use, the question remains of what this means in terms of an evaluation of overall capacity. There seem to be a number of reasons why an evaluation takes place, and these may shed light on how to go about an evaluation of capacity.

3.2 Timing and approach for evaluations

3.2.1 Triggers for conducting an evaluation of national phytosanitary capacity

One way to understand the concept of capacity is to ask why one would evaluate it. Countries embark on an evaluation for various reasons, but historically it is because (a) something has gone wrong (or some stakeholder is dissatisfied), (b) there is an overall policy review (either sectoral or throughout the public sector), or (c) to initiate a particular capacity building project or programme. More recently one of the strongest drivers for reviewing the operation of an NPPO is (d) to determine efficiency, often with a view to cost recovery – for example for inspection costs. In all of these cases, these triggers may lead to a review of only one aspect or component of the system.

Table 7. Traits and indicators for a strong plant health system*

Robust (works under all conditions, consistent)

- Inspectors trained in clinical diagnosis, provided tools, audited
- Justified and standardised sampling and collection
- Accredited laboratories and appropriate technicians
- System of quarantine facilities or other containment mechanisms
- Reference collections

Comprehensive

- Information and awareness of new threats
- Early detection methodologies in place
- Proper identification or diagnosis
- Possible traceability of products through transport chain
- Monitoring and feedback to detection and surveillance
- Incentives to report, possibly legislative or through compensation

Fully Coordinated (institutionally)

- State to Federal program coordination (County to Province, Municipal to State, etc)
- Standardised diagnostic protocols
- Nationwide procedures in place prior to detection
- International information sharing
- Communication among stakeholders

Efficient (financial)

- Clear criteria for priority setting
- Information on economic (including non-market) impact
- Contingency funding or trigger mechanism for increased surveillance
- Public support for prevention measures
- Legal authority for taking emergency action

Sustainable (will continue to work)

- R&D for screening procedures
- Training and quality enhancement for inspectors
- Dedicated funding for equipment and infrastructure renewal
- Analysis of lessons learned from each outbreak or control program
- Equivalence agreements with off shore systems

Equitable

- Differences in ease of detection balanced with priority of disease
- Response of DIM proportional to the risk
- Liability assigned to source of disease or pathway
- Distribution of benefits of programs considered and intentional
- General surveillance at vulnerable sites/times

Integrated

- Government-wide (and throughout academia, research institutions, industry, etc) guidance on content, quality, sources of data and mechanism for its collection and review
- Compatibility of DIM related data storage (type of data and archive)
- Timely accessibility to related data banks for purposes of DIM
- Feedback mechanism for all DIM staff
- Evidence based decision making for all of the above traits and indicators

* *While many of these indicators will evolve in the next decades, the general traits will remain relevant.*

Taken from Quinlan, MM, Phiri, N., Zhang, F. and Wang, X. 2006.

One of the major national evaluations in recent years, triggered because something was perceived to be going wrong, was the comprehensive review of the United States of America's plant health system. The Safeguarding Review (National Plant Board, 1999) was launched at the request of Congress and with full backing from the Animal and Plant Health Inspection Service (APHIS), USDA. The team for the review, which took more than six months, included 43 external evaluators from state government, academia, research and environmental organizations. In response, APHIS set up 17 issue groups to address the 300 recommendations. A time scale of 5 years for completion of all but the longer term goals was followed. In declaring the process complete in 2005, the Director of Plant Protection and Quarantine stated that: "Perhaps the greatest single accomplishment to be derived from the Safeguarding Review is the establishment within the PPQ culture of a will to improve."

Another major national review process that was triggered by pressures from the stakeholders was reported in *Australian Quarantine – A Shared Responsibility* (Nairn, 1996). The government responded with a restructuring process that, in some opinions, led to too much requirement for stakeholder involvement.

The plant health systems in England and Wales have undergone not one, but two reviews over a five year period, all due to government-wide policies: first, a rotating review of economic factors (Mumford *et al*., 2000), then a rotating scheduled review by the Audit Office (NAO, 2003). The same system is subject to routine review by the Food and Veterinary Office of the Health and Consumer Protection Directorate General of the European Commission, to ensure compliance with European policy (Christoffersen, 2005). Additional internal triggers for evaluation of the phytosanitary capacity include the lessons learned reports prepared upon the event of introductions of regulated pests (see Quinlan *et al*., 2006, for a discussion of its value) and a government-wide plan (referred to as the Hampton Report) that will lead to separation of implementation from policy, but will also allow more fluid use of contractors or other resources external to the NPPO so that civil servant numbers will decrease.

The review of New Zealand's plant health system was triggered by an overall policy shift towards biosecurity rather than sectoral planning (Office of the Parliamentary Commissioner for the Environment, 2000).

Among developing countries, the third trigger for conducting an evaluation may be more common. There are many examples of the plant health system undergoing a review as part of a donor project or development programme in this field. Some examples are discussed in section 4.

Various situations or opportunities may trigger a national review. As each case may have a different outcome in mind, and the purpose of each may vary, it is essential to consider the question of purpose before attempting to do the evaluation. These reviews provided recommendations that generally had significant impact on the direction of policies and operations of the NPPO. All of these examples, however, were resource intensive and in-depth studies.

3.2.2 How long should the evaluation take?

As described above, one of the major national evaluations in recent years covered five years of, first, review, then response and finally action. This demonstrates that a fundamental change to a system will take time, and that developed countries as well as developing ones need to review their strategic directions and actions for achieving those. The design and implementation of that review drew upon over 20 years of similar reviews for American national and state reviews, as well as several issue-driven reviews (e.g. for fruit fly control, for border inspection, etc).

Experience with developing country programmes, as well as interviews with donors, suggests, however, that there is a need for a rapid appraisal tool that is easy to complete, and a need for a more in-depth tool that will collect hard data for analysis. This data collection aspect can be time consuming or even discouraging, as many countries will not have reliable data at hand.

In fact, the challenge of easily accessed appropriate information is a common one. The EU program to develop a tool, a Sustainability Impact Assessment (SIA), to reveal the possible impacts from various scenarios of WTO negotiations found that the choice of methodology for each assessment had to correspond to the availability of data. Insufficient data would indicate a more modest methodology. Other factors besides data also influence the appropriate assessment tool: "resources, skills, political and institutional capacities and commitments" all should determine which approach is used on a case by case basis (Kirkpatrick and Lee, 2002). The limited availability of "off the shelf" assessment tools for this purpose posed another challenge.

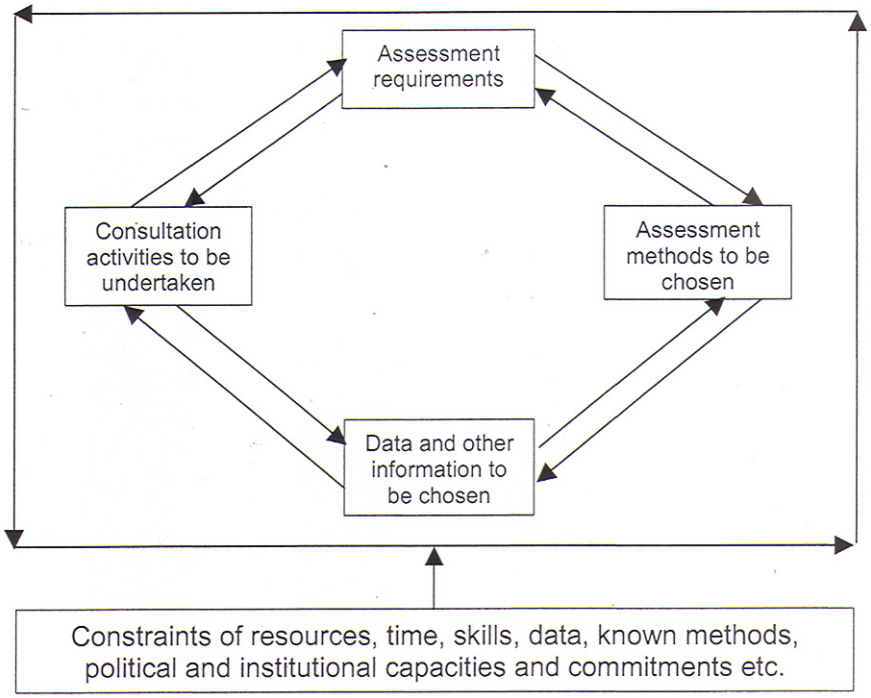

Figure 5. The Assessment Methodology Cycle (from Kirkpatrick and Lee, 2002).

In many situations, therefore, the availability of data, as well as commitment to other resources such as staff time, will determine the length of time for the assessment. This will also have a bearing on the type of methodology that may be applied (see 3.3). There has not been any global review of what data is available to NPPOs. Results of a quick opinion poll amongst RPPOs are shown in Table 9.

Limitations of resources notwithstanding, we have concluded that it would be useful to have a series of harmonized tools, including one that takes around a day for a team to complete, and another that takes around one week for a team to complete. It may be worth providing guidance for a more in-depth review that would take approximately one month of a consultant's time with a team advising. Any review beyond that time frame could build on these tools, but is likely to be triggered by a particular issue in the country and therefore should be designed accordingly.

Table. 9. Quick survey of available information in various regions (E = EPPO countries, C = Caribbean region, A=APPPC countries, I=IAPSC countries).

	Availability of the information for countries by region				
Information	No countries	Few countries	Some countries	Most countries	All countries
Budget for entire plant health system		A	E	C, I	
Budget for the NPPO alone*			A, I	E	
Number of border inspectors/hours worked		C		E	A, I
Number of staff/hours worked on PRA (or other categories, such as on policy and regulatory; on diagnostics and taxonomy; etc)		E, I		C, A	
Number, identity, source (country/commodity) of interceptions		I	A	E, C	
Data on interceptions of pests in cargo		I	A	E, C	
Data on interceptions of pests in the mail, luggage, or other pathways		E, A	C, I		
Number, identity, area affected etc of outbreaks/eradications		I	A	E, C	
Trade statistics on agricultural imports			I	E, A	C
Breakdown of imports of fruits and vegetables; cut flowers, nursery and plants for planting; forest products; other products susceptible to pests		I	A	E	C

* unknown for Carribean

3.2.3 Is there a single best approach for conducting an evaluation?

There are numerous examples of donor projects in which an external consultant arrived to interview various parties and then prepared a report on capacity of the country's plant health or overall SPS system. (There is even one example where a PCE was conducted and the NPPO staff interviewed were still awaiting results from the facilitator, and were unclear on what happened to the report.) While this may be necessary for some purposes, the trend has been towards self-evaluation using a facilitator who is skilled at the implementation of the tool, but relying heavily on national expertise and opinion, particularly in terms of priority-setting.

The FAO Food Quality and Standards Service, Nutrition and Consumer Protection Division spent over a year designing a new assessment tool for food safety and came up with these principles for how to do a capacity evaluation (Table 8).

Table 8. Guiding principles for capacity building needs assessment (FAO, 2006)

- Obtain high-level commitment
- Encourage participation of relevant stakeholders from farm to table
- Ensure openness and transparency
- Clearly define the objectives, scope, time frame and organizations involved
- Be ready to engage in critical analysis and consider change
- Consider the process as an opportunity for organizational learning

Some tools rely entirely on expert judgment, which is more readily available and often reliable. This is a fairly good indicator with a fairly low investment for capturing the information.

3.2.4 What measurements can be used to quantify the capacity of a plant health system?

One national plant health system review raised the issue of appropriateness of targets in that country's business plan. The business plan employed "key" pests to set objectives and used level of effort indicators (e.g. a set number of inspections) to show achievement. In a review of this plan, the selection of which pests should be used as indicators was questioned, as was the entire approach of level of effort indicators. As the actual objective was to lower risk of entry and introduction of regulated pests, a risk related indicator was recommended (Mumford *et al*., 2000). For example, for the objective of protection of domestic agriculture, the basis for selecting indicators could be:

Is the risk of invasion reduced?

- Hazard reduced in absolute terms (frequency element of risk)
- Hazard reduced in relation to exposure (ie volume of trade, changes in risk pathways, establishment opportunities affected by climate, areas and types of crops, growing practices, etc)
- Consequences reduced in relation to market conditions, susceptibility to hazard, etc

Further examples of risk-based questions appear in Annex 7.

3.3 Objectives for phytosanitary capacity evaluation

We have identified the following as the main objectives for conducting a phytosanitary capacity evaluation:

1. To lay the basis for a national strategy and business plan (including priority setting)
2. To assess capacity and enhance planning in a specific area (e.g. diagnostics, inspection, PRAs, etc)
3. To highlight shortcomings and so attract and allocate funds (national or external)
4. To convince trade partners of credibility and trustworthiness
5. To fulfil (or show compliance with) international obligations (for example with ISPMs, or for accession to the WTO)
6. To provide feedback to the IPPC and related bodies on the implementation of ISPMs, or other agreements (e.g. the SPS Agreement)
7. To inform and satisfy stakeholders
8. To motivate staff to achieve more
9. To monitor progress over time against performance indicators
10. To contribute to regional or global assessments.

The appropriate response to all of these challenges varies. A process or tool to assess the current status of the plant health system, in conjunction with a vision of what is desired, should inform decisions about resource allocation. Ideally, such a 'snap shot' assessment that describes the system only at a specific point in time will be complemented with historic reviews, ongoing monitoring, feedback and performance reviews. In all cases, the need to have something concrete as an outcome of the evaluation process is tantamount.

The question of what will result at the end of an evaluation is also critical because of the resources required to conduct any review. NPPOs and Key Informants have mentioned these possible, useful outcomes:

- A national strategy for plan health
- An action plan with priorities and costs – including this for individual components of the system that need more attention
- A clear and supported request for funding or aid
- Acceptance by another government for trade (credibility)
- Some type of accreditation that would be recognized by other countries (i.e. like ISO 9000)

In section 4, we propose tools or methods in response to all of the objectives noted above. What is clear is that attempting to have a single tool address these various and at times conflicting objectives will not be effective.

4. Options for methods and tools to evaluate phytosanitary capacity

Demands on NPPOs are increasing, in both developing and developed country contexts. The biological threat of new introductions of pests due to increased trade and international travel is increasing in all but the most extreme environments. Changing climate will extend the range of pests. Monoculture of crops and even of particular varieties of a crop can alter the vulnerability of a country to economic losses. Ongoing use of pesticides has led to the pests themselves becoming more resistant to control measures. Novel traits in crops, such as those introduced through genetic engineering, may result in new interactions with pests.

The level of political pressure on NPPOs to act as facilitators of trade - either exports in the interest of generating foreign exchange, or imports to appease increasing expectations of consumers - adds to the challenge of safeguarding their own country's agricultural and forest resources. Preventing invasive species that damage valued biodiversity has risen to the forefront of NPPO responsibilities. In many countries, government-wide pressures for reduced expenditures, increased efficiency, or participating in initiatives with objectives outside plant health become as great a challenge as the pests themselves.

All NPPOs have limited resources to face this increasing challenge, so that balancing priorities (if not juggling them) is a necessary skill. Furthermore, continued access to resources depends on achieving and communicating demonstrable results. The criteria for success applied by various stakeholders will often be distinct from those internalized by the NPPO. In this context, the performance of any NPPO can be enhanced through the development of an agreed mission statement, a strategic plan and more detailed business plans, especially when conditions allow for longer range planning. Project or emergency-driven plans alone will not lead to sustained capacity. All of these issues translate into multiple demands on NPPOs and therefore multiple reasons for capacity evaluation.

In section 3, we identified ten objectives for evaluation of national phytosanitary capacity. In this section, we explore options for methods and tools that respond to these various objectives. A series of tools, including a revised PCE, is presented in relation to the objectives which they primarily address, though it is recognized that tools may also address other objectives to a lesser degree. In section 5, we summarize recommendations as a basis for possible decisions that the CPM may wish to consider.

4.1 The Performance, Vision and Strategy tool (objective 1 and 7)

The need for support in developing a high quality national strategic plan in plant health is not an issue only for the developing countries. The USA greatly changed its Strategic Plan in the years following the Safeguarding Review (see section 3.2.1). The first Plant Health Service Strategy for England (DEFRA, 2005) was published only a year ago, although a business plan was used for at least ten years before that. The two national reviews, both instigated by internal triggers, along with general trends in the national approach to governance overall, did help to shape this strategy document. In the future it is likely that non-governmental stakeholders will be involved more fully in commenting on and influencing the direction of an overall strategy. Similarly, the other strategies supported by the same Plant Health staff, in this case the Non-Native Organisms Strategy, will also be taken into account in future strategy documents.

The PVS tools developed by The InterAmerican Institute for Cooperation in Agriculture (IICA) takes this multi-stakeholder approach. The first PVS tool was for assessing national veterinary services. This has since gone through various versions and been adopted by the OIE, with some modifications to the wording to better match the Animal Health standards. A

first version of the same tool for plant health has been prepared and was reviewed and accepted by the IPPC Secretariat in 2006. It is seen as distinctive from the PCE and complementary in its purpose.

This tool takes a matter of days to complete, as it relies entirely on expert opinion. In some countries, it has been filled in by the public and private sectors separately before all stakeholders met together to discuss the inevitable differences in opinion on ranking of the national service. Its use is enhanced by the presence of a facilitator, but requires national knowledge and representation. It was developed to promote dialogue but also to lead to agreement on priorities for investment. Much of these details do not appear in the instrument, however, and a detailed user's guide is anticipated from IICA.

The tool uses clear statements describing various levels of accomplishment, in the context of international benchmarks, showing the typical progression from weak to stronger capacity. This use of statements makes for a more user-friendly format. This type of approach is used by the Environmental Risk Management Agency (ERMA) of New Zealand to capture complex technical information, while incorporating stakeholder opinion as is legally required (Baker *et al*., in press). The PVS approach allows a consistent and comparable format with a visual ranking, without the resources required for quantitative analysis.

As it is a new tool. there is still little experience in applying the PVS for plant health. Experience in Africa with the tool for animal health suggests that the PVS is the best rapid appraisal tool and a good basis for preparing a national strategy. A more detailed assessment generally will follow, however, so a more detailed tool or link to resources is needed to complement the PVS.

While the PVS has not been field tested, the director of a new USDA/USAID project is willing to test it and provide feedback to IICA or the IPPC regarding enhancements or revision.

4.2 A modified PCE (objective 2 and 3)

We envision the new PCE as a self-assessment tool, implemented as in the past with the use of a trained facilitator, and covering the overall function of an NPPO beyond the specific compliance with ISPMs or the IPPC. Although eventually providing comprehensive coverage of topics, the new PCE will allow sectoral review and link to supplemental resource material such as guidelines and detailed information. The target audience will be the NPPO, other national decision-makers and stakeholders. Likely outcomes include detailed business plans or action plans for either the entire plant health system or a single sector, as required. The results will be for sharing at the discretion of the country, although some mechanism for collating results generically will be added to provide value to the IPPC for other purposes.

We do not recommend continuing with the PCE in its current form beyond 2007. The need for changes in the framework is already acknowledged in the IWG-PCE's recommended actions for 2008. Much of the current PCE content will be maintained, but the structure will be entirely different with a hierarchal or expanding question set to facilitate rapid answers or "digging deeper".

