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INTERIM COMMISSION ON PHYTOSANITARY MEASURES

Third Session

Rome, 2-6 April 2001

Adoption of International Standards for Phytosanitary Measures (ISPMs)

Agenda Item 5 of the Provisional Agenda

I. Introduction

1. Five draft standards, given in Annexes 1-5 are submitted to the Interim Commission on Phytosanitary Measures (ICPM) for consideration. It is noted that three of these documents represent new ISPMs:

- *Pest risk analysis for quarantine pests*;
- *Guidelines for phytosanitary certificates*, and
- *Guidelines for the notification of non-compliance and emergency actions*.

2. Included also are proposed amendments to the *Glossary of phytosanitary terms* and a proposed supplement to the Glossary providing a definition and explanation for official control.

II. Amendments to the Glossary of Phytosanitary Terms (Annex 1)

3. The ICPM adopted the revised *Glossary of phytosanitary terms* (ISPM No. 5) at its second session in October 1999, and identified several terms and definitions requiring further consideration. In addition, certain terms or definitions have been identified by expert working groups or the IPPC Secretariat as requiring attention. These terms and definitions were referred to the Glossary Working Group for its consideration in March 2000. Recommendations of the Glossary Working Group were referred to the first session of the Interim Standards Committee in May 2000. Draft amendments to the *Glossary of phytosanitary terms* approved by the Interim Standards Committee were distributed to governments for consultation in June 2000. Comments from the consultation process were considered by the Interim Standards Committee at their second session in November 2000. New terms and definitions, revised terms and definitions, and

recommendations from the meeting of the Interim Standards Committee in November 2000 are indicated in Annex 1.

III. Pest Risk Analysis for Quarantine Pests (Annex 2)

4. *Guidelines for pest risk analysis* (ISPM No. 2) were adopted by the 28th Session of FAO Conference in November 1995. To date, this is the only completed standard for the application of the concept of risk analysis adopted under the IPPC. However, since 1994, substantial effort has been devoted to the development of additional guidelines for risk analysis with important supporting detail related particularly to risk analysis for quarantine pests. Since 1998, attention has also been given to the development of a standard for regulated non-quarantine pests, including the risk-basis for regulating these pests and determining the strength of measures to be applied.

5. Supplemental standards developed for ISPM No. 2 were originally conceived as four complementary standards:

- Pest categorization (Expert Working Group September 1994 in Bangkok, Thailand);
- Economic impact assessment (Expert Working Group November 1994 in Ottawa, Canada);
- Probability of introduction (Expert Working Group January 1995 in Geneva, Switzerland); and
- Pest risk management (Expert working Group Yokohama, Japan in March 1995).

6. The draft supplemental standards were first presented to the Committee of Experts on Phytosanitary Measures (CEPM) at its third meeting in May 1996. The CEPM recommended that the standards be combined into a single document and also suggested that further development be delayed until after the revision of the Convention had been completed.

7. In 1997, the Secretariat and certain experts undertook to combine the documents into a single supplemental standard. The resulting draft was submitted to the CEPM at its fourth meeting in October 1997. In the meantime, the introduction of the concept of regulated non-quarantine pests in the revision of the Convention had generated concern with the CEPM because of its implications to risk analysis. It was recognized that aspects of risk analysis for regulated non-quarantine pests could be substantially different from those for quarantine pests. The CEPM deliberated on the possible need for separate standards to cover quarantine pests and regulated non-quarantine pests, and it considered the possibility for dealing with both concepts in a single standard. Written comments from the CEPM were collected by the Secretariat as the basis for redrafting the document.

8. Efforts by the Secretariat and PRA experts to extend the scope of the draft supplemental standard to cover PRA for both quarantine and regulated-non quarantine pests in a single document proved both complex and awkward. Instead, the Secretariat undertook to complete a draft dealing only with quarantine pests and developed preliminary suggestions for revisions to ISPM No.2. These were presented to the Fifth CEPM in 1998. The CEPM recommended that revisions to ISPM No. 2 be deferred until the standard on PRA for quarantine pests was completed. The CEPM also recommended that the new standard be designed as a stand-alone document rather than a supplement to ISPM No. 2. It was suggested that the new standard be titled *Pest risk analysis for quarantine pests* and certain suggestions for revision were provided to the Secretariat.

9. Subsequent development of the draft standard included review by the Open-ended Working Group on PRA Standards held May 1999 in Bangkok, Thailand. The recommendations of this group followed closely those of the Secretariat and CEPM, reinforcing the concept of three related but independent standards for PRA: ISPM No. 2, *Guidelines for pest risk analysis*; PRA for quarantine pests; and PRA for regulated non-quarantine pests. The Open -ended Working Group also provided detailed suggestions for modifications to the draft standard.

10. The new draft document and the recommendations of the Open-ended Working Group were submitted to the sixth meeting of the CEPM held immediately afterward in May 1999. Unfortunately, a heavy agenda did not allow time for the CEPM to fully review the standard. The CEPM agreed to form a sub-committee which met September 1999 in Braunschweig, Germany to complete the task.

11. The sub-committee's review of the draft standard resulted in its approval for distribution to governments for consultation. The draft was distributed to governments in December 1999 along with the draft standard on guidelines for phytosanitary certificates (see below). It was anticipated that the comment period would be complete prior to the first meeting of the Interim Standards Committee (ISC) in May 2000. However, many governments requested additional time to review the draft and the possibility for at least one regional consultation arose. The Secretariat took the decision to extend the comment period to August 2000 to provide countries with additional time to fully consider and comment on the draft document and to accommodate a regional consultation for APEC countries set for August in Bangkok, Thailand.

12. The regional consultation was extremely useful for phytosanitary experts from APEC countries to review and comment on the draft standard, and also to help the experts to better understand the implications of the standard in practice. Comments from the consultation were included with those submitted directly by governments. The compilation of comments was provided to the Interim Standards Committee (ISC) at its second meeting in November 2000. Modifications to the standard were introduced by the ISC and the standard was approved for submission to the ICPM for adoption (Annex 2).

IV. Guidelines for phytosanitary certificates (Annex 3)

13. A standard providing guidelines for phytosanitary certificates was identified as a priority for the work programme in advance of the adoption of amendments to the IPPC in 1997. It was envisioned that the standard would be complementary to ISPM No. 7 *Export certification system* and would provide details for the completion and use of phytosanitary certificates extending from the provisions in the IPPC.

14. An expert working group that met August 1996 in Bangkok, Thailand developed the first draft of the standard. This draft was submitted to the fourth meeting of the CEPM in October 1996, but review and discussions on the document were deferred because it was anticipated that amendments to the Convention, in particular with regard to Art. V and the model certificates annexed to the Convention, would affect the guidelines.

15. At its fifth meeting in May 1998, the CEPM reconsidered the draft in light of the amendments to the IPPC adopted in 1997 including the interim measure which allowed governments to begin using the new phytosanitary certificate on a voluntary basis. Modifications suggested by the CEPM and by the expert working group were incorporated into the draft before it was resubmitted to the CEPM at its sixth meeting in May 1999, when the draft was approved for distribution to governments for consultation.

16. The draft standard was not distributed immediately due to difficulties with translation. These problems were resolved later in 1999 at approximately the time the draft standard on *Pest risk analysis for quarantine pests* was also being completed. Both draft standards were transmitted to governments at the same time in December 1999, requesting that comments be submitted in advance of the first meeting of the Interim Standards Committee (ISC) in May 2000. As with the standard on *Pest risk analysis for quarantine pests* (see above), governments requested additional time to review the draft and the possibility for at least one regional consultation arose. The Secretariat took the decision to extend the comment period to August 2000 to provide countries with additional time to fully consider and comment on the draft document and to accommodate a regional consultation for APEC countries set for August in Bangkok, Thailand.

17. The regional consultation was extremely useful for phytosanitary experts from APEC countries to review and comment on the draft standard, and also to help the experts to better understand the implications of the standard in practice. Comments from the consultation were included with those submitted directly by governments. The compilation of comments was provided to the Interim Standards Committee (ISC) at its second meeting in November 2000. Modifications to the standard were introduced by the ISC and the standard was approved for submission to the ICPM for adoption (Annex 3).

V. Guidelines for the notification on non-compliance and emergency actions (Annex 4)

18. The original title for this standard was "Guidelines for the notification of interceptions and non-compliance". The objective of the standard was to provide guidance for the interpretation and application in practice of Art VII.2(f) and VI.2(e) of the IPPC (1997). The topic was identified by the second session of the ICPM as a priority in the work programme.

19. An expert working group met December 1999 in Helsinki, Finland to prepare the first draft of the standard. This draft developed over the following months until it was submitted to the first meeting of the ISC in May 2000. The ISC reviewed and approved the draft for distribution to governments for consultation. The document was transmitted to governments in June 2000 and comments were collected by the Secretariat until October 2000. The ISC considered the comments from consultation during its second session in November 2000. The draft was modified by the ISC based on comments from countries and approved for submission to the ICPM for adoption (Annex 4).

VI. Glossary supplement No. 1: Guidelines for the interpretation and application of the concept of official control for regulated pests (Annex 5)

20. The WTO Committee on the Application of Sanitary and Phytosanitary Measures (SPS Committee) noted the need for a definition of official control at its fourteenth meeting in March 1999. Following this, the IPPC Secretariat and the Chairperson of the ICPM received correspondence from the SPS Secretariat requesting on behalf of the SPS Committee that the IPPC establish a definition for official control. The situation was brought to the attention of the ICPM at its second session. The ICPM recommended that an open-ended working group be formed in conjunction with the Glossary Group to review the concept, define the term, and provide guidelines, if necessary, for consistency in the application of the concept in practice.

21. The Glossary Group met March 2000 in Paris, France and developed a draft definition that was subsequently provided to the open-ended working group that met immediately afterward in Bordeaux, France. The open-ended working group agreed on modifications to the definition and drafted guidelines for the interpretation and application of the concept, noting that the definition required interpretation to be properly understood. The open-ended working group therefore recommended that the definition should not stand alone. It further suggested that the definition and guidelines for the interpretation and application of the concept be combined as a supplement to the *Glossary of phytosanitary terms*. It was envisioned that certain other Glossary terms might also be usefully addressed in the same way.

22. The draft supplement resulting from the open-ended working group was submitted to the ISC at its first meeting in May 2001. The ISC considered the draft and, after minor modifications, approved it for distribution to countries for consultation. Comments from countries were collected by the Secretariat from June to October 2000. The comments were then provided to the ISC for consideration at its second meeting in November 2000. The Interim Standards Committee reviewed the comments and agreed on certain changes as a result. The draft was then approved by the Committee for submission to the ICPM for adoption (Annex 5) (see also ICPM 01/8).

VII. The scope of application for International Standards for Phytosanitary Measures (ISPMs)

23. Two of the standards submitted to the ICPM for adoption, *Guidelines for phytosanitary certificates* and *Guidelines for the notification of non-compliance and emergency actions*, are based on specific provisions of the IPPC (1997). These standards necessarily refer to the obligations of contracting parties as specified in the Convention. As these are the first standards that extend directly from explicit obligations in the Convention, questions have been raised about the application of the standards to WTO Members and other States that may not be contracting parties to the IPPC.

