

Findings of the general survey of the International Plant Protection Convention and its Standards

Survey results from October 2012 – February
2013



Executive Summary

Background to the Evaluation and its Methodology

The generous support of the European Commission (EC) has allowed the Implementation Review and Support System (IRSS) to function on a project basis from 2011 through March 2014. The project aims to address discussions on the role of compliance in the IPPC and comes in response to a growing interest in the extent and impact of implementation of the IPPC and its standards. This interest has been raised by donors, the Commission on Phytosanitary Measures (CPM), and IPPC subsidiary bodies. CPM-3 (2008) agreed to take a cooperative, non-confrontational approach for reviewing contracting parties' implementation of the IPPC and its ISPMs and providing support to improve implementation. This option was selected as an alternative to measuring compliance, and the IRSS is the outcome of that decision.

When the IRSS project began, the decision was made to have a general survey to provide baseline information on contracting party implementation of the IPPC and its standards. The objectives and scope of this general survey were agreed with Secretariat and subsidiary involvement in the early stages of IRSS activities.

The IPPC general survey has 2 main objectives. These are to evaluate the:

(i) overall implementation of the obligations and responsibilities described in the International Plant Protection Convention and (ii) the overall implementation and contracting parties' prioritization of the 36 International Standards for Phytosanitary Measures (ISPMs) of the IPPC for IPPC contracting parties.

This review is intended to serve as an input towards the programme of work of the Capacity Development Committee, the Standards Committee, and the Secretariat's National Reporting Obligations' team. It will also be a major input towards the IRSS' triennial implementation review report which will summarize the 3 years of the projects' outputs and activities.

The methodology used to conduct the review included a questionnaire survey to which there were 73 contracting party responses. IPPC Secretariat and several members from the IPPC Subsidiary Bodies provided input on the design of the survey which covered IPPC implementation of the general provisions set forth in the Convention as well as the 36 ISPMs. The review is based on primary data from NPPO Contact Points and their experiences, including knowledge and judgements from IPPC Secretariat staff.

It should be noted that some constraints arise when analysing contracting party data. To-date, there is little published data on IPPC contracting parties' implementation of the IPPC and its ISPMs with the exception of IRSS surveys conducted on specific standards thus far (IRSS surveys on ISPM4: (1995) *Requirements for the establishment of pest free areas*, ISPM6 (1997) *Guidelines for pest surveillance*, ISPM8 (1998) *Determination of pest status in an area*, ISPM13 (2001) *Guidelines for the notification of non-compliance and emergency action*) and IPP data on basic reporting obligations. IPPC use of Phytosanitary Capacity Evaluation (PCE) phytosanitary and trade data is up to the discretion of the Contracting Party and due to the sensitive nature of the information, oftentimes, PCE data is not divulged sufficiently enough to ensure a substantial sample size of data. Additional constraints include difficulties in the collection of data related to costs, time constraints due to the time-sensitive nature of the IRSS project cycle, and low numbers of respondents to the survey. Misinterpretations of survey questions and the consequent validity of responses are also limitations to the survey questionnaire methodology.

Taking into account IPPC members as a percentage of the total IPPC members in each region, regions with the highest response rates from IPPC members were the Southwest Pacific (61% of IPPC members responded) Europe (44%) and Africa (42%). By income group, the majority of responses came from the lower middle income countries and upper middle income countries. Lower response

rates came from high income non OECD countries and low income countries. In total, forty-percent of IPPC contracting parties participated in this questionnaire survey.

This report has been structured around key implementation areas of the IPPC. These thematic groupings were conceived during the Framework for Standards meeting held in September of 2013.

Key findings from the general survey are organized under the following implementation areas:

(i) Rights and Obligations under the IPPC Convention, (ii) Principles and Policies of the IPPC Convention, (iii) Pest Status, (iv) Pest Risk Analysis, (v) Pest Management, (vi) Import and Export regulatory systems, and (vii) Diagnostics.

The study revealed a very strong contracting party orientation towards the implementation, priority of, and technical assistance received towards import and export regulatory systems and their related IPPC standards. For pest status related standards, pest management related standards and in some regions, pest risk analysis standards, implementation is limited. Pest risk analysis standards are ranked as relatively high priority, and countries have received technical assistance towards these standards, however pest risk analysis is not reported as amongst the higher implemented standards of the IPPC.

Key Findings

Standards related to the rights and obligations under the IPP Convention

- while contracting parties are transmitting basic NPPO information on the IPP, there is a need for greater updating, and consistent maintenance of information when changes to NPPOs occur.
- Contracting parties also consider that there is a need for further exchange of information between contracting parties in regards to the reporting of occurrences or outbreaks of pests of potential immediate danger, and the exchange of information between importing and exporting countries in the event of a significant case of non-compliance.
- Several countries are also not making phytosanitary requirements, restrictions and prohibitions publicly available to contracting parties.
- Most countries consider the reporting of pests (ISPM17 (2002) *Pest Reporting*) as high priority

Difficulties in updating and exchanging information are attributed to

- frequent restructuring of national government structures and consequently the ministry or department their NPPOs may fall under
- a need for more streamlined and efficient reporting systems
- further information on NPPO activity is found not on the IPP but rather through an independent NPPO website, a ministerial website, or the NPPOs respective RPPO website
- In a few instances, countries reported that the lack of internet and translation was a contributing factor

Standards related to the Principles and Policies of the IPP Convention

- Conceptual standards, specifically, ISPM No. 1 (2001) *Phytosanitary principles for the protection of plants and the application of phytosanitary measures in international trade*, and ISPM No. 5 (2009) *Glossary of phytosanitary terms* are some of the highest implemented standards of the IPPC and considered as some of the most important standards for all contracting parties from all global regions
- In some cases, countries have received technical assistance to support the implementation of these standards
- Countries have been using these standards as a primary reference tool towards the overall implementation of the convention

- Countries did not however report high implementation, or high priority ranking towards ISPM24 (2005) *Guidelines for the determination and recognition of equivalence of phytosanitary measures*.

