



Market Access

A guide to phytosanitary issues
for national plant protection organizations



Market Access

A guide to phytosanitary issues
for national plant protection organizations

Publication notes:

Version 1.1 published October 2013

Did you read this?

We would appreciate your feedback through a fast and easy two-question survey here:

<https://www.surveymonkey.com/s/marketaccessmanual>

This will help the IPPC Secretariat and Capacity Development Committee strengthen this and other training resources.

This paper presents a guide to phytosanitary aspects of market access created as a component of the IPPC National Phytosanitary Capacity Building Strategy, which was adopted by the fifth session Commission on Phytosanitary Measures (2010) of the International Plant Protection Convention. This work has been developed by Brian Stynes and reviewed by the IPPC Capacity Development Committee (including phytosanitary experts from the seven FAO regions), the Technical Consultation among Regional Plant Protection Organizations, donors, and the Secretariat of the World Trade Organization's Agreement on the Application of Sanitary and Phytosanitary Measures. It is consistent with the agreed definition of National Phytosanitary Capacity and the CPM-adopted strategy.

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

The views expressed in this information product are those of the author(s) and do not necessarily reflect the views or policies of FAO.

© FAO, 2013

FAO encourages the use, reproduction and dissemination of material in this information product. Except where otherwise indicated, material may be copied, downloaded and printed for private study, research and teaching purposes, or for use in non-commercial products or services, provided that appropriate acknowledgement of FAO as the source and copyright holder is given and that FAO's endorsement of users' views, products or services is not implied in any way.

All requests for translation and adaptation rights, and for resale and other commercial use rights should be made via www.fao.org/contact-us/licence-request or addressed to copyright@fao.org.

Text in this document is not an official legal interpretation of the International Plant Protection Convention (IPPC) or its related documents, and is produced for public information only. To translate this material please contact ippc@fao.org for information about a co-publishing agreement.



Contents

Acronyms	4
Definitions	5
1 Preface – Purpose of a guide to market access negotiations for National Plant Protection Organizations (NPPOs)	7
2 Background – Rights and obligations, the regulatory framework	9
2.1 The World Trade Organization	9
2.1.1 Overview	9
2.1.2 The multilateral trading system	10
2.1.3 The Agreement on Agriculture	11
2.2 The Sanitary and Phytosanitary (SPS) Agreement	11
2.2.1 Overview	11
2.2.2 Rights and obligations	12
2.3 The International Plant Protection Convention	13
2.3.1 Overview	13
2.3.2 IPPC Governance	14
2.3.3 National Plant Protection Organizations (NPPOs)	15
2.3.4 Regional Plant Protection Organizations (RPPOs)	15
2.4 International Standards for Phytosanitary Measures (ISPMs)	16
2.4.1 An Overview	16
3 Achieving market access – a practical guide	19
3.1 Components of a market access proposal	19
3.2 A team approach	20
3.3 Gathering information and compiling a dossier	21
3.4 Preparation and submission of a market access proposal	22
3.5 Consultation between contracting parties	22
3.6 Evaluation of the proposal by the NPPO of the importing country	23
3.6.1 Introduction	23
3.6.2 Overview of the PRA process	23
3.6.3 Stages of a PRA	24
3.6.4 Gathering information	29
3.6.5 Documenting the process	29
3.6.6 Risk communication	30
3.7 Consideration of the risk analysis results	31
3.8 Researching scientific, technical and economic issues	32
3.9 Engaging in bilateral negotiations	32
3.10 Review by visiting delegations to the exporting country	32
3.11 Confirmation of the terms of trade	33
3.12 Commencement of trade	33
4 Maintaining trade	36
4.1 Compliance with the terms of trade	36
4.2 Reviewing and amending the terms of trade	36
4.3 Settlement of disputes	37
5 References and resources	39
Additional easy access resources	40