More background review than can be achieved in an IWG setting is required in order to take advantage of the latest in capacity evaluation thinking and to augment the coverage and content of the tool. We therefore recommend that the IWG-PCE concentrate on drafting a terms of reference, to be accepted by the Executive Bureau, for use in an open bidding process. Funding will have to be identified, but could come in part from that earmarked for the 2007 IWG-PCE and IWG-TA.

4.3 Information for trading partners (objective 4)

One key objective of a review of a national system is to establish trustworthiness with a trading partner. This objective is covered to some extent by the various reporting obligations and some ISPMs, and closely mirrors the purpose of the standard (chapter 1.3) in the Animal Health Code, discussed in more detail in Annex 7. This trade information should be public, verifiable, transparent, and readily available to the NPPO to share.

Proving credibility to trading partners was never the aim of the PCE, although some information compiled under the PCE overlaps with what is needed to determine a country's capacity as a reliable trade partner, and in some cases the information compiled when doing the PCE has been used as part of this process. This is an objective of use to all IPPC members, however, and arose as an idea from interviews with key informants.

Harmonised questions could be useful in that a common understanding of what is necessary for bilateral negotiations would reduce time spent on these matters and cut out unnecessary questions. This type of document should be much shorter than the current PCE and should apply equally to all countries, regardless of their economic status. As it should consist of already existing data, it might take one or two days to complete, with less time in subsequent years until significant changes occur.

At various times, the IPPC Secretariat has clarified the reporting obligations of IPPC Contracting Parties, which concern:

- Pest reports [Articles IV 2(b) & VIII 1(a)]
- Descriptions of the NPPOs [Article IV 4]
- Phytosanitary restrictions, requirements and prohibitions [Article VII 2(b)]
- Points of entry with specific restrictions [Article VII 2(d)]
- Lists of regulated pests [Article VII 2(i)]
- Emergency actions [Article VII 6]
- Official contact point details [Article VIII 2]

The IPPC Secretariat has also outlined optional reporting issues, which include for instance:

- Organizational arrangements for plant protection [Article IV 4]
- Rationale for phytosanitary requirements [Article VII 2(c)] – this refers to PRA
- Pest status [Article VII 2(j)]
- Non-compliance [Article VII 2(f)]

More detail on these appears in ISPMs no. 6, 8, 13, and 17 in particular. A paper that further explains various aspects of reporting, entitled "IPPC Reporting Obligations - What does an NPPO have to do?", is annexed to the report from the 2005 meeting of the IPP Support Group. While some reporting obligations are "optional", there is much information that shall be provided when requested from another NPPO – normally in the process of developing a PRA or for specific operational agreements on bilateral trade.

Over the past 3 years, an official information section of the IPP has been developed and is starting to be populated via information entry directly by NPPOs. Much of this information is what is required for establishing trade readiness.

We propose that a template drawing on this information and other information sources be created to generate country-based reports on an annual basis. The intention is that this will replace the current practice of many (e.g. the EU, Russia), although not all (e.g. Australia, New Zealand), countries of sending individual and often extensive questionnaires to proposed trading partners. The time involved in completing these multiple, non-harmonised

questionnaires could then be dedicated to a quick annual update of the country's phytosanitary page.

Although each new potential commodity/country import will still require some detailed information (such as a potato certification programme), and updates as situations change, this might also be provided in the annual report if it simply requires a URL link to an NPPO's own website. This approach places a higher burden on those countries that have not developed such an information source. Yet, these are the countries that will have to provide the most information via individual questionnaires in order to gain credibility in the sight of trading partners.

The IPPC has yet to develop fully the concept of mutual recognition. Mutual recognition agreements have been made in other fields when the certification system is considered equivalent to that of the importing country, so that a product may be accepted without the duplicative inspection in the importing country. (In theory, the issuance of a phytosanitary certificate is an indication of trade credibility and equivalent assurance of the status of a shipment. This has not held true over the years, however.) It is possible that this issue gets addressed by the IPPC in the revision of the ISPM on export certification, which is now on the work programme.

In addition, concepts from ISPM no. 24 on equivalence begin to touch on the issue, but only as far as individual measures are concerned. In 2007, it is anticipated that a paper on Appropriate Level of Protection (ALOP) will be sent for country consultation. When joined with the results of PRA, this will further the understanding of what efficacy is required by an NPPO to meet its acceptable level of risk. The draft standard on efficacy will not be refined until 2008. Therefore, it will be some years before details on how two NPPOs would acknowledge each other as having mutual recognition in the sense that food safety agencies do under Codex Alimentarius. Setting up a template or tool for verifying some trade-related capacity will feed directly into future harmonization of mutual recognition agreements for phytosanitary measures.

If this recommendation is taken up, there should be a more thorough review of the OIE experience in evaluation and that of Codex Alimentarius Commission in regards to mutual recognition. Countries could be asked to share examples of their individual trade-related questionnaires and possibly list the number sent and received over the past 5 years. There should also be a review of all the reports from the IPP workshops and similar reporting that appears in other documents (e.g. the CPM reports), in order to pick up ideas already generated from the initial phase of the IPP. Finally, an open ended working group, with special invitation to NPPO staff involved in creating operational plans or granting permits for new commodity/country imports, could be asked to review the first draft before it is sent to the CPM for consideration. However, the same Working Groups formed to revise the export certification standard and the draft on efficacy might be tasked with reviewing this background material and incorporating it into an information template.

A harmonized questionnaire for information collection for the purpose of bilateral trade agreements and operational plans is a new idea for the IPPC, but solidly within the spirit of the convention. Before embarking on the development of this tool, the CPM should be asked if there is commitment to using such a tool.

4.4 Compliance with ISPMs (objectives 5 and 6)

The original purpose of the PCE was to gauge compliance of an NPPO with the IPPC and its ISPMs (see discussion of objectives in section 1.3). At that time, there were still few ISPMs and most were conceptual ones that outlined the primary responsibilities of an NPPO. (While the term compliance is always avoided for legal reasons, this essentially was the idea

behind the PCE.) With the relative explosion of standard setting in the IPPC, results of the current version of the PCE do not translate easily into an answer to that question. As new ISPMs are adopted, the relationship between the modules and ISPMs becomes less clear, and the process of revision of the PCE to keep up with the now faster generation of new ISPMs is likely to be costly and onerous.

It seems in both food safety and animal health, the view of capacity has exceeded compliance with international standards. It appears intentional that FAO/WHO had initially limited their capacity building activities to areas covered by the Codex standards, excluding topics such as public education that were not covered by international agreement. Yet the same analysis (Codex, 2002) cited education of consumers, etc, as key to changing the systems that are at fault. Over the past five years, Codex has shifted to a new approach under its (WHO's) Global Strategy for Food Safety initiative. This now offers capacity building in a range of issues that comprise a national strategic plan: legislative and regulatory revision, participation in international standard setting, advocacy, training of private professionals as well as public servants, enhanced surveillance, operational and action plans, etc. The shift in thinking in the OIE is shown by the addition of the PVS as an evaluation tool, in addition to the chapter in the Animal Health Code on evaluation of country capacity (as described in our Annex 7).

It should be recognized, however, that the question of "are we complying with this [new] ISPM?" is perhaps only equaled politically by the question of how to achieve exports for today's NPPOs. The (probably exaggerated) concern about facing a WTO dispute is driving a concern about compliance while masking the real issues of capacity. (This same political reality has led numerous developing countries to focus on their importer's PRAs rather than their own safeguarding role).

With a few exceptions (such as ISPMs on PRA and ISPM 15), the IPPC has taken virtually no action on implementation of specific ISPMs. Recent focus of the IPPC and several donors has been on enhancing participation in the standard setting process through support to developing countries for their experts to participate in WG or in regional meetings to review the draft standards, as well as to delegates to participate in the ICPM/CPM. (This is another important aspect of capacity which is not covered by the PCE.)

If a new method or tool is developed to evaluate compliance with ISPMs *per se*, an early stumbling block will be the mechanism and resources to update the tool on an annual basis, as new ISPMs are generated annually. This has been an issue of concern for the PCE already, as noted in some survey responses and the report of Canale (2004). We conclude that there may be value in separating this process of evaluating compliance with ISPMs from the PCE umbrella, making it instead an additional aspect to the development of each ISPM as new ones are endorsed.

One approach could be to simply ask each member country to state, on their own terms, how the new ISPM will be implemented, or at least cite national regulations, protocols etc that cover those requirements. The three member countries of NAPPO each post an implementation plan on the NAPPO website at the time that a new RSPM is approved. (In that region, the endorsement of a RSPM is tantamount to a binding agreement for each country to align their national regulations to the RSPM and implement it.) This may be expecting too much from many member countries that will not be staffed to consider all possible aspects of compliance.

On the other hand, currently few developed countries appear to have a formal process for asking themselves if they are complying with ISPMs, so that in this case developing countries may very well exceed the more resourced partners[2].

Another approach would be, a year or so after the endorsement of each ISPM, to prepare a simple compliance check list for countries to consider. As this would be on a modular basis (ISPM by ISPM), it would facilitate this standard-driven approach by keeping up to date with changes. It would allow for some interaction among NPPOs in the drafting or comments on the list. It could also highlight areas of common difficulty in implementation. To this point, nothing has been done to document impact and implementation of ISPMs after their creation[3]. If the CPM wishes to discover impact, it will need to clarify whether the interest is in additional investment and effort required to comply, in which case countries that already had a similar approach to that encoded in the ISPM will show very little impact.

This second approach has much to offer as a simple tool that could evolve over time. The fact that it takes the topic of the ISPM in isolation, rather than support overall capacity evaluation, would be a disadvantage but for the existence of the PCE or similar tools that have this other more holistic approach. Such an ISPM-based "tool" could be part of the IPP's toolbox document archive and should not relate to official requirements.

At CPM1, the Subsidiary Body for Dispute Settlement considered the issue of compliance from a somewhat different perspective. They presented a report on compliance mechanisms in various conventions (see CPM 2006/CRP/8 and the associated report with an extensive literature review of examples of compliance mechanisms). They found that:

> "Compliance mechanisms may also deal with the interpretation and application of treaty provisions but they are not restricted to such matters. Compliance mechanisms are essentially non-adversarial. The procedures do not have parties facing each other. Rather, the matter of concern is brought to the body administering the mechanism, which attempts to find the cause of the problem and produce a response that allows the party to return to a state of compliance as soon as possible. Such procedures look to the future and are proactive.
>
> Compliance mechanisms generally provide for the supply of advice and assistance to help the party with the compliance difficulties. The special needs of developing countries are taken into account in decisions on the application of measures."

They further stated that:

> "Most compliance mechanisms include a number of measures that are designed to facilitate compliance in the form of the provision of advice or recommendations, the provision of assistance and the development and submission of a voluntary action plan. In other cases, measures designed to enforce compliance may be used by the compliance body; these may include the issuance of a caution, the declaration of non-compliance, the development and submission of a compulsory compliance action plan, and the suspension of rights and privileges."

[2] Most advanced countries have actively participated in drafting and/or commenting on draft standards, and therefore have always tried to produce ISPMs that reflect what they are already doing anyway, rather than creating entirely new activities. It is noteworthy that ISPM No 15 may be an exception to this for many countries. The fact that the inspection and treatment of all wood packaging was not "business as usual" goes some way to explaining the need for additional technical assistance in implementation of that ISPM. Of course, this was also a first for this level of involvement of Forestry agencies, which are often separate from agricultural counterparts.

[3] The first review of the impact and uptake of a specific ISPM was completed only in 2003 (Kairo *et al*., 2003). Further research on that example, ISPM 3, has been carried out subsequently in the Caribbean and East Africa (Kairo *et al.,* 2005) and will continue in 2007 in SE Asia.

That body has proposed the evolution of their task from dispute settlement to one of enhanced support and review of compliance. We believe a check list type “tool” that highlights new requirements arising from implementation of each ISPM might prove useful for supporting compliance. Certainly some enhanced feedback mechanism for NPPOs to report on difficulties in implementation ought to be developed to support evidence-based decisions about TA and informed adjustments to the standard setting process.

Moreover, separating the concept of compliance will allow the PCE-type of tool to be fine tuned to more successfully provide the detailed review of phytosanitary systems, and form the basis for requests for TA, which is how it has been used in practice.

4.5 Quantitative measures for determining efficiency (objectives 8 and 9)

When reviewing approaches to evaluating Veterinary Services, Dunn (2003) categorized them as considering inputs (what resources are available, “input and infrastructure assessment”) or quality assurance. He identified a third approach of an emerging method that focuses on assessing the *achievements against pre-determined performance targets and against the resources available* [emphasis added]. Needless to say, this necessarily includes assessing the appropriateness of the targets in the first place. The same principles apply to plant health.

The distinction between inspection, certification and accreditation of Veterinary Services was discussed by Gary (2003), with some review of existing guidelines (e.g. ISO, AFNOR, OIE) that may serve as yard sticks for measuring compliance, the Association francaise de normalisation (ANFOR)’s EN 45013 being the primary focus. (These examples provided clearer indication of compliance along a gradient than what is discussed in the section under compliance above.) Some EPPO countries have reportedly obtained or are pursuing accreditation following ISO 17025 on "General requirements for the competence of testing and calibration laboratories", although not an EU obligation.

4.5.1 Performance targets

The Sustainability Impact Assessment (SIA) again provides some food for thought: although various methodologies were proposed, they all were aimed at specific target indicators. These core indicators were selected from three categories (economic, social and environmental). Each indicator was defined, a generally available measurement was identified, data sources for that measurement were listed, and in some cases the limitations of the indicator or data were described. For each of these, second tier indicators, considered components of the core indicators, were also identified. For example, under Environment, one of the core indicators was biodiversity and its second tier indicators were the impacts on endangered species, major ecosystems, and habitats of recognized importance. It was suggested that the second-tier indicators vary according to the situation (and what data or information is available).

These target indicators were selected to show a final impact outcome. Another type of indicator included in the SIA was a process indicator, to show changes in characteristics of a system due to policy change. In this example, one of the core indicators was “Institutional capacity to implement sustainable development strategies”, with examples of the related second tier indicators being: high-level ownership and commitment to sustainable development objectives; sustainable development mainstreamed; and so forth. It is interesting that after a couple of years of level of effort and several stakeholder consultations, the EU program concluded that both types of indicators were needed. This would also show that more than one type of methodology for predicting impacts using the SIA framework would be necessary.

Incorporating both target and process indicators may better address the questions from one key informant: "Will the information in hand be enough to bring about the necessary changes? Are the people empowered to make the changes indicated by the results of the evaluation?" This would also prove more complicated to administer as a tool.

4.5.2 Resources available

Assessing the "*achievements against pre-determined performance targets and against the resources available"* will require a clear idea of what investment is presently made in the plant health system. While this may appear to be a simple question, several countries (even some developed ones) have encountered difficulty in answering questions on the number of inspectors, the total budget, time spent on various activities and other indicators of investment.

This type of question will require a different type of data than the simple level of effort indicator, although that aspect may be included. Ultimately, to review the performance of just a single component of a national phytosanitary system – border inspection – in terms of reduction of risk, one would have to know over time:

- Resources invested – level of effort/man hours and/or cost
- Fluctuations in the challenge – e.g. number of potential introductions, possibly simplified to volume of imports, approximate level of smuggling, etc.
- Outcome of inspections – numbers of both "no-find" and interceptions, detection of missed entries, etc

Any of these factors without the others will not permit judgments about efficiency. Such an indication of success against investment, and the possibility of monitoring outcomes over time, will allow much more informed decisions about priorities and investments. This will also allow staff to see their progress more clearly than any of the other tools could show.

Work *et al*. (2005) explain the changes in data collection in the US in order to estimate arrival of exotic insect pests through trade, via various pathways (e.g. cargo, passengers, etc). An increasing number of interceptions was associated with a larger number of types of commodities being imported via refrigerated maritime cargo. This conclusion did not hold up for other pathways, however, for which as much as 68% of interceptions related to a single commodity group via air transport and 75% on a specific ornamental plant for land transport from Mexico. While this type of data will vary year to year, the value of knowing what to target is obvious.

As this type of data is not available in many countries, however, perhaps the IPPC could play a critical role in defining the best indicators, and assist in improving related data quality for its member countries. The Codex evaluation (2002) recommended to that body a role in identifying and improving national data necessary for effective governance in its field. This could be done as a special initiative with external funding. Yet some of the points may also be addressed in the standard setting process when topics such as sampling arise. This and other potential roles of the IPPC, the NPPOs and the RPPOs are proposed in section 5.

4.6 Providing conclusions for regional and global reviews (objective 10)

4.6.1 Regional reviews

A number of regional capacity reviews have taken place, frequently using the model of an external consultant spending one month or more collecting and analyzing information.

It is not surprising that Europe is an exception, as its plant health system is largely determined on a regional level. Besides the overview and insights from the FVO plant health division, EPPO has carried out regional reviews on various topics. An example is the 2006

evaluation of capacity in the area of diagnostics; other reviews may result from a 2004 meeting that identified eroding expertise in plant health (see also the Madeira declaration).

4.6.2 Global reviews

There are various assessments and strategy development exercises that refer to the PCE and could use its results, or those of other tools, including:

- FAO Biosecurity Capacity Assessment Tool
- Integrated Framework
- Poverty reduction strategy
- National invasive alien species strategy
- USAID Country Analytical Template
- EU Strategic Impact Assessment

However, it is not realistic to expect the IPPC to take the lead in providing tools that provide data and information for all these other agencies and bodies. However, it is worth considering the cost of not providing easily understood data for these planning processes. There is evidence that policy makers understand the value of food safety and animal health more than plant health. Communication with these leaders is a responsibility of the NPPOs and other national constituents (e.g. private sector). Yet if there is any opportunity for enhancing the communication about plant health capacity needs to decision makers, it could result in not only increased donor funding, but also an improved budget for the IPPC.

5. Conclusions and recommendations

5.1 Creating a cohesive strategy for TA

The history of development of the PCE (section 1.3 and Annex 3) reveals the extent to which the IPPC's approach to TA is based largely on ad hoc efforts by individuals and informal working groups, rather than on a strategy agreed by the member countries in an informed debate. As part of this study we submitted questions to the SPTA (Annex 4) and were advised they should be referred to the IWG-PCE. We believe that questions at this level are for wider debate and endorsement.

For example, if a tool is to be used to evaluate phytosanitary capacity in different countries, there needs to be agreement on a concept of phytosanitary capacity that can apply to all those countries, whether large or small, developed or developing, primarily importers or exporters, and regardless of the nature of the plant resources to be protected. Everyone recognizes that economic, political, social and environmental conditions greatly influence what is needed to constitute an effective plant health system, and these differences must be taken into account in the design of an evaluation tool. But it is useful to have an agreed definition of phytosanitary capacity that applies to any country.

As part of a move towards a more coherent TA strategy, the SPTA or CPM must clarify which objectives and applications of phytosanitary capacity evaluation the IPPC should be supporting through the development of globally applicable tools, and which should be core, versus externally funded. Table 10 summarises possible roles for the IPPC and NPPOs in this respect. While these objectives overlap, the range of situations covered makes it unlikely that a single tool can address them all. The SIA methodology mentioned in section 3 proposes a "package" of assessment methodologies and offers a one-page decision tree analysis to assist in choosing which approach is appropriate to the situation. While the objective of the SIA varies from that of the PCE, these conclusions still apply. It would appear that no single tool is appropriate to all country situations and each objective for conducting an evaluation. We conclude that attempting to augment the PCE to meet all these needs will only weaken its impact.