Standards related to Pest Status

- In almost all cases, pest status standards (standards related to regulated non-quarantine pests, lists of regulated pests, pest status, pest free areas, requirements for the establishment of areas of low pest prevalence, etc) are not ranked as high priority standards to be implemented, with the exception of pest surveillance
- In most cases, pest status information is not adequately being updated or made available with a number of contracting parties' attributing this to a lack of well trained scientific professionals, physical infrastructure, and financial resources
- While pest surveillance is considered the highest priority standard for countries, and while countries report that of all standards, pest surveillance has received the most technical assistance to support implementation, pest surveillance does not rank among the highest implemented IPPC standards
- While ISPM8(1998) *Pest status*, ISPM19 (2003) *Lists of regulated pests* and ISPM6 (1997) *Guidelines on pest surveillance* are considered moderately implemented (ranked average of 65% as highly implemented standard), ISPM4 (1995), ISPM16 (2002) *Regulated non quarantine pests* and ISPM 22 (2005) *Requirements for the establishment of areas of low pest prevalence* are reported as having a low degree of implementation (ranked average of 29% highly implemented).
- This grouping of standards (pest status-related standards) with the exception of ISPM6, rank in the bottom half of standards that have received technical assistance towards their implementation

Standards related to Pest Risk Analysis

- Countries consider the pest risk analysis standards ISPM2 (2007) *Framework for pest risk analysis* and ISPM11 (2013) *Pest risk analysis for quarantine pests* high priority standards and ranked them in the top 10 standards which have received technical assistance towards implementation
- When compared to those standards related to import and export regulatory systems, pest risk analysis standards fall behind with a reported moderate to low level of implementation (average of 59% of countries rank pest risk analysis standards with a high degree of implementation)
- For some lower middle income countries in the Near East, Europe and Asia regions, pest risk analysis standards are challenging to implement
- For those respondents noting difficulties in implementation, several attributed weaknesses to inadequate quarantine facilities, poor funding for this higher-cost NPPO activity, the lack of cooperation from other contracting parties who fail to provide required information necessary to process a PRA, and the lack of suitably trained specialists

Standards related to Pest Management

- Standards falling under this category include ISPM9 (1998) *Pest eradication*, ISPM14 (2002) *Systems approach*, ISPM18 (2003) *Irradiation*, ISPM28 (2009) *Phytosanitary treatments for regulated pests*, ISPM33 (2010) *Pest free potato micropropagative material and minitubers for international trade*, ISPM35 (2012) *Systems approach for pest risk management of fruit flies*, and ISPM36 (2012) *Integrated measures for plants for planting*. Contracting parties are implementing these standards to varying degrees and no strong trend was revealed with the exceptions of ISPM36 (2012) *Integrated measures for plants for planting* which was ranked within the top ten of priority ISPMs for implementation behind standards related to Import and Export regulatory systems and pest risk analysis standards
- In spite of no implementation trend for pest management standards, many countries ranked ISPM36 (2012) *Integrated measures for plants for planting* as a higher priority ISPM to implement (62.5% of respondents)

Standards related to import and export regulatory systems

- The overwhelming majority of respondents consider standards related to import and export regulatory systems high priority standards to implement. With the exception of ISPM6 (1997) *Guidelines for pest surveillance*, and ISPM2 (2007) *Framework for pest risk analysis*, these standards (phytosanitary certification systems, phytosanitary certificates, guidelines for inspection, guidelines for a phytosanitary import regulatory system, regulation of wood packaging material in international trade, and methodologies for sampling of consignments) rank as the top standards for which countries have received technical assistance.
- Import and export regulatory systems are also highly implemented by every global region and in most cases it appears that each region uses the conceptual standards which outline principles and policies of the IPPC, (ISPM1 (2006) *Phytosanitary principles for the protection of plants and the application of phytosanitary measures in international trade*, and ISPM5 (2009) *Glossary of phytosanitary terms* as reference tools when implementing import and export related standards as these standards are equally highly ranked, and implemented

Diagnostic Protocols (ISPM27 (2010))

- Results to the survey were mixed. While a large portion of the respondents (43%) indicated that they are strongly implementing the use of ISPM27 (diagnostic protocols), a significant number of respondents (37.5%) indicated that they are weakly implementing this standard. Several survey participants did not answer this question.

Detailed Findings

This section provides detailed findings on the implementation of the IPPC Convention and its ISPMs organized under the following implementation areas as categorized above: (i) rights and obligations under the IPPC Convention, (ii) principles and policies of the IPPC Convention, (iii) pest status standards, (iv) pest risk analysis standards, (v) pest management standards, (vi) import and export regulatory systems standards, and (vii) diagnostics. This section also includes contracting parties' self-assessment of implementation level rankings of the 36 ISPMs, the analysis of technical assistance and ISPMs, and priority rankings of ISPMs by contracting parties.

(i) **Standards related to the rights and obligations of the IPP Convention**

Basic reporting obligations (Art. VII)

If the NPPO is properly able to implement the IPPC and its ISPMs, it is understood that certain items should be reported on. This includes: a description of the NPPO on the IPP, any phytosanitary restrictions, requirements and prohibitions in their country, their list of regulated pests and the points of entry where consignments of particular plants or plant products are imported. Analysing the extent to which respondents are implementing these basic reporting obligations will help to gauge the overall implementation of contracting parties' national reporting obligations.

Results show that NPPOs are moderately meeting their basic reporting of NPPO organizational arrangements. Sixty-nine percent of respondents indicate having published a description of their official national plant protection organization via the IPP with thirty-two percent of respondents indicating that they are either not at all or only partially publishing the details of their NPPO via the IPP.