Acronyms

ALOP	Appropriate level of protection
APPPC	Asian and Pacific Plant Protection Commission
CAN	Comunidad Andina de Naciones
COSAVE	Comité Regional de Sanidad Vegetal para el Cono Sur
CPM	Commission on Phytosanitary Measures
CPPC	Caribbean Plant Protection Commission
EPPO	European and Mediterranean Plant Protection Organization
FAO	Food and Agriculture Organization of the United Nations
GATT	General Agreement on Tariffs and Trade
IAPSC	Inter-African Phytosanitary Council
IPPC	International Plant Protection Convention
ISPM	International Standard for Phytosanitary Measures
ISSB	International standard setting body [recognized by the WTO-SPS Agreement]
NAPPO	North American Plant Protection Organization
NEPPO	Near East Plant Protection Organization
NPPO	National plant protection organization
OIRSA	Organismo Internacional Regional de Sanidad Agropecuaria
PPPO	Pacific Plant Protection Organization
PRA	Pest risk analysis
RPPO	Regional plant protection organization
SPS	WTO Agreement on the Application of Sanitary and Phytosanitary Measures
WTO	World Trade Organization

Definitions¹

Area: An officially defined country, part of a country or all or parts of several countries.

Area of low pest prevalence: An area, whether all of a country, part of a country, or all or parts of several countries, as identified by the competent authorities, in which a specific pest occurs at low levels and which is subject to effective surveillance, control or eradication measures.

Commodity: A type of plant, plant product, or other article being moved for trade or other purpose.

Country of origin (of a consignment of plant products): Country where the plants from which the plant products are derived were grown.

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 consignment): Movement through a point of entry into an area.

Equivalence (of phytosanitary measures): The situation where, for a specified pest risk, different phytosanitary measures achieve a contracting party's appropriate level of protection.

Establishment (of a pest): Perpetuation, for the foreseeable future, of a pest within an area after entry.

Harmonization: The establishment, recognition and application by different countries of phytosanitary measures based on common standards.

International Standard for Phytosanitary Measures: An international standard adopted by the Conference of FAO, the Interim Commission on Phytosanitary Measures or the Commission on Phytosanitary Measures, established under the IPPC.

Introduction (of a pest): The entry of a pest resulting in its establishment

Non-quarantine pest: Pest that is not a quarantine pest for an area.

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 for the management of regulated non-quarantine pests.

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. Note: In the IPPC, plant pest is sometimes used for the term pest.

Pest free area: An area in which a specific pest does

¹ / These definitions are sourced from the IPPC Glossary of Phytosanitary terms (ISPM No. 5). This list includes only the glossary terms that are used in this guide. The Glossary is updated annually based on decisions taken by the IPPC Commission on Phytosanitary Measures. The complete and updated glossary is maintained at: <https://www.ippc.int/publications/glossary-phytosanitary-terms>. The definitions are accurate as of October 2013.

not occur as demonstrated by scientific evidence and in which, where appropriate, this condition is being officially maintained.

Pest risk (for quarantine pests): The probability of introduction and spread of a pest and the magnitude of the associated potential economic consequences.

Pest risk analysis: The process of evaluating biological or other scientific and economic evidence to determine whether an organism is a pest, whether it 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 the magnitude 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 measure: Any legislation, regulation or official procedure having the purpose to prevent the introduction and/or spread of quarantine pests, or to limit the economic impact of regulated non-quarantine pests.

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.

PRA area: Area in relation to which a pest risk analysis is conducted.

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.

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.

Spread (of a pest): Expansion of the geographical distribution of a pest within an area.

Transparency: The principle of making available, at the international level, phytosanitary measures and their rationale.

1 Preface – Purpose of a guide to market access negotiations for National Plant Protection Organizations (NPPOs)

This guide is geared towards national plant protection organizations to provide information and context on phytosanitary aspects of market access negotiations.

In today's global context of increasing population, industrialization, globalization, advanced transportation and outsourcing, international trade is on a strong upward trend. Agricultural products, including food for humans and animals, are sourced from many different areas and countries worldwide. Plant propagative material is also increasingly transported between countries to produce food, establish sustainable forests, and for recreational and ornamental purposes.