24. The IPPC Secretariat, in consultation with the FAO Legal Office has drafted a statement that may be included in all ISPMs to clarify the question of application. Following is the draft statement:

Application

International standards for phytosanitary measure (ISPMs) are adopted by contracting parties to the IPPC and other FAO Members through the Interim Commission on Phytosanitary Measures. ISPMs are the standards, guidelines and recommendations recognized as the basis for phytosanitary measures applied by Members of the World Trade Organization under the Agreement on the Application of Sanitary and Phytosanitary Measures. Non-contracting parties to the IPPC are encouraged to observe these standards.

25. **The ICPM is invited to**:

1. *Adopt* the amendments to the *Glossary of Phytosanitary Terms*.
2. *Endorse* the recommendations of the Glossary Working Group.
3. *Adopt* as ISPM No. 11 the new standard *Pest risk analysis for quarantine pests*.
4. *Recommend* the revision of ISPM No. 2.
5. *Adopt* as ISPM No. 12, the new standard *Guidelines for phytosanitary certificates*.
6. *Adopt* as ISPM No. 13, the new standard *Guidelines for the notification on non-compliance and emergency actions*.
7. *Endorse* the concept of explanatory supplements to the *Glossary of phytosanitary terms*.
8. *Adopt* as Glossary Supplement No.1, *Guidelines for the interpretation and application of the concept of official control for regulated pests*.
9. *Adopt* the statement of application proposed by the Secretariat and FAO Legal Office.
10. *Recommend* that the application statement be included in all existing and future ISPMs until amended by the ICPM.

AMENDMENTS TO THE GLOSSARY OF PHYTOSANITARY TERMS

1. New Terms and Definitions

Devitalization	A procedure rendering plants or plant products incapable of germination, growth or further reproduction
Emergency action	A prompt phytosanitary action undertaken in a new or unexpected phytosanitary situation
Emergency measure	A phytosanitary regulation or procedure established as a matter of urgency in a new or unexpected phytosanitary situation. An emergency measure may or may not be a provisional measure
Official control	The active enforcement of mandatory phytosanitary regulations and the application of mandatory phytosanitary procedures with the objective of eradication or containment of quarantine pests or the management of regulated non-quarantine pests
Phytosanitary action	An official operation, such as inspection, testing, surveillance or treatment, undertaken to implement phytosanitary regulations or procedures
Provisional measure	A phytosanitary regulation or procedure established without full technical justification owing to current lack of adequate information. A provisional measure is subjected to full technical justification as soon as possible

2. Revised Terms and Definitions

Bulbs and tubers	A commodity class for dormant underground parts of plants intended for planting (includes corns and rhizomes)
Commodity	A type of plant, plant product, or other article being moved for trade or other purpose
Consignment	A quantity of plants, plant products and/or other articles being moved from one country to another and covered, when required, by a single phytosanitary certificate (a consignment may be composed of one or more commodities)
Cut flowers and branches	A commodity class for fresh parts of plants intended for decorative use and not for planting

Fruits and vegetables	A commodity class for fresh parts of plants intended for consumption or processing and not for planting
Grain	A commodity class for seeds intended for processing or consumption and not for planting (See Seeds)
Phytosanitary procedure	Any officially prescribed method for implementing phytosanitary regulations including the performance of inspections, tests, surveillance or treatments in connection with regulated pests
Phytosanitary regulation	Official rule to prevent the introduction and/or spread of quarantine pests, or to limit the economic impact of regulated non-quarantine pests, including establishment of procedures for phytosanitary certification
Regulated area	An area into which, within which and/or from which plants, plant products and other regulated articles are subjected to phytosanitary regulations or procedures in order to prevent the introduction and/or spread of quarantine pests or to limit the economic impact of regulated non-quarantine pests
Seeds	A commodity class for seeds for planting and not for consumption or processing (see Grain)
Wood	A commodity class for round wood, sawn wood, wood chips or dunnage, with or without bark

3. Other Recommendations

Country of re-export: The term is removed from the Glossary because the definition is incorrect. Refer to the Glossary Group for correction and clarification of its relationship to other terms.

Country of origin (of a consignment of plant products): Refer to the Glossary Group

Growing season: Retain the existing term in the Glossary but refer it to the Glossary Group for consideration of its relationship to *Growing period (for a crop)* which is also referred to the Glossary Group to consider in this regard.

Plants in tissue culture: Maintain existing term in the Glossary but refer to the Glossary Group to determine appropriateness of both the term and the definition. Alternative definition: a commodity class for plants obtained by in vitro technique in an aseptic medium and transported in a closed container.

General recommendation: Terms and definitions included in ISPMs be annotated to indicate the date and body that adopted the term. This is to be consistent with the format in the *Glossary of phytosanitary terms* and to help identify the most recent term and definition.

DRAFT STANDARD

INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES

PEST RISK ANALYSIS FOR QUARANTINE PESTS

Secretariat of the International Plant Protection Convention
Food and Agriculture Organization
of the United Nations
Rome, 200-

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INTRODUCTION

SCOPE

The standard provides details for the conduct of pest risk analysis (PRA) to determine if pests are quarantine pests. It describes the integrated processes to be used for risk assessment as well as the selection of risk management options.

REFERENCES

Agreement on the Application of Sanitary and Phytosanitary Measures, 1994. World Trade Organization, Geneva.
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Principles of plant quarantine as related to international trade, 1995. ISPM Pub. No. 1, FAO, Rome.
Export Certification System, 1997. ISPM Pub. No. 7, FAO, Rome
Requirements for the establishment of pest free areas, 1996. ISPM Pub. No. 4, FAO, Rome.
Determination of pest status in an area, 1998. ISPM No. 8, FAO, Rome.
Requirements for the establishment of pest free places of production and pest-free production sites, 1999. ISPM No. 10, FAO, Rome.

DEFINITIONS, ABBREVIATIONS AND ACRONYMS

Area	An officially defined country, part of a country or all or parts of several countries
Commodity[*]	A type of plant, plant product or other regulated article being moved for trade or other purpose
Consignment[*]	A quantity of plants, plant products and/or other regulated articles being moved from one country to another and covered by a single phytosanitary certificate (a consignment may be composed of one or more lots)
Country of origin (of a consignment of plant products)	Country where the plants from which the plant products are derived were grown
Country of origin (of a consignment of plants)	Country where the plants were grown
Country of origin (of regulated articles other than plants and plant products)	Country where the regulated articles were first exposed to contamination by pests

[*] Term and/or definition new, revised or replaces definition in the *Glossary of phytosanitary terms*

Endangered area	An area where ecological factors favour the establishment of a pest whose presence in the area will result in economically important loss
Entry (of a pest)	Movement of a pest into an area where it is not yet present, or present but not widely distributed and being officially controlled
Establishment	Perpetuation, for the foreseeable future, of a pest within an area after entry
Introduction	The entry of a pest resulting in its establishment
IPPC	Acronym for the International Plant Protection Convention, as deposited in 1951 with FAO in Rome and as subsequently amended
National Plant Protection Organization	Official service established by a government to discharge the functions specified by the IPPC
NPPO	Acronym for National Plant Protection Organization
Official	Established, authorized or performed by a National Plant Protection Organization
Pathway	Any means that allows the entry or spread of a pest
Pest	Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products
Pest categorization*	The process for determining whether a pest has or not the characteristics of a quarantine pest or those of a regulated non-quarantine pest
Pest free area	An area in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained
Pest free production site*	A defined portion of a place of production in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained for a defined period
Pest risk analysis	The process of evaluating biological or other scientific and economic evidence to determine whether a pest should be regulated and the strength of any phytosanitary measures to be taken against it
Pest risk assessment (for quarantine pests)*	Evaluation of the probability of the introduction and spread of a pest and of the associated potential economic consequences
Pest risk management (for quarantine pests)*	Evaluation and selection of options to reduce the risk of introduction and spread of a pest

Phytosanitary certificate	Certificate patterned after the model certificates of the IPPC
Phytosanitary measure	Any legislation, regulation or official procedure having the purpose to prevent the introduction and/or spread of pests
Phytosanitary regulation*	Official rule to prevent the introduction and/or spread of quarantine pests, or to limit the economic impact of regulated non-quarantine pests, including establishment of procedures for phytosanitary certification
Post-entry quarantine	Quarantine applied to a consignment after entry
PRA area	Area in relation to which a pest risk analysis is conducted
Prohibition	A phytosanitary regulation forbidding the importation or movement of specified pests or commodities
Quarantine pest	A pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled
Regional Plant Protection Organization	An intergovernmental organization with the functions laid down by Article IX of the IPPC
RPPO	Acronym for Regional Plant Protection Organization
Spread	Expansion of the geographical distribution of a pest within an area

OUTLINE OF REQUIREMENTS

The objectives of a PRA are, for a specified area, to identify pests and/or pathways of concern and evaluate their risk, to identify endangered areas, and, if appropriate, to identify risk management options. Pest risk analysis (PRA) for quarantine pests follows a process defined by three stages:

Stage 1 (initiating the process) involves identifying the pest(s) and pathways that are of concern and should be considered for risk analysis in relation to the identified PRA area.

Stage 2 (risk assessment) begins with the categorization of individual pests to determine whether the criteria for a quarantine pest are satisfied. Risk assessment continues with an evaluation of the probability of pest entry, establishment, and spread, and of their potential economic consequences.

Stage 3 (risk management) involves identifying management options for reducing the risks identified at stage 2. These are evaluated for efficacy, feasibility and impact in order to select those that are appropriate.

PEST RISK ANALYSIS FOR QUARANTINE PESTS

1. Stage 1: Initiation

The aim of the initiation stage is to identify the pest(s) and pathways which are of concern and should be considered for risk analysis in relation to the identified PRA area.

1.1 Initiation point

The PRA process may be initiated as a result of:

- the identification of a pathway that presents a potential pest hazard
- the identification of a pest that may require phytosanitary measures
- the review or revision of phytosanitary policies and priorities.

1.1.1 PRA initiated by the identification of a pathway

The need for a new or revised PRA on a specific pathway may arise in the following situations:

- international trade is initiated in a commodity not previously imported into the country (usually a plant or plant product, including genetically altered plants) or a commodity from a new area or new country of origin
- new plant species are imported for selection and scientific research purposes
- a pathway other than commodity import is identified (natural spread, packing material, mail, garbage, passenger baggage, etc.).

A list of pests likely to be associated with the pathway (e.g. carried by the commodity) may be generated by any combination of official sources, databases, scientific and other literature, or expert consultation. It is preferable to prioritize the listing, based on expert judgement on pest distribution and types of pests. If no potential quarantine pests are identified as likely to follow the pathway, the PRA may stop at this point.

1.1.2 PRA initiated by the identification of a pest

A requirement for a new or revised PRA on a specific pest may arise in the following situations:

- an emergency arises on discovery of an established infestation or an outbreak of a new pest within a PRA area
- an emergency arises on interception of a new pest on an imported commodity
- a new pest risk is identified by scientific research
- a pest is introduced into an area
- a pest is reported to be more damaging in an area other than in its area of origin
- a pest is repeatedly intercepted
- a request is made to import an organism
- an organism is identified as a vector for other pests
- an organism is genetically altered in a way which clearly identifies its potential as a plant pest.

1.1.3 PRA initiated by the review or revision of a policy

A requirement for a new or revised PRA originating from policy concerns will most frequently arise in the following situations:

- a national decision is taken to review phytosanitary regulations, requirements or operations
- a proposal made by another country or by an international organization (RPPO, FAO) is reviewed
- a new treatment or loss of a treatment system, a new process, or a new information impacts on an earlier decision
- a dispute arises on phytosanitary measures
- the phytosanitary situation in a country changes, a new country is created, or political boundaries have changed.