Sixty-five percent of country respondents indicate that they are making their phytosanitary requirements, restrictions and prohibitions publicly available to IPPC contracting parties however thirty-five percent report that their NPPOs do so only moderately or minimally. Respondents report that they are doing so via ministerial websites, their NPPO websites and/or upon the request of contracting parties.

Seventy-seven percent of country respondents are adequately making designated points of entry publicly available to contracting parties. Respondents noted that points of entry are made available via the IPPC's IPP and to a lesser extent on government websites or made available upon the request of a contracting party.

According to respondents, NPPOs are not adequately distributing their lists of regulated pests to contracting parties. Fifty-three percent of respondents report that they make their list of regulated pests available, in most cases either on the IPP or on NPPO websites. Respondents who face difficulty posting this information attribute this to inadequate resources, logistics, and difficulties accessing the internet.

The majority of respondents have designated a Contact Point and posted their details on the IPP (90%), and for those respondents who indicated otherwise, feedback from respondents indicates that internet connectivity issues, and IPP password difficulties have hampered their efforts to post IPPC contact point details. Further analysis may be required to cross-check the extent to which data is up-to-date on the IPP.

Sixty-seven percent of respondents indicate that they have provided a description of their organizational arrangements for plant protection to another contracting party upon request. In several cases it was noted that NPPOs had yet to receive any specific requests for its organizational arrangements. In other instances, several respondents indicated that they only rely on posting organizational arrangement information on their NPPO website.

As importers, country respondents are not sufficiently notifying exporting contracting parties of significant cases of non-compliance with phytosanitary certification (detection of a regulated pest, deficiencies, absence of a certificate etc.). Sixty-five percent of respondent's report that their NPPOs are either very strongly or strongly notifying significant cases of non-compliance and sixteen-percent indicate that their NPPOs are either weakly doing so or not at all. This is attributed to reported difficulties in contacting officials in several countries, few instances of cases of significant non-compliance and deeper issues involving weak capacities in the detection and identification of plant pests.

As exporters, thirteen percent of country respondents report that they are not sufficiently reporting the results of investigations of a significant case of non-compliance to the importing contracting party concerned and thirty four percent of respondents are only moderately reporting the results of investigation. Fifty-three percent of the respondents indicated that they are consistently reporting these results.

Information Exchange (Art. VII, 2i)

Fifty-one percent of country respondents reported strong implementation of the distribution of information regarding regulated pests and the means for their prevention and control. For those countries that reported weaker implementation of this responsibility (15% of respondents), this is attributed to intermittent access to the internet, poor computing skills, and inadequate resources. To note, half of these respondents also reported weak implementation of ISPM 6 guidelines for pest surveillance. For those countries reporting stronger implementation (55%), the majority are uploading information onto their NPPOs website and in some instances, distributing information on the IPPCs IPP Portal. For countries that reported high implementation in regards to pest surveillance, pest reporting and lists of regulated pests, and only moderate implementation of the distribution of information regarding pests and the means for the prevention and control, the reason given was a need for more consistent updating of information on the IPP.

Over half of country respondents report that changes to their NPPOs official national plant protection organization is communicated to the Secretariat of the IPPC via the IPP. Thirty-nine percent of respondents reported that they are either partially or not at all communicating any changes made to the NPPO to the IPPC Secretariat. Some reasons given for this include the need for user training of and instructions for the IPP, the lack of publishing on the IPP due to translation constraints, and communication only to the IPPC Secretariat and not via the IPP in which case the IPP has not updated the changes communicated.

Staff development and Training (Art. IV, 2h)

Country respondents report challenges in regards to staff development and training within their NPPOs. Thirty-six percent of respondents are able to fully implement this responsibility and contracting parties attribute this to an unbalanced support from their governments and external donors, difficulties in hiring suitably trained candidates, and weak updating of skills to stay in line with innovative technologies.

International Cooperation (Art. VIII)

According to survey respondents, there is a low level of participation in international campaigns (international campaigns as described in the IPP Convention) for combating pests that could seriously threaten crop production. Thirty-six percent of respondents reported moderate participation in international campaigns, and nineteen percent indicate that their NPPOs are either weakly participating or not at all participating in such campaigns. Some of the reasons for this include limited funding for this type of exercise, and a lack of relevance of past campaigns. For those respondents who have participated, some noted cooperation with their RPPOs, and bilateral as well as multilateral campaigns for pests of shared concern.

Research and investigation in the field of plant protection (Art. IV, 3b)

There are reported low to moderate levels of implementation in regards to research and investigation in plant protection (22% of respondents report weak implementation and 37% report moderate implementation). Respondents report that ministries do not place much emphasis on plant health issues, and challenging budget constraints.

Issuance of phytosanitary regulation (Art. IV, 3c)

Seventy-six percent of respondents report that their NPPOs are strongly implementing the issuance phytosanitary regulations (77%) however they also note that in many cases, there is a need for updating the regulations in place and in some instances heavy delays by policy makers have stagnated efforts.

Phytosanitary measures (Art. VII, 2g)

Country respondents reported that their phytosanitary measures are adequately technically justified with seventy-seven percent noting very strong or strong implementation of this activity, eighteen percent reporting moderate implementation and only four percent noting weak implementation. Of those that reported weak implementation, the reason given for this was a lack of well trained staff.

In regards to prompt modifications to phytosanitary measures (when technically justified to address phytosanitary risk), sixty-eight percent of respondents indicate that their NPPOs are doing so whenever new information is made available. However, the results are mixed as twenty-six percent of respondents indicated that their NPPO moderately modifies measures and six percent report that their NPPO barely does so.