A series of options has been presented in section 4, with suggestions for how they might be taken the forward. Once some additional tools are adapted or designed for phytosanitary assessments, we recommend creating a decision tree to assist countries, donors and consultants in the initial selection. There are already a few choices of approaches or tools, including the WTO/SPS compliance checklists, to make this one page aid useful.

Our findings to date suggest that harmonised tools for two distinct areas should be considered.

a) Establishing credibility and trustworthiness with trading partners. A standard questionnaire that covers basic components of capacity as a *trade partner* providing public, transparent, verifiable information to form the basis of more detailed bilateral agreements and to consider in PRAs (similar to the approach of the evaluation chapter of the Animal Health Code). [Note: this would probably incorporate existing reporting requirements, and might even extend to components of equivalence agreements as they are harmonised]

Table 10. Clarification of roles for future efforts in phytosanitary capacity evaluation methodologies and tools

Possible roles for IPPC in evaluation of plant health:

National capacity

1. Development or adoption of a range of generic national capacity evaluation tools
2. Peer review and testing of tools*
3. Compiling experiences of use of tools* and updating tools
4. Identifying and linking capacity issues to guidance and training materials from other sources* (e.g. surveillance manual, OECD documents, IAEA documents, etc)
5. Creating guidance and training materials when not otherwise available (e.g. treatment manual)

Trade credibility

1. Creating templates for information exchange on trade related capacity
2. Providing user friendly mechanism for collecting this information
3. Establishing indicators and mechanisms for recognition of equivalence

Global issues

1. Organizing an expert group on what is the most appropriate data for plant health evaluations, and agreeing on measures for quality improvement; possibly seeking funding for this initiative
2. Review of global capacity in plant health*

(Sufficient upcoming experts in various fields; availability of capacity through centres of excellence, user friendly global tools, etc)

3. Informing countries on how the IPPC tools relate to the other predominant evaluation efforts (e.g. by World Bank, IFAD or others)

ISPM implementation and impact

1. Reviewing the experience of implementation of ISPMs after a year or more in effect*
2. Designing specific impact assessments for implementation (e.g. costs)
3. Collecting feedback into the standard setting process

Possible roles for NPPOs in evaluation of plant health:

National capacity

1. Adjustment of generic national capacity evaluation tools to fit with national and regional conditions*
2. Providing feedback on experiences of using tools*
3. Identifying guidance and training materials found to be useful, for posting on the IPP*

Trade credibility

1. Cooperating in use of harmonized trade credibility tool, while trying to avoid requests for unnecessary data prior to the final bilateral negotiations

ISPM implementation and impact

1. Tracking and reporting on the experience of implementation of ISPMs after a year or more in effect*

* these roles are particularly suited to collaboration with RPPOs and FAO Regional Offices

b) Building capacity to safeguard national interests and resources. A group of tools for self evaluation to consider issues such as efficiency, effectiveness, national priorities, etc, primarily aimed at internal decision making and possibly to attract funds. The recent Performance, Vision and Strategy (PVS) tool for plant health developed by IICA could form part of this suite of tools, along with a new PCE.

The PCE was never intended to be the only tool in the box, so our proposal that the PCE is modified to fit into a suite of tools is not new. Sub-goal 4.1.9 in the draft revised Strategic Plan is "Identify and develop additional technical assistance tools". This was also clearly stated by Canale (2004):

> "Finally, it should be keep in mind that PCE is a good need assessment tool, but the identifications of the limiting factors is only the first step towards their solutions. Additional TA tools, including prototype Operational Manuals and computerized systems, in line with IPPC/ISPM disciplines and capable to be adapted to the specific realities of different countries, should be developed to complement PCE. Besides, when new ISPMs are approved, new PCE modules should be produced as necessary, in order to keep the tool up dated".

5.2 Future development of the PCE

One of the main criticisms of the PCE is that the information collected does not readily lead to clear conclusions. There is no guidance on how the answers to the PCE coupled with the SWOT analysis can be used as the basis for prioritized actions. Thus it has been suggested that the results of the PCE may not directly lead to effective capacity building. As one key informant put it: "Can we evaluate or measure the impact of the interventions carried out as a result of using the PCE tool? Are the real issues being addressed? Even after the training and the procurement of equipment- the service remains the same, not much change or no capacity to respond to new issues and externalities. There is a request for another TCP."

Thus we do not recommend maintaining the status quo, which is to continue to promote the current tool through training of PCE facilitators, and making minor modifications as recommended by the annual IWG meetings. The cost of this approach seems high for the return achieved at this stage of the tool's development. Instead we recommend the reformulation of the PCE into a more layered/hierarchical system, drawing on the existing one, but considering other frameworks, clarified objectives, and desired outputs, as well as other possible tools.

Another similar proposal we received was for a single tool to be "expandable", going from the simplest to the more advanced. This step-wise framework would start from the most basic, for example if a country answers yes to having particular facilities, then the user could move up to the next level of questions/indicators to fill in those questions. But if the most basic level is not met, then the user moves on to other sections without spending more time and resources on unnecessary details.

Or the reverse could be the case: if the user ranks the country as high in capacity in one area, but weak in another, the tool could lead him or her through a series of more specific sections aimed at enhancement of that component. If designed appropriately, this tool could also serve as a template for what would be required for that particular component, ie the user could follow through the questions to develop a plan for improving their system. This would be a way to provide a benchmark without causing an NPPO to feel they have "failed at a very early hurdle".

All of the feedback and review of options leads us to conclude that the new PVS for plant health is a good starting point for a rapid assessment tool. It offers a quick look at the current

situation of an NPPO, while offering some direction for the future. It requires minimal resources, as it relies entirely on expert opinion, and does not require computer software. It can be expanded to include more opinions from a wider stakeholder base. But a more specific tool is also needed to bridge the gap between a rapid assessment and a multiple-month project. This would be the new PCE.

5.3 Recommendations

Table 11 summarises the range of tools that is proposed, and refinement of this table would be part of developing the overall TA strategy. Columns 4 and 5 have been left blank as completing the table would be a part of the planning process. However several of these proposals could probably be achieved within the current annual cost of the PCE maintenance (including the IWG-PCE).

Table 11. Overview of useful tools for phytosanitary capacity evaluation

Objective	**Tool**	**Status of tool**	**Proposed champion of tool**	**Estimated additional cost of tool**
Involve stakeholders, form basis of national strategy	PVS	Created, not yet tested		
Detailed assessment by sector, possible basis for business plan and action plans	New PCE	Needs review and reformulation into new framework		
Assessment as a trading partner	Harmonized questionnaire	Not yet existing		
Compliance with ISPMs, IPPC	Checklist associated with each ISPM	Not yet existing		
Trackable performance indicators	Various	Longer term development; may require an initial project in data quality before attempting this		
Quality assurance certification	Available in relevant fields	Existing but may need tailoring or refinement		

Specific recommendations are as follows.

For the PCE it is recommended that:

a. The objectives of the PCE tool should be restricted to phytosanitary capacity needs assessment as the basis for national planning and priority setting, and for allocating and attracting funding (national or external), which is how it has been used for the past five years.
b. The content of the PCE is extended to cover components of the capacity of a national plant health system that are not directly related to NPPO obligations under the IPPC/ISPMs, such as communication and stakeholder involvement in national plant health systems.

c. Documentation is provided covering: the process for applying the PCE, including the involvement of policy makers, the private sector and other stakeholders; the interpretation of results in the context of national objectives and trade patterns to identify priorities and develop action plans; the summarizing and presentation of results within the country and externally. The food safety assessment tool should be considered as an example for this guidance.
d. The PCE is restructured in thematic categories, with each category containing a hierarchical arrangement such that, depending on the answers to higher level questions, answering lower level questions on smaller details may not be necessary.
e. The thematic categories are linked to supplemental resource material to aid understanding and facilitate the development of plans based on the results (such as a guideline on phytosanitary legislation).

For other tools in phytosanitary capacity evaluation it is recommended that:

a. Consideration be given to individual ISPM implementation sheets, in the form of check lists, and how these could be developed and used to monitor capacity needs in relation to ISPM implementation.
b. The PVS be recognized by the IPPC as a useful tool for rapid assessment of national phytosanitary systems based on expert judgment, and as a starting point for engaging different stakeholders and agreeing priorities.
c. Information commonly requested by trading partners, including the existing requirements for information sharing under the IPPC/ISPMs, be integrated into a harmonized template to be posted on the IPP with appropriate access to reduce the need for bilateral exchange of general information.
d. Simple tools, based on spreadsheets for example, be developed to address very specific evaluation objectives such as modelling risks, assessing efficiency of services, cost recovery calculations, investment decision making.
e. All of the above tools be reviewed for explicit inclusion of environmental concerns.

For technical assistance strategy it is recommended that:

a. A strategic plan for technical assistance be developed that addresses the full range of issues. While various subgroups of the CPM may engage in developing and implementing technical assistance, they all must be aware of and work from a single cohesive strategy with timely cross communication. A coordination role must be appropriately assigned.
b. The CPM endorses a definition of national phytosanitary capacity that best fits its vision and expectations for all efforts under the IPPC.
c. A mechanism for collating information on NPPO capacity and issues be designed, taking account of confidentially needs.
d. The role of reviewing uses of the information generated from the PCE and other tools be assigned appropriately, so as to learn of trends, ensure the accurate transfer of information, and better communicate the needs and value of plant health to other sectors.
e. An initiative on the quality of national phytosanitary data (such as baseline risk, level of effort in preventing introductions, etc that may feed into the more detailed spread sheet type of tools) should be launched, as a targeted assistance to NPPOs.

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Annexes

Annex 1. Document CPM 2006/20 (containing study methodology)
Annex 2. Contents of the PCE (example module and the matrices)
Annex 3. ICPM and CPM Decisions concerning the PCE
Annex 4. NPPO survey instrument and key informant checklist
Annex 5. Survey results
Annex 6. List of contacts, key informants
Annex 7. Relevant points from other SPS capacity evaluation tools
Annex 8. Other sources of information (not in references)

Annex 1. Document CPM 2006/20 (containing study methodology)

The 5th meeting of the Informal Working Group on Strategic Planning and Technical Assistance (IWG-SPTA) held in October 2003 requested that analysis of the results of application of the PCE should be included as a regular item in the report presented to ICPM each year. The secretariat responded by putting a proposal to ICPM 04 (ICPM 04/INF-14) to conduct an analysis of the application of the PCE. The 6th Session of the ICPM endorsed the proposal, several countries noting that there was a need to determine whether the intended benefits were being derived from its use.

CABI was commissioned in December 2004 to undertake the analysis. The Terms of Reference envisaged the development of a participatory methodology that NPPOs and stakeholders could use to assess the impact of the application of the PCE in their country. This would assist countries to monitor and evaluate their phytosanitary capacity development; as well as provide information to the ICPM on the application of the PCE and how it could be improved. The methodology was to be conducted in 6 pilot countries in Africa, lessons learned, and the methodology made available for general use.

An implementation plan was presented to the Informal Working Group on the PCE (IWG-PCE) in March 2005, where it was agreed that the scope of the study should be radically revised. The study was to be global, and was to be a critical assessment of the PCE as a needs assessment tool, including evaluation of its impact in awareness raising and planning, and providing recommendations on future development of the tool.

The revised scope, methodology and current status of the study was presented to CPM1 in paper CPM 2006/20 attached in the following pages.
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CPM 2006/20

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January 2006

منظمة الأغذية والزراعة للأمم المتحدة | 联合国粮食及农业组织 | Food and Agriculture Organization of the United Nations | Organisation des Nations Unies pour l'alimentation et l'agriculture | Organización de las Naciones Unidas para la Agricultura y la Alimentación

COMMISSION ON PHYTOSANITARY MEASURES

First Session

Rome, 3 – 7 April 2006

Analysis of the Application of the Phytosanitary Capacity Evaluation Tool (PCE)

Agenda Item 15.1 of the Provisional Agenda

I. Introduction

1. The Phytosanitary Capacity Evaluation (PCE) tool was developed to assess a country's capacity in relation to its implementation of the IPPC and the International Standards for Phytosanitary Measures (ISPMs). The PCE has been modified over time to take account of new ISPMs and comments from facilitators. It is a significant component of the Strategic Direction No. 4 (The development of the phytosanitary capacity of members by promoting the provision of technical assistance) and Article XX of the IPPC.

2. The PCE tool has now been used in over 60 countries, and its application is built into many projects of the FAO Technical Cooperation Programme funded in response to requests from countries for assistance in developing their phytosanitary systems. A multilingual version (English, French, Spanish and Arabic) now allows for repeated use, for tracking progress through time. The PCE tool is available on a CD-Rom and on the International Phytosanitary Portal. A short user guide has also been published.

II. The Study

3. At its Sixth Session in 2004, the ICPM endorsed a proposal to conduct an analysis of the application of the PCE. The IPPC Secretariat contracted CAB International (CABI) to undertake the study during 2005 with the expectation that the results would be reported to the ICPM/CPM in 2006. A meeting of the Informal Working Group on the PCE (IWG-PCE) held in Rome in 2005 directed that the study should be global in scope, and cover the following areas:

- Critical assessment of the PCE as a needs assessment tool, with recommendations for enhancements.
- Review of the educational value of the tool in training and awareness raising.

- Assessment of the impact on strategic planning at the national level.
- Assessment of impact on other organizations internationally, including IPPC, FAO and donor and development organizations.

III. Study Procedure

4. The plan for the study, which has been endorsed by the PCE working group, is attached in Annex 1. The study comprises 9 steps.

1. Formation of an advisory group.
2. Development of the study plan.
3. Desk study and review of PCE documentation, results and previous analyses
4. Development of study instruments.
5. Distribution of questionnaires to NPPOs.
6. Telephone interviews with NPPOs and key informants.
7. Selected visits to NPPOs, other organizations, meetings.
8. Data analysis and report writing.
9. Discussion of the report, and finalization.

IV. Current status of the study

5. Steps 1 through 5 above have been completed, although input from NPPOs and other interested parties (particularly key informants, such as funders and technical assistance agencies) is still welcome. Follow up with individual NPPOs is in progress for validation, and where further clarification or detail is required beyond the information provided in the questionnaire.

6. An advisory group for the study has been formed consisting of nine international experts in phytosanitary systems, evaluation and development. The group has provided inputs to the scope of the study and to the methodology and survey instruments.

7. Completed PCE datasets have been assembled for a number of countries from all regions where the PCE has been implemented. In order to maintain confidentiality of country results, the data is being consolidated into a single (unattributed) database for analysis. The different versions of the PCE that have been used over the years means this is not straightforward, but the aim is to analyze the data to address the questions identified in Annex 1. This analysis is now in progress.

8. A review of approaches to capacity needs assessment and capacity building in the context of the IPPC has been undertaken, including a comparison of the PCE with other needs assessment tools used in the sanitary and phytosanitary area. Differences between the PCE and other approaches have been identified and assessed for possible inclusion in the PCE.

9. A list of key informants involved with SPS capacity building has been compiled and interviews held. As the analysis of the PCE and questionnaires continues, additional key informant contacts will be made as appropriate.

10. The progress of the study has been constrained by the scope of the study, inherent difficulties in obtaining information from some NPPOs, inadequate documentation especially for those countries who used the earlier paper version of the PCE tool, and change of key personnel involved in the application. The results are now being anticipated for reporting to CPM-2 in 2007.

11. The CPM is invited to:

1. *Note* the report.

Annex 1

PLAN FOR CONDUCTING THE STUDY ON THE IMPACT OF THE PCE

In each of the four parts to the study a number of questions are listed that the work will aim to address.

1. Assessment of the PCE as a needs assessment tool

a. What is meant by capacity building in the context of the IPPC?
b. What capacity building needs does the PCE assess and how effectively?
c. Are there any gaps in the scope of the PCE?
d. How does the PCE compare to other SPS capacity needs assessment tools?
e. How could the PCE as a needs assessment tool be enhanced?

Information sources:

- Desk study (a,b,c,d)
- NPPO Questionnaire and key informants (b,c,e)

2. Educational value of the PCE

a. How does the PCE serve as a training and awareness raising aid?
b. Who have been the main beneficiaries in this respect?
c. How does the training and awareness raising role of the PCE compare to other approaches to SPS education?
d. How could the PCE as a training and awareness aid be enhanced?

Information sources:

- NPPO Questionnaire (a,b,d)
- Key informants (all)
- Desk study (c,d)

3. Impact on national strategic planning

a. How has the PCE been conducted? (Who was involved, what was the facilitator's role, what sources of information were used etc).
b. How has use of the PCE contributed to national SPS planning? (What plans have resulted from its use?)
c. Has use of the PCE assisted with obtaining funding (national or external) for the NPPO?
d. Has the PCE and its outputs been used for monitoring and evaluation of phytosanitary capacity building or implementation of strategic plans?
e. How could the PCE be enhanced to improve its value in strategic planning?

Information Sources:

- Completed PCEs (a,b)
- NPPO Questionnaire (all)
- Key informants (a,b,e)

4. Impact on other organizations

a. How has the use of the PCE affected the design of technical assistance programmes and projects?
b. Has use of the PCE facilitated co-ordination between different technical assistance agencies?
c. Is there scope for adapting the PCE for other uses, such as a mutual recognition tool?
d. How could the PCE be enhanced to improve the design and co-ordination of technical assistance?
e. Has the use of the PCE had any additional, unexpected impacts?

Information sources:
- Key informants (all)
- NPPO Questionnaire (all)

Information sources/instruments

1. NPPO Questionnaire. This will be e-mailed to all countries known to have used the PCE. It will be designed to address the questions identified above. A covering letter from IPPC Secretariat was prepared to accompany the questionnaire. Follow up telephone calls will be made to respondents, and to clarify responses as necessary. Face to face meetings will be sought through attendance at fora where several NPPOs are expected to be present and short country visits to selected countries.

2. Completed PCEs. It would be desirable to have available a copy of the results from completed PCEs. IPPC Secretariat was requested to provide these (where possible).

3. Key informants. There are several organizations from which it could be useful to solicit information:
- Funders of technical assistance
- FAO (including food safety and animal health staff)
- World Trade Organisation, World organisation for animal health (OIE), Codex Alimentarius
- Regional Plant Protection Organizations
- Technical assistance agencies (IICA, CG centres)
- PCE facilitators.

4. Literature/desk study. This will include other capacity and needs assessment methods and tools in the SPS arena; studies on the results of the PCE; studies on SPS capacity assessment building; technical assistance project documents; NPPO strategy documents.

5. Meetings. Possible meetings where a number of key informants might be available (taken from the IPP calendar).

Annex 2. Contents of the PCE

The following pages show an example module (module 2) and the three associated matrix templates in the PCE. The module is given in the print format rather than the onscreen layout during data entry.