1.2 Identification of PRA area

The PRA area should be defined as precisely as possible in order to identify the area for which information is needed.

1.3 Information

Information gathering is an essential element of all stages of PRA. It is important at the initiation stage in order to clarify the identity of the pest(s), its/their present distribution and association with host plants, commodities, etc. Other information will be gathered as required to reach necessary decisions as the PRA continues.

Information for PRA may come from a variety of sources. The provision of official information regarding pest status is an obligation under the IPPC (Art. VIII.1c) facilitated by official contact points (Art. VIII.2).

1.3.1 Previous PRA

A check should also be made as to whether pathways, pests or policies have already been subjected to the PRA process, either nationally or internationally. If a PRA exists, its validity should be checked as circumstances and information may have changed. The possibility of using a PRA from a similar pathway or pest, that may partly or entirely replace the need for a new PRA, should also be investigated.

1.4 Conclusion of initiation

At the end of Stage 1, the initiation point, the pests and pathways of concern and the PRA area will have been identified. Relevant information has been collected and pests have been identified as possible candidates for phytosanitary measures, either individually or in association with a pathway.

2. Stage 2: Pest Risk Assessment

The process for pest risk assessment can be broadly divided into three interrelated steps:

- pest categorization
- assessment of the probability of introduction and spread
- assessment of potential economic consequences (including environmental impacts).

In most cases, these steps will be applied sequentially in a PRA but it is not essential to follow a particular sequence. Pest risk assessment needs to be only as complex as is technically justified by the circumstances. This standard allows a specific PRA to be judged against the principles of necessity, minimal impact, transparency, equivalence, risk analysis, managed risk and non-discrimination set out in ISPM No. 1, *Principles of plant quarantine as related to international trade* (FAO, 1995).

2.1 Pest categorization

At the outset, it may not be clear which pest(s) identified in Stage 1 require a PRA. The categorization process examines for each pest whether the defining criteria in the definition for a quarantine pest are satisfied.

In the evaluation of a pathway associated with a commodity, a number of individual PRAs may be necessary for the various pests potentially associated with the pathway. The opportunity to eliminate an organism or organisms from consideration before in-depth examination is undertaken is a valuable characteristic of the categorization process.

An advantage of pest categorization is that it can be done with relatively little information, however information should be sufficient to adequately carry out the categorization.

2.1.1 Elements of categorization

The categorization of a pest as a quarantine pest includes the following primary elements:

- identity of the pest
- presence or absence in the PRA area
- regulatory status
- potential for establishment and spread in PRA area
- potential for economic consequences (including environmental consequences) in the PRA area.

2.1.1.1 Identity of pest

The identity of the pest should be clearly defined to ensure that the assessment is being performed on a distinct organism, and that biological and other information used in the assessment is relevant to the organism in question. If this is not possible because the causal agent of particular symptoms has not yet been fully identified, then it should have been shown to produce consistent symptoms and to be transmissible.

The taxonomic unit for the pest is generally species. The use of a higher or lower taxonomic level should be supported by scientifically sound rationale. In the case of levels below the species, this should include evidence demonstrating that factors such as differences in virulence, host range or vector relationships are significant enough to affect phytosanitary status.

In cases where a vector is involved, the vector may also be considered a pest to the extent that it is associated with the causal organism and is required for transmission of the pest.

2.1.1.2 Presence or absence in PRA area

The pest should be absent from all or a defined part of the PRA area.

2.1.1.3 Regulatory status

If the pest is present but not widely distributed in the PRA area, it should be under official control or expected to be under official control.

2.1.1.4 Potential for establishment and spread in PRA area

Evidence should be available to support the conclusion that the pest could become established or spread in the PRA area. The PRA area should have ecological/climatic conditions including those in protected conditions suitable for the establishment and spread of the pest and where relevant, host species (or near relatives), alternate hosts and vectors should be present in the PRA area.

2.1.1.5 Potential for economic consequences in PRA area

There should be clear indications that the pest is likely to have an unacceptable economic impact (including environmental impact) in the PRA area.

2.1.2 Conclusion of pest categorization

If it has been determined that the pest has the characteristics of a quarantine pest, the PRA process should continue. If a pest does not fulfil all of the criteria for a quarantine pest, the PRA process for that pest may stop. In the absence of sufficient information, the uncertainties should be identified and the PRA process should continue.

2.2 Assessment of the probability of introduction and spread

Pest introduction is comprised of both entry and establishment. Assessing the probability of introduction requires an analysis of each of the pathways with which a pest may be associated from its origin to its establishment in the PRA area. In a PRA initiated by a specific pathway (usually an imported commodity), the probability of pest entry is evaluated for the pathway in question. The probabilities for pest entry associated with other pathways need to be investigated as well.

For risk analyses that have been initiated for a specific pest, with no particular commodity or pathway under consideration, the potential of all probable pathways should be considered.

The assessment of probability of spread is based primarily on biological considerations similar to those for entry and establishment.

2.2.1 Probability of entry of a pest

The probability of entry of a pest depends on the pathways from the exporting country to the destination, and the frequency and quantity of pests associated with them. The higher the number of pathways, the greater the probability of the pest entering by one of these pathways.

Documented pathways for the pest to enter new areas should be noted. Potential pathways, which may not currently exist, should be assessed. Pest interception data

may provide evidence of the ability of a pest to be associated with a pathway and to survive in transport or storage.

2.2.1.1 Identification of pathways for a PRA initiated by a pest

All relevant pathways should be considered. They can be identified principally in relation to the geographical distribution and host range of the pest. Consignments of plants and plant products moving in international trade are the principal pathways of concern and existing patterns of such trade will, to a substantial extent, determine which pathways are relevant. Other pathways such as other types of commodities, packing materials, persons, baggage, mail, conveyances and the exchange of scientific material should be considered where appropriate. Entry by natural means should also be assessed, as natural spread is likely to reduce the effectiveness of phytosanitary measures.

2.2.1.2 Probability of the pest being associated with the pathway at origin

The probability of the pest being associated, spatially or temporally, with the pathway at origin should be estimated. Factors to consider are:

- prevalence of the pest in the source area
- occurrence of the pest in a life-stage that would be associated with commodities, containers, or conveyances
- volume and frequency of movement along the pathway
- seasonal timing
- pest management, cultural and commercial procedures applied at the place of origin (application of plant protection products, handling, culling, roguing, grading).

2.2.1.3 Probability of survival during transport or storage

Example of factors to consider are:

- speed and conditions of transport and duration of the life cycle of the pest in relation to time in transport and storage
- vulnerability of the life-stages during transport or storage
- prevalence of pest likely to be associated with a consignment
- commercial procedures (e.g. refrigeration) applied to consignments in the country of origin, country of destination, or in transport or storage.

2.2.1.4 Probability of pest surviving existing pest management procedures

Existing pest management procedures (including phytosanitary procedures) applied to consignments against other pests from origin to end-use, should be evaluated for effectiveness against the pest in question. The probability that the pest will go undetected during inspection or survive other existing phytosanitary procedures should be estimated.

2.2.1.5 Probability of transfer to a suitable host

Factors to consider are:

- dispersal mechanisms, including vectors to allow movement from the pathway to a suitable host

- whether the imported commodity is to be sent to a few or many destination points in the PRA area
- proximity of entry, transit and destination points to suitable hosts
- time of year at which import takes place
- intended use of the commodity (e.g. for planting, processing and consumption).

Some uses are associated with a much higher probability of introduction (e.g. planting) than others (e.g. processing). The probability associated with any growth, processing, or disposal of the commodity in the vicinity of suitable hosts should also be considered.

2.2.2 Probability of establishment

In order to estimate the probability of establishment of a pest, reliable biological information (life cycle, host range, epidemiology, survival etc.) should be obtained from the areas where the pest currently occurs. The situation in the PRA area can then be compared with that in the areas where it currently occurs (taking account also of protected environments) and expert judgement used to assess the probability of establishment. Case histories concerning comparable pests can be considered. Examples of the factors to consider are:

- availability, quantity and distribution of hosts in the PRA area
- environmental suitability in the PRA area
- potential for adaptation of the pest
- reproductive strategy of the pest
- method of pest survival
- cultural practices and control measures.

In considering probability of establishment, it should be noted that a transient pest (see ISPM No. 8, *Determination of pest status in an area*) may not be able to establish in the PRA area (e.g. because of unsuitable climatic conditions) but could still have unacceptable economic consequences (see IPPC Art. VII.3).

2.2.2.1 Availability of suitable hosts, alternate hosts and vectors in the PRA area

Factors to consider are:

- whether hosts and alternate hosts are present and how abundant or widely distributed they may be
- whether hosts and alternate hosts occur within sufficient geographic proximity to allow the pest to complete its life cycle
- whether there are other plant species, which could prove to be suitable hosts in the absence of the usual host species
- whether a vector, if needed for dispersal of the pest, is already present in the PRA area or likely to be introduced
- whether another vector species occurs in the PRA area.

The taxonomic level at which hosts are considered should normally be the "species". The use of higher or lower taxonomic levels should be justified by scientifically sound rationale.

2.2.2.2 Suitability of environment

Factors in the environment (e.g. suitability of climate, soil, pest and host competition) that are critical to the development of the pest, its host and if applicable its vector, and to their ability to survive periods of climatic stress and complete their life cycles, should be identified. It should be noted that the environment is likely to have different effects on the pest, its host and its vector. This needs to be recognized in determining whether the interaction between these organisms in the area of origin is maintained in the PRA area to the benefit or detriment of the pest. The probability of establishment in a protected environment, e.g. in glasshouses should also be considered.

Climatic modelling systems may be used to compare climatic data on the known distribution of a pest with that in the PRA area.

2.2.2.3 Cultural practices and control measures

Where applicable, practices employed during the cultivation/production of the host crops should be compared to determine if there are differences in such practices between the PRA area and the origin of the pest that may influence its ability to establish.

Pest control programs or natural enemies already in the PRA area which reduce the probability of establishment may be considered. Pests for which control is not feasible should be considered to present a greater risk than those for which treatment is easily accomplished. The availability (or lack) of suitable methods for eradication should also be considered.

2.2.2.4 Other characteristics of the pest affecting the probability of establishment

These include:

- *Reproductive strategy of the pests and method of pest survival* - Characteristics, which enable the pest to reproduce effectively in the new environment, such as parthenogenesis/self-crossing, duration of the life cycle, number of generations per year, resting stage etc., should be identified.
- *Genetic adaptability* - Whether the species is polymorphic and the degree to which the pest has demonstrated the ability to adapt to conditions like those in the PRA area should be considered, e.g., host-specific races or races adapted to a wider range of habitats or to new hosts. This genotypic (and phenotypic) variability facilitates a pest's ability to withstand environmental fluctuations, to adapt to a wider range of habitats, to develop pesticide resistance and to overcome host resistance.
- *Minimum population needed for establishment* - If possible, the threshold population that is required for establishment should be estimated.

2.2.3 Probability of spread after establishment

A pest with a high potential for spread may also have a high potential for establishment, and possibilities for its successful containment and/or eradication

are more limited. In order to estimate the probability of spread of the pest, reliable biological information should be obtained from areas where the pest currently occurs. The situation in the PRA area can then be carefully compared with that in the areas where the pest currently occurs and expert judgement used to assess the probability of spread. Case histories concerning comparable pests can usefully be considered. Examples of the factors to consider are:

- suitability of the natural and/or managed environment for natural spread of the pest
- presence of natural barriers
- the potential for movement with commodities or conveyances
- intended use of the commodity
- potential vectors of the pest in the PRA area
- potential natural enemies of the pest in the PRA area.