Protection of endangered areas (Art. IV, 2e)

Respondents reported low implementation of the protection of their country's endangered areas (thirty-seven percent reported full implementation and twenty percent reporting weak implementation). Most respondents indicated that this is attributed to the lack of designation in their country of 'endangered areas, and that the protection of endangered areas falls under another ministry (in most cases ministries of the environment). According to responses received, and in light of ISPM No. 5 (2012) Glossary of phytosanitary terms, it seems respondents may have misinterpreted the concept of endangered areas. In the glossary an endangered area is defined as "an area where ecological factors favour the establishment of a pest whose presence in the area will result in economically important loss" whereas the way it seems to be understood by respondents is as an environmentally protected area. As such, the validity of this result may be compromised.

(ii) Pest status standards

Responses show that pest status information is not adequately being updated or made available. Fifty-two percent of respondents report that they are updating and making pest status information available and attribute the moderate to weak implementation of this to a lack of well-trained scientific professionals, physical infrastructure, and financial resources.

Designation, Maintenance and surveillance of pest free areas and areas of low pest prevalence and Surveillance of plants and their growing environment (Art. IV, 1)

Forty-nine percent of IPPC Contracting Party respondents suggested that their NPPOs conduct proper surveillance of plants and their growing environment. Reasons given for low implementation include: a lack of skilled staff, and a lack of sufficient funds to do so.

Implementation of the designation, maintenance and surveillance of pest free areas and areas of low pest prevalence is a challenge with seventeen percent of respondents reporting weak implementation and thirty-three percent of respondents reporting moderate implementation of this NPPO responsibility. Some of the reasons for this include budgetary constraints to undertake these services, the lack of entomological data, and weak capacity to make informed decisions on designation and maintenance.

(iii) Standards related to pest risk analysis

Conduct of Pest Risk Analysis (Art. IV, 2f)

Pest risk analysis is a challenging responsibility to implement, according to country respondents. Twenty-four percent of respondents indicate low implementation, and forty-three percent of respondents reported full implementation of this responsibility. Respondents noted that their NPPOs face difficulties due to inadequate quarantine facilities, inadequate funding given that this is a particularly high-cost activity, a lack of cooperation from other contracting parties who fail to provide required information necessary to process a PRA, and a lack of well-trained specialists.

Fifty-seven percent of respondents indicate that their NPPOs are providing technical and biological information for pest risk analysis. Some of the reasons for weak implementation of this function include a lack of physical infrastructure, and infrequent incoming requests from contracting parties.

Phytosanitary security of consignments ensured through appropriate procedures (Art. IV, 2g)

Respondents indicated moderate implementation of phytosanitary consignment security (thirty-four percent reported moderate implementation and fourteen percent reported weak implementation). Salient reasons given for this are the lack of procedures in place, poor tracking of consignments, and a reluctance from importers and exporters to cooperate.

(iv) Standards related to pest management

Treatment of consignments (Art. IV, 2d)

According to survey results, contracting party respondents are moderately implementing the treatment of consignments (disinfestation or disinfection of consignments of plants and plant products moving in international traffic) with sixty-four percent of respondents suggesting full implementation of this responsibility. Reasons respondents give for only moderate implementation are the lack of various types of treatment facilities, the fact that treatments are not performed by the NPPO but rather accredited treatment providers and/or private industry, and a poor knowledge of phytosanitary treatments on the part of stakeholders

(v) Import and Export Regulatory Systems

Certificates (Art. IV, 2a & Art. V 1, 2a)

Respondents report that they are strongly meeting their responsibility in regards to the issuance of phytosanitary certificates with a ninety percent implementation rate and several countries' reporting on the legislation that is in place in their respective countries.

Eighty-seven percent of respondents reported that there are sufficient arrangements in place to enable phytosanitary certification as well as relevant established regulations and training of staff to adequately perform this activity. They also indicated a strong level of commitment to ensuring that the issuance of phytosanitary certificates is based on inspections and related activities and to ensure that phytosanitary certificates are issued by technically qualified public officers authorized by their NPPOs.

Inspections (Art. IV, 2c)

Seventy nine percent of respondents indicate that their NPPO is fully implementing the inspection of consignments of plants or plant products moving in international traffic. Sixteen percent report that implementation of inspections of consignments is moderate and attribute this primarily to governments

who place trade issues above plant health issues, poor training of staff, and limited numbers of staff to serve exit and entry points.

Eighty-one percent of respondents report that their NPPOs are conducting inspections and other phytosanitary procedures as promptly as possible, however for those respondents reporting that they do so moderately or weakly (16% and 3% respectively), NPPOs note that the reasons for this are limited staff to serve their entire countries, and low levels of capacity amongst staff.

According to eighty-percent of respondents, inspections and other phytosanitary procedures are sufficiently being prioritized and performed with due regard to their perishability. The majority of respondents indicate that perishable products are given top priority with one respondent noting that key to its success in this area has been good collaboration with other major stakeholders.

(vi) Diagnostic Protocols

Results to implementation of this standard were mixed. While a large portion of the respondents (43%) indicated that they are strongly implementing the use of ISPM27 (diagnostic protocols), a significant number of respondents (37.5) indicated that they are weakly implementing this standard. Several survey participants did not answer this question.

ISPM Implementation and Priority Rankings

Survey respondents were provided a list of the IPPCs 36 ISPMs and asked to rate their countries' degree of implementation of each ISPM from the following choices:

Low degree of implementation
High degree of implementation
Not implemented at all
Not applicable

ISPMs ranked as "High degree of Implementation"

ISPMs that were overall ranked the highest (where over 75% of respondents rank the ISPM as "*High degree of implementation*") are listed in Table 1 below in order from most frequently selected to the least. For those ISPMs survey respondents ranked highly, they were then asked to rank the factors contributing to a high degree of implementation. Key factors that were chosen for the highly ranked ISPMs are also listed in the second column of Table 1 in order from most frequently selected to least.

Table 1.