With this intensified international trade in general and trade in plants and plant products in particular, there is an increased risk of the introduction and spread of pests harmful to plant species. The challenge for quarantine officials and plant health experts in any country is to facilitate international movement of people, goods and services while ensuring that national plant health is not placed at too high of a risk.

From the viewpoint of plant health, any pathway that can provide a way for a pest to cross international boundaries is relevant for national plant protection organizations (NPPOs). This is because NPPOs are responsible for protecting the health of plants within their territories by preventing the introduction and spread of pests.

Gaining market access in this context of needing to balance the importance of trade flows with the need to protect plant resources from pests can be a challenge for any country seeking new markets.

It is unlikely that any NPPO has the staff and other resources to inspect 100 percent of arriving passengers, plants and plant products at the national border. Consequently there is a trend to develop and use risk-based principles of risk assessment, management and communication involving a multi-layered, pro-active approach, rather than having sole reliance on border inspection. This use of pest risk analysis balances the importance of trade with the need to address the risk to plants that trade creates. The IPPC framework had been developed to prevent the introduction and spread of pests while being as least trade restrictive as possible.

The primary purpose of this guide is to describe a process that can be followed to gain market access with the least hindrance to trade but, at the same time, prevent the spread of pests and diseases into new areas. This guide covers the following:

- ◆ rights and obligations of NPPOs as they apply to trade in plants and plant products;
- ◆ a practical guide for achieving market access; and
- ◆ maintaining trade.

While many traded goods can provide a pathway for pests to cross international boundaries, this guide focuses on plants and plant products traded commercially in international markets such as cut flowers, grains, fruit, seeds, and vegetables because these regulated articles are those most commonly

discussed in phytosanitary market access negotiations. Throughout the text these are referred to as the 'commodity', which is consistent with the IPPC glossary of phytosanitary terms (ISPM 5) that defines a commodity as a type of plant, plant product or other article being moved for trade or other purpose.

This guide does not give specific consideration to plants and plant products that are genetically modified, nor to beneficial organisms such as biological control agents. Globally agreed guidance on minimizing pest risk in the movement of living modified organisms, biological control agents, and beneficial organisms can be found in International Standards for Phytosanitary Measures (ISPMs), including ISPM 3 (2005) and ISPM 11(2013).

2 Background – Rights and obligations, the regulatory framework

2.1 The World Trade Organization²

2.1.1 Overview

The regulatory framework that governs international trade comes under the broad umbrella of the World Trade Organization (WTO). The WTO was established in 1995 as a forum for governments to negotiate trade agreements, to facilitate trade between countries and to reduce impediments to trade. It is the only global international organization dealing with the rules of trade between nations.

The WTO's overriding objective is to help trade flow smoothly, fairly and predictably. It does this by:

- ◆ administering WTO trade agreements;
- ◆ acting as a forum for trade negotiations;
- ◆ handling trade disputes;
- ◆ monitoring national trade policies;
- ◆ providing technical assistance and training for developing countries; and
- ◆ cooperating with other international organizations.

The WTO is the successor to the General Agreement on Tariffs and Trade (GATT). The GATT was established after the Second World War, when countries recognized the need to negotiate lower customs duty rates and other trade barriers in order to facilitate trade. The text of the GATT spelled out important rules for international trade, including those relating to non-discrimination.

The GATT was also a forum for trade negotiation, a series of which was held between 1947 and 1994. The Uruguay Round of negotiations, held between 1986 and 1994, resulted in the creation of the WTO. The WTO now has 159 members³ (September 2013) and about 25 other countries are negotiating ac-

cess; the WTO member countries account for about 97 percent of world trade.

The WTO's rules – the agreements – are the result of negotiations between WTO member countries. Decisions are made by the entire WTO membership, typically by consensus. The current set of agreements is comprised of the outcomes of the 1986-1994 Uruguay Round negotiations, which included a revision of the original GATT.

Over three-quarters of WTO members are developing or least-developed countries. All WTO agreements contain special provisions for them, including longer time periods to implement commitments, measures to increase their trading opportunities and support to help them build the infrastructure for WTO work, handle disputes, and implement technical standards.