The information on probability of spread is used to estimate how rapidly a pest's potential economic importance may be expressed within the PRA area. This also has significance if the pest is liable to enter and establish in an area of low potential economic importance and then spread to an area of high potential economic importance. In addition it may be important in the risk management stage when considering the feasibility of containment or eradication of an introduced pest.

2.2.4 Conclusion on the probability of introduction and spread

The overall probability of introduction should be expressed in terms most suitable for the data, the methods used for analysis, and the intended audience. This may be quantitative or qualitative, since either output is in any case the result of a combination of both quantitative and qualitative information. The probability of introduction may be expressed as a comparison with that obtained from PRAs on other pests.

2.2.4.1 Conclusion regarding endangered areas

The part of the PRA area where ecological factors favour the establishment of the pest should be identified as appropriate to define the endangered area. This may be the whole of the PRA area or a part of the area.

2.3 Assessment of potential economic consequences

Requirements described in this step indicate what information relative to the pest and its potential host plants should be assembled, and suggest levels of economic analysis that may be carried out using that information in order to assess all the effects of the pest, i.e. the potential economic consequences. Wherever appropriate, quantitative data that will provide monetary values should be obtained. Qualitative data may also be used. Consultation with an economist may be useful.

In many instances, detailed analysis of the estimated economic consequences is not necessary if there is sufficient evidence or it is widely agreed that the introduction of a pest will have unacceptable economic consequences (including environmental consequences). In such cases, risk assessment will primarily focus on the probability of introduction and spread. It will, however, be necessary to examine economic factors in greater detail when the level of economic consequences is in question, or when the

level of economic consequences is needed to evaluate the strength of measures used for risk management or in assessing the cost-benefit of exclusion or control.

2.3.1 Pest effects

In order to estimate the potential economic importance of the pest, information should be obtained from areas where the pest occurs, naturally or has been introduced. This information should be compared with the situation in the PRA area. Case histories concerning comparable pests can usefully be considered. The effects considered may be direct or indirect.

2.3.1.1 Direct pest effects

For identification and characterization of the direct effects of the pest on each potential host in the PRA area, or those effects which are host-specific, the following are examples that could be considered:

- known or potential host plants (in the field, under protected cultivation, or in the wild)
- types, amount and frequency of damage
- crop losses, in yield and quality
- biotic factors (e.g. adaptability and virulence of the pest) affecting damage and losses
- abiotic factors (e.g. climate) affecting damage and losses
- rate of spread
- rate of reproduction
- control measures (including existing measures), their efficacy and cost
- effect on existing production practices
- environmental effects.

For each of the potential hosts, the total area of the crop and area potentially endangered should be estimated in relation to the elements given above.

2.3.1.2 Indirect pest effects

For identification and characterization of the indirect effects of the pest in the PRA area, or those effects that are not host-specific, the following are examples that could be considered:

- effects on domestic and export markets, including in particular effects on export market access. The potential consequences for market access which may result if the pest becomes established, should be estimated. This involves considering the extent of any phytosanitary regulations imposed (or likely to be imposed) by trading partners
- changes to producer costs or input demands, including control costs
- changes to domestic or foreign consumer demand for a product resulting from quality changes
- environmental and other undesired effects of control measures
- feasibility and cost of eradication or containment
- capacity to act as a vector for other pests
- resources needed for additional research and advice
- social and other effects (e.g. tourism).

2.3.2 Analysis of economic consequences

2.3.2.1 Time and place factors

Estimations made in the previous section related to a hypothetical situation where the pest is supposed to have been introduced and to be fully expressing its potential economic consequences (per year) in the PRA area. In practice, however, economic consequences are expressed with time, and may concern one year, several years or an indeterminate period. Various scenarios should be considered. The total economic consequences over more that one year can be expressed as net present value of annual economic consequences, and an appropriate discount rate selected to calculate net present value.

Other scenarios could concern whether the pest occurs at one, few or many points in the PRA area and the expression of potential economic consequences will depend on the rate and manner of spread in the PRA area. The rate of spread may be envisaged to be slow or rapid; in some cases, it may be supposed that spread can be prevented. Appropriate analysis may be used to estimate potential economic consequences over the period of time when a pest is spreading in the PRA area. In addition, many of the factors or effects considered above could be expected to change over time, with the consequent effects of potential economic consequences. Expert judgement and estimations will be required.

2.3.2.2 Analysis of commercial consequences

As determined above, most of the direct effects of a pest, and some of the indirect effects will be of a commercial nature, or have consequences for an identified market. These effects, which may be positive or negative, should be identified and quantified. The following may usefully be considered:

- effect of pest-induced changes to producer profits that result from changes in production costs, yields or prices
- effect of pest-induced changes in quantities demanded or prices paid for commodities by domestic and international consumers. This could include quality changes in products and/or quarantine-related trade restrictions resulting from a pest introduction.

2.3.2.3 Analytical techniques

There are analytical techniques which can be used in consultation with experts in economics to make a more detailed analysis of the potential economic effects of a quarantine pest. These should incorporate all of the effects that have been identified. These techniques may include:

- *partial budgeting*: this will be adequate, if the economic effects induced by the action of the pest to producer profits are generally limited to producers and are considered to be relatively minor
- *partial equilibrium*: this is recommended if, under point 2.3.2.2, there is a significant change in producer profits, or if there is a significant change in consumer demand. Partial equilibrium analysis is necessary to

measure welfare changes, or the net changes arising from the pest impacts on producers and consumers

- *general equilibrium*: if the economic changes are significant to a national economy, and could cause changes to factors such as wages, interest rates or exchange rates, then general equilibrium analysis could be used to establish the full range of economic effects

The use of analytical techniques is often limited by lack of data, by uncertainties in the data, and by the fact that for certain effects only qualitative information can be provided.

2.3.2.4 Non-commercial and environmental consequences

Some of the direct and indirect effects of a pest determined in 2.3.1.1 and 2.3.1.2 will be of an economic nature, or affect some type of value, but not have an existing market which can be easily identified. As a result, the effects may not be adequately measured in terms of prices in established product or service markets. Examples include in particular environmental effects (ecosystem stability, biodiversity, amenity value) and social effects (employment, tourism). These impacts could be approximated with an appropriate non-market valuation method.

If quantitative measurement of such consequences is not feasible, qualitative information about the consequences may be provided. An explanation of how this information has been incorporated into decisions should also be provided.

2.3.3 Conclusion of the assessment of economic consequences

Wherever appropriate, the output of the assessment of economic consequences described in this step should be in terms of a monetary value. The economic consequences can also be expressed qualitatively or using quantitative measures without monetary terms. Sources of information, assumptions and methods of analysis should be clearly specified.

2.3.3.1 Endangered area

The part of the PRA area where presence of the pest will result in economically important loss should be identified as appropriate. This is needed to define the endangered area.

2.4 Degree of uncertainty

Estimation of the probability of introduction of pests and of its economic consequences involves many uncertainties. In particular, this estimation is an extrapolation from the situation where the pest occurs to the hypothetical situation in the PRA area. It is important to document the areas of uncertainty and the degree of uncertainty in the assessment, and to indicate where expert judgement has been used. This is necessary for transparency and may also be useful for identifying and prioritizing research needs.

2.5 Conclusion of the pest risk assessment stage

As a result of the pest risk assessment, all or part of the PRA area may be identified as an endangered area. A quantitative or qualitative estimate of the probability of introduction of a pest or pests, and a corresponding quantitative or qualitative estimate of economic consequences (including environmental consequences), have been obtained and documented or an overall rating could have been assigned. These estimates, with associated uncertainties, are utilized in the pest risk management stage of the PRA.

3. Stage 3: Pest Risk Management

The conclusions from pest risk assessment are used to decide whether risk management is required and the strength of measures to be used. Since zero-risk is not a reasonable option, the guiding principle for risk management should be to manage risk to achieve the required degree of safety that can be justified and is feasible within the limits of available options and resources. Pest risk management (in the analytical sense) is the process of identifying ways to react to a perceived risk, evaluating the efficacy of these actions, and identifying the most appropriate options. The uncertainty noted in the assessments of economic consequences and probability of introduction should also be considered and included in the selection of a pest management option.

3.1 Level of risk

The principle of "managed risk" (ISPM No. 1, *Principles of plant quarantine as related to international trade*) states that: "Because some risk of introduction of a quarantine pest always exists, countries shall agree to a policy of risk management when formulating phytosanitary measures". In implementing this principle, countries should decide what level of risk is acceptable to them.

The acceptable level of risk may be expressed in a number of ways, such as:

- reference to existing phytosanitary requirements
- indexed to estimated economic losses
- expressed on a scale of risk tolerance
- compared with the level of risk accepted by other countries.

3.2 Technical information required

The decision to be made in the pest risk management process will be based on the information collected during the preceding stages of PRA. This information will be composed of:

- reasons for initiating the process
- estimation of the probability of introduction to the PRA area
- evaluation of potential economic consequences in the PRA area.

3.3 Acceptability of risk

Overall risk is determined by the examination of the outputs of the assessments of the probability of introduction and the economic impact. If the risk is found to be unacceptable, then the first step in risk management is to identify possible phytosanitary measures that will reduce the risk to, or below an acceptable level. Measures are not justified if the risk is already acceptable or must be accepted because it is not manageable (as may be the case with natural spread). Countries may decide that a low level of monitoring or audit is maintained to ensure that future changes in the pest risk are identified.

3.4 Identification and selection of appropriate risk management options

Appropriate measures should be chosen based on their effectiveness in reducing the probability of introduction of the pest. The choice should be based on the following considerations, which include several of the *Principles of plant quarantine as related to international trade* (ISPM No. 1):

- *Phytosanitary measures shown to be cost-effective and feasible* - The benefit from the use of phytosanitary measures is that the pest will not be introduced and the PRA area will, consequently, not be subjected to the potential economic consequences. The cost-benefit analysis for each of the minimum measures found to provide acceptable security may be estimated. Those measures with an acceptable benefit-to-cost ratio should be considered.
- *Principle of "minimal impact"* - Measures should not be more trade restrictive than necessary. Measures should be applied to the minimum area necessary for the effective protection of the endangered area.
- *Reassessment of previous requirements* - No additional measures should be imposed if existing measures are effective.
- *Principle of "equivalence"* - If different phytosanitary measures with the same effect are identified, they should be accepted as alternatives.
- *Principle of "non-discrimination"* - If the pest under consideration is established in the PRA area but of limited distribution and under official control, the phytosanitary measures in relation to import should not be more stringent than those applied within the PRA area. Likewise, phytosanitary measures should not discriminate between exporting countries of the same phytosanitary status.

The major risk of introduction of plant pests is with imported consignments of plants and plant products, but (especially for a PRA performed on a particular pest) it is necessary to consider the risk of introduction with other types of pathways (e.g. packing materials, conveyances, travellers and their luggage, and the natural spread of a pest).

The measures listed below are examples of those that are most commonly applied to traded commodities. They are applied to pathways, usually consignments of a host, from a specific origin. The measures should be as precise as possible as to consignment type (hosts, parts of plants) and origin so as not to act as barriers to trade by limiting the import of products where this is not justified. Combinations of two or more measures may be needed in order to reduce the risk to an acceptable level. The available measures can be classified into broad categories which relate to the pest status of the pathway in the country of origin. These include measures:

- applied to the consignment
- applied to prevent or reduce original infestation in the crop
- to ensure the area or place of production is free from the pest
- concerning the prohibition of commodities.