ISPMs with a high degree of implementation		Key factors contributing to a high degree of implementation
ISPM No. 12 (2001)	Guidelines for phytosanitary certificates (93.6%)	ISPM is highly or moderately relevant (69.6%) There are sufficient qualified personnel to support implementation (64.2%) Good communication and coordination among stakeholders (51.7%)
ISPM No. 7 (1997)	Export certification system (88.8%)	ISPM is highly or moderately relevant (67.6%) There are sufficient qualified personnel to support implementation (55.36%)
ISPM No. 1 (2006)	Phytosanitary principles for the protection of plants and the application of phytosanitary measures in international trade (87.3%)	ISPM is highly or moderately relevant (61.4%)
ISPM No. 23 (2005)	Guidelines for inspection (84.1%)	ISPM is highly or moderately relevant (74.55%)

		There are sufficient qualified personnel to support implementation (58.1%)
ISPM No. 20 (2004)	Guidelines for a phytosanitary import regulatory system (80.9%)	ISPM is highly or moderately relevant (71.7%) There are sufficient qualified personnel to support implementation (56.6%)
ISPM No. 5 (2009)	Glossary of phytosanitary terms (79.3%)	ISPM is highly or moderately relevant (61.1%) This standard is easy to implement (55.5%)
ISPM No. 15 (2009)	Guidelines for regulating wood packaging material in international trade (77.78%)	This ISPM is highly or moderately relevant (71.4%)

ISPMs ranked as “low degree of implementation”

ISPMs that were ranked the lowest (where over 40% of respondents ranked the ISPM as “*Low degree of implementation*”) are listed in Table 2 below in order from most frequently selected to least. For those ISPMs survey respondents ranked as lower implemented standards, they were then asked to rank the factors contributing to a low degree of implementation. Key factors that were chosen for the lowest ranked ISPMs are also listed in the second column of Table 2 in order from most frequently selected to least.

Table 2.

ISPMs with a low degree of implementation		Key factors contributing to a low degree of implementation
ISPM No. 16 (2002)	Regulated non-quarantine pests: concept and application (53.97%)	Insufficient qualified personnel to support implementation (43.5%)
ISPM No. 29 (2007)	Recognition of pest free areas and areas of low pest prevalence (42.8%)	Insufficient support for financial resources (59.5%) Insufficient qualified personnel to support implementation (48.6%) Insufficient infrastructure supporting the implementation of this ISPM (48.6%)
ISPM No. 31 (2008)	Methodologies for sampling consignments (42.8%)	Insufficient qualified personnel to support implementation (50%)
ISPM No. 4 (1995)	Requirements for the establishment of pest free areas	Insufficient support for financial resources (46.34%)
ISPM No. 17 (2002)	Pest reporting (41.2%)	Insufficient qualified personnel to support implementation (50%)
ISPM No. 22 (2005)	Requirements for the establishment of areas of low pest prevalence (41.2%)	Insufficient support for financial resources (52.5%) Insufficient qualified personnel to support implementation (45%)

ISPMs not implemented by survey respondents

In order from highest to lowest, ISPMs ranked not implemented at all (where over 20% of respondents ranked the ISPM as “*Not at all implemented*”) are as follows:

Table 3.

ISPMs not implemented at all	
ISPM No. 18 (2003)	Guidelines for the use of irradiation as a phytosanitary measure (33.3%)
ISPM No. 22	Requirements for the establishment of areas of low pest prevalence (22.2%)



(2005)	
ISPM No. 33 (2010)	Pest free potato (<i>Solanum</i> spp.) micropropagative material and mintubers for international trade (20.6%)

ISPMs found not applicable by survey respondents

60. ISPMs ranked not applicable (where over 20% of respondents ranked the ISPM as “Not Applicable”) are as follows:

Table 4.

ISPMs rated Not Applicable	
ISPM No. 18 (2003)	Guidelines for the use of irradiation as a phytosanitary measure
ISPM No. 26 (2006)	Establishment of pest free areas for fruit flies (<i>Tephritidae</i>)
ISPM No. 30 (2008)	Establishment of areas of low pest prevalence for fruit flies (<i>Tephritidae</i>)
ISPM No. 33 (2010)	Pest free potato (<i>Solanum</i> spp.) micropropagative material and mintubers for international trade

ISPMs and Technical Assistance

Survey respondents reported that they have most frequently received technical assistance to support the implementation of the standards listed in Table 5 below. This list is not exhaustive. For a complete ranking of the standards that have received the most to the least amount of technical assistance, please refer to Annex 1 Table 9.

Table 5.

Top ten ISPMs having received technical assistance since 2008	
ISPM No. 6 (1997)	Guidelines for Surveillance (73.2%)
ISPM No. 7 (1997)	Export certification system (71.4%)
ISPM No. 23 (2005)	Guidelines for inspection (69.6%)
ISPM No. 2 (1995)	Guidelines for Pest Risk Analysis (67.8%)
ISPM No. 15 (2002)	Guidelines for regulating wood packaging material in international trade (64.2%)
ISPM No. 36 (2012)	Integrated measures for plants for planting (62.5%)
ISPM No. 17 (2002)	Pest reporting (62.5%)
ISPM No. 11 (2004)	Pest risk analysis for quarantine pests including analysis of environmental risks and living modified organisms (62.5%)
ISPM No. 1 (2006)	Phytosanitary principles for the protection of plants and the application of phytosanitary measures in international trade (60.7%)
ISPM No. 12 (2001)	Guidelines for phytosanitary certificates (58.9%)

Survey respondents Top Challenges in ISPM implementation

When asked to identify the 3 main challenges for the implementation of the most relevant standards for survey respondents' countries (only 37 responses were received for this question), the top 3 responses were:

Table 6.

Top 3 challenges for the implementation of respondents most relevant standards in their country	
Lack of personnel	35.1%
Lack of financial resources	24.3%
Lack of support	21.6%

Highest Priority Standards to Implement

When asked to identify the highest priority ISPMs to implement, survey respondents' top 10 answers can be found in Table 7 below. An exhaustive list can be found in Annex 1 Table 8.