Phytosanitary Capacity Evaluation - Questionnaire
Component - 2 Phytosanitary Legislation

No	Question	Answer		Comment
1.01	Is there a National Plant Protection Organization mandated in National Legislation?			
1.02	Enter the Name, Address and Contact Details of the Organization.			
1.03	Name of the Act to establish the NPPO			
1.04	Year the Act was enacted.			
1.05	Year of most recent revision of Act			
1.06	Current status of the Act			
1.07	List any Regulations, with date of enactment, which relate to the role of the NPPO in phytosanitary activities.			
2	Does the present Legislation (Act and Regulations) comply with all the requirements of the revised text of the IPPC (1997)?			
3	Is the NPPO responsible for the issuance of phytosanitary certificates to comply with the phytosanitary regulations of the importing country for consignments of plants, plant products and other regulated articles?			
3.01	If yes, give details (section/clause in the Act, name of Regulation and the date when it came into force).			
4	Is the NPPO responsible for the surveillance for plant pests on growing plants, including both areas under cultivation (e.g. fields, plantations, nurseries, gardens, greenhouses and laboratories) and wild flora, and of plants and plant products in storage or in transportation, particularly with the object of reporting the occurrence, outbreak and spread of pests, and of controlling those pests?			
4.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
4.02	If no, is there another government department or agency responsible for pest surveillance activities? If so, name the organization.			
5	Is the NPPO responsible for the inspection of consignments of plants and plant products moving in international traffic and, where appropriate, the inspection of other regulated articles , particularly with the object of preventing the introduction and/or spread of pests?			
5.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
6	Is the NPPO responsible for the disinfestations or disinfecting of consignments of plants, plant products and other regulated articles moving in international traffic, to meet phytosanitary requirements?			
6.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
7	Is the NPPO responsible for the protection of endangered areas and the designation, maintenance and surveillance of pest free areas and areas of low pest prevalence?			
7.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
8	Is the NPPO responsible for conducting pest risk analysis?			
8.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
9	Is the NPPO responsible for ensuring through appropriate procedures that the phytosanitary security of consignments after certification regarding composition, substitution and re-infestation is maintained prior to export?			
9.01	If yes, give details (section/clause in the Act, name of Regulation,			

	date it came into force)			
10	Is the NPPO responsible for training and development of staff?			
10.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
11	Is the NPPO responsible for the distribution of information within the territory of the contracting party regarding regulated pests and the means of their prevention and control?			
11.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
12	Is the NPPO responsible for research and investigation in the field of plant protection?			
12.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
13	Is the NPPO responsible for the issuance of phytosanitary regulations?			
13.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
14	Is the NPPO responsible for submission of a description of its official national plant protection organization and of changes in such organization to the Secretary of the IPPC?			
14.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
15	Is the NPPO responsible for providing a description of its organizational arrangements for plant protection to another contracting party, upon request?			
15.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
16	Is the NPPO responsible for arranging for phytosanitary certification, with the objective of ensuring that exported plants, plant products and other regulated articles and consignments thereof are in conformity with the certifying statement to be made pursuant to paragraph 2(b) of Article V of the New Revised Text of the IPPC?			
16.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
17	Does the Act have precedence over provincial, state or other sub-national legislation in phytosanitary issues involving international trade?			
17.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
18	Is the NPPO responsible for approving / registering post entry quarantine facilities for the holding of regulated articles for inspection / testing of regulated articles?			
18.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
19	Does the NPPO have powers of search and seizure for plants and plant products at points of entry?			
19.01	If No, is the agency with such powers (e.g. customs) legally required to refer such material to the NPPO			
20	Does the legislation require a person to declare plants, plant products and other regulated articles for commercial or non-commercials purposes?			
20.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
21	Is the NPPO responsible for determining details of import requirements / protocols, including monitoring / auditing phytosanitary functions performed by trading partners?			
21.01	If yes, give details (section/clause in the Act, name of Regulation, date it came into force)			
22	Are there any other questions considered appropriate to determine the strengths and weaknesses of the legislative framework for the NPPO to function effectively? If YES, list them in the comment box.			

PHYTOSANITARY CAPACITY EVALUATION
SWOT MATRIX

COMPONENT : 2 - PHYTOSANITARY LEGISLATION

Activity Type : (Selectable from)
Legislative Framework;
Financial Resources;
Education / Training;
Policy Formulation;
Needs Assessment;
Institutional Structure;
Civil Works / Buildings;
Technical Assistance;
Management Related Issue;
Organizational Culture;
Resources - Laboratory Equipment;
Resources- Books / Journals / CD-ROM;
Communication Systems (phone, fax, internet etc);
Resources - consumables;
Transport - Vehicles etc.;
Resources - Office Equipment;
Documented Procedures;
Resources - computers;
Communication skills;
Laboratory Manuals;
Human Resource;
(User defined activity)

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS	ACTION(S) REQUIRED	PRIORITY

PHYTOSANITARY CAPACITY EVALUATION
Action(s) Required Priority Matrix

Component : Phytosanitary Legislation - Sub Component : Phytosanitary Legislation

Very high	High	Medium	Low	Very low

PHYTOSANITARY CAPACITY EVALUATION
LOGFRAME MATRIX

COMPONENT : 2 PHYTOSANITARY LEGISLATION

OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISKS
OUTPUTS			
1.1			
1.2			
1.3			
1.4			
1.5			

Annex 3. ICPM and CPM Decisions concerning the PCE

The following sections document the ICPM and CPM discussions and decisions concerning the PCE. As described in section 1.3, the PCE originated in a pilot project by New Zealand, referred to in the early ICPM decisions.

Decisions taken verbatim from the ICPM and CPM reports are indicated in shaded boxes. Text not shaded is summarized from the other documents as indicated.

ICPM-1 3-6 November 1998

Technical assistance was discussed briefly at the first session of the ICPM. Developing country representatives emphasized the difficulty in establishing the regulatory framework and infrastructure necessary to meet phytosanitary requirements for international trade, and identified need for assistance with infrastructure, documentation and access to electronic information. The need for coordination of such assistance was noted.

> The Interim Commission therefore recommended an adequate flow of funds for technical assistance to developing countries to meet the phytosanitary requirements of importing countries and allow them to participate on an equal basis in world trade.

ICPM-2 4-8 October 1999

Discussion was based on document ICPM 99/10 Work Programme for Harmonization Technical Assistance. The secretariat requested guidance and assistance from the ICPM to (*inter alia*)

- Assist the secretariat in the collection of up-to-date information regarding national phytosanitary systems, or programmes within national systems where technical assistance is needed.
- Establish criteria for prioritizing technical assistance needs.
- Establish a Subsidiary Body of the ICPM to provide leadership to technical assistance activities of the ICPM.

A proposal was presented for ICPM to play a co-ordinating role in the provision of technical assistance, emphasizing that ICPM could not be an aid provider. The creation of an ad-hoc technical committee to assist the Secretariat in this role was also suggested. It was suggested that 2 data sets would be required to evaluate proposals for phytosanitary technical assistance.

a. A data set linking and tracking technical assistance projects provided, requested, or available for phytosanitary development.
b. A data set describing the phytosanitary capabilities of developing country members of the ICPM.

The New Zealand pilot project in 6 countries was envisaged as the first step in establishing the second data set.

> The ICPM endorsed the New Zealand project and requested pilot studies in other regions. A number of Members indicated that technical assistance should have a larger component of manpower development and logistic supplies, including equipment. One Member indicated that an information system should be established to promote trade. Several Members indicated that more resources should be provided both by FAO and through trust funds for technical assistance to enable developing countries to participate fully in international trade.

The ICPM decided to establish an open-ended Working Group on Technical Assistance with the charge to:
a) define possible coordinating roles for the ICPM,
b) review the results of the New Zealand pilot project, and
c) based on the results of this review, recommend future activities of the ICPM in technical assistance.

ICPM-3 2-6 April 2001

ICPM-3 was presented with a report of Technical Consultations on Technical Assistance held in Bangkok, 6-10 March 2000 and 2-6 October, which took up the decisions of ICPM-2 on Technical Assistance and the New Zealand Pilot Project. The report to ICPM of the meetings was presented in document ICPM 01/13 Work Programme for Harmonization ICPM Technical Assistance, attached to the ICPM 01 report as Appendix XVI.

The ICPM:
1. endorsed the statements of the Consultation regarding the coordinating role of the ICPM (paragraphs 6 and 7, Appendix XVI), recognizing that the role of the ICPM in technical assistance is to support regional and global activities whereas technical assistance for individual countries is addressed through donor funded projects;
2. recommended that the role of the ICPM in technical assistance be fully considered in strategic planning and decisions regarding the work programme;
3. adopted the recommendations regarding the New Zealand pilot project (paragraph 9, Appendix XVI);
4. recommended that the establishment of a trust fund be fully considered under the framework of strategic planning;
5. adopted the recommendations regarding future activities of the ICPM in technical assistance (paragraphs 10 and 11, Appendix XVI); and
6. agreed to establish an ad hoc working group with the charge to implement recommendations.

Section B of the Bangkok report on the New Zealand Pilot Project in Appendix XVI of the ICPM report contained paragraphs 8 and 9 (referred to in the ICPM decision).

8. The meeting:
1. considered the pilot project and its enhancements;
2. expressed its gratitude to the government of New Zealand and complimented the developers for their efforts;
3. provided specific suggestions for further improvement of the questionnaire;
4. noted that the questionnaire deals directly with aspects of implementing ISPMs, but that the efficacy and sustainability of technical assistance also requires institutional elements of national phytosanitary systems which are often assumed to be present.

9. The meeting recommended:
1. the pilot project be finalized and the questionnaire transferred to the Secretariat as a diagnostic tool for self-assessment by both developed and developing countries to be used to identify needs and also where capacity exists;
2. the questionnaire become known as the Phytosanitary Capacity Evaluation (PCE);
3. the PCE be further developed to include institutional and regulatory aspects of national phytosanitary systems;
4. the Secretariat undertake to maintain and update the PCE (or make appropriate arrangements for maintaining and updating); and
5. that PCE results be kept as confidential as desired by the particular country.

The recommendations of the Bangkok meeting on further activities of the ICPM in technical assistance were in paragraphs Section C of Appendix XVI, paragraphs 10 and 11. Paragraphs 10.6 and 10.9 were directly related to the PCE.

> 10. The meeting recommend that ICPM:
> ..
> 6. encourage individual Members to utilize the PCE to determine their own needs and priorities, and to formulate national plans for the improvement of their phytosanitary systems and for technical assistance where appropriate;
> ..
> 9. support the development of guidance for countries to use in the evaluation of institutional and regulatory aspects of national systems, including:
> a) the development of diagnostic tools (PCE) for countries to assess their regulatory and institutional capacity to support technical functions for implementation of the IPPC;
> b) the exploration of possibilities for a common framework for institutional evaluation and capacity building, within the ambit of the SPS (in particular with OIE), relating to institutional, regulatory, and technical assistance of common interest.

A second document on Technical Assistance was presented, ICPM 01-12 Work Programme for Harmonization Technical Assistance. This described the technical assistance provided by the FAO Technical Cooperation Programme and the IPPC Secretariat, but also identified some emerging issues. These included the need for three types of documents (manuals and guides on implementing ISPMs, equipment specification manuals, and guidelines for reviewing and drafting national phytosanitary legislation), and the need for diagnostic tools for self-assessment to meet the demand for comprehensive reviews of national phytosanitary systems. The PCE was referred to, and three specific needs highlighted:

> 1. consultants to assist with the collection and evaluation of data, and the formulation of national plans for technical assistance;
> 2. translation of the PCE into Members languages;
> 3. resources for FAO to maintain and update the database.

ICPM-4 11-15 March 2002

The interim commission was presented with a report by the Chairman, describing the PCE and the results of its use in over 20 countries (ICPM 02/3 Implementation of the International Plant Protection Convention (IPPC) (Report of the Chairperson)). The report had also been tabled at and discussed by the 3rd meeting of the IWG-SPTA in December 2001. The conclusion of the study was that developing countries have intrinsic difficulties in implementing the IPPC and its ISPMs, but the "traditional assistance programmes are not the most adequate tools to resolve these difficulties".

The discussions at the 3rd IWG-SPTA were summarised in ICPM02/16 Technical Assistance, and used as the basis for the ICPM decision.

> 85. The ICPM:
> 1. Endorsed the use of the Informal Working Group on Strategic Planning and Technical Assistance (SPTA) as the ad hoc Working Group on Technical Assistance recognizing the need for certain aspects of technical assistance to be handled by experts;
> 2. Endorsed the updating of the PCE to take into account the new standards and the addition of other analysis components;
> 3. Endorsed the preparation of the PCE in other FAO languages after the English language version is updated;

4. Recommended the creation of a CD-ROM with the PCE and other phytosanitary information of a general nature that is relevant to the ICPM, and to develop guidelines to assist countries in the use of the PCE;
5. Recommended the addition of a format within the PCE to assist countries to identify donors of technical assistance;
6. Recommended the development of a team of expert facilitators to assist countries in their use of PCE; and
7. Recommended establishing a roster of experts.

Additional information on the application of the PCE was given in document ICPM02/6 Technical Assistance (Report of the Secretariat), including a list of countries where it had recently been applied. It was noted that the PCE had become a key component of most national phytosanitary capacity building projects including FAO TCPs.

ICPM-5 7-11 April 2003

Information on the PCE was presented in document ICPM 03/22 Technical Assistance: Development of Additional Tools. It was noted that the PCE had been applied in a supervised manner in over 35 countries, with new TCPs planning to use it in a number of other countries. A two year project from the FAO project for the Prevention of Food Losses was providing $200K for development, maintenance and application of the PCE. A working group had met in June 2002 and made 3 recommendations (ICPM 03/22).

1. Improving the programme:
a) Update the questionnaires to reflect new standards and improve existing sections based on experience;
b) Design and develop software programmes to assist with the formulation of national strategies, priorities and action plans;
c) Prepare a CD-ROM for demonstration and testing;
d) Develop and publish a user manual;
e) Undertake software modifications necessary for the transition of the system to FAO.
2. Translation of the PCE into five official languages of FAO.
3. Training of facilitators, regional workshops and expert working group meetings.

99. The ICPM:
1. Encouraged the further development and application of the PCE.
2. Noted that the PCE should be available to other potential donor agencies as the preferred capacity evaluation tool of the ICPM;
3. Expressed its appreciation to FAO for the support provided for PCE development through FAO.s PFL project, and support the PCE in the work programme;
4. Noted the proposed programme for PCE development and maintenance and agreed to establish an informal expert group to provide the Secretariat with guidance on PCE activities and to manage other technical assistance initiatives of the ICPM;
5. Noted the initiative by the Secretariat and FAO Legal Office to develop guidelines for phytosanitary legislation and agreed to the need for other technical assistance tools.

ICPM-6 29 March-2 April 2004

Document ICPM 04/INF-14 Report on the Phytosanitary Capacity Evaluation Tool summarised PCE development and maintenance in the period under review, application of the PCE (countries) and proposed actions for 2004. The main developments were:

- Addition of a skeleton SWOT Analysis matrix
- Addition of a skeleton logical framework
- Production of the PCE on CD
- Publication of a user guide
- Start of work on translation of the PCE into the official FAO languages

103. The ICPM:
1. Encouraged the Secretariat to support further regional PCE workshops for the better understanding and implementation of the tool.
2. Noted the report and endorsed the anticipated work programme.
3. Endorsed the proposal to conduct an analysis of the application of the PCE.

ICPM-7 4-7 April 2005

Document ICPM 2005/22 Report on the Phytosanitary Capacity Evaluation Tool reported that:

- The multilingual version (excepting Chinese) was completed in November 2004 and made available on CD.
- CABI had been commissioned to develop an instrument to evaluate the effectiveness of the Tool
- A PCE Facilitators' workshop had been held in April 2005.

Document ICPM 2005/22 Add.1 Informal Working Group Meeting on the Phytosanitary Capacity Evaluation (PCE) Tool – Summary Report listed 11 recommendations of low, medium, high or very high priority for the future development and use of PCE.

3. Recommendation 1.1: Producing interactive learning tools to increase awareness and knowledge on IPPC and ISPMs as an integrated component of PCE or as standalone tools.
Priority: Very high

4. Recommendation 1.2: Training is provided for regional 'resource groups' to assist with the application of the PCE Tool in each region. Priority: Very high

5. Recommendation 2: The features of the PCE Tool are enhanced to enable storing and retrieving of information of various versions of results so that progress can be tracked over a period of time. Further, options for displaying progress in the major components (e.g. pest risk analysis) are explored to develop PCE as an effective progress measuring tools for the NPPO.
Priority: Very high

6. Recommendation 3: Options for incorporating stakeholders' priorities in the PCE Tools be explored for incorporation into later versions of the PCE Tool. Priority: Medium

7. Recommendation 4.1: Future versions of PCE have an option for e-mailing comments to the ICPM via the IPPC Secretariat. Priority 4.1: Medium

8. Recommendation 4.2: As an interim measure a template for comments should be sent to countries to provide feedback on the PCE Tool. Priority 4.2: High

9. Recommendation 5: The IWG recommends that ICPC/IPPC gives consideration for the development of a model instrument for mutual or bilateral agreements, protocols and audit procedures. Priority: Medium

10. Recommendation 6: Enhance the capacity of the PCE Tool for generating appropriate reports or graphs to influence policy and/or decision makers on the capacity development needs and priorities. Priority: Medium

11. Recommendation 7: The outputs of the PCE Tool should remain qualitative in nature for the present but options could be explored for making the outputs more quantitative in the future. Priority: Low

12. Recommendation 8: In the further development of the PCE Tool, a component on the categorizing weaknesses and activities should be incorporated so that the outputs can be automatically generated to show the nature and scope of capacity development required. Priority: High

13. Recommendation 10: A mechanism should be established as part of the IPPC Work plan for updating the PCE Tool and for releasing both CD-ROM versions and enabling the Tool for download from the IPP. It was also recommended that the IWG be given the mandate to review and suggest new components and/or questions as appropriate for enhancing the tool. Priority: High

139. The ICPM:
1. Noted the reports.
2. Acknowledged the value of the tool in the technical assistance programme and supported its further development and application.

CPM-1 3-7 April 2006

A report on progress with the current study was presented (CPM 2006/20), and the meeting acknowledged the value of the tool. The contribution of the PCE tool to capacity building was also noted in the document (CPM 2006/INF/10) on Technical Assistance Activities by Region (2001-2005).

167. The CPM:
1. Noted the progress report and looked forward to the full report on the analysis at CPM-2.

The CPM considered Proposed Updates of the Strategic Plan in Relation to Technical Assistance (CPM 2006/16). These had been proposed by the SPTA based on the recommendations of the IWG-TA and IWG-PCE, and included a number of proposal changes specifically related to the PCE. Given that the CPM decided to undertake a complete review of the Strategic Plan, no conclusive decisions were made regarding these proposals.

134. The CPM:
1. Agreed that the recommendations should be considered further by the SPTA, with assistance from the informal working groups on technical assistance and PCE, in the context of the complete review of the strategic plan; and
2. Agreed that the Informal working group on technical assistance (IWG-TA), already mentioned in the Strategic Plan, should continue to provide guidance in relation to technical assistance.