Other options may arise in the PRA area (restrictions on the use of a commodity), control measures, introduction of a biological control agent, eradication, and containment. Such options should also be evaluated and will apply in particular if the pest is already present but not widely distributed in the PRA area.

3.4.1 Options for consignments

Measures may include any combinations of the following:

- inspection or testing for freedom from a pest or to a specified pest tolerance; sample size should be adequate to give an acceptable probability of detecting the pest
- prohibition of parts of the host
- a pre-entry or post-entry quarantine system - this system could be considered to be the most intensive form of inspection or testing where suitable facilities and resources are available, and may be the only option for certain pests not detectable on entry
- specified conditions of preparation of the consignment (e.g. handling to prevent infestation or reinfestation)
- specified treatment of the consignment - such treatments are applied post-harvest and could include chemical, thermal, irradiation or other physical methods
- restrictions on end use, distribution and periods of entry of the commodity.

Measures may also be applied to restrict the import of consignments of pests.

3.4.2 Options preventing or reducing original infestation in the crop

Measures may include:

- treatment of the crop, field, or place of production
- restriction of the composition of a consignment so that it is composed of plants belonging to resistant or less susceptible species
- growing plants under specially protected conditions (glasshouse, isolation)
- harvesting of plants at a certain age or a specified time of year

- production in a certification scheme. An officially monitored plant production scheme usually involves a number of carefully controlled generations, beginning with nuclear stock plants of high health status. It may be specified that the plants be derived from plants within a limited number of generations.

3.4.3 Options ensuring that the area, place or site of production is free from the pest

Measures may include:

- pest-free area - requirements for pest-free area status are described in *Requirements for the establishment of pest free areas* (ISPM No. 4)
- pest-free place of production or pest-free production site - requirements are described in *Requirements for the establishment of pest free places of production and pest-free production sites* (ISPM No. 10).

3.4.4 Options for other types of pathways

For many types of pathways, the measures considered above for plants and plant products to detect the pest in the consignment or to prevent infection of the consignment, may also be used or adapted. For certain types of pathways, the following factors should be considered:

- Natural spread of a pest includes movement of the pest by flight, wind dispersal, transport by vectors such as insects or birds and natural migration. If the pest is entering the PRA area by natural spread, or is likely to enter in the immediate future, phytosanitary measures may have little effect. Control measures applied in the area or origin or containment or eradication in the PRA area after entry of the pest could be considered.
- Measures for human travellers and their baggage could include targeted inspections, publicity and fines or incentives. In a few cases, treatments may be possible.

Contaminated machinery or modes of transport (ships, trains, planes, road transport) could be subjected to cleaning or disinfestation

3.4.5 Options within the importing country

Certain measures applied within the importing country may also be used. These could include careful surveillance to try and detect the entry of the pest as early as possible, eradication programmes to eliminate any foci of infection and/or containment action to limit spread.

3.4.6 Prohibition of commodities

If no satisfactory measure to reduce risk to an acceptable level can be found, the final option may be to prohibit importation of the relevant commodities. This should be viewed as a measure of last resort and should be considered in light of the anticipated efficacy, especially in instances where the incentives for illegal import may be significant.

3.5 Phytosanitary certificates and other compliance measures

Risk management includes the consideration of appropriate compliance procedures. The most important of these is export certification (see ISPM No. 7, *Export certification system*). The issuance of phytosanitary certificates (see the draft ISPM, *Guidelines for Phytosanitary Certificates*) provides official assurance that a consignment is "considered to be free from the quarantine pests specified by the importing contracting party and to conform with the current phytosanitary requirements of the importing contracting party". It thus confirms that the specified risk management options have been followed. An additional declaration may be required to indicate that a particular measure has been carried out. Other compliance measures may be used subject to bilateral or multilateral agreement.

3.6 Conclusion of pest risk management

The result of the pest risk management procedure will be the selection of one or more management options that have been found to lower the risk associated with the pest(s) to an acceptable level. These management options form the basis of phytosanitary regulations or requirements.

The application and maintenance of such regulations is subject to certain obligations, in the case of contracting parties to the IPPC.

3.6.1 Monitoring and review of phytosanitary measures

The principle of "modification" states: "As conditions change, and as new facts become available, phytosanitary measures shall be modified promptly, either by inclusion of prohibitions, restrictions or requirements necessary for their success, or by removal of those found to be unnecessary" (ISPM No. 1, *Principles of plant quarantine as related to international trade*).

Thus, the implementation of particular phytosanitary measures should not be considered to be permanent. After application, the success of the measures in achieving their aim should be determined by monitoring during use. This is often achieved by inspection of the commodity on arrival, noting any interceptions or any entries of the pest to the PRA area. The information supporting the pest risk analysis should be periodically reviewed to ensure that any new information that becomes available does not invalidate the decision taken.

4. Documentation of Pest Risk Analysis

4.1 Documentation requirements

The IPPC and the principle of "transparency" (ISPM No. 1, *Principles of plant quarantine as related to international trade*) require that countries should, on request, make available the rationale for phytosanitary requirements. The whole process from initiation to pest risk management should be sufficiently documented so that when a review or a dispute arises, the sources of information and rationale used in reaching the management decision can be clearly demonstrated.

The main elements of documentation are:

- purpose for the PRA
- pest, pest list, pathways, PRA area, endangered area

- sources of information
- categorized pest list
- conclusions of risk assessment
    - probability
    - consequences
- risk management
    - options identified
    - options selected.

DRAFT STANDARD

INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES

GUIDELINES FOR PHYTOSANITARY CERTIFICATES

Secretariat of the International Plant Protection Convention
Food and Agriculture Organization
of the United Nations
Rome, 200-

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INTRODUCTION

SCOPE

This standard describes principles and guidelines for the preparation and issue of phytosanitary certificates and phytosanitary certificates for re-export.

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EDIFACT, the United Nations Standard for electronic documentation
Export certification system, 1997. ISPM Pub. No. 7, FAO, Rome.
Glossary of phytosanitary terms, 1999. ISPM Pub. No. 5, FAO, Rome.
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Requirements for the establishment of pest free places of production and pest free production sites, 1999. ISPM Pub. No. 10, FAO, Rome.

DEFINITIONS, ABBREVIATIONS AND ACRONYMS

Additional declaration	A statement that is required by an importing country to be entered on a phytosanitary certificate and which provides specific additional information pertinent to the phytosanitary condition of a consignment
Commodity*	A type of plant, plant product or other article being moved for trade or other purpose
Consignment*	A quantity of plants, plant products and/or other articles being moved from one country to another and covered, when required, by a single phytosanitary certificate (a consignment may be composed of one or more commodities)
Consignment in transit	Consignment which passes through a country without being imported, and without being exposed in that country to contamination or infestation by pests. The consignment may not be split up, combined with other consignments or have its packaging changed (formerly country of transit)
Country of origin (of regulated articles other than plants and plant products)	Country where the regulated articles were first exposed to contamination by pests
Country of origin (of a consignment of plants)	Country where the plants were grown
Devitalization*	A procedure rendering plants or plant products incapable of germination, growth or further reproduction

* Term and/or definition new, revised or replaces definition in the *Glossary of phytosanitary terms*

Free from (of a consignment, field or place of production)	Without pests (or a specific pest) in numbers or quantities that can be detected by the application of phytosanitary procedures
Harmonization	The establishment, recognition and application by different countries of phytosanitary measures based on common standards
Import permit	Official document authorizing importation of a commodity in accordance with specified phytosanitary requirements
Inspection	Official visual examination of plants, plant products or other regulated articles to determine if pests are present and/or to determine compliance with phytosanitary regulations
ISPM	Acronym for International Standard for Phytosanitary Measures
National Plant Protection Organization	Official service established by a government to discharge the functions specified by the IPPC
NPPO	Acronym for National Plant Protection Organization
Pest	Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products
Pest free area	An area in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained
Pest free place of production	Place of production in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained for a defined period
Pest free production site	A defined portion of a place of production in which a specific pest does not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained for a defined period and that is managed as a separate unit in the same way as a pest free place of production
Phytosanitary certificate	Certificate patterned after the model certificates of the IPPC
Phytosanitary certification	Use of phytosanitary procedures leading to the issue of a phytosanitary certificate
Phytosanitary measure	Any legislation, regulation or official procedure having the purpose to prevent the introduction and/or spread of pests
Phytosanitary regulation*	Official rule to prevent the introduction and/or spread of quarantine pests, or to limit the economic impact of regulated non-quarantine pests, including establishment

	of procedures for phytosanitary certification
Place of production	Any premises or collection of fields operated as a single production or farming unit. This may include production sites which are separately managed for phytosanitary purposes
Plant products	Unmanufactured material of plant origin (including grain) and those manufactured products that, by their nature or that of their processing, may create a risk for the introduction and spread of pests
Plants	Living plants and parts thereof, including seeds and germplasm
Practically free	Of a consignment, field, or place of production, without pests (or a specific pest) in numbers or quantities in excess of those that can be expected to result from, and be consistent with good cultural and handling practices employed in the production and marketing of the commodity
Quarantine pest	A pest of potential economic importance to the area endangered thereby and not yet present there, or present but not widely distributed and being officially controlled
Re-exported consignment	Consignment which has been imported into a country from which it is then exported without being exposed to infestation or contamination by pests. The consignment may be stored, split up, combined with other consignments or have its packaging changed (formerly Country of re-export)
Regulated article	Any plant, plant product, storage place, packaging, conveyance, container, soil and any other organism, object or material capable of harbouring or spreading pests, deemed to require phytosanitary measures, particularly where international transportation is involved
Regulated non-quarantine pest	A non-quarantine pest whose presence in plants for planting affects the intended use of those plants with an economically unacceptable impact and which is therefore regulated within the territory of the importing contracting party
Regulated pest	A quarantine pest or a regulated non-quarantine pest
Test	Official examination, other than visual, to determine if pests are present or to identify pests
Treatment	Officially authorized procedure for the killing, removal or rendering infertile of pests

OUTLINE OF REQUIREMENTS

This standard describes principles and guidelines to assist National Plant Protection Organizations (NPPOs) with the preparation and issue of phytosanitary certificates and phytosanitary certificates for re-export. Model certificates are provided in the Annex of the *New Revised Text of the International Plant Protection Convention* adopted in 1997 and are appended to this standard for reference. Explanations are given on the various components of the model certificates indicating the information needed for their appropriate completion.

REQUIREMENTS FOR PHYTOSANITARY CERTIFICATES

1. General Considerations

Article V.2a of the New Revised Text of the IPPC states that: *"Inspection and other related activities leading to issuance of phytosanitary certificates shall be carried out only by or under the authority of the official national plant protection organization. The issuance of phytosanitary certificates shall be carried out by public officers who are technically qualified and duly authorized by the official national plant protection organization to act on its behalf and under its control with such knowledge and information available to those officers that the authorities of importing contracting parties may accept the phytosanitary certificates with confidence as dependable documents."* (See also ISPM No. 7, *Export certification system*).