Technical assistance and training provided by the WTO for developing and least-developed countries includes national technical assistance activities, training courses (advanced trade policy courses, advanced thematic courses on particular WTO-related topics), regional activities and e-learning courses. Regional seminars are held regularly worldwide with a special emphasis on the Africa region.

The WTO has established reference centres in ministries or regional organizations or secretariats in over 100 developing and least-developed countries. Computers are provided at these centres with internet access to enable government officials, business and the academic communities to access any relevant information on the WTO, in particular to obtain trade-related information resources on the WTO Internet site, trade and tariff data bases,

2/ This guide should not be taken as a legal interpretation of the agreements adopted by the WTO.

3/ See http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm for an updated list of WTO members

as well as documents, and to facilitate access and use of the e-learning Programme.

Since 1995, the updated GATT has become the WTO's umbrella agreement for trade in goods. The annexes of the GATT deal with specific sectors, such as agriculture, and specific issues such as state trading, product standards, subsidies and actions taken against dumping.

The GATT is now the WTO's principal rule-book for trade in goods. The Uruguay Round of negotiations also created new rules for dealing with trade in services, relevant aspects of intellectual property, dispute settlement and trade policy reviews. The complete set runs to some 30 000 pages. This includes about 30 agreements and separate commitments (called 'schedules') on specific issues such as lower rates for customs duty and services that are made by individual WTO members.

At the heart of the system – known as the multilateral trading system – are the WTO's agreements, negotiated and signed by a large majority of the world's trading nations, and ratified by their parliaments. These agreements are the legal ground rules for international commerce. Essentially, they are contracts, guaranteeing member countries important trade rights. They also bind governments to keep their trade policies within agreed limits for everybody's benefit.

2.1.2 The multilateral trading system

Through agreements, WTO members operate a non-discriminatory trading system that spells out their rights and obligations. Each country receives guarantees that its exports will be treated fairly and consistently in other countries' markets. Each WTO member promises to do the same for imports into its own market. The system also gives developing countries some flexibility in implementing their commitments.

The system's overriding purpose is to help trade flow as freely as possible – so long as there are no undesirable side effects – because this is important for economic development and well being. One part of achieving this purpose involves removing obstacles to trade. Other elements include ensuring that individuals, companies and governments know what the trade rules are around the world, which gives them the confidence that there will be no sudden policy changes. In other words, the rules have to be transparent and predictable.

Where trade disputes arise, the WTO offers a procedure for resolving trade disagreements under the *Dispute Settlement Understanding*, which is vital for enforcing WTO rules and therefore for ensuring that trade flows smoothly. Countries bring disputes to the WTO if they think their rights under the agreements are being infringed. Judgements, by specially appointed independent experts, are based on interpretations of the agreements and the commitments of individual countries.

The WTO's dispute settlement system encourages countries to settle their differences through consultation. Failing that, they can follow a carefully mapped out, stage-by-stage procedure that includes the possibility of a ruling by a panel of experts, and the chance to appeal the ruling on legal grounds. The WTO has adopted a Trade Policy Review Mechanism to improve transparency, create greater understanding of the policies that countries are adopting, and to assess the impact of these policies. All WTO members' policies undergo periodic review through this mechanism. Each review contains reports by the country concerned and the WTO Secretariat.

The original GATT applied to agricultural trade, but it contained loopholes that allowed countries to use some non-tariff measures such as import quotas and to subsidize production and exports. Agricultural trade became highly distorted, especially with the use of export subsidies (which would not normally be allowed for industrial products). To ensure fairer markets for farmers, the Uruguay Round of negotiations produced the first multilateral agreement dedicated to the agricultural sector. It was a significant first step towards order, fair competition and a less distorted sector.

2.1.3 The Agreement on Agriculture

The Uruguay Round of trade negotiations resulted in an Agreement on Agriculture with four main elements. They are the:

- ◆ Agreement on Agriculture;
- ◆ concessions and commitments members are to undertake regarding market access, domestic support and export subsidies;
- ◆ Agreement on Sanitary and Phytosanitary Measures (SPS Agreement); and
- ◆ Ministerial Decision concerning Least-Developed and Net Food-Importing Developing countries.