Table 7.

Top ten ISPMs respondents consider as highest priority for their countries to implement.	
International Standards for Phytosanitary Measures	Response Percent
ISPM No. 6 (1997) Guidelines for Surveillance	73.2%
ISPM No. 7 (1997) Export certification system	71.4%
ISPM No. 23 (2005) Guidelines for inspection	69.6%
ISPM No. 2 (1995) Guidelines for pest risk analysis	67.9%
ISPM No. 15 (2002) Guidelines for regulating wood packaging material in international trade	64.3%
ISPM No. 11 (2004) Pest risk analysis for quarantine pests including analysis of environmental risks and living modified organisms	62.5%
ISPM No.17 (2002) Pest reporting	62.5%
ISPM No. 36 (2012) Integrated measures for plants for planting	62.5%
ISPM No. 1 (2006) Phytosanitary principles for the protection of plants and the application of phytosanitary measures in international trade	60.7%
ISPM No. 12 (2001) Guidelines for phytosanitary certificates	58.9%

Conclusion

Overall, data from the survey indicated that respondent countries are strongly implementing all the IPPC standards that are necessary for global trade. Specifically, contracting parties from each region report high implementation and high priority ranking for the standards related to their import and export regulatory systems. Respondents report that they have received significant technical assistance towards export certification systems and phytosanitary inspections within the past five years, which may be a reason for strong implementation. Other reasons for high implementation, based on these survey results as well as from the survey on [ISPM No. 6: \(1997\) Guidelines for pest surveillance](#), include the overall importance countries are increasingly placing on trade policy and trade agreements, and the immediacy of action involved in issuing inspections and issuing phytosanitary certificates (there is more immediacy when it comes to issuing phytosanitary certificates and conducting inspections as opposed to the steps involved in implementing standards related to pest status).

Respondents reported challenges in implementing standards related to pest status (pest surveillance, pest status, regulated non-quarantine pests, lists of regulated pests, etc). Respondents report that they are having a difficult time understanding the concept and the application of regulated non quarantine

pests. While the reasons given for this was insufficient personnel and insufficient financial resources (from the list of choices provided within the survey), this may have limited the respondents reasons for their difficulties. It may also be the case that the standard itself is not sufficiently clear for many contracting parties and a follow-up discussion/questionnaire with those respondents' reasons for the difficulty may be useful. Several of the more technical-related pest status standards including ISPM No. 22 (2005) *Requirements for the establishment of areas of low pest prevalence*, ISPM No. 29 (2007) *Recognition of pest free areas and areas of low pest prevalence*, ISPM 31 (2008) *Methodologies for sampling of consignments* and ISPM4 (1995) *Requirements for the establishment of pest free areas* are weakly implemented and were not reported as significantly high priority for respondents.

In spite of reported weak implementation¹, contracting parties have been receiving moderate technical assistance in these areas over the past five years, though that they still face challenges in implementing these standards due to reported insufficient qualified personnel and insufficient financial resources. Further to this, NPPOs may not be receiving sufficient national funds to strengthen their technical responsibilities due to low awareness of the economic and trade benefits associated with strong and technically sound phytosanitary systems on behalf of high-level decision makers and relevant private sector stakeholders. Though the majority of respondents did not rank pest status standards as highly as import and export systems standards, open-ended feedback revealed that several countries feel that the role and profile of NPPOs is not valued within their national governments and expressed a need for channelling necessary funds towards the more technical and costly pest status standards.

Respondents indicate that they are strongly implementing their basic reporting obligations; however countries' face challenges when it comes to providing more detailed information and/or the updating of new information. Open-ended feedback revealed that respondents feel that their NPPOs have little incentive to interact with the IPP, have had significant problems with NPPO staff succession and consequently provide fractured, intermittent reporting of new pest information, in addition to not understanding how best to interact with the IPP. Also, while ISPM No. 17 (2002) *Pest reporting* is considered by respondents as a high priority standard to implement, the implementation of this standard is reported as weak, which coincides with the results of the recent IRSS review of ISPM No. 17 (2002) *Pest reporting*.

For respondent countries', the biggest reported challenges in implementing what they consider their most relevant ISPMs is the lack of well trained personnel, the lack of financial resources and the lack of capacity support. While countries have received most technical assistance towards surveillance², export certification systems and guidelines for inspections, and in spite of reportedly high levels of implementation, respondents overwhelmingly still consider trade-related and pest surveillance standards as critically important for their countries to implement. Further analysis on staffing problems and training solutions may be useful as a follow-up to these results.

Suggested Actions

It is hoped that the following suggested actions can be translated by the IPPC contracting parties, the IPPC Secretariat Core Team, and the IPPC subsidiary bodies into more concrete and detailed actions, possibly in the form of a time-bound plan with specific activities and deadlines.

The IPPC has adopted a number of key commitments including to "ensure the full functioning of NPPOs and RPPOs to safeguard agriculture, environment and natural resources from the negative spread of pests, thereby contributing to enhanced food security and the opening up of trade opportunities for countries" falling under the IPPC Strategic Objective A: *Protect sustainable agriculture and enhance global food security through the prevent of pest spread*. Further to this,

¹ For graphical regional data see Annex 2.

² Under the area of Pest Status/Survey and Monitoring, only ISPM6 (1997) *Guidelines for surveillance* was rated by survey respondents as a highly implemented standard (73.2% response rate)

parties agreed that effective national systems for the prevention of the introduction and spread of pests should be based on shared responsibilities of both governments and the private sector³. In light of this commitment and the results of this review, the following overarching objective related to the development of a stronger profile for NPPOs amongst their governments and their national private sector is recommended.