Article V.3 states: "*Each contracting party undertakes not to require consignments of plants or plant products or other regulated articles imported into its territories to be accompanied by phytosanitary certificates inconsistent with the models set out in the Annex to this Convention. Any requirements for additional declarations shall be limited to those technically justified.*"

As clarified at the time of the adoption of the new revised text of the IPPC, it is understood that 'public officers who are technically qualified and duly authorized by the national plant protection organization' include officers from the national plant protection organization. 'Public' in this context means employed by a level of government, not by a private company. 'Include officers from the national plant protection organization' means that the officer may be directly employed by the NPPO, but does not have to be directly employed by the NPPO.

1.1 Purpose of phytosanitary certificates

Phytosanitary certificates are issued to indicate that consignments of plants, plant products or other regulated articles meet specified phytosanitary import requirements and are in conformity with the certifying statement of the appropriate model certificate. Phytosanitary certificates should only be issued for this purpose.

Model certificates provide a standard wording and format that should be followed for the preparation of official phytosanitary certificates. This is necessary to ensure the validity of the documents, that they are easily recognized, and that essential information is reported.

Importing countries should only require phytosanitary certificates for regulated articles. These include commodities such as plants, bulbs and tubers, or seeds for propagation, fruits and vegetables, cut flowers and branches, grain, and growing medium. Phytosanitary certificates may also be used for certain plant products that have been processed where such products, by their nature or that of their processing, have a potential for introducing regulated pests (e.g. wood, cotton). A phytosanitary certificate may also be required for other regulated articles where phytosanitary measures are technically justified (e.g. empty containers, vehicles and organisms).

Importing countries should not require phytosanitary certificates for plant products that have been processed in such a way that they have no potential for introducing regulated pests, or for other regulated articles that do not require phytosanitary measures.

NPPOs should agree bilaterally when there are differences between the views of the importing country and exporting country regarding the justification for requiring a phytosanitary certificate.

1.2 Mode of issue

The phytosanitary certificate is an original document, or under specific circumstances is a certified copy issued by the NPPO, that accompanies the consignment and is presented to the relevant officials upon arrival in the importing country.

Alternatively, electronic certification may be used provided that:

- the mode of issue and security is acceptable by the importing countries (e.g. EDIFACT, the United Nations Standard for electronic documentation)
- the information provided is consistent with the appropriate model(s)
- the intent of certification under the IPPC is realized
- the identity of the issuing authority can be adequately established.

1.3 Attachments

Official attachments to the phytosanitary certificate should be limited to those instances where the information required to complete the certificate exceeds the available space on the certificate. Any attachments containing phytosanitary information should bear the phytosanitary certificate number, and should be dated, signed and stamped the same as the phytosanitary certificate. The phytosanitary certificate should indicate, in the appropriate section, that the information belonging in that section is contained in the attachment. The attachment should not contain any information that would not be put on the phytosanitary certificate itself, had there been enough space.

1.4 Unacceptable certificates

Importing countries should not accept certificates that they determine to be invalid or fraudulent. The issuing authorities should be notified as soon as possible regarding unacceptable or suspect documents (see ISPM on Notification of non-compliance and emergency actions). The NPPO of the exporting country should take corrective action when necessary and maintain systems for vigilance and security to ensure that a high level of confidence is associated with phytosanitary certificates issued by that authority.

1.4.1 Invalid phytosanitary certificates

Reasons for rejecting a phytosanitary certificate and/or for requesting additional information include:

- illegible
- incomplete
- time of validity expired or not complied with
- inclusion of unauthorized alterations or erasures
- inclusion of conflicting or inconsistent information
- use of wording that is inconsistent with the model certificates herein
- certification of prohibited products

– non-certified copies.

1.4.2 Fraudulent certificates

Fraudulent certificates include those:

– not authorized by the NPPO
– issued on forms not authorized by the issuing NPPO
– issued by persons or organizations or other entities that are not authorized by NPPO
– containing false or misleading information.

1.5 Requirements made by importing countries with respect to preparation and issue of phytosanitary certificates

Importing countries frequently specify requirements that should be observed with respect to the preparation and issue of phytosanitary certificates. They commonly include:

– language (countries may require that certificates be completed in a specific language or one of a list of languages -- countries are encouraged to include one of the official languages of FAO)
- time of validity (importing countries may specify the period of time allowed for issue following inspection and/or treatment, dispatch of the consignment from the country of origin following issue, and validity of certificate)
- completion (countries may require that the certificate is completed by typing, or in handwritten legible capital letters)
- units (countries may require that the description of the consignment and quantities declared should be done in specified units).

2. Specific Principles and Guidelines for Preparation and Issue of Phytosanitary Certificates

Phytosanitary certificates and phytosanitary certificates for re-export should include only information related to phytosanitary matters. They should not include references to quality or grade, animal or human health matters, pesticide residues or radioactivity, or commercial information such as letters of credit.

To facilitate cross-referencing between the phytosanitary certificates and documents not related to phytosanitary certification (e.g. letters of credit, bills of lading, CITES certificates), a note may be attached to the phytosanitary certificate which associates the phytosanitary certificate with the identification code, symbol or number(s) of the relevant document(s) which require cross-referencing. Such a note should only be attached when necessary and should not be considered an official part of the phytosanitary certificate.

All components of the phytosanitary certificates and phytosanitary certificates for re-export should normally be completed. Where no entry is made, the term “None” should be entered or the line should be blocked out (to prevent falsification).

2.1 Requirements for completing the phytosanitary certificate

(*Headings in bold refer to the components of the model certificate*)

The specific components of the phytosanitary certificate are explained as follows:

No. _____
This is the certificate identification number. It should be a unique serial number associated with an identification system that allows "trace-back", facilitates audits and serves for record keeping.

Plant Protection Organization of _____
This component requires the name of the official organization and the name of the country that is issuing the certificate. The name of the NPPO may be added here if it is not part of the printed form.

TO: Plant Protection Organization(s) of _____
The name of the importing country should be inserted here. In cases where the shipment transits through a country which has specific transit requirements, including the need for phytosanitary certificates, the names of both importing country and country of transit may be inserted. Care should be taken to ensure that the import and/or transit regulations of each country are met and appropriately indicated. In cases where the shipment is imported and re-exported to another country, the names of both importing countries may be inserted, provided the import regulations of both countries have been met.

Section I. Description of Consignment

Name and address of exporter: _____
This information identifies the source of the consignment to facilitate "trace back" and audit by the exporting NPPO. The name and address should be located in the exporting country. The name and address of a local exporter's agent or shipper should be used, where an international company with a foreign address is the exporter.

Declared name and address of consignee: _____
The name and address should be inserted here and should be in sufficient detail to enable the importing NPPO to confirm the identity of the consignee. The importing country may require that the address be a location in the importing country.

Number and description of packages: _____
Sufficient detail should be included in this section to enable the NPPO of the importing country to identify the consignment and its component parts, and verify their size if necessary. Container numbers and/or railcar numbers are a valid addition to the description of the packages and may be included here, if known.

Distinguishing marks: _____
Distinguishing marks may be indicated at this point on the phytosanitary certificate, or else on a stamped and signed attachment to the certificate. Distinguishing marks on bags, cartons or other containers should be included only where they assist in identifying the consignment. Where no entry is made, the term "None" should be entered or the line should be blocked out (to prevent falsification).

Place of origin: _____
This refers to place(s) from which a consignment gains its phytosanitary status, i.e. where it was possibly exposed to possible infestation or contamination by pests. Normally, this will be the place where the commodity was grown. If a commodity is stored or moved, its phytosanitary status may change over a period of time as a result of its new location. In such

cases the new location may be considered as the place of origin. In specific circumstances, a commodity may gain its phytosanitary status from more than one place. In these cases where pests from one or more place may be involved, NPPOs should decide which place or places of origin most accurately describe the situation which has given the commodity its phytosanitary status. It is noted that in exceptional cases, such as with mixed seed lots, it is not possible to identify a single place of origin. It is then preferable to indicate all the possible origins if known.

Countries may require that "pest free area", "pest free place of production", or "pest free production site" be identified in sufficient detail in this section. In any case, at least the country of origin should be indicated.

Declared means of conveyance: _____
Terms such as "sea, air, road, rail, mail, and passenger" should be used. The ship's name and voyage number or the aircraft's flight number should be included if known.

Declared point of entry: _____
This should be the first point of arrival in the country of final destination, or if not known, the country name. The point of entry of the first country of importation should be listed where more than one country is listed in the "TO:" section. The point of entry for the country of final destination should be listed in cases where the consignment only transits through another country. If the country of transit is also listed in the "TO:" section, the points of entry into the transit country as well as the final destination country may be listed (e.g. point A via point B).

Name of produce and quantity declared: _____
The information provided here should be sufficiently descriptive of the commodity and the quantity expressed as accurately as possible to enable officials in the importing country to adequately verify the contents of the consignment. International codes may be used to facilitate identification (e.g. customs codes) and internationally recognized units and terms should be used where appropriate. Different phytosanitary requirements may apply to the different end uses (for example, consumption as compared to propagation) or state of a product (e.g. fresh compared to dried); the intended end use or state of the product should be specified. Entries should not refer to trade names, sizes, grades or other commercial terms.

Botanical name of plants: _____
The information inserted here should identify plants and plant products using accepted scientific names, at least to genus level but preferably to species level.

It may not be feasible to provide a botanical description for certain regulated articles and products of complex composition such as stock feeds. In these cases, NPPOs should agree bilaterally on a suitable common name descriptor, or the words "Not applicable" or "N/A" may be entered.

Certifying statement
This is to certify that the plants, plant products or other regulated articles described herein have been inspected and/or tested according to appropriate official procedures and are considered to be free from the quarantine pests specified by the importing contracting party and to conform with the current phytosanitary requirements of the importing contracting party, including those for regulated non-quarantine pests.

They are deemed to be practically free from other pests. (Optional clause)

In instances where specific import requirements exist and/or quarantine pests are specified, the certificate is used to certify conformity with the regulations or requirements of the importing country.

In instances where import requirements are not specific and/or quarantine pests are not specified, the exporting country can certify for any pests believed by it to be of regulatory concern.

The exporting countries may include the optional clause on their phytosanitary certificates or not.

"… *appropriate official procedures* …" refers to procedures carried out by the NPPO or persons authorized by the NPPO for purposes of phytosanitary certification. Such procedures should be in conformity with ISPMs where appropriate. Where ISPMs are not relevant or do not exist, the procedures may be specified by the NPPO of the importing country.

"… *considered to be free from quarantine pests* …" refers to freedom from pests in numbers or quantities that can be detected by the application of phytosanitary procedures. It should not be interpreted to mean absolute freedom in all cases but rather that quarantine pests are not believed to be present based on the procedures used for their detection or elimination. It should be recognized that phytosanitary procedures have inherent uncertainty and variability, and involve some probability that pests will not be detected or eliminated. This uncertainty and probability should be taken into account in the specification of appropriate procedures.

"… *phytosanitary requirements* …" are officially prescribed conditions to be met in order to prevent the introduction and/or spread of pests. Phytosanitary requirements should be specified in advance by the NPPO of the importing country in legislation, regulations, or elsewhere (e.g. import permits and bilateral agreements and arrangements).

"… *importing contracting party* …" refers to governments that have adhered to the IPPC including Members of the Interim Commission on Phytosanitary Measures until the amendments of 1997 come into force.

Section II. Additional Declaration

Additional declarations should be only those containing information required by the importing country and not otherwise noted on the certificate. Additional declarations should be kept to a minimum and be concise. The text of additional declarations may be specified in, for example, phytosanitary regulations, import permits or bilateral agreements. Treatment(s) should be indicated in Section III.