Overall, the results of the negotiations provide a framework for the long-term reform of agricultural trade and domestic policies over the years to come. It makes a decisive move towards the objective of increased market orientation in agricultural trade. The rules governing agricultural trade are strengthened, which will lead to improved predictability and stability for importing and exporting countries alike.

The Uruguay Round Agreement includes a commitment to continue the reform through new negotiations. These negotiations, as required by the Agriculture Agreement, were launched in 2000. The 2001 Ministerial Conference in Doha set out tasks, including the agriculture negotiations, for a wide-range of issues concerning developing countries. The latest round of negotiations is frequently referred to as the Doha Development Agenda.

2.2 The Sanitary and Phytosanitary (SPS) Agreement

2.2.1 Overview

The WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement; WTO, 1994)⁴ is an agreement on how governments can apply food safety, animal health and plant health measures without unnecessary obstacles to trade.

With regard to plant health, the SPS Agreement allows countries to set their own measures to protect their economy or environment from damage caused by the entry, establishment or spread of pests. The SPS Agreement encourages countries to use international standards, guidelines and recommendations when developing their sanitary and phytosanitary measures (Article 3 of the SPS Agreement).

The SPS Agreement also states that plant health measures shall be science-based and not used for trade protection. It requires that phytosanitary measures be based on an assessment of the risk to plant health, taking into account risk assessment techniques developed by the relevant international standard setting body, and that the measures be technically justified.

The WTO recognizes the International Plant Protection Convention (IPPC) as the relevant international standard-setting body (ISSB) for plant health, and encourages its WTO members to harmonize their sanitary and phytosanitary measures based on the IPPC's international standards. In this way, international standards that are adopted under the IPPC set out the basic internationally agreed elements for the establishment of harmonized plant health standards and phytosanitary measures.

Sanitary (human and animal health) and phytosanitary (plant health) measures (SPS measures) typically apply to trade in, or movement of, animal-based and plant-based goods within or between countries. However, the SPS Agreement applies to all SPS measures that may directly or indirectly affect international trade.

4/ http://www.wto.org/english/tratop_e/sps_e/spsagr_e.htm

The SPS Agreement recognizes that developing and least developed country WTO members may encounter special difficulties in complying with the sanitary and phytosanitary measures of importing countries.

Because of this, the SPS Agreement allows for phased introduction of new measures, when appropriate, in order to allow exports to continue with minimal interruption while aiming to meet the appropriate level of protection needed to safeguard human, plant and animal health. Furthermore, there are provisions in the SPS Agreement that enable time-limited exceptions from obligations, taking into account the financial, trade and development needs of developing countries.

2.2.2 Rights and obligations

Provisions of the SPS Agreement identify the rights and obligations of WTO members in the application of sanitary or phytosanitary measures. The following list provides brief summaries of these rights and obligations:

- ◆ WTO members have the right to determine the level of SPS protection they deem appropriate. This is referred to as "appropriate level of sanitary and phytosanitary protection" or ALOP.
 - ◆ An importing member has the sovereign right to take measures to achieve the level of protection it deems appropriate to protect human, animal or plant life or health within its territory.
 - ◆ An SPS measure must be based on scientific principles and not be maintained without sufficient scientific evidence.
 - ◆ An importing member shall avoid arbitrary or unjustifiable distinctions in levels of protection, if such distinctions result in discrimination or a disguised restriction on international trade.
 - ◆ An SPS measure must not restrict trade more than is necessary to achieve an importing member's appropriate level of protection, taking into account technical and economic feasibility.
- ◆ An SPS measure should be based on an international standard, guideline or recommendation where these exist, unless there is a scientific justification for a measure that results in a higher level of SPS protection to meet the importing member's appropriate level of protection.
 - ◆ An SPS measure that conforms to an international standard, guideline or recommendation is deemed necessary to protect human, animal or plant life or health, and consistent with the SPS Agreement.
 - ◆ When an international standard, guideline or recommendation does not exist or when a measure needs to provide a higher level of protection in order to meet an importing member's appropriate level of protection than the relevant international standard would provide, such a measure must be based on a risk assessment; the risk assessment must take into account available scientific evidence and relevant economic factors.
 - ◆ Where the relevant scientific evidence is insufficient, an importing member may provisionally adopt SPS measures on the basis of available relevant information. In such circumstances, members shall seek to obtain the additional information necessary for a more objective risk assessment, and review the SPS measure accordingly within a reasonable period.
 - ◆ An importing member shall accept the measures of other countries as equivalent, if it is objectively demonstrated that the measures meet the importing member's appropriate level of protection.
 - ◆ SPS measures must be adapted to the SPS characteristics of the area from which the product originated and to which the product is destined. WTO member's are also required to recognize the concepts of pest/disease-free areas and areas of low pest/disease prevalence.

2.3 The International Plant Protection Convention

2.3.1 Overview

Parallel to the emergence of the WTO, there was concern that increasing trade could lead to the introduction and spread of pests of plants into territories and countries previously considered free of such pests. As early as 1881, the concept of international plant protection gained recognition when five countries signed an agreement to control the spread of grape phylloxera (*Phylloxera vasatrix*), a North American aphid that was introduced into Europe around 1865. This pest subsequently devastated vineyards in Europe's grape-growing regions.

Such events set precedence for the International Convention for the Protection of Plants, which was signed in Rome in 1929. This was followed in 1951 by the adoption of the International Plant Protection Convention (the IPPC) by the Food and Agriculture Organization of the United Nations (FAO). The IPPC came into force in April 1952, was revised in 1979 and again in 1997, and supersedes all previous international plant protection agreements.

The WTO identifies the IPPC as the international standard setting body for plant health. The IPPC's science-based, harmonized standards form the basis upon which national governments base their measures to protect plant resources from injurious pests (phytosanitary measures). The measures should be technically justified to allow for essential protection of plant resources without creating an unnecessary barrier to international trade.

The IPPC is a legally binding international cooperative agreement that aims to protect the world's plant resources from the introduction and spread of pests. The purpose of the Convention is to secure common and effective action to prevent the spread and introduction of pests (including insects, pathogens and plants as pests) of plants and plant products and to promote appropriate measures for their control. While the main targets of the IPPC are

plants and plant products moving in international trade, the IPPC applies to anything that can act as a pathway for the spread of pests of plants. This can include for example containers, soil, used vehicles and machinery and packaging material.

Countries that have ratified the IPPC are referred to as contracting parties. IPPC contracting parties share the objective of protecting cultivated and wild plants by preventing the introduction and spread of pests. 179 countries world are contracting parties to the IPPC⁵.

Contracting parties to the IPPC agree to cooperate with one another to prevent the international spread of pests of plants. This includes exchanging information on pests, providing technical and biological information necessary for pest-risk analysis, and participation in any special campaigns to control pests. Countries that have not ratified the IPPC (non-contracting parties) often uphold the Convention and are encouraged to do so.

The results of the 1986-1994 Uruguay Round of multilateral trade negotiations recognized the IPPC as the international standard-setting body through the WTO-SPS Agreement. A major update of the IPPC convention text took place in 1997. The revised Convention strengthened the IPPC through the provision of a mechanism to develop and adopt International Standards for Phytosanitary Measures (ISPMs), and aligned the Convention with the WTO-SPS Agreement.

ISPMs are the means by which contracting parties can harmonize their phytosanitary requirements. The development and implementation of standards not only reduces the numbers of pests moved by the international movement of commodities but also facilitates trade by setting a harmonized, scientific basis for phytosanitary measures so that measures protect plants while being as minimally restrictive as necessary. For most developing countries, where plants and plant products are key export commodities, gaining and maintaining market access is critical for poverty alleviation and sus-

5/ This number is accurate as of October 2013. See <https://www.ippc.int/countries/list-countries> for updated number and list of contracting parties to the IPPC.

tainable development. International standards also provide a technical basis for countries to protect both cultivated plants and wild flora from pests. This is of significant importance as pests can harm agriculture, threaten food security and damage wild flora and ecosystems and protection of these plant resources is an essential role and responsibility of IPPC contracting parties.