Annex 4. Survey instruments

The annex contains 4 documents used for collecting information during this study.

a. NPPO questionnaire and covering letter. The questionnaire was mailed to all NPPO contact points on the IPP database. It was subsequently e-mailed to all NPPO contact points in both English and French versions.

b. RPPO questionnaire. A short questionnaire was presented to RPPOs at the 18th Technical Consultation of RPPOs, 11-14 September 2006.

c. Key informant checklist. An example checklist of issues discussed with key informants. The list was modified according to the informant's area of expertise.

d. Questions to SPTA. A document containing three issues which the authors felt could be addressed by the SPTA was presented to the SPTA meeting 2-6 October 2006.

联合国粮食及农业组织

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

ORGANISATION DES NATIONS UNIES POUR L'ALIMENTATION ET L'AGRICULTURE

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From IPPC Secretariat

To National Plant Protection Organizations (NPPOs)

Dear NPPO,

The Interim Commission on Phytosanitary Measures (ICPM) at its 6th Session, requested that a study be undertaken to determine the impact of the application of the Phytosanitary Capacity Evaluation Tool (PCE) regarding national capacity building.

The study would be global in scope and seeks to address the following areas:

- Critical assessment of the PCE as a needs assessment tool, with recommendations for enhancements
- Review of the educational value of the tool in training and awareness raising
- Assessment of the impact on strategic planning at the national level
- Assessment of the impact on other organizations internationally including IPPC, FAO and donor and development organizations

CAB International (CABI) has been contracted to undertake the study on behalf of the IPPC/ICPM.

As part of its strategy for undertaking the study, CABI has prepared a questionnaire which is sent to you for your response. In some cases, CABI may visit your country to facilitate your response.

The IPPC requests you to kindly respond to the questionnaires and any other medium through which information regarding the PCE is sought in order that this important task be fulfilled in a timely manner.

Very best regards,

Jeffrey Jones
IPPC Secretariat

Questionnaire for National Plant Protection Organizations

1. **You are invited to complete this questionnaire on the Phytosanitary Capacity Evaluation tool (PCE).**
2. **If your country has not used the PCE tool, please complete questions 1 – 5 and questions 33 – 34 only.**
3. **Your replies will be kept confidential. The study report will not mention any country by name.**
4. **The questionnaire is only in English, but you may use any of the 5 FAO languages when filling it in.**
5. **Please mail your completed questionnaire using the enclosed envelope to CAB International, P. O. Box 633-00621, Nairobi, Kenya. You may also hand it over to a CABI observer at CPM 1 in Rome.**
6. **If you have any questions or would like to discuss the study, please contact Roger Day at the above address, Tel: + 254 20 7224450, Fax: + 254 20 7122150, E-mail: R.Day@cabi.org.**
7. **THANK YOU for taking your valuable time to complete this questionnaire. The results of the study will be presented to CPM 2 in 2007.**

Questionnaire for National Plant Protection Organizations

About you

1. Country: ……..

2. Name (of person filling in the questionnaire): ……..

3. Post: ……

4. Number of years in post: ……

5. Has your country completed a PCE? Yes …….. No ……

a) If not, are there any plans to do so? Please explain, then go to question 33
……..
……..
……..

Your use of the PCE

6. What year was the PCE completed? ……

7. Were you part of the team when the PCE was used? Yes …… No ……

8. Was the PCE self-administered or facilitated? ……

a) If facilitated, who was the facilitator? ……

b) How useful was the facilitation? ……

9. If the PCE was self-administered,

a) Who was responsible? ……

b) Were the instructions for the use of the PCE adequate?
Yes …….. No …… Not sure ……

c) Were the supporting documents contained in the PCE helpful?
Yes …….. No …… Not sure ……

d) Were the people involved knowledgeable of the IPPC and the International Standards for Phytosanitary Measures?
Yes …….. No …… Not sure ……

10. Who took part in completing the PCE? (List institutions or positions, not individuals)
……..
……..
……..

Use of the PCE for capacity evaluation

11. How useful would you rate the PCE tool for the following activities (rate each on a point scale from 1 = Not useful at all, to 5 = Extremely useful) (Tick for each activity)

Activity	1	2	3	4	5
▪ Identifying gaps in national legislation					
▪ Identifying technical human resource needs					
▪ Identifying managerial human resource needs					
▪ Identifying equipment needs					
▪ Identifying procedural needs					
▪ Identifying documentation needs					
▪ Identifying information needs					

12. How useful would you rate the PCE tool for the following activities (rate each on a point scale from 1 = Not useful at all, to 5 = Extremely useful) (Tick for each activity)

Activity	1	2	3	4	5
▪ Identifying strengths, weaknesses, opportunities, threats (SWOT analysis) of the NPPO					
▪ Identifying a list of priority actions for developing the NPPO					
▪ Developing a Logical Framework for capacity building in the NPPO.					

13. Are there aspects of NPPO capacity that the PCE does not address?

Yes …….. No ……. Not sure …….

a) If yes, specify.

……..

……..

……..

Use of the PCE results

14. Have the results been presented (in any form) to people within your country?

Yes …….. No ……. Not sure …….

a) If yes, by whom, and for what purpose?

……..

……..

……..

15. Have the results been presented (in any form) to people outside your country?

Yes …….. No ……. Not sure …….

a) If yes, by whom, and for what purpose?

……..

……..

……..

16. Has a strategic plan for the NPPO or SPS organizations been produced since the PCE was completed? Yes …….. No ……. Not sure …….

a) If yes, did the PCE results help? Yes …….. No ……. Not sure …….

17. Has the PCE been re-implemented as a way of assessing progress in capacity development? Yes …….. No ……. Not sure …….

18. Have you used any other approaches to assess your NPPO capacity building needs? (e.g. used other assessment tools, strategic planning processes in projects etc.) Yes …….. No ……. Not sure …….

a) If yes, give details

……..

……..

……..

19. Is there any other system in place to monitor/evaluate NPPO capacity to meet IPPC obligations? Yes …….. No ……. Not sure …….
If yes, explain ..……

……..

……..

20. Has the PCE (either through doing it or sharing the results), promoted coordination between different stakeholders in the country?
Yes …….. No ……. Not sure …….

a) If yes, which groups? ……...

……..

……..

21. Has the use of the PCE lead to the development of new or improved phytosanitary legislation? Yes …….. No ……. Not sure …….

22. What is the implementation status of new or improved phytosanitary legislation?
……..

……..

……..

23. Have the results of the PCE been used to make policy decisions in plant health? (e.g. adoption of biosecurity approaches, institutional reforms etc.)
Yes …….. No ……. Not sure …….

a) If yes, which policy decisions? ……..
……..

……..

24. After using the PCE have any proposals for phytosanitary capacity strengthening been submitted for funding from the national budget?
Yes …….. No ……. Not sure …….

25. Have any proposals for ***external*** funding been written on the basis of the PCE?

Yes …….. No ……. Not sure …….

a) Were they funded? Yes …….. No ……. Not sure …….

b) If yes, by whom? ……

26. Have you used the results of the PCE to sensitize policy makers and stakeholders and lobby for improvement of the NPPO?

Yes …….. No ……. Not sure …….

a) If yes, how? ……..

……

……

27. Have the results of the PCE enabled you to properly understand and promote the needs of the NPPO and to participate actively in discussions regarding the development of the phytosanitary service?

Yes …….. No ……. Not sure …….

a) If yes, how? ……..

……

……

28. Is there now more discussion among staff who participated in the PCE regarding the strengthening of the NPPO?

Yes …….. No ……. Not sure …….

29. What would you say the main overall value of the PCE has been to the NPPO?

……

……

……

30. Describe one important action the NPPO has done as a result of using the PCE.

……

……

……

31. Has the PCE had any negative effects?

Yes …….. No ……. Not sure …….

a) Explain ……..

……

……

32. Please give any other comments on the use of the PCE in your country.

……..

……..

……..

Possible changes to the PCE tool

33. What modifications would be useful to the PCE?

a) More questions covering new ISPMs? Yes …… No …… Not sure ……
Comments ……

……

……

b) Additional analysis functions? Yes …… No …… Not sure ……
Comments ……

……

……

c) More supporting documentation? Yes …… No …… Not sure ……
Comments ……

……

……

d) Fewer questions on small details
(e.g. lab equipment)? Yes …… No …… Not sure ……
Comments ……

……

……

e) Use in training and awareness? Yes …… No …… Not sure ……
Comments ……

……

……

f) Use in strategic planning? Yes …… No …… Not sure ……
Comments ……

……

……

g) Any other modifications or improvements (explain).

……

……

……

And finally

34. Please give any general comments you might have on the PCE.

……

……

……

Thanks again for your contribution to this study

Questions for RPPOs for the PCE study.

1. What do we mean by “phytosanitary capacity”? So what is the capacity we want to evaluate?

2. Is there an ideal plant health system? In other words, is there a model or benchmark to strive for?

3. Does your region have a strategic plan for plant health? If so, how was it prepared (and may we see it?!)

4. For a quick evaluation of plant health service efficiency (taking a week or less), which of the following items of information would be easily available for countries in your region?

Information	Availability of the information for countries in your Region (✓ box)				
	No countries	Few countries	Some countries	Most countries	All countries
Budget for entire plant health system					
Budget for the NPPO alone					
Number of border inspectors/hours worked					
Number of staff/hours worked on PRA (or other categories, such as on policy and regulatory; on diagnostics and taxonomy; etc)					
Number, identity, source (country/commodity) of interceptions					
Data on interceptions of pests in cargo					
Data on interceptions of pests in the mail, luggage, or other pathways					
Number, identity, area affected etc of outbreaks/eradications					
Trade statistics on agricultural imports					
Break down of imports of fruits and vegetables; cut flowers, nursery and plants for planting; forest products; other products susceptible to pests					

Thanks for your assistance!

Key informant checklist

An example checklist of issues discussed with key informants. The list was modified according to the informant's area of expertise.

1. Brief introduction to the FAO/IPPC project to review the PCE

2. Use of the PCE for technical assistance

- Are you familiar with the PCE?
- Has your organization used it as part of SPS or plant health projects?
- For pre-project assessment, or post-project impact studies?
- If so, have you found it useful for clarifying needs and priorities; raising awareness among stakeholders (both public and private); as the basis for national planning?
- Do you have any suggestions for improvements?
- If you have not used this tool, have you used any other standardized tools or approaches (e.g. the Performance, Vision and Strategy (PVS) tool)
- If you have a lot to say on the questions above, having it in written form is greatly appreciated

3. Also look at some work from animal health on evaluation, or discuss evaluation tools in general

4. What is phytosanitary capacity and how should we measure it?

Questions to SPTA

The following document was submitted to the SPTA meeting 2-6 October 2006.

Assessment of the Phytosanitary Capacity Evaluation Tool (PCE)

Introduction

A study is being undertaken by CABI on the PCE, which the PCE IWG (April 2005) directed should cover the following areas:

- Critical assessment of the PCE as a needs assessment tool, with recommendations for enhancements.
- Review of the educational value of the tool in training and awareness raising.
- Assessment of the impact on strategic planning at the national level.
- Assessment of impact on other organizations internationally, including IPPC, FAO and donor and development organizations.

To date, nearly 40 NPPOs have responded to a survey on these points and a number of other Key Informants have been interviewed. The team has also reviewed similar tools addressing food safety, veterinary services, biosecurity, SPS capacity, and related broader national objectives (such as environmental sustainability, economic development and poverty alleviation). The draft report will be discussed at the PCE IWG in December 2006, and the final report will be presented at CPM2 in 2007.

This note highlights three broader questions that have emerged during the study, and which are drawn to the attention of the SPTA working group for its consideration.

1. What is phytosanitary capacity?

If a tool is to be used to evaluate phytosanitary capacity in different countries, there needs to be agreement on a concept of phytosanitary capacity that can apply to all those countries, whether large or small, developed or developing, primarily importers or exporters, and regardless of the nature of the plant resources to be protected. Everyone recognizes that economic, political, social and environmental conditions greatly influence what is needed to constitute an effective plant health system, and these differences must be taken into account in the design of an evaluation tool. But it is useful to have a definition of phytosanitary capacity that applies to any country.

Possible definitions (various sources):

- *The national capacity to meet the international phytosanitary obligations of the IPPC and ISPMs, in an efficient and sustainable manner.*
- *The ability to face continually changing challenges in plant health.*
- *The extent to which a country is safeguarded and trade ready.*
- *The ability to continually meet national priorities for the protection of plant resources while facilitating travel and trade.*

The last definition would be widely applicable, but a general definition of phytosanitary capacity needs to be agreed upon by the primary stakeholders.

We suggest the SPTA considers drafting a general definition of "national phytosanitary capacity" for consideration by the CPM

2. What are the objectives of Phytosanitary Capacity Evaluation?

There are various possible reasons why a country might wish to carry out an evaluation of its phytosanitary capacity, and these can change through time. The PCE has been revised over the course of its history in an attempt to keep pace with some of the dramatic changes in the IPPC and in the role of NPPOs. Reasons for evaluating national phytosanitary capacity include *inter alia*:

- To lay the basis for a national strategy and business plan
- To inform and satisfy stakeholders
- To highlight shortcomings and so attract and allocate funds (national or external)
- To convince trade partners of credibility and trustworthiness
- To fulfil (or show compliance with) international obligations (for example for accession to the WTO)
- To assess capacity in a specific area (such as in relation to a specific ISPM)
- To provide feedback to the IPPC and related bodies on the implementation of ISPMs, or other agreements (e.g. the SPS Agreement)
- To contribute to regional or global assessments
- To motivate staff to achieve more
- To monitor progress over time against performance indicators.

While these objectives overlap, the range of situations covered makes it unlikely that a single tool can address them all. Our findings to date suggest that harmonised tools for two distinct objectives should be considered.

a) A standard questionnaire that covers basic components of capacity as a *trade partner* providing public, transparent, verifiable information to form the basis of more detailed bilateral agreements and to consider in PRAs (similar to the approach of the evaluation chapter of the Animal Health Code). [Note: this would probably incorporate existing reporting requirements, and might even extend to components of equivalence agreements as they are harmonised]

b) A tool (or various tools) for self evaluation to consider issues such as efficiency, effectiveness, national priorities, etc, primarily aimed at internal decision making and possibly to attract funds. [Note: the recent Performance, Vision and Strategy tool for plant health developed by IICA could form part of this suite of tools, along with a new PCE]

We ask the SPTA to clarify which objectives and applications of phytosanitary capacity evaluation the IPPC should be supporting through the development of globally applicable tools (and which should be core, versus externally funded)

3. How should the PCE Tool be developed?

The idea of a PCE is still relevant. Ideally a programme of Technical Assistance would include a range of tools in areas such as implementation of ISPMs, cost recovery and efficiency, stakeholder consultation and awareness raising, etc, developed specially or adapted/adopted from elsewhere. Decisions on any further development of the PCE should be made in this context.

Subject to question 2 above, there are three broad options for development of the PCE tool in relation to the range of capacity evaluation needs, objectives and applications.

1. Continue to promote the current tool through training of PCE facilitators, make minor modifications as recommended by the annual IWG meetings, and tie in with all TCPs – ie the status quo.

2. Continue with the same framework, but make major additions such as in the area of training/awareness, mutual recognition, compliance, etc, taking into account those aspects of phytosanitary capacity not currently included.

3. Reformulate the PCE drawing on the existing one, but considering other frameworks, clarified objectives, and desired outputs, as well as other possible tools.

There are different costs associated with the different options which will influence decisions in this regard, but we would suggest that option 3 might prove more cost effective.

We ask the SPTA to comment on options for the future development of the PCE in the broad context of priorities for technical assistance

The draft report could provide more details – including cost and possible funding sources – for any of the options above, taking account of the response of the SPTA to these three key questions.

Annex 5. Survey results

The following is a compilation of all the results from the NPPO survey. All comments are reproduced verbatim except where details would reveal the origin. In those cases, the comment has been edited to preserve confidentiality.

Q5. Has your country completed the PCE?

No	32
Yes	16

a) If not, are there any plans to do so? Please explain.

- We are on the process of the information gathering. Our Plant Protection Service is being reorganized and some of that information is going to be changed in a mean future
- No, NPPO established with appropriate legislation and capacity across continuum of pre-border, border and post-border.
- In due course we are planning to use the PCE, but due to lack of staff this could not be accomplished until now, change in structure of NPPO and modifications in responsibilities were secondary elements explaining this non completion.
- The department is a new structure and we are only in the process of putting things into place. We would complete the form once we have a copy.
- No plans to complete PCE - Assessment of Phytosanitary Capacity are effectively carried out in-work on an ongoing basis.
- At a recent workshop on Pest Risk Analysis organized by FAO, the participants were given a CD with the PCE (tool). It is understood that the questions provided are an important aid for evaluating the phytosanitary system operating in our country. Answering the questions will enable the competent authority to priorities strengths and weaknesses in the current system. The information on phytosanitary legislation, diagnostic capabilities, pest risk analysis assessments, surveillance system, reporting of pest free areas, inspection system, export certification system and information on the institution in general are important issues in determining any corrective short-term or long-term actions that may be needed, for the improvement of phytosanitary system. The Plant Health and Quality Control Service of the Department of Agriculture intend to use the PCE tool, so that by the end of 2006 we will have a complete evaluation of the current phytosanitary system
- No plans, Not been in a position to evaluate the PCE tool, and therefore are not in a position to answer meaningfully to questions 33 and 34.
- Oui, apres la formation qui sera organisee a ce effet dans la zone du Pacifiqque oceanieen.
- Nous Envisageons dele faire si possible avec l'appua de la FAO. Neanmoins, des enquetes internes liees aux problemes phytosanitaires ont pu etre realisees.
- Yes, Scheduled for 2007
- There are efforts and agreement from the top management to take the Laws/Rules of IPPC into consideration since it has a vital role to play in plant resource management.
- The State Plant Protection Service is very much involved in ISPMs setting procedures, especially- the director of State Plant Protection Service, who is participating on Standards Committee (SC) and Commission of Phytosanitary Measures (CPM).
- We are member of IPPC/ FAO-CPM, SPS, OIE, WTO, IAPS-AU, EIC but not officially PCE.
- We have completed and filled in the answers (raw data) for the eleven (11) components of the PCE as well as the IPCE results. However, we have yet to conduct the analysis (SWOT, Logframe Matric and Priority). We plan to conduct the analysis in June or July 2006.
- Yes, we definitely would like to enhance our capacity in all field and awareness and also for policy issues at national level.
- Will not make use of it in the near future. Phytosanitary legislation including requirements for carrying out inspections and official bodies (Including NPPOs) are determined by EU legislation (EU Council Directive 2000/29/EC (http://ec.europa.eu/food/plant/organisms/index-en.htm). The phytosanitary capacities of the NPPO and its compliance with EU phytosanitary legislation are routinely assessed by inspection bodies of the European Commission (The

Food and Veterinary Office). There is therefore no need to consider use of the PCE tool at present.
- Non ce n'est pas programme: On pausait d'abord avoir un appui technique et si possible financier car le pays sort de la guerre de 1994
- Yes, There is need to put in place a National Plant Protection Organisation which will deal with the process.
- Yes, with help of a facilitator.
- Until now no plans, but seems a promising instrument for strategy development -- interesting!
- Il na aucun programme dans ce sens
- I need some assistance on how to conduct the Phytosanitary Capacity Evaluation
- I understand that it was aimed at developing countries
- No plans in the near future
- We are in the process of completing the PCE tool

Q7. Were you part of the team when the PCE was used?