Section III. Disinfestation and/or Disinfection Treatment

Treatments indicated should only be those which are acceptable to the importing country and are performed in the exporting country or in transit to meet the phytosanitary requirements of the importing country. These can include devitalization and seed treatments.

Stamp of organization
This is the official seal, stamp or mark identifying the issuing NPPO. It may be printed on the certificate or added by the issuing official upon completion of the form. Care should be taken to ensure that the mark does not obscure essential information.

Name of authorized officer, date and signature
The name of the issuing official is typed or hand-written in legible capital letters (where applicable). The date is also to be typed or hand-written in legible capital letters (where applicable). Only abbreviations may be used to identify months, so that the month, day and year are not confused.

Although portions of the certificate may be completed in advance, the date should correspond to the date of signature. Certificates should not be post- or pre-dated, or issued after dispatch of the consignment unless bilaterally agreed. The NPPO of the exporting country should be able to verify the authenticity of signatures of authorized officers upon request.

Financial liability statement
The inclusion of a financial liability statement in a phytosanitary certificate is optional.

2.2 Phytosanitary certificate for re-export

The components of the phytosanitary certificate for re-export are the same as for the phytosanitary certificate (see Section 2.1) except for the section covering certification. In this section, the NPPO indicates by inserting ticks in the appropriate boxes whether the certificate is accompanied by the original phytosanitary certificate or its certified copy, whether the consignment has been repacked or not, whether the containers are original or new, and whether an additional inspection has been done. ISPM No. 7 (*Export Certification Systems*) provides guidance on the need for additional inspection.

If the consignment is split up and the resulting consignments are exported separately, then phytosanitary certificates for re-export and certified copies of the original phytosanitary certificate will be required to accompany any such consignments.

2.2.1 Condition for issuing a phytosanitary certificate for re-export

When a consignment is imported into a country, then exported to another, the NPPO should issue a phytosanitary certificate for re-export (see model). The NPPO should only issue a certificate for the export of an imported consignment if the NPPO is confident that the importing country's regulations are met. Re-export certification may still be done if the consignment has been stored, split up, combined with other consignments or re-packaged, provided that it has not been exposed to infestation or contamination by pests. The original phytosanitary certificate or its certified copy should also accompany the consignment.

2.2.2 Conditions for issuing a phytosanitary certificate for an imported consignment

If the consignment has been exposed to infestation or contamination by pests, or has lost its integrity or identity, or has been processed to change its nature. The NPPO should issue a phytosanitary certificate and not the phytosanitary certificate for re-export. The first country of origin should still be indicated on the phytosanitary certificate.

If the consignment has been grown for a specific time (depending on the commodity concerned, but usually one growing season or more) the consignment can be considered to have changed its country of origin.

2.2.3 Transit

If a consignment is not imported, but is in transit through a country or in transit without being exposed to infestation or contamination by pests, the NPPO does not need to issue either a phytosanitary certificate or a phytosanitary certificate for re-export. If however, the consignment is exposed to infestation or contamination by pests, the NPPO should issue a phytosanitary certificate. If the consignment is split up, combined with other consignments or repackaged, the NPPO should issue a phytosanitary certificate for re-export.

APPENDIX

Model Phytosanitary Certificate

No. _____

Plant Protection Organization of _____
TO: Plant Protection Organization(s) of_____

I. Description of Consignment

Name and address of exporter: _____
Declared name and address of consignee: _____
Number and description of packages: _____
Distinguishing marks: _____
Place of origin: _____
Declared means of conveyance: _____
Declared point of entry: _____
Name of produce and quantity declared: _____
Botanical name of plants: _____

This is to certify that the plants, plant products or other regulated articles described herein have been inspected and/or tested according to appropriate official procedures and are considered to be free from the quarantine pests specified by the importing contracting party and to conform with the current phytosanitary requirements of the importing contracting party, including those for regulated non-quarantine pests.

They are deemed to be practically free from other pests.*

II. Additional Declaration

III. Disinfestation and/or Disinfection Treatment

Date _____ Treatment _____ Chemical (active ingredient)_____
Duration and temperature _____
Concentration _____
Additional information _____
_____

Place of issue _____

(Stamp of Organization) Name of authorized officer _____

Date _____ (Signature)_____

No financial liability with respect to this certificate shall attach to (name of Plant Protection Organization) or to any of its officers or representatives.*

* Optional clause

Model Phytosanitary Certificate for Re-Export

No. _____

Plant Protection Organization of _____ (contracting party of re-export)
TO: Plant Protection Organization(s) of _____ (contracting party(ies) of import)

I. Description of Consignment

Name and address of exporter: _____
Declared name and address of consignee: _____
Number and description of packages: _____
Distinguishing marks: _____
Place of origin: _____
Declared means of conveyance: _____
Declared point of entry: _____
Name of produce and quantity declared: _____
Botanical name of plants: _____

This is to certify that the plants, plant products or other regulated articles described above _____ were imported into (contracting party of re-export) _____ from _____ (contracting party of origin) covered by Phytosanitary certificate No. _____, *original ☐ certified true copy ☐ of which is attached to this certificate; that they are packed ☐ repacked ☐ in original ☐ *new ☐ containers, that based on the original phytosanitary certificate ☐ and additional inspection ☐, they are considered to conform with the current phytosanitary requirements of the importing contracting party, and that during storage in _____ (contracting party of re-export), the consignment has not been subjected to the risk of infestation or infection.

* Insert tick in appropriate ☐ boxes

II. Additional Declaration

III. Disinfestation and/or Disinfection Treatment

Date _____ Treatment _____ Chemical (active ingredient) _____
Duration and temperature _____
Concentration _____
Additional information _____
_____

Place of issue _____

(Stamp of Organization) Name of authorized officer _____

Date _____ (Signature)_____

No financial liability with respect to this certificate shall attach to _____ (name of Plant Protection Organization) or to any of its officers or representatives.**

** Optional clause

DRAFT STANDARD

INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES

GUIDELINES FOR THE NOTIFICATION OF NON-COMPLIANCE AND EMERGENCY ACTION

Secretariat of the International Plant Protection Convention
Food and Agriculture Organization
of the United Nations
Rome, 200-

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INTRODUCTION

SCOPE

This standard describes the actions to be taken by countries regarding the notification of:

- a significant instance of failure of an imported consignment to comply with specified phytosanitary requirements, including the detection of specified regulated pests
- a significant instance of failure of an imported consignment to comply with documentary requirements for phytosanitary certification
- an emergency action taken on the detection in an imported consignment of a regulated pest not listed as being associated with the commodity from the exporting country
- an emergency action taken on the detection in an imported consignment of an organism of unknown phytosanitary status.

REFERENCES

Determination of pest status in an area, 1998. ISPM Pub. No. 8, FAO, Rome.
Export certification systems, 1997. ISPM Pub. No. 7, FAO, Rome.
Glossary of phytosanitary terms, 1999. ISPM Pub. No. 5, FAO, Rome.
Guidelines for phytosanitary certificates (ISPM in draft).
New Revised Text of the International Plant Protection Convention, 1997. FAO, Rome.

DEFINITIONS, ABBREVIATIONS AND ACRONYMS

Area	An officially defined country, part of a country or all or parts of several countries
Certificate	An official document which attests to the phytosanitary status of any consignment affected by phytosanitary regulations
Commodity class	A category of similar commodities that can be considered together in phytosanitary regulations
Consignment*	A quantity of plants, plant products and/or other articles being moved from one country to another and covered, when required, by a single phytosanitary certificate (a consignment may be composed of one or more commodities)
Consignment in transit	Consignment which passes through a country without being imported, and without being exposed in that country to contamination or infestation by pests. The consignment may not be split up, combined with other consignments or have its packaging changed

* Term and/or definition new, revised or replaces definition in the *Glossary of phytosanitary terms*

Detention	Keeping a consignment in official custody or confinement for phytosanitary reasons
Emergency action*	A prompt phytosanitary action undertaken in a new or unexpected phytosanitary situation
Introduction	The entry of a pest resulting in its establishment
IPPC	Acronym for the International Plant Protection Convention, as deposited in 1951 with FAO in Rome and as subsequently amended
NPPO	Acronym for National Plant Protection Organization
Official	Established, authorized or performed by a National Plant Protection Organization
Pest	Any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products
Pest status (in an area)	Presence or absence, at the present time, of a pest in an area, including where appropriate its distribution, as officially determined using expert judgement on the basis of current and historical pest records and other information
Phytosanitary action*	An official operation, such as inspection, testing, surveillance or treatment, undertaken to implement phytosanitary regulations or procedures
Phytosanitary certificate	Certificate patterned after the model certificates of the IPPC
Phytosanitary measure	Any legislation, regulation or official procedure having the purpose to prevent the introduction and/or spread of pests
Phytosanitary regulation*	Official rule to prevent the introduction and/or spread of quarantine pests, or to limit the economic impact of regulated non-quarantine pests, including establishment of procedures for phytosanitary certification
Regulated pest	A quarantine pest or a regulated non-quarantine pest
RPPO	Acronym for Regional Plant Protection Organization
Spread	Expansion of the geographical distribution of a pest within an area
Treatment	Officially authorized procedure for the killing, removal or rendering infertile of pests

OUTLINE OF REQUIREMENTS

The New Revised Text of the International Plant Protection Convention (IPPC) makes provision for contracting parties to report significant instances of non-compliance of imported consignments with phytosanitary requirements, including those related to documentation or to report appropriate emergency action, which is taken on the detection in the imported consignment of an organism posing a potential phytosanitary threat. The importing contracting party is required to notify the exporting contracting party as soon as possible regarding significant instances of non-compliance and phytosanitary actions applied to imported consignments. The notification should identify the nature of non-compliance in such a way that the exporting contracting party may investigate and make the necessary corrections. Importing contracting parties may request a report of the results of such investigations.

Required information for notification includes the reference number, the date of notification, the identity of the NPPOs of the importing and exporting countries, the identity of the consignment and date of action, the reasons for the action taken, information regarding the nature of non-compliance or emergency action, and the phytosanitary measures applied. Notification should be timely and follow a consistent format.

An importing country should investigate any new or unexpected phytosanitary situation where emergency action is taken in order to determine if actions are justified and if changes in phytosanitary requirements are needed. Exporting countries should investigate significant instances of non-compliance to determine the possible cause. Notifications for significant instances of non-compliance or emergency action associated with re-export are directed to the re-export country. Those associated with transit consignments are directed to the exporting country.

REQUIREMENTS

1. Purpose of Notifications

Notifications are provided by the importing country to the exporting country to identify significant failures of imported consignments to comply with specified phytosanitary requirements or to report emergency action that is taken on the detection of a pest posing a potential threat. In the case of non-compliance the notification is intended to help in investigating the cause of the non-compliance, and to facilitate steps to avoid recurrence. The use of notification for other purposes is voluntary, but in all instances should only be undertaken with the aim of international cooperation to prevent the introduction and/or spread of regulated pests (IPPC Articles I and VIII).

2. The Use of Notification Information

Notification is normally bilateral. Notifications and information used for notification are valuable for official purposes but may also be easily misunderstood or misused if taken out of context or used imprudently. To minimize the potential for misunderstandings or abuse, countries should be careful to ensure that notifications and information about notifications are distributed in the first instance only to the exporting country. In particular, the importing country may consult with the exporting country and provide the opportunity for the exporting country to investigate instances of apparent non-compliance, and correct as necessary. This should be done before changes in the phytosanitary status of a commodity or area, or other failures of phytosanitary systems in the exporting country are confirmed or reported more widely (see also good reporting practices for interceptions in ISPM No. 8, *Determination of pest status in an area*).