The IPPC has played an important role in the international trade of plants and plant products since its inception. IPPC contracting parties strive to ensure that their exports are not a pathway for introducing pests to the territories of their trading partners and that the phytosanitary measures they have in place are technically justified. To this end, the Convention defines the rights and obligations of parties, which include the right to take phytosanitary measures, but also limits rights to those considered necessary and justified; taking into account potential damage to plant health and the economic consequences.

From an import point of view, contracting parties may apply phytosanitary measures only where such measures are necessary to prevent the introduction and/or spread of quarantine pests, or to limit the economic impact of regulated non-quarantine pests. Contracting parties shall apply phytosanitary measures in a transparent and non-discriminatory manner and they agree that phytosanitary restrictions will be used only where technically justified and not in lieu of barriers to protect an industry from competition. The Convention allows contracting parties to gain assurance, through phytosanitary certification, that imports are not the means of introducing new pests into their territories.

From an export point of view, contracting parties shall make arrangements to ensure their exports are not the source of new pests in their trading partners' territories and that their exports meet the import requirements of the importing country.

2.3.2 IPPC Governance

The governing body of the IPPC is the Commission on Phytosanitary Measures (CPM). The CPM's mission is cooperation between nations in protecting the world's cultivated and natural plant resources from the spread and introduction of plant pests, while minimizing interference with the international movement of goods and people.

The CPM meets annually, and is directed between sessions by the CPM Bureau, which is the CPM's seven-member elected executive body. The purpose of the Bureau is to guide the CPM on the strategic direction, financial and operational management of its activities in cooperation with the IPPC Secretariat and with others as approved by the CPM. The CPM published a Business Plan (2007–2011), which has since been updated by a Strategic Framework (2012–2019). Both documents can be found on the IPPC website.⁶

The IPPC Secretariat was established by FAO in 1992 in recognition of the IPPC's increasing role in international standard setting. It was established to improve the effectiveness of implementation of the Convention and is responsible for coordinating core activities under the IPPC work programme including:

- ◆ Standard setting – the development of international standards for phytosanitary measures;
- ◆ National reporting obligations – the provision and exchange of information by contracting parties as required by the IPPC; and
- ◆ Capacity development– the provision of technical assistance, especially to develop national phytosanitary capacity, to facilitate the implementation of the IPPC.

The IPPC Secretariat is the key body for administration and facilitation of the work of the international phytosanitary community. By coordinating information exchange between parties and publishing relevant information, the Secretariat ensures that

^{6/} See <https://www.ippc.int/core-activities/governance/cpm> and <https://www.ippc.int/core-activities/governance/bureau> for information related to the CPM and Bureau. In addition, a wide range of overview documents about the IPPC are available at <https://www.ippc.int/mediakit>

the Convention's principle of transparency is put into practice. The dissemination of dependable and timely information is an enormous task and calls for close cooperation between the IPPC and the national and regional plant protection organizations.

2.3.3 National Plant Protection Organizations (NPPOs)

Under the IPPC, each contracting party shall make provision, to the best of its ability, for an official national plant protection organization to be established by government as an official service to discharge the functions of the IPPC (IPPC, 1997, Article IV). In their principal roles, NPPOs are responsible for:

- ◆ issuing phytosanitary certificates;
- ◆ managing surveillance for pest outbreaks and control of pests;
- ◆ conducting inspection and, if necessary, disinfestation of traded consignments of plants and plant products;
- ◆ ensuring phytosanitary security of consignments from certification until export;
- ◆ establishing and protecting pest-free areas; and
- ◆ undertaking pest risk analyses for the development of phytosanitary measures.