No	5
Yes	11

Q8. Was the PCE facilitated and if so how useful was the facilitation?
- Excellent
- Initiation and explanation
- Very useful

Q9 If the PCE was self-administered,

b) Were instructions for the use of the PCE adequate?

Yes	8
(blank)	8

c) Were the supporting documents contained in the PCE helpful?

Not sure	2
Yes	5
(blank)	9

d) Were the people involved knowledgeable of the IPPC and ISPMs?

Yes	8
(blank)	8

Q10. Who took part in completing the PCE? (List institutions or positions not individuals)
- FAO/UEMOA, Service de Protection des Vegetaux et du controle Phytosanitaire de la Direction de l'Agriculture.
- Ministry of Agriculture, University, FAO Technical Officer, 3 International Consultants
- DG and Deputy Director of the Inspectorate, Ministry of Agriculture (Legislation), Plant Health Laboratory, Plant Health Department, etc.
- Statistical Institute, Private Sector
- Headquarter of National Plant Quarantine Service
- The Department of Agriculture, Agriculture Regulatory Division and the Plant Protection Center
- Entomology Department, Plant Quarantine Staff
- FAO, Federal Ministry of Agriculture and Rural Development (Legal Department), Plant Quarantine Service
- Plant Quarantine Specialist, Head of Plant Quarantine Department, Director of Plant Protection

- Ministry of Agriculture, Plant Protection Service (Central Control and Testing Institute of Agriculture
- Plant Protection Directorate Staff, The National Legal Consultant, The International Phytosanitary Trade Consultant
- Ministry of Agriculture, University, Agricultural Research, Agricultural Extension - crop protection. National Herbarium, Seed Quality Control Services.
- Plant Protection Research and Development Office, Department of Agriculture
- University, Crop Science Department, National Agricultural Research Organization, Department of Crop Protection, Ministry of Agriculture.
- University, The National Farmers Union, Export Growers Association and the Agriculture Research Institute

Q11. How useful would you rate the PCE tool for the following activities (rate each on a scale from 1 = Note useful at all, to 5 = Extremely useful).

Activity	Rating				
	1	2	3	4	5
Gaps in national legislation			3	5	8
Technical human resource needs			2	8	6
Identifying managerial human resources needs		1	5	5	5
Equipment needs		2	4	3	7
Procedural needs		1	1	9	5
Documentation needs			2	8	6
Information needs			2	7	7

Q12. How useful would you rate the PCE tool for the following activities (rate each on a scale from 1 = Not useful at all, to 5 = Extremely useful)

	Rating				
Activity	1	2	3	4	5
Conducting the SWOT analysis of the NPPO			3	7	6
A list of priority actions for developing the NPPO	1		3	6	6
Developing a logical framework			3	5	8

Q13. Are there aspects of NPPO capacity that the PCE does not address?

No	6
Not sure	8
Yes	2

- a) If yes, specify.
  - Capacite d'analyse et de determination au niveau des laboratoires en terme competences techniques et des resources humaines disponibles (diagnostic superficiel)
  - The strategic plan was based on the assumption of changing the institutional structure of PPD which was not possible. This impaired the proper use of the PCE results on strengthening the phytosanitary capacity

Q14. Have the results been presented (in any form) to people within your country?

No	7
Yes	9

- a) If yes, by whom, and for what purpose?
  - Par le Chef Service au Directeur de l'Agriculture qui a rendu compte au gouvernement par une communication adopte en conseil des ministres. Aux fins de rembourser les capacites humanes et en infrastructures et qequipements des postes de controle phytosanitaire.

- By international consultants for training and awareness purpose.
- The Department of Agriculture is as advisor for Plant Protection Center and Agriculture Regulatory Division. The purpose is to clarify to high rank to understand the current status of Phytosanitary Capacity in the country.
- Internal to top Management and will be presented during a National Workshop
- The result was presented to the Honorable Minister, Federal Ministry of Agriculture by the FAO Phytosanitary Consultant for implementation
- By representatives responsible for phytosanitary affairs - to strengthen plant protection structures
- FAO back stopping officer, Phytosanitary Trade Consultant. To create awareness of the policy makers on the need to modernise the plant protection in force of the obligations of the international Agreement and to validate the conclusions of the PCE and proposals for Master Plan
- By the Commissioner, Crop Protection to recruit more inspectors
- Self, for awareness creation and lobby for budget lines from Min. of Agriculture and Cooperatives for phytosanitary purposes

Q15. Have the results been presented (in any form) to people outside your country?

No	10
Not sure	2
Yes	4

- a) If yes, by whom and for what purpose?
  - By DoA, for supporting and decision making
  - The Food and Agriculture Organization (FAO) of the United Nations for the release of fund for the Technical Cooperation Programme.
  - To the TCDC'S, working on the TCP, this was aimed at giving the general view of the country's phytosanitary status
  - By the Department of Crop Protection to request for assistance
  - Forwarded to FAO.

Q16 Has a strategic plan for the NPPO or SPS organizations been produced since the PCE was completed?

No	9
Yes	7

Q17. Has the PCE been re-implemented as a way of assessing progress in capacity development?

No	15
Yes	1

Q18. Have you used any other approaches to assess your NPPO capacity building needs? (e.g. used other assessment tools, strategic planning processes in projects etc)

No	10
Yes	5
(blank)	1

- a) If yes, give details.
  - Acquisition de materiels equipments complementaires pour le controle phytosanitaire (en attente)
  - Developing the internal quality manuals.
  - General governmental procedures - not specific on phytosanitary issues.
  - Periodic assessment of strengths and weaknesses with regard to SPS issues such as regionalization, Pest Free Areas and conditions of importation of our trading partners.

- National Development Plan, National Agricultural Policy and Vision 2030 of the Government.
- Bi-lateral exchange of information at sessions with neighboring countries; representatives

Q19. Is there any other system in place to monitor/evaluate NPPO capacity to meet IPPC obligations?

No	9
Not sure	3
Yes	4

- a) If yes, explain.
  - The system is regularly audited by internal audit at the inspectorate and Ministry of Agriculture.
  - Evaluation based on IPPC documents (ISPMs) and capacity to implement them
  - The use of our SPS Enquiry Point to keep abreast of development in the international trading arena.
  - Internal Project Monitoring and Evaluation System.

Q20. Has the PCE (either through doing it or sharing the results), promoted coordination between different stakeholders in the country?

No	4
Not sure	2
Yes	10

- a) If yes, which groups?
  - Groupe de vegetaux et produits vegetaux (Association pour le D'evelopment des Exportateurs, Conseil National des Exportateurs), - Direction en charge du conditionment et celle de la protection des Vegetaux et le Centre de Normalisation.
  - University, National Agricultural Research Institute
  - Ministry of Agriculture has established a working group on phytosanitary matters including the interest groups in discussions
  - Research and developments unit, exporters and importers
  - Major exporters
  - OIE and CODEX staff responsible for these domains
  - Importers and Exporters of Plants and Plant Products, National and International Research Institutes, Other National Security Agencies operating at the Nation's Points of Entry/Exit
  - WTO accession unit - standards corporate customs, research
  - Stakeholders have been alerted of the shortcomings of the NPPO and are willing to assist improve
  - Inspectors, researchers and private sector

Q21. Has the use of the PCE lead to the development of new or improved phytosanitary legislation?

No	3
Not sure	2
Yes	10
(blank)	1

Q22. What is the implementation status of new or improved phytosanitary legislation?
- Legislation en attente de revision
- It has been translated into two local languages and submitted to the Ministry of Justice for final approval
- Accepted by the parliament
- In draft form
- There is no new or improved phyto legislation yet
- Approved by Cabinet and Parliament, scrutinised by legal drafters, discussed with stakeholders, only final National workshop and gazette.

- The Draft Bill has been endorsed by the Federal Executive Council, and presently with the Federal Ministry of Justice from where it will go to the National Assembly for final approval.
- There is unified phytosanitary legislation at EU level
- The current Act is being reviewed as part of the project
- It is still at parliament level (Still a bill)
- The current bill is under public comments before presentation to Minister of Justice

Q23. Have the results of the PCE been used to make policy decisions in plant health? (e.g. adoption of biosecurity approaches, institutional reforms etc.)

No	5
Not sure	4
Yes	6
(blank)	1

- Par rapport a la gestion des OGM, - Par rapport a la diversite biologique
- Providing the NPPO the required man power, laboratory building in headquarters and office in some points of entry
- Restructuring
- Review of the Legislation/Regulations of the NPQS.
- Establishment and strengthening points of entry, laboratories and training
- The numbers of inspectors increased by 34 new inspectors, and were posted at different exit points. Construction of a phytosanitary laboratory

Q24. After using the PCE have any proposals for phytosanitary capacity strengthening been submitted for funding from the national budget?

No	6
Not sure	2
Yes	7
(blank)	1

Q25. Have any proposals for external funding been written on the basis of the PCE?

No	12
Yes	4

a) Were they funded?

No	5
Yes	2
(blank)	9

b) If yes, by whom?
- Request is yet to forwarded.
- The Netherlands Government
- FAO TCPs

Q26. Have you used the results of the PCE to sensitise policy makers and stakeholders and lobby for improvement of the NPPO?

No	4
Yes	11
Not sure	1

a) if yes, how?

- Redaction de fiches aux autorites administratives et politiques Sensibilisation des acteurs sur la necessite des inspections et delivrance des certificats phytosanitaires.
- By organising policy makers seminars
- As the inspectorate in a multilateral institution, the primary task was to bring the NPPO role in attention of the administration
- Indirectly
- Official request for strengthening plant quarantine and protection have been made
- By means of Internal Memo's to growers and policy makers clearly indicating short comings and areas that needs improvement in order to be an excellent service provider.
- Holding a National Workshop to sensitize stakeholders and the public, and at Seminars, Workshops and Conferences Distribution of Hand-bills and Posters at Exhibitions and World Food Days.
- Creation of awareness amongst policy makers i.e. Minister of Agriculture, Under Secretary Minister of Finance, States where entry points exist
- We are in the process of sensitization of all stakeholders
- A workshop for policy makers was held and it was agreed that a proportion of the collected funds be retained for phytosanitary activities
- Two awareness seminars on importance on phytosanitary service in national development
- The PCE was carried out as part of a project jointly funded by FAO and government

Q27. Have the results of the PCE enabled you to properly understand and promote the needs of the NPPO and to participate actively in discussions regarding the development of the phytosanitary service?

No	1
Not sure	3
Yes	12

a) If yes, how?

- Demande de renforcement du personnel en charge du controle phytosanitaire. Ouverture de nouveaux postes de controle, formation, recyclage du personnel, information sur les NIMP
- The results of PCE helped to identify and prioritize phytosanitary services constraints. NPPO has been dealing with the constraints accordingly.
- Only lately to create awareness on justification of phytosanitary measures
- PCE is a complete revision of the functions of NPPO. Certain functions/ obligations tend to be forgotten
- Writing proposal and explanation during the inter-department meeting
- Have been participating for a number of years in activities of the IPPC, SPS Agreement, I know the contents and obligations under these two areas.
- The country is a member of the Standard Development Committee, and attends meetings of the Commission on Phytosanitary Measures.
- E.g. no adequate phytosanitary measures can be adopted without to diagnostic equipments
- The PCE clearly described the modern phytosanitary service
- Now we know our short comings and what is generally expected of the NPPO
- More inspectors were appointed, the budget for phytosanitary services were increased in 2005/2006 budget
- One has the knowledge of the critical shortfalls and gaps that require addressing

Q28. Is there now more discussion among staff who participated in the PCE regarding the strengthening of the NPPO?

No	5
Not sure	2
Yes	8
(blank)	1

Q29. What would you say the main overall value of the PCE has been to the NPPO?

- Renforcement des capacites du personnel en terme d'effectif, des connaissances techniques (NIMP, etc)
- PCE helped at least to outline a strategy plan for the improvement of the phytosanitary services of the country.
- Good tool for revision of the system shall be undertaken prior to major changes in the structure/ policy/ funding
- No positive support to plant health sector, but more focusing to trade and custom service
- Potentially useful planning tool that need to be adopted in developing the phytosanitary capacity of the country
- Mainly to identify the shortcomings in the current legislation, areas in which capacity building is needed, pave the way for strategic planning in order to strengthen the NPPO to finally meet obligations under various International, Regional and Local obligations.
- Review of the old Legislation/ Regulations, Training of the Technical Staff in Quarantine Procedures and Information Technology, Provision of Laboratory Equipment/ Chemicals and Construction of an Insectory equipped with insect rearing cages.
- We can say because we have not submitted the answers to the questionnaire (PCE) we have not yet received the final report of the results that will suggest a strategic plan for our country.
- PCE provided a complex inside look into the plant protection system (sufficient and educated staff, technical background, appropriate financial funding, co-operation, etc.)
- Now the P.Q Directorate is one of the most important Directorates within the Ministry of Agriculture. More funding is available, more training, better organized and equipped points of entry, more participation in the international fora.
- The PCE has exposed the need to improved on the staffing, legislation and budget for the NPPO
- To highlight the overall responsibilities of the phytosanitary unit (NPPO)
- Noting and bringing to the surface the shortfalls and gaps of the plant health service

Q30. Describe one important action the NPPO has done as a result of using the PCE.

- Renforcement de l'effectif, du perssonnel technique
- Phytosanitary proclamation reviewed and updated, Import permit, Import Inspecting and Export certification operational manual prepared. Training on contemporary phytosanitary measures and PRA conducted. Pest surveillance conducted, some laboratory equipments, inspection and diagnostic equipment procured
- Harmonization of legislation
- Development of institutional capacity to evaluate the need for PRA's
- Overall review on the activities being conducted by our own countries
- Review of the Legislation has enhanced the NPPO's Phytosanitary capabilities.
- Building up of a diagnostic center of bacterial diseases
- Effort have been done to amend the laws concerned about the Quarantine Service to be harmonized with the IPPC provisions, and we hope that these effort will be sooner becomes facts (Insha Alla)
- Focus the direction of the project. Realize the need to charge on services by NPPO. Focus on the strategic plants.
- Appointment of 34 new inspectors, Increased funding by government to construct a phytosanitary diagnostic laboratory
- Lobby policy makers, Draft project proposals with the quantified gaps by the PCE in mind

Q31. Has the PCE had any negative effects?

No	11
Not sure	4
Yes	1

a) Explain.

- Temporary personal communication difficulties due to lack of understanding of discretion of the results
- For instance there is no internal support nor external
- No negative impact has been realized so far

Q32. Please give any other comments on the use of the PCE in your country.

- A useful tool in fulfilling the purpose for which it was designed
- It is relatively helpful
- Currently not effectively used but this needs to be the case for improved planning and management of the NPPO
- The PCE has publicized the phytosanitary activities of the NPPO.
- The PCE made the country not only aware of the importance of the NPPO but also of what is expected of the organization in order to fulfill its obligations.
- If people who are not well versed with phytosanitary activities (NPPO activities) are used as participants in a PCE, it gets poor results.
- It is proposed to be used by the veterinary department

Q33. What modifications would be useful to the PCE?

- a). More questions covering new ISPMs?

	Completed PCE	Not Completed PCE
No	1	2
Not sure	2	5
Yes	12	12
(blank)	1	13

Comments

(Completed PCE)

- Pour faciliter une meilleure comprehension des normes
- ISPM's are basically the operational tools for any NPPO in compliance with the IPPC
- To further clarify the implementation of the ISPM.
- Add questions about the implementation of specific standards i.e. wood packing
- PCE must evaluate how the country contributes in the drafting of standards - stakeholders participation
- ISPMs are always reviewed and new ones made. Most are based on phytosanitary issues that need to be reflected in the PCE.
- More specific questions concerning ICPMs

(Not Completed PCE)

- We still do not have activities regarding some questions
- Cannot answer this question fully without full review of the PCE, and simply do not have time - apologies. Have not reviewed PCE fully, but would consider it vital to assess whether developing countries can implement ISPMs
- Questions covering new ISPMs will help countries identify areas in the new standards they have to work on
- To find the status, capacity, capability to improve the new ISPMS
- We need to implement new ISPM in order to facilitate trade to Europe
- Necessite de developper des projets de normes sur les themes cidessous Guide pour les inspecteurs de quarantine, Reglementation des denrees stockees dans le commerce international, Directives sur la maniere de faire face aux frontieres poreuses / strategies pour le positionnement et l'utilisation des points de controle
- Pour facilites la comprehension de la nouvelle ISPM et son application au miveou national
- Questions sur l'application de nouvelles norms
- No limitations or weaknesses have been observed from the existing ISPM'S

- b). Additional analysis functions?

	Completed PCE	Not completed PCE
No	3	5
Not sure	6	7
Yes	6	6
(blank)	1	14

Comments

(Completed PCE)
- If it will have positive impact

(Not Completed PCE)
- It is considered a good and sufficient questionnaire for starting the PCE in our country
- Comments can be provided after the completion of PCE
- May look into the possibilities on cost-benefit analysis of implementing or conducting an activity
- Need upgrading of human resource
- Tout depend de ces fonctions et de leur impact sur l'aspect sante vegetale

- c). More supporting documentation?

	Completed PCE	Not completed PCE
No	2	3
Not sure	4	5
Yes	9	11
(blank)	1	13

Comments

(Completed PCE)
- Pour une meilleure comprehension la documentation servira de reference pour l'elaboration de l'ECP.
- The PCE proves to be a convenient way of administration of relevant documentation packages all in one
- More supporting documents can only be an advantage
- More compendium of Procedural Manuals.
- Add new standard
- The countries legislation should cover the general basic of the NPPO functions.
- There is not much information on phytosanitary issues
- More explanatory notes on use and coverage

(Not Completed PCE)
- Comments can be provided after the completion of PCE
- Since we are in initial stages of implementation we require more supporting documents
- As a developing country, access to data and documentation is important.
- Pour renforier l'activitie d' evaluation et son impact positif dans l'avenir
- Fournir plus de documentation sur l'evaluation des capacites phytosanitaires
- The documents attached on the tool are sufficient.

- d). Fewer questions on small details (e.g. lab equipment)?

	Completed PCE	Not completed PCE
No	6	7
Not sure	5	5
Yes	4	8
(blank)	1	12

Comments

(Completed PCE)
- Il aurait des questions par rapport- laboratoire, equipement, personnel, maintenance, methods d'analyses etc.
- This can assist countries to ensure that all equipment needed is available
- PCE is adequate in this aspect
- The details are being given to highlight the required support required by the NPPO from stakeholders.
- Comprehensive as annex

(Not Completed PCE)
- Comments can be provided after the completion of PCE
- Questions in this area will help NPPOs identify gaps in their laboratory equipments
- Lot of sophisticated job equipments are required
- We need more questionnaire and details information
- In my opinion, more details information would be better in assisting making the correct/right recommendations and decision.
- As we all upgrading on capacity in analytical methods, we need to be equipped with modern technological tools
- Disposé des équipements (matériels d'analyse, laboratoire) est indispensable au niveau d'un pays ou d'une région pour mieux identifier certains organismes nuisibles tels que les agents pathogènes, certains insectes et faire des analyses de certaines substances nocives telle l'aflatoxine pouvant être présente dans les végétaux et produits végétaux.
- Sur l'equipment de labo, personnel et leur qualification, formation outils de basepour evaluer la sante' vegetale
- We do not have adequate lab equipment and tools. Some officers are not even familiar with the technical terms
- Effectivement des questions sur les equipments de controle phytosanitaire
- Details are necessary to uncover major Problems in the system that could prevent new standards implementation
- Because fewer questions cannot give sufficient information about the NPPO's system of operations in the laboratory

- e). Use in training and awareness?