3. Provisions of the IPPC Related to Notification

The establishment of systems for the routine practice of notification is based on several provisions of the IPPC, summarized as follows:

- Art VII.2f states that importing contracting parties shall, as soon as possible, inform the exporting contracting party concerned or, where appropriate, the re-exporting contracting parties concerned of significant instances of non-compliance with phytosanitary certification and that on request, the exporting or re-exporting country should report the results of its investigation of the non-compliance to the importing contracting party concerned
- Art VII.6 states that contracting parties may take emergency action and shall report these to the exporting or re-exporting contracting party
- Art VIII.1 states that contracting parties shall cooperate in achieving the aims of the Convention
- Art VIII.2 states that contracting parties shall designate a contact point for the exchange of information.

Countries that are not contracting parties to the IPPC are encouraged to use notification systems described in this standard (IPPC Article XVIII).

4. Basis for Notification

In most instances, notification is provided as the result of the detection of regulated pests in imported consignments. There are also other significant instances of non-compliance that require phytosanitary action and notification. In new or unexpected phytosanitary situations, emergency actions may be taken which should also be notified to the exporting country.

4.1 Significant instances of non-compliance

Countries may agree bilaterally on what instances of non-compliance are considered significant for notification purposes. In the absence of such agreements, the importing country may consider the following to be significant:

- failure to comply with phytosanitary requirements
- detection of regulated pests
- failure to comply with documentary requirements, including:
  - absence of phytosanitary certificates
  - uncertified alterations or erasures to phytosanitary certificates
  - serious deficiencies in information on phytosanitary certificates
  - false phytosanitary certificates
- prohibited consignments
- prohibited articles in consignments (e.g. soil)
- evidence of failure of specified treatments
- repeated instances of prohibited articles in small, non-commercial quantities carried by passengers or sent by mail.

Significant instances of non-compliance of an imported consignment with phytosanitary requirements should be notified to the exporting country whether or not the consignment requires a phytosanitary certificate.

4.2 Emergency action

Emergency actions are taken on the detection in an imported consignment of:

- regulated pests not listed as being associated with the commodity from the exporting country
- organisms of unknown phytosanitary status.

5. Timing of Notification

Notifications should be provided promptly once non-compliance or the need for emergency action has been confirmed and phytosanitary actions taken. Where there is a significant delay in confirming the reason for the notification (e.g. identification of an organism), a preliminary notification may be provided.

6. Information Included in a Notification

Notifications should use a consistent format and include certain minimum information. NPPOs are encouraged to provide additional information where such information is considered relevant and important or has been specifically requested by the exporting country.

6.1 Required information

Notifications should include the following information:

- *Reference number* - the reporting country should have a means of tracing the communication sent to an exporting country. This could be a unique reference number or the number of the phytosanitary certificate associated with the consignment
- *Date* - the date on which notification is sent should be noted
- *Identity of the NPPO* of the importing country
- *Identity of the NPPO* of the exporting country
- *Identity of consignment* - consignments should be identified by the phytosanitary certificate number if appropriate or by references to other documentation and including commodity class and scientific name (at least plant genus) for plants or plant products
- *Identity of consignee and consignor*
- *Date of action* on the consignment
- *Specific information regarding the nature of the non-compliance and emergency action* including:
  - identity of pest (see also section 8 below)
  - where appropriate, whether part or all of the consignment is affected
  - problems with documentation
  - phytosanitary requirements to which the non-compliance applies
- *Phytosanitary actions taken* - the phytosanitary actions should be specifically described and the parts of the consignment affected by the actions identified
- *Authentification marks* - the notifying authority should have a means for identifying valid notifications (e.g. stamp, seal, letterhead, authorized signature).

6.2 Supporting information

Upon request, supporting information should be made available to the exporting country and may include as appropriate:

- copy of the phytosanitary certificate or other relevant documents
- diagnostic results
- pest association, i.e. where the pest was found or how it affects the consignment
- other information deemed to be useful for the exporting country to be able to identify and correct non-compliance.

6.3 Forms, codes, abbreviations or acronyms

Where forms, codes, abbreviations or acronyms are used in notification or supporting information, countries should make appropriate explanatory material available on request.

6.4 Language

The language(s) used for notification and supporting information will be the language(s) preferred by the notifying country except where bilaterally agreed otherwise. Where information is requested through contact points, information should be supplied in one of the FAO languages (IPPC Article XIX.3e).

7. Documentation and Means of Communication

The notifying country should keep notification documents, supporting information and associated records for at least one year after the date of notification. Electronic notifications should be used for efficiency and expediency whenever possible.

Notification should be sent to the IPPC contact point or, where a contact point has not been identified, to the NPPO of the exporting country unless bilateral arrangements exist which specify to whom the notification should be sent. Communication from official contact points is considered to be authentic unless the NPPO of the importing country indicates other official sources.

8. Pest Identification

The identification of organisms detected in imported consignments is required to determine if they are, or should be, regulated pests and to thereby justify phytosanitary or emergency action. Appropriate identification may not be possible where:

– the specimen(s) are of a life stage or condition that makes them difficult to identify
– appropriate taxonomic expertise is not available.

Where identifications are not possible the reason should be stated on the notification.

When identifying pests, importing countries should:

- be able to describe, on request, the procedures used for diagnosis and sampling, including the identity of the diagnostician and/or laboratory, and should retain, for an appropriate period (one year or until necessary investigation has been carried out), evidence such as appropriate specimens or material to allow validation of potentially controversial determinations
- indicate the life-stage of the pest and its viability where appropriate
- provide identification to species level where possible or to a taxonomic level that justifies the official actions taken.

9. Investigation of Non-compliance and Emergency Action

9.1 Non-compliance

The exporting country should investigate significant instances of non-compliance to determine the possible cause with a view to avoid recurrence. Upon request, the results of the investigation should be reported to the importing country. Where the results of the investigation indicate a change of pest status, this information should be communicated according to the good practices noted in ISPM No. 8, *Determination of pest status in an area*.

9.2 Emergency action

The importing country should investigate the new or unexpected phytosanitary situation to justify the emergency actions taken. Any such action should be evaluated as soon as possible to ensure that its continuance is technically justified. If continuance of actions is justified, the new phytosanitary measure of the importing country should be adjusted, published and transmitted to the exporting country.

10. Transit

For a consignment in transit, any instance of non-compliance with the requirements of the transit country or any emergency action taken should be notified to the exporting country. Where the transit country has reason to believe that the non-compliance or new or unexpected phytosanitary situation may be a problem for the country of final destination, the transit country may provide a notification to the country of final destination. The country of final destination may copy its notifications to any transit country involved.

11. Re-export

In cases of re-export associated with a phytosanitary certificate for re-export, the obligation and other provisions pertaining to the exporting country apply to the re-exporting country.

Draft standard

GLOSSARY OF PHYTOSANITARY TERMS

Supplement No. 1

Guidelines on the interpretation and application of the concept of official control for regulated pests

1. Purpose

The words *officially controlled* express an essential concept in the definition of a quarantine pest. *The Glossary of phytosanitary terms* defines official as "established, authorized or performed by an NPPO" and control as "suppression, containment or eradication of a pest population". However, for phytosanitary purposes, the concept of *official control* is not adequately expressed by the combination of these two definitions. The purpose of this guideline is to describe more precisely the interpretation of the concept of official control and its application in practice.

2. Scope

This guideline refers only to the official control of regulated pests. For the purposes of this guideline, the relevant regulated pests are both quarantine pests that are present in an importing country but not widely distributed and non-quarantine pests.

3. Definition

Official control is defined as:

The active enforcement of mandatory phytosanitary regulations and the application of mandatory phytosanitary procedures with the objective of eradication or containment of quarantine pests or for the management of regulated non-quarantine pests.

4. General Requirements

Official control is subject to the "principles of plant quarantine as related to international trade," in particular the principles of non-discrimination, transparency, equivalence and risk analysis.

In the case of a quarantine pest that is present but not widely distributed, and where appropriate in the case of certain regulated non-quarantine pests, the importing country should define the infested area(s), endangered area(s) and protected area(s).

Official control includes:

- eradication and/or containment in the infested area(s)
- surveillance in the endangered area(s)
- measures related to controls on movement into and within the protected area(s) including measures applied at import.

All official control programmes have elements that are mandatory. At minimum, programme evaluation and pest surveillance are required in official control programmes to determine the need for and effect of control to justify measures applied at import for the same purpose.

Measures applied at import should be consistent with the principle of non-discrimination (see section 5.1 below).

For quarantine pests, eradication and containment may have an element of suppression. For regulated non-quarantine pests, suppression may be used to avoid unacceptable economic impact as it applies to the intended use of plants for planting.

5. Specific Requirements

5.1 Non-discrimination

The principle of non-discrimination between domestic and import requirements is fundamental. In particular, requirements for imports should not be more stringent than the effect of official control in an importing country. There should therefore be consistency between import and domestic requirements for a defined pest:

- import requirements should not be more stringent than domestic requirements
- domestic and import requirements should be the same or have an equivalent effect
- mandatory elements of domestic and import requirements should be the same
- the intensity of inspection of imported consignments should be the same as equivalent processes in domestic control programmes
- in the case of non-compliance, the same or equivalent actions should be taken on imported consignments as are taken domestically
- if a tolerance is applied within a national programme, the same tolerance should be applied to equivalent imported material. In particular, if no action is taken in the national official control programme because the infestation level does not exceed a particular level, then no action should be taken for an imported consignment if its infestation level does not exceed that same level. Compliance with import tolerance is generally determined by inspection or testing at entry, whereas the tolerance for domestic consignments should be determined at the last point where official control is applied
- if downgrading or reclassifying is permitted within a national official control programme, similar options should be available for imported consignments.

5.2 Transparency

The import and domestic requirements for official control should be documented and made available, on request.

5.3 Technical justification (risk analysis)

Domestic and import requirements should be technically justified and result in non-discriminatory risk management.

5.4 Enforcement

The domestic enforcement of official control programmes should be equivalent to the enforcement of import requirements. Enforcement should include:

- a legal basis
- operational implementation
- evaluation and review
- official action in case of non-compliance.

5.5 Mandatory nature of official control

Official control is mandatory in the sense that all persons involved are legally bound to perform the actions required. The scope of official control programmes for quarantine pests is completely mandatory (e.g. procedures for eradication campaigns), whereas the scope for regulated non-quarantine pests is mandatory only in certain circumstances (e.g. official certification programmes).

5.6 Area of application

An official control programme can be applied at national, sub-national or local area level. The area of application of official control measures must be specified. Any import restrictions must have the same effect as the measures applied internally for official control.

5.7 NPPO authority and involvement in official control

Official control should:

- be established or recognized by the national government or the NPPO under appropriate legislative authority
- be performed, managed, supervised or, at minimum, audited/reviewed by the NPPO
- have enforcement assured by the national government or the NPPO
- be modified, terminated or lose official recognition by the national government or the NPPO.

Responsibility and accountability for official control programmes rests with the national government. Agencies other than the NPPO may be responsible for aspects of official control programmes, and certain aspects of official control programmes may be the responsibility of sub-national authorities or the private sector. The NPPO must be fully aware of all aspects of official control programmes in their country.

References:

Report of the ICPM open-ended working group on official control, 22-24 March 2000, Bordeaux, France, IPPC Secretariat, FAO, Rome.