Overarching objective: Help for NPPO's and RPPOs to raise their profile within countries and regions with the aim of securing further funding resources from national governments and the private sector. Achieving scaled up resources and visibility for NPPOs will help improve the long-term impact of the IPPC and its standards to fulfil the needs expressed by NPPOs in IRSS reviews. This objective is supported by the following recommendations.

Suggested Action 1: Articulate and implement a clear vision for NPPOs and RPPOs to garner policy maker support towards increased funding resources. Due to NPPOs expressed concern over NPPO Contact Point succession issues and consequent institutional memory-loss and the negative effects of these on NPPO Reporting obligations, identify the key actions that are needed by NPPOs to promote their work and address succession planning, reporting obligations and develop relationships between NPPOs and other bodies (e.g. RPPOs, environmental and trade ministries etc).

Suggested Action 2: IPPC Secretariat, RPPOs and NPPOs establish/strengthen policy-level advocacy of need for budgetary resources for high-quality technical skills within NPPOs. Particular focus should be given to explaining the need for benefits of strengthened pest surveillance and monitoring activities and the need for training on recognition of pest free areas and low pest prevalence, requirements for the establishment of pest free areas, methodologies for sampling of consignments, concepts and application of regulated non quarantine pests and pest reporting.

Suggested Action 3: Design focused regional and country relevant training materials on the enhancement of stakeholder engagement, public relations and negotiation skills by NPPOs. This would include reviews of best practices in stakeholder engagement and public/private partnerships, assessing the role of RPPOs in fostering stakeholder engagement and disseminating best practice experiences, and for communicating economic and trade benefits of strong NPPOs to decision-makers.

Suggested Action 4: Develop criteria to select best practices in countries from each FAO region with the aim of conducting case studies focusing on cost-benefit analysis/impact analysis of strong phytosanitary systems. Results of such studies can be used by contracting parties shown as weak implementers of IPPC Standards during the IRSS reviews as a capacity development tool and/or by regional trade and phytosanitary bodies, relevant private sector and academic stakeholders, international development bodies, and the general public to raise awareness through evidence-based study.

Concluding Remarks

Not all of the suggested actions made in this report are budget-neutral. Most would require substantial resources to undertake major regional and national studies towards the development of knowledge products and training packages. The aim of these products would inform targeted trainings, and ultimately would provide evidence and justifications for national governments, the private sector, regional trade bodies and the international development community that strong phytosanitary systems to fulfil IPPC obligations and Standards' implementation are integral to strong economies, trade relations, environmental protection and sustainable food security.

³ See page 17 of the IPPC Strategic Framework 2012 – 2019 adopted by CPM7 in 2012.



ANNEX 1

Table 8.

Respondents ranking of highest priority ISPMs to implement (exhaustive list of ISPMs)

ISPMs	Response Percent
ISPM No. 6 (1997) Guidelines for Surveillance	73.2%
ISPM No. 7 (1997) Export certification system	71.4%
ISPM No. 23 (2005) Guidelines for inspection	69.6%
ISPM No. 2 (1995) Guidelines for pest risk analysis	67.9%
ISPM No. 15 (2002) Guidelines for regulating wood packaging material in international trade	64.3%
ISPM No. 11 (2004) Pest risk analysis for quarantine pests including analysis of environmental risks and living modified organisms	62.5%
ISPM No.17 (2002) Pest reporting	62.5%
ISPM No. 36 (2012) Integrated measures for plants for planting	62.5%
ISPM No. 1 (2006) Phytosanitary principles for the protection of plants and the application of phytosanitary measures in international trade	60.7%
ISPM No. 12 (2001) Guidelines for phytosanitary certificates	58.9%
ISPM No. 20 (2004) Guidelines for a phytosanitary import regulatory system	57.1%
ISPM No. 31 (2009) Methodologies for sampling of consignments	57.1%
ISPM No. 8 (1998) Determination of pest status in an area	55.4%
ISPM No. 34 (2010) Design and operation of post-entry quarantine stations for plants	50.0%
ISPM No. 13 (2001) Guidelines for the notification of non-compliance and emergency action	48.2%
ISPM No. 24 (2005) Guidelines for the determination and recognition of equivalence of phytosanitary measures	46.4%
ISPM No. 27 (2006) Diagnostic protocols for regulated pests	46.4%
ISPM No. 4 (1995) Requirements for the establishment of pest free areas	44.6%
ISPM No. 9 (1998) Guidelines for pest eradication programmes	44.6%
ISPM No. 5 (2006) Glossary of phytosanitary terms	42.9%
ISPM No. 19 (2003) Guidelines on lists of regulated pests	42.9%
ISPM No. 32 (2009) Categorization of commodities according to their pest risk	42.9%
ISPM No. 3 (2005) Guidelines for the export, shipment, import and release of biological control agents and other beneficial organisms	39.3%
ISPM No. 10 (1999) Requirements for the establishment of pest free places of production and pest free production sites	39.3%
ISPM No. 14 (2002) The use of integrated measures in a systems approach for pest risk management	39.3%
ISPM No. 21 (2004) Pest risk analysis for regulated non-quarantine pests	37.5%
ISPM No. 28 (2007) Phytosanitary treatments for regulated pests	37.5%
ISPM No. 25 (2006) Consignments in transit	35.7%
ISPM No. 35 (2012) Systems approach for pest risk management of fruit flies (Tephritidae)	35.7%
ISPM No. 33 (2010) Pest free potato (<i>Solanum</i> spp.) micropropagative material and minitubers for international trade	30.4%
ISPM No. 29 (2007) Recognition of pest free areas and areas of low pest prevalence	28.6%
ISPM No. 22 (2005) Requirements for the establishment of areas of low pest prevalence	26.8%
ISPM No. 30 (2008) Establishment of areas of low pest prevalence for fruit flies (Tephritidae)	26.8%
ISPM No. 26 (2006) Establishment of pest free areas for fruit flies (Tephritidae)	23.2%
ISPM No. 16 (2002) Regulated non-quarantine pests: concept and application	21.4%
ISPM No. 28 part 7 (2009) Phytosanitary treatments (2007): Irradiation treatment for fruit flies of the family Tephritidae (generic)	12.5%
ISPM No. 18 (2003) Guidelines for the use of irradiation as a phytosanitary measure	8.9%
ISPM No. 28 part 4 (2009) Phytosanitary treatments (2007): Irradiation treatment for <i>Bactrocera jarvisi</i>	8.9%
ISPM No. 28 part 14 (2011) Phytosanitary treatments (2007): Irradiation treatment for <i>Ceratitis capitata</i>	8.9%
ISPM No. 28 part 5 (2009) Phytosanitary treatments (2007): Irradiation treatment for <i>Bactrocera tryoni</i>	5.4%
ISPM No. 28 part 12 (2011) Phytosanitary treatments (2007): Irradiation treatment for <i>Cylas formicarius elegantulus</i>	5.4%
ISPM No. 28 part 2 (2009) Phytosanitary treatments (2007): Irradiation treatment for <i>Anastrepha obliqua</i>	3.6%
ISPM No. 28 part 3 (2009) Phytosanitary treatments (2007): Irradiation treatment for <i>Anastrepha serpentina</i>	3.6%
ISPM No. 28 part 8 (2009) Phytosanitary treatments (2007): Irradiation treatment for <i>Rhagoletis pomonella</i>	3.6%
ISPM No. 28 part 1 (2009) Phytosanitary treatments (2007): Irradiation treatment for <i>Anastrepha ludens</i>	1.8%
ISPM No. 28 part 6 (2009) Phytosanitary treatments (2007): Irradiation treatment for <i>Cydia pomonella</i>	1.8%