	Completed PCE	Not completed PCE
No		2
Not sure	1	2
Yes	14	15
(blank)	1	13

Comments

(Completed PCE)
- Meilleures connaissances, son fonctionnement, ses prestations, etc.

- There is still a gap between common knowledge, technical level and political decisions
- The use in training would make it automatic that all persons in the NPPOs and relevant government units such as research development become aware of the PCE.
- Evaluation of need for human capacity improvement is essential.
- If the PCE is used in training, the trainees grasp the SWOT of the phytosanitary services or responsibilities of the NPPO
- To detail target group include policy makers in view of trade

(Not Completed PCE)

- It would be very useful the phytosanitary staff to know which are the gaps and what is needed to do for the improvement of our PC regarding the implementation of ISPM
- We need continuous training to increase the awareness
- Allow the tool to be capable of designing needs/ modules for training and awareness purpose
- Capacity building for one staff is most welcome
- La formation et la sensibilisation des principaux acteurs (chercheurs, douane, opérateurs économiques, décideurs politiques ---) impliqués dans la gestion des végétaux et produits végétaux sont très nécessaires surtout pour les pays en voie de développement.
- Pour minimises les risques, le danger de contamination, dissemination des pestes ou pathogens
- On doit evaluer le degre le formation phytosanitaire des inspecteurs

- f). Use in strategic planning

	Completed PCE	Not completed PCE
No		2
Not sure	3	3
Yes	12	13
(blank)	1	14

Comments

(Completed PCE)

- Utilisation en termes de - prestation a fournir, formation du personnel, planification des equipements a acquerir (acquisition de materiels consommables, etc)
- This would make sure that the needs of the NPPO are known by the planners, and priority needs put forward by the leaders in the NPPO can be supported from a more informed national position and a position when applicable
- The PCE is an indicator of the status core and should assist in giving future direction
- The planning covers almost everything required by the NPPO

(Not Completed PCE)

- It requires technical and monetary support for implementation
- Very useful to design/ develop strategic planning for providing directions or guidance for achieving goals activities as well as priorities of a program/ projects for funding
- This would be useful for policy matter at national and international level
- Mettre de plus en plus l'accent sur les échanges d'informations et le renforcement des capacités phytosanitaires des membres par l'octroi de facilité d'une assistance technique.
- Pour confectionnes les plans d'action des NPPO et leur execution.

- g). Any other modifications or improvements (explain).

(Completed PCE)

- Neant
- It is satisfactory
- May consider to segment the PCE; Manager may want to look only at section concerning management of NPPO. Technicians may look only on equipment appropriate for NPPO etc.

(Not Completed PCE)

- Clear IPPC strategy should be developed on how to use results to obtain and target technical assistance to address phytosanitary gaps
- We will provide further comments, experiences and lessons learnt after the completion of PCE in 2007
- It needs export in the career need field for national capacity building
- We need all information on PCE. We need capacity building
- Tools to cater for the purpose of monitoring and reviewing the phytosanitary system of the country after each stage of implementation of PCE.
- Para la elaboracion de las bases de datos de plagas, deberia tomarse la information de los ONFs. Y no de cualquier autor no official
- Au regard du rôle important que peut jouer l'analyse du risque dans la mise en application de nombreuses normes, les pays les plus avancés dans ce domaine devraient servir d'école pour les autres. En ce cens, des formations axées particulièrement sur la pratique, des voyages d'étude devraient être organisées.
- Renforcement des inspections phytosanitaires des vegetales et products, vegetale ennis sur le marche
- Pas didees

Q34. Please give any general comments you might have on the PCE?

(Completed PCE)

- L'ECP apparait comme une methode d'auto-evaluation qui permet d'apporter des ameliorations en vue d'une meilleure prestation.
- Using PCE was a great experience, and I hope IPPC will continue updating the package
- Need for more directed efforts to advance the adoption through intervention of IPPC in activities of NPPO's and RPPO's
- Training on the use of PCE tools to assist developing countries in the provision of logistics for the implementation of the ISPMs.
- Most ISPMs are too complicated for common use and a new category of people is needed to understand and implement them.
- I think that the PCE is useful way to guide the policy makers attentions to the importance of PQ and that means more offers of finance and funding will be allot
- The PCE is a very important and useful tool. Countries should be encouraged to implement regularly. Please suggest time interval

(Not Completed PCE)

- We are at the first step of PCE. Any possibilities to know advanced experiences would be highly appreciated
- Useful tool for those countries that do not have or are developing their NPPO capacities
- Please send us a copy of the PCE
- Appeared to be of great value if it allows technical assistance to be targeted effectively.
- It is rather difficult at this point to evaluate and provide any comments on the PCE tool, since this has not been used, as yet, in our country.
- Not been in a position to evaluate the PCE tool
- L'utilisation d'un logiciel sur du materiel informatiqque public necessite des autorisations administratives et des droits de propriete. L'inconvenient reside dans le fait qu'il s'agit d'un logiciel a installer sur des outils informatiques don't nous ne sommes qu'utilisateurs et non administrateurs. N'existe't-il pas un outil similaire dans un format excel par exemple?
- We will provide further comments, experiences and lessons learnt after the completion of PCE in 2007
- Conducting training courses at the national level
- Our just recovered from fifteen (15) years civil crisis. We need assistants in any form of development
- We support the use of PCE tool to assess a country's capacity in relation to its implementation of the IPPC and ISPMs. However, we still require assistance to conduct the analysis, preferably experience personnel in PCE to conduct the PCE analysis together with the team from our country.
- We welcome this tool for upgrading our services in order to be at international norms.

- Chaque NPPO doit avoir cet outil d'evaluation des capacities phytosanitaires. Comment pout - on echanger les experiences techniques avec les autres pays a travers scretariat IPPC dans le doirraine de l'evaluation des pestes et leur controle en horticulture, food crops, etc.
- I think the PCE is an important tool which helps to identify weaknesses, strengths and opportunities in our system and aid in addressing them
- PCE tool has very good questions to analyse the current system but for Sychelles a facilitator is needed to talk about details of the question.
- PCE has so far not been treated as a priority activity and should have more importance in the future. It may be a useful intrument to develo a strategy for and NPPO.
- Nous avons besion de saviour lutilite de ECP. Veuillez nous fournir de documentation sur ECP.
- Whilst I've received a copy regrettably no-one here has the time to study the PCE in depth, as we are not intending to complete it
- The PCE creates room for improvement on phytosanitary issues of NPPOs. Therefore it is very important for NPPOs.

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Annex 7. Relevant points from other capacity evaluation tools used for SPS

This Annex provides a summary of ideas relevant to the PCE from existing SPS capacity evaluation and visioning tools. It has been compiled by MM Quinlan from a literature review, interviews and emails of various contributors (references in main report).

ANIMAL HEALTH

The Terrestrial Animal Health Code – 2006

The Terrestrial Animal Health Code comprises the international standards on animal health developed under coordination of the World Animal Health Organization (also known as OIE) and cited by the SPS Agreement. Since 1993 (per Tempelman *et al*., 2003), the Animal Health Code (OIE, 2006) contains a section on Evaluation of Veterinary Services (Chapter 1.3.3), which falls within the chapter on Risk Assessment. The need to evaluate a trading partner's veterinary services as part of the risk analysis process (referred to in animal health as the Import Risk Analysis) is considered essential by the OIE. The section 1.3.4, *Guidelines for the Evaluation of Veterinary Services*, formerly an annex to the Code, comprises around 21 pages of more detailed guidance on how to conduct this evaluation.

Although this guidance was all originally set under the rubric of Risk Assessment (primarily for uses 2 and 3 below) – relating most closely to trade rather than capacity development per se – the material now is cited as appropriate for:

- self-evaluation by national *Veterinary Services* which perceive a need to prepare information for national or international purposes;
- evaluation by a prospective or actual *importing country* of the *Veterinary Services* of a prospective or actual *exporting country*;
- verification or re-verification of an evaluation in the course of a visit to the *exporting country* by the *importing country*;
- evaluation by third parties such as OIE experts or regional organisations.

The "tool", in this case an international standard, outlines topics to be covered in all evaluations. Topics include:

- organisation, structure and authority;
- material (including financial) resources;
- functional capabilities and legislative support;
- animal health and veterinary public health controls;
- formal quality systems including quality policy;
- performance assessment and audit programmes;
- participation in OIE activities and compliance with OIE Member Countries' obligations

Both animal health and veterinary public health are covered, as well as some reference to fisheries. Quality systems and performance assessment and audit programmes are also included in the questionnaire. The only reference to participation in international standard setting is the question of membership in the OIE. However, OIE membership generally implies participation in standard setting, more than membership alone would indicate for some other standard setting bodies. Article 1.3.4.12 enters into more detail on evaluating the statutory body for Veterinary Services, including:

a. objectives and functions;
b. legislative basis, autonomy and functional capacity;
c. the composition and representation of the body's membership;
d. accountability and transparency of decision-making;
e. sources and management of funding;

f. administration of training programmes and continuing professional development for veterinarians and veterinary para-professionals

A Model Questionnaire is included as section 1.3.4.14, which may apply to evaluations for trade or self evaluation purposes. This section has been revised significantly in recent years. This may reflect the expanding vision of Veterinary Services as going beyond animal disease control to encompass public health, animal welfare and control of risks along the food chain.

The section on Evaluation clearly carries a judgemental aspect in line with its use in risk analysis and for the establishment and maintenance of confidence in a country's Veterinary Services. It clearly states that a country that is not meeting the requirements of the OIE will necessarily have to provide more evidence of trustworthiness, for example in regard to freedom from a disease, than will a country that has consistently shown itself in compliance with the requirements of the OIE.

The revision of the Animal Health Code is part of the on-going standard setting process, so that updates to this section will be funded through those same channels. There is no estimate of cost to prepare the original section, which is now some years old.

Although the guidance from this chapter appears to be relevant to all trading countries, as recently as 2004 OIE staff interviewed for a related project could not share any specific country experience of applying this tool for evaluation of trading partners or for self evaluation. Apparently, records of the outcome of such an evaluation are not routinely shared with OIE. The current text states that the use of any self evaluation report is at the discretion of the country itself. Reviews by importing countries or by third parties (e.g. consultants for development projects) should be transparent, but there is no repository for this type of report that would be available to other countries, as far as an outsider can ascertain. In 2003, invited papers on evaluation appeared in an edition of the OIE publication ***Scientific and Technical Review***. One of these papers referred to the use of the standard on evaluation, and is discussed immediately below.

Quantitative criteria for evaluating national Veterinary Services

The official OIE approach to evaluation of Veterinary Services is, in most instances, qualitative, although there are more quantitative indicators than in the past. It remains unspecified how to incorporate the results of the evaluation into the Import Risk Assessment. There have been some unofficial attempts to incorporate the outcomes by introducing some criteria that can be assigned in the evaluation process. One approach suggested that scores be assigned to each response, so that a country showing total compliance would score 100, and absence of any compliance would be ranked as 0 (Stark *et al*., 2002; Toma *et al*., 1998). A subsequent study attempted to validate a set of quantitative criteria, which would be less arbitrary than the earlier proposals. This study (Tempelman *et al*., 2003) was based on the hypothesis that "quantitative criteria for the evaluation of national Veterinary Services can be obtained and used for quality and performance classification, or for their accreditation". Thirty-eight countries responded in full to the questionnaire consisting of 78 questions in total. Responses were validated using other sources of information. After analysis of responses, some of the questions were found to be poorly formulated, but others were simply not suitable for use. While this effort has not advanced beyond the initial study, the idea of developing a validated questionnaire is worth considering as the results of these evaluations affect trade and international relations. The statistical methods used may also be of interest if a plant health questionnaire is tested.

There are also specific questions in this study that may warrant inclusion in other tools. For example, how new staff is recruited, the use of cost benefit analysis, the methods used for internal and external communications, and questions on research.

Performance, Vision and Strategy (PVS) for National Veterinary Services

While the chapter on evaluation in the Animal Health Code is an international standard, it was agreed by OIE staff and subsequently with the member countries that the Performance, Vision and Strategy tool, discussed below, plays a valuable role in capacity assessment and development. The PVS will not replace the evaluation process described in the OIE guidelines. The PVS is supposed to be an aid to those not necessarily evaluating, but more importantly assessing needs and developing public/private sector action plans. The headings in this document are:

1. Technical capability
    a. Diagnostic
    b. Emergency response
    c. Quarantine
    d. Surveillance
    e. Emerging issues (capacity of being forward looking and pro-active or anticipate issues)
    f. Risk analysis (assessment, communication and management)
    g. Technical innovation
2. Human and financial capital
    a. Human capital
    b. Training and training plans in place
    c. Funds and financial sources
    d. Stability of policies and programs
    e. Technical independence
    f. Capability to innovate and grow
3. Interaction with private sector
    a. Information (info given to private sector)
    b. Communication (two ways: from and to private sector)
    c. Official representation
    d. Accreditation
    e. Capacity to respond
4. Access to markets
    a. Compliance with norms (enforcement capacity)
    b. Setting regulatory norms
    c. Harmonisation
    d. Certification
    e. Equivalency agreement
    f. Traceability
    g. Transparency
    h. Regionalisation

This is not an evaluation tool in the strictest sense of the term, but rather a tool for pointing the Veterinary Services in the right direction.

The concept behind the PVS is that, without a vision and strategy agreed upon by the public and private sector, additional investment into Veterinary Services capacity will not necessarily result in improved services. This was validated by studies by IICA a few years ago when they looked at how advanced the National Veterinary Services were and whether loans had made any difference. At that time, there was a sense that good performance consisted of eradication, emergency response and quarantine, but little else. This vision of the role of a NVS has since expanded (as mentioned above). It was also felt that completion of a full evaluation survey is complicated and puts demands on resources. It is also public sector driven and does nothing to unite that service with the private sector. Furthermore, the very idea of an evaluation may create a sense of judgement and criticism that does not

contribute to imagining the future. The development of the tool was also in the context of Latin America, where the Minister of Agriculture in most countries changes on average every 15 months!

The tool was developed initially by a group of IICA technical experts led by Dr. Kevin Walker, formerly at IICA and now back in USDA/APHIS. The original funding came entirely from IICA's core budget. The tool was first tested in Mexico and Central America. In Mexico, for example, consultants were hired to act as facilitators of the process and the tool was revised based on the experience. The application of this tool in all Central American countries is complete. IICA has applied this instrument in several other countries of the Americas (e.g. Andean countries) with good results. The tool has now been used in 13 countries in the Western Hemisphere (see below under the OIE project for African experience).

Its use and effectiveness depends a lot on the interests and objectives of the individuals and the national services that use it. The tool has been field-tested using a facilitator and there are plans to prepare a training package and facilitators' manual to support consistency in its application. If the interested parties will take the time to read through the instrument, however, this alone provides an important service and first step. In this way, the tool does not require a facilitator, but can benefit from one.

Initial experience in the Americas showed that the tool serves a strong educational and awareness role with ministers of agriculture who often come into their positions with limited understanding and comprehension of what their national services are and should become. For the private sector, the PVS process is sometimes the first time they have seen how globalization and national services come together. For the public sector they are able to see beyond their traditional roles and understand the importance they will have in the future.

From this first initial awareness, several paths have begun to emerge and the rate of progress by countries is again variable. For example, a Chief Veterinary Officer (CVO) can use the PVS instrument as a benchmark to gauge progress, set the vision and begin working internally with his own people. Another example has been when the different sectors (public and private) have filled out the instrument and then come together to share the results. It is this conversation that has been most insightful. In general, the private sector does not see the same level of performance as the public sector. Having a facilitator has helped in discussing these differences and using the different levels contained within each variable as a language for this conversation. At this point, leadership on the part of the CVO or between the CVO and the private sector becomes more critical. In this there are variations but the facilitator's role does not take the place of the leadership role.

The countries that seem to get the most out of the process see that improvement begins with agreement as to the variables of greatest concern and then mapping specific actions for all parties to move to that next level. Down the road the instrument will help set the stage for investment and IICA has already seen examples where the private sector has stated a willingness to make that investment for certain variables. Also, the PVS has helped to promote an increase in social capital, helping to build a greater level of trust and cooperation than has existed.

The next step for IICA is to see what can be done so that this social capital grows and there is accountability and a new orientation put in place. In 2005, IICA reported interest in adding some component that looks at opportunity/costs, providing a rough formula to use for communicating effectively with decision makers outside the field.

OIE African Project

After this initial development, the PVS was adapted for use by the OIE using STDF funding ($37,000). Additional STDF funding allowed OIE to test its applicability to African countries

and revise it further, and to carry out training (which was funded to around $460,000). Finally, in late 2006 OIE has made minor adjustments for the terminology, for example, to be more in line with the Animal Health Code. This latest version of the tool was officially adopted by the OIE membership and is accessible on the website under "veterinary services".

Reports on experiences in Africa were not yet available, beyond an interview with a facilitator and the general endorsement by OIE. Information from the application of the PVS tool is not recorded by the OIE on a country basis, according to their staff, but aggregate information is taken and shared. (IICA has collected some of the quantitative and qualitative data from their use of the tool.)

Future use
IICA has some different views on how to use the instrument than what is evolving through OIE, so it would be worth discussing this in more depth with both bodies before proceeding with links between the PCE and the PVS for NPPOs if that course is chosen. One of the strengths of this tool is that various versions may be developed working from the original concept. The tool can be revised easily and the number of the version is noted on the back cover (similar to software). Criticisms of the tool have been that it is too "simplistic", since it relies entirely on expert opinion and is geared towards non-veterinarians (as well as vets). Others find it an elegant tool that allows for a fairly accurate view with minimal investment of resources, so that efforts can be focused on the priorities identified after the consultation.

PLANT HEALTH

Performance, Vision and Strategy (PVS) for National Plant Protection Organizations (NPPOs)

IICA and collaborators imagined that the success of the PVS in animal health could be duplicated for use in the phytosanitary arena. At first, the author of this note naively imagined that it would require only minor edits to the animal health version. In fact, differences in concepts and culture came through, so that various versions were prepared and peer reviewed before an initial version was presented to the IPPC Secretariat in 2006. This tool has now been tested with plant health organizations in some countries of the Andean and Southern region. It has been a valuable experience resulting in clearly stated goals of what the country proposes to accomplish following the creation of a common vision with the private sector.