The last three roles listed clearly define the responsibilities detailed in the 1997 revision of the Convention. The new revised text clarifies the importance NPPOs have in implementing the updated concepts of the Convention at the national level. Pest risk analysis (PRA), for example, is a modern phytosanitary practice that provides the technical justification for the application of phytosanitary measures.

The IPPC requires that each contracting party shall submit a description of its official NPPO and any changes to that organization to the IPPC Secretary. Upon request, a contracting party shall provide a description of its organizational arrangements for plant protection to other contracting parties.

Each contracting party shall designate an official contact point to facilitate information exchange between the IPPC and contracting parties. The contact point is the official spokesperson on IPPC issues in each government and information, experience and expertise should be shared with other spokespersons and the IPPC Secretariat to strengthen regional and international phytosanitary capacity.

Importantly, the NPPOs put the principles of the Convention into action and implement the phytosanitary regulations issued by their governments. NPPOs issue phytosanitary certificates, when required, to confirm that exporters have met the importing country's phytosanitary requirements. Some roles performed by an NPPO may be delegated to personnel who act under its authority.

2.3.4 Regional Plant Protection Organizations (RPPOs)

Contracting parties cooperate with each other within their regions through regional plant protection organizations (RPPOs).

An RPPO is an inter-governmental organization that functions as a coordinating body for NPPOs at the regional level. As of this publication there are ten RPPOs⁷:

- ◆ Asian and Pacific Plant Protection Commission (APPPC) – South East Asia, Indian sub-continent, Australia and New Zealand;
- ◆ Comunidad Andina de Naciones (CAN) – Andean Community;
- ◆ Comité de Sanidad Vegetal del Cono Sur (COSAVE) – Southern Cone of South America;
- ◆ Caribbean Plant Protection Commission (CPPC) – Caribbean Islands and Central America;
- ◆ European and Mediterranean Plant Protection Organization (EPPO) – Europe and Mediterranean;

7/ See <https://www.ippc.int/partners/regional-plant-protection-organizations> for updated information on RPPOs. See also Article IX of the IPPC Convention text: <https://www.ippc.int/about/convention-text> and the IPPC procedural manual.

- ◆ Inter-African Phytosanitary Council (IAPSC) – Africa;
- ◆ Near East Plant Protection Organization (NEPPO) – Algeria, Egypt, Jordan, Libya, Malta, Morocco, Pakistan, Sudan, Syria and Tunisia (Iran, Mauritania, Yemen – signed but not ratified);
- ◆ North American Plant Protection Organization (NAPPO) – Canada, North America, Mexico;
- ◆ Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA) – Central America; and
- ◆ Pacific Plant Protection Organization (PPPO) – Southwest Pacific Islands.

RPPOs have their own independent statutes and conduct their own regional programmes.

RPPOs function as coordinating bodies for the areas and participate in various activities to achieve the objectives of the Convention. Where appropriate, they gather and disseminate information. They also cooperate with the Secretary and the Commission in developing international standards and other IPPC activities.

The RPPOs' annual meeting is coordinated by the IPPC Secretariat, which is referred to as the Technical Consultation among RPPOs. RPPO meeting reports can be found on the IPPC website.⁸

2.4 International Standards for Phytosanitary Measures (ISPMs)

2.4.1 An Overview

Under the principles of plant protection and application of phytosanitary measures, the IPPC recognizes that contracting parties may exercise their sovereign right to apply phytosanitary measures to prevent the introduction and spread of regulated pests in their territories. To this end, contracting parties may regulate the entry of plants and plant products, and other possible pathways for pests. These phytosanitary measures should be based on international standards, guidelines and recommendations developed within the framework of the IPPC.

The IPPC's ISPMs are the standards recognized as the basis for phytosanitary measures applied by members of the WTO under the SPS Agreement.

Contracting parties cooperate and provide input into the development of ISPMs, which are adopted by the CPM after development through an agreed and standard setting process that includes many opportunities for consultation.

The ISPMs embody the rights and obligations contracting parties can exercise to prevent the introduction and spread of pests while, at the same time, preventing unnecessary restrictions on