ISPM No. 28 part 9 (2010) Phytosanitary treatments (2007): Irradiation treatment for Conotrachelus nenuphar	1.8%
ISPM No. 28 part 10 (2010) Phytosanitary treatments (2007): Irradiation treatment for Grapholita molesta	1.8%
ISPM No. 28 part 11 (2010) Phytosanitary treatments (2007): Irradiation treatment for Grapholita molesta under hypoxia	1.8%
ISPM No. 28 part 13 (2011) Phytosanitary treatments (2007): Irradiation treatment for Euscepes postfasciatus	1.8%

Table 9

Respondent ranking of ISPMs that have received technical support towards implementation in the past five years

ISPMs	Positive Response Percent
ISPM No. 6 (1997) Guidelines for surveillance	47.3%
ISPM No. 12 (2001) Guidelines for phytosanitary certificates	38.6%
ISPM No. 23 (2005) Guidelines for inspection	38.6%
ISPM No. 2 (2007) Framework for pest risk analysis	35.9%
ISPM No. 7 (1997) Export certification system	33.3%
ISPM No. 20 (2004) Guidelines for a phytosanitary import regulatory system	31.5%
ISPM No. 11 (2004) Pest risk analysis for quarantine pests, including analysis of environmental risks and living modified organisms	29.8%
ISPM No. 13 (2001) Guidelines for the notification of non-compliance and emergency action	29.8%
ISPM No. 15 (2009) Guidelines for regulating wood packaging material in international trade	29.8%
ISPM No. 31 (2008) Methodologies for sampling consignments	26.3%
ISPM No. 1 (2006) Phytosanitary principles for the protection of plants and the application of phytosanitary measures in international trade	24.5%
ISPM No. 9 (1998) Guidelines for pest eradication programmes	24.5%
ISPM No. 14 (2002) The use of integrated measures in a systems approach for pest risk management	24.5%
ISPM No. 17 (2002) Pest reporting	24.5%
ISPM No. 27 (2006) Diagnostic protocols for regulated pests	24.5%
ISPM No. 5 (2009) Glossary of phytosanitary terms	22.8%
ISPM No. 28 (2009) Phytosanitary treatments for regulated pests	22.8%
ISPM No. 3 (2005) Guidelines for the export, shipment, import and release of biological control agents and other beneficial organisms	21.5%
ISPM No. 4 (1995) Requirements for the establishment of pest free areas	17.5%
ISPM No. 10 (1999) Requirements for the establishment of pest free places of production and pest free production sites	17.5%
ISPM No. 19 (2003) Guidelines on lists of regulated pests	17.5%
ISPM No. 22 (2005) Requirements for the establishment of areas of low pest prevalence	17.5%
ISPM No. 35 (2012) Systems approach for pest risk management of fruit flies (Tephritidae)	17.5%
ISPM No. 8 (1998) Determination of pest status in an area	15.7%
ISPM No. 21 (2004) Pest risk analysis for regulated non-quarantine pests	15.7%
ISPM No. 29 (2007) Recognition of pest free areas and areas of low pest prevalence	15.7%
ISPM No. 36 (2012) Integrated measures for plants for planting	15.7%
ISPM No. 16 (2002) Regulated non-quarantine pests: concept and application	14%
ISPM No. 18 (2003) Guidelines for the use of irradiation as a phytosanitary measure	14%
ISPM No. 26 (2006) Establishment of pest free areas for fruit flies (Tephritidae)	14%
ISPM No. 30 (2008) Establishment of areas of low pest prevalence for fruit flies (Tephritidae)	14%
ISPM No. 32 (2009) Categorization of commodities according to their pest risk	14%

ISPM No. 34 (2010) Design and operation of post-entry quarantine stations for plants	14%
ISPM No. 24 (2005) Guidelines for the determination and recognition of equivalence of phytosanitary measures	12.2%
ISPM No. 25 (2006) Consignments in transit	12.2%
ISPM No. 33 (2010) Pest free potato (<i>Solanum spp.</i>)micropropagative material and minitubers for international trade	8.7%

Regional ISPM Implementation

ANNEX 2