The current version has the following table of contents (italics indicating a difference from the animal health category, although it may simply be a difference in version numbers):

1. Technical capability
    a. Diagnostic
    b. Emergency response
    c. Quarantine *exclusion*
    d. Surveillance
    e. Emerging issues (capacity of being forward looking and pro-active or anticipate issues)
    f. Risk analysis (assessment, communication and management)
    g. Technical innovation
2. Human and financial capital
    a. Human *talent*
    b. Training
    c. Funding sources
    d. Stability of policies and programs
    e. Contingency funds

    f. Technical independence
    g. Capability to *invest* and grow
3. Interaction with private sector
    a. Information (info given to private sector)
    b. Communication (two ways: from and to private sector)
    c. Official representation
    d. Accreditation
    e. Capacity to be responsive *to user needs*
4. Access to markets
    a. Compliance with *regulatory* norms (enforcement capacity)
    b. *Formulation* of regulatory norms
    c. Harmonization
    d. Certification
    e. Equivalency agreements
    f. Traceability
    g. Transparency
    h. Regionalization

The status of testing this tool is not known in detail, but it has been accepted by the IPPC Secretariat as a useful tool, complementary to the PCE, and has been employed with some variations by a new USDA/USAID project in Africa. Initial impressions are that it is far easier to apply than the PCE and requires far less resources. As with the PVS on animal health, however, there is still a need identified for a more detailed tool. It is worth considering whether detailed modules of questions similar to the current PCE, linked to existing resources, and with greater consistency in the hierarchy of questions might be derived directly in line with the categories in the PVS.

The cost of developing the PVS for NPPOs was an estimated $20-25,000. An USDA/APHIS staff person made significant peer contributions at no cost.

The EC Food and Veterinary Office's (FVO) Plant Health Sector

A European plant health inspectorate has existed since 1993 with the purpose of reviewing adequate compliance with regional phytosanitary legislation and regulations in all member countries. There are 6 full time staff in this sector. This became part of the EC's Health and Consumer Protection Directorate General's FVO subsequently and is based in Ireland. A description of a typical country inspection mission for monitoring the delivery of plant health controls across Europe appears in Christoffersen (2005).

The group considered the PCE but found it inappropriate to their situation and created some similar types of questionnaires, each tailored for the specific plant health controls to be evaluated in a given inspection mission or inspection mission series. There is not yet a single unified questionnaire, for example, but there is an extensive, detailed and tested procedures manual that applies to other fields as well and covers the process of setting up, conducting, reporting on and following up after an inspection mission. (This documentation is not public.) This guidance assists in providing uniformity and clarity, while facilitating appropriate advance preparation and follow up in particular.

The purpose of the inspectorate is to audit compliance with the EU legislation. This is done by evaluating the output, in many cases of required surveillance and reporting programs for regulated pests, as well as the infrastructure. There is also an aspect of getting a feel for whether there are sufficient resources available, how the overall mechanism is working and so forth. Another important role is to provide feedback to the EC as to the appropriateness of the policies and regulations, and any systemic weaknesses in the rules. A third role is to identify new issues arising that may require additional or changes to legislation at a regional level. These later two roles are shared with the NPPOs of the member countries and other staff of the EC.

In theory, all countries will be reviewed in on a rotating basis. Priority is given to missions to countries of strategic importance to the region in terms of volume of trade, for example, ones that were found to be weaker in previous reviews, and those producing poorer quality reports to the EC. Of course particular outbreaks or introductions may also lead to a review. Export certification is not presently covered by regional legislation. There has been a shift from more fragmented reviews of controls of specific pests or single outbreaks to audits of control systems for a wider sector, e.g. plant health controls in the potato sector or import controls. The result of a mission is a mutually agreed report and action plan, which is periodically monitored by the inspectorate.

Regular missions include an expert from a previously-inspected Member State as part of the team. This is an interesting practice also followed by the new European Centre for Disease Control in their human health system inspections. It is a way to remove the stigma of being audited, as one then becomes the expert/inspector. This also provides exchange of ideas across the region.

Although this is a primarily compliance process, there is no record of any of the member states using the legal avenue to “charge” another member state with negligence in their phytosanitary duties (a discussion of this option appears in Mumford *et al*. 2000).

Average cost of a mission is very high. A typical inspection requires two inspectors and lasts one-two weeks. Because the inspection reports are published on the internet, they need to pass through a substantial process of quality control. Preparation and follow-up of inspections also takes substantial time. To be able to do proper inspections, the inspectors also need to keep their technical knowledge up-to-date. Thus, the staff can only devote around 75-80% to inspections. With the described constraints and requirements 20 - 25 inspections per year is the maximum work load for the existing staff.

Although the EU is not a realistic model for many other parts of the world, they have faced a large increase of size (ten new member states, with two more in the process of accession) with more variable plant health services over the past decade in particular. It is also unique in having this detailed regional knowledge. Furthermore, it was noted that some countries that appear to be highly developed have so few central staff that there is poor national coordination among the stronger regional offices and lower quality reporting. The group has also been called upon to work with non-EU countries to address particular concerns in existing imports or to evaluate the situation before allowing a new import trade of previously banned commodities into the EU. For example, missions have been conducted to Israel, Argentina, Brazil, Uruguay, China, South Africa, USA, Egypt, Thailand, Cuba, Canada, Chile, and Lebanon at the instigation of the EC, but with full cooperation of those countries.

Probably the most relevant point of value to the IPPC process is that this model provides a consistent and systematic approach to reviewing a surprisingly diverse range of NPPOs. The aim of all the detailed procedures for missions is to achieve a higher and more consistent level of plant health control within the EU and from its trading partners.

FOOD SAFETY

Until recently, FAO did not have any formal capacity evaluation tools for food safety and quality in the past, but has used some profile forms/ questionnaires, etc to gather some components of this information. The FAO Food Quality and Standards Service of the Nutrition and Consumer Protection Division has prepared several useful publications and other training material related to food safety. These include guidelines in particular sectors

(e.g. fresh fruit and vegetable, FAO undated) and for particular methodologies (e.g. HACCP, FAO 1998, and specifically for mycotoxins, FAO 2003b).

Strengthening National Food Control Systems: Guidelines to Assess Capacity Building Needs.
The Guidelines focus on the role of government agencies within a comprehensive food control system. They build on and complement the earlier FAO/WHO *Guidelines for strengthening national food control systems* (FAO Food and Nutrition Paper (FNP) No. 76) which focus on the development of an efficient, integrated regulatory system for food control based on transparency, a farm-to-table approach and the involvement of all the concerned stakeholders. Together, these two publications bring together current knowledge of the requirements of a modern food control system and guidance on how best to identify the capacity building needs in order to develop and implement such an improved food control system.

The tool seeks to "identify, analyse and prioritise", so it is not simply an evaluation tool. It seems to be more of a mix between the evaluation and visioning tools. Each module has been designed to stand on its own. This is done in order to allow a country to carry out work on a particular area without, possibly, addressing all aspects of a program simultaneously.

The most striking difference between these guidelines and the PCE and PVS for Veterinary Services is the inclusion and explanation of the possible process for carrying out the capacity review. For example, one of the most noticeable attributes of this tool is the attention given to describing capacity and the process for assessing it, and the extensive section on tools and techniques. The latter is a concise description of how to use focus groups, SWOT analyses, do Venn diagrams, regulatory impact assessment, and cost benefit analysis. Further resources are listed. Although only a page or two on each, this description is important to give confidence to the user, who will find more detailed suggestions in the body of the assessment tool. Some similar level of explanation is sorely needed for the PCE's analytical methods.

The main body of the publication focuses on four core competencies:
- Food control management
- Food legislation
- Food inspection
- Food control laboratories

These are the building blocks of a modern food control system as defined in FNP No. 76.

The principles for conducting an assessment that appear in the introduction on capacity (see Table 8 in our report) are followed in each of these modules so that a section describes the steps required as well as the technical topics. Helpful information is presented on:

⇒ Establishing a team for the assessment
⇒ Defining the scope
⇒ Gathering and analyzing the information
⇒ Reporting and discussing findings
⇒ Defining the desired situation in the medium term
⇒ Identifying capacity building needs (in line with above)
⇒ Determining options (actions)

The attention given to the process of conducting the assessment makes this a superior tool. The information would not be incompatible with the use of other tools. For example, if such a guide were developed for plant health, the specific details on how to conduct a stakeholder analysis might be supported with the PVS, rather than only a Venn diagram.

This tool was developed in consultation with that department of FAO with the contracting of an individual consultant who worked on it for approximately 5 months (spread over the course of year, with other duties). The peer review of the tool, in India in 2005, cost less than $25,000 (including an honorarium for each of the 8 invited participants). A key factor in the success of a tool may be the provision of funding to implement the tool in various countries. Funds have been available to support implementation of evaluations on Biosafety (GM) through the GEF supported work, for example. The FAO Food Safety tool does not have funding assigned for implementation in various countries at this point.

BIOSECURITY

The FAO has described biosecurity in this manner:
"Broadly speaking *Biosecurity* describes the concept, process and objective of managing - in a holistic manner - biological risks associated with food and agriculture, with "agriculture" used in its broadest sense to include agronomy, livestock husbandry, forestry, fisheries and related environmental aspects. *Biosecurity* encompasses all policy and regulatory frameworks (including instruments and activities) to manage risks associated with food and agriculture (including relevant environmental risks). *Biosecurity* is composed of three main sectors, namely food safety, plant life and health, and animal life and health. These sectors include food production in relation to food safety, the introduction of plant pests, animal pests and diseases, and zoonoses, the introduction and release of genetically modified organisms (GMOs) and their products, and the introduction and safe management of invasive alien species and genotypes." (FAO website)

This tool was designed to supplement assessment tools in the three main component areas: food safety, animal health and plant health. It therefore refers to the PCE without entering into any detail about how those results might link with this new tool.

The same consultant who worked on the food safety tool was retained to draft this document. This took approximately 3 months time. A draft of the tool was pilot tested in two countries with a budget of $30,000. A peer review was carried out in Rome, at a cost of around $25,000. The main text, the Biosecurity Capacity Assessment Tool, is in final draft with the comments from peer review now incorporated.

As part of the same project, a manual to assist countries in utilizing a *biosecurity* risk analysis concept in establishing national legislations, standards and policies in the areas related to food safety, plant and animal health and biosafety, including forestry and fisheries. This is under preparation by a New Zealand consultant and should be ready early 2007.

RISK BASED INDICATORS

In order to highlight the need for appropriate indicators when revising the PCE, the example of some risk based indicators (rather than level of effort indicators), appears below. This approach probably is most useful for the self evaluation exercise, rather than looking at trade partners.

Objectives and questions for potential performance indicators

Objectives in likely priority order	Questions for potential performance indicators
Protection of existing domestic agricultural, horticultural and forest producers from outbreaks of invasive species	Is the risk of invasion reduced? • Hazard reduced in absolute terms (frequency element of risk) • Hazard reduced in relation to exposure (i.e. volume of trade, changes in risk pathways, establishment opportunities affected by climate, areas and types of crops, growing practices, etc) • Consequences reduced in relation to market conditions, susceptibility to hazard, etc If "key" invasive species are used as an indicator of overall performance are they representative of the general risk in the hazard and consequence analysis above? • Entry and establishment pathways • Ecological types (success, dominance, impact) • Stakeholder groups/market sectors/risk acceptance conditions • Management (monitoring, prevention, diagnosis, control) options Is an acceptable level of risk exceeded? • What is an acceptable level of risk? • What alternative mitigating measures could be used? (compensation, insurance, etc) Are specific protection actions effective and efficient? • General monitoring (statistical basis relevant to appropriately justified key species?) • High-risk monitoring (statistical basis relevant to named species?) • Prevention at entry (proportion of consignments/passengers inspected reflects acceptable risk?; detection rate is adequate?; disposal is effective?) • Diagnosis (speed and accuracy is adequate to allow practical responsive action?; precautionary principle applies to uncertain diagnoses?) • Eradication and containment (are there guiding principles on duration of containment, for example expected annual value of delayed spread>annual cost of containment?; willingness of stakeholders to contribute to containment?; prediction of likely success of eradication?; guiding principles on value of eradication, for example net present value over agreed timescale, willingness of stakeholders to share/cover eradication costs?; political pressure from trading partners, etc?) • Licensing importers (records of any breaches of license agreements or resulting outbreaks?)

Objectives in likely priority order	Questions for potential performance indicators
Support for other government departments/agencies with related environmental protection roles	Does the quarantine agency have appropriate capacity and comparative advantage to contribute to reducing risk of non-agricultural invasive species?
Support for produce exports and domestic trade through official certification	Does the quarantine agency operate a certification scheme that meets international standards, prevents justified rejection/complaints and defends unjustified rejections?
Compliance with statutory requirements	Have the requirements been met as specified?
Compliance with international agreements	Have the agreements been met as specified?
Compliance with contractual obligations to provide quarantine related services to the agricultural industry	Has industry participation been maintained or extended?
Sound technical and economic management • Contribution to policy development • Contribution to scientific understanding • Contribution to economic assessment • Contribution to operational effectiveness • Contribution to trading partner capacity to reduce risks	Has the national position and capability been represented internationally? Are internationally accepted scientific bases for risk assessments complete for all organisms of concern? Is there R&D output that is demonstrating a contribution to policy development, scientific understanding, economic assessment, operational effectiveness, or trading partner capacity to reduce risks in trade?
Compliance with government administrative efficiency requirements	Have any government imposed targets been met within constraints of meeting operational objectives?

Extracted from Mumford *et al*. (2000).

Detail from a draft product export-based capacity tool

Capacity evaluation based on a single potential export product, or group of products, is probably not the best option for the IPPC. This approach has been central to many development efforts, however. Thus out of interest some detail from one draft tool is shown below. The first table groups products, the second shows what regulations may apply. This particular example is for all SPS, not only plant products.

Product groups	**Proposed subgroups with similar regulatory issues**
Fresh and Processed Fruits and Vegetables	• *Fresh fruits (fruit fly zones, with or w/out treatment)* • *Fresh fruits (fruit fly free)* • *Frozen fruits* • *Processed fruits or vegetables, including juices* • *Fresh vegetables (leafy, solanacea, brassica, green beans, etc)* • *Frozen vegetables* • *Tubers (potatoes, yams, yucca, etc)*
Fish and Fish Products	• *Fresh or frozen fish (wild)* • *Fresh or frozen fish (farmed)* • *Semi or fully processed fish for human consumption* • *Fresh or frozen shell fish, including shrimp* • *Processed shell fish (e.g. tinned)* • *Fish meal, processed for animal feed, etc*
Live Animals and Meat Products	• *Live cattle, swine, poultry, etc* • *Eggs* • *Live semen* • *Milk and other dairy products* • *Fresh or frozen meat products* • *beef; pork; poultry; other farm reared* • *Game and bush meat* • *Processed meats (tinned, sausages, salamis, etc)*
Spices and Nuts	• *Dried spices (irradiated)* • *Dried spices (not irradiated)* • *Semi-dried spices (e.g. vanilla, chilli peppers)* • *Tree nuts*

Cereals, Oilseeds, and Animal Feed	• *Wheat* • *Rice* • *Corn (Maize)* • *Other cereals (barley, rye, sorghum, etc)* • *Sesame* • *Other oilseeds* • *Peanuts (ground nuts)* • *Cereal-based animal feed (no meat products)*
Cut Flowers, *ornamental plants and propagative materials*	• *Cut flowers (no soil) and decorative leaves, ferns and branches* • *Ornamental plants, greenhouse plants and landscape plants for planting (no soil)* • *Forestry, agricultural, pasture or other nursery stock for mass planting and distribution (no soil)* • *Either of above, with soil* • *Bulbs, corms, flower tubers* • *Potato tubers (certified)* • *Germ plasm for propagation* • *Other materials for planting*
Coffee, Tea, Cocoa	• *Coffee beans* • *Packaged coffee (roasted)* • *Tea leaves* • *Packaged tea* • *"Herb" tea (including children's drinks)* • *Cocoa beans (dried)* • *Chocolate and cocoa butter products*
Timber/Wood Products	• *Raw timber (with bark)* • *Barkless timber* • *Treated timber* • *Wooden pallets, packaging and dunnage* • *Wooden handicrafts* (pressboard and other processed products or paper products are generally not subject to SPS)

Column 1, Product Group (*except for words in italics*), taken from World Bank (Jaffee S and Van der Meer C), draft in 2005, unpublished. Standards and Trade: An Assessment Tool for Analysis and Determining Capacity-Building Priorities, Sample Terms of Reference for Country Studies, World Bank. Column 2 was prepared by Quinlan in 2005. Both in draft, and not yet peer reviewed.

Determining SPS requirements – what to look for (Illustrative Standards and Technical Requirements)

PRODUCT GROUP	STANDARDS, REGULATIONS, OR PRIVATE PROTOCOLS RELATED TO ….				
	FOOD SAFETY	ANIMAL/PLANT HEALTH	QUALITY OR TECHNICAL ATTRIBUTES	ENVIRONMENT	SOCIAL
Fresh and Processed Fruits and Vegetables	Pesticide residue limits Microbiological standards Traceability requirements Hygiene requirements Controls on additives	Plant material quarantine Pest risk analysis needs Fumigation requirements	Quality grades General labelling requirements Nutrition labelling Packaging standards	Pesticide use restrictions Regulations on water/soil contamination Codes for organic practices and certification	Monitoring of child labour Occupational health standards
Fish and Fish Products	Microbiological and foreign matter standards Factory hygiene standards	Bans/restrictions on antibiotic use in aquaculture	Quality grades Labelling requirements Packaging standards Boat crew regulations	Protection of specific species Fish catch restrictions	
Live Animals and Meat Products	Veterinary drug residue limits Microbiological standards	Disease-free areas Disease surveillance Restrictions on use of veterinary drugs and growth promoters Traceability of animals	Quality grades Labelling requirements Packaging standards	Codes for organic practices and certification Regulations on animal waste effluent	Animal welfare monitoring
Spices and Nuts	Pesticide residue limits Microbiological standards Mycotoxin limits	Fumigation requirements and restrictions	Quality grades Consumer pack labelling requirements Packaging standards	Codes for organic practices and certification	
Cereals, Oilseeds, and Animal Feed	Microbiological standards Pesticide residue limits Mycotoxin limits	Quarantine requirements Fumigation requirements or restrictions	Quality grades GMO labelling Restrictions on animal feed ingredients Product content and nutritional labelling	Biosafety regulations (for GMOs) Codes to limit biodiversity loss (i.e. oil palm) Codes for organic practices and certification	

taken from World Bank (Jaffee S and Van der Meer C), draft in 2005, unpublished. Standards and Trade: An Assessment Tool for Analysis and Determining Capacity-Building Priorities, Sample Terms of Reference for Country Studies, World Bank

Annex 8. Other sources of information

International Phytosanitary Portal
https://www.ippc.int/ipp

International Portal on Food Safety, Animal & Plant Health
http://www.ipfsaph.org/

WTO Gateway on SPS Measures
http://www.wto.org/english/tratop_e/sps_e/sps_e.htm

World Bank – Topic on Trade
http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/TRADE/0,,menuPK:176760~pagePK:149018~piPK:149093~theSitePK:239071,00.html

Standards and Trade Development Facility
www.standardsfacility.org

Doha Development Agenda Trade Capacity Building Database
http://tcbdb.wto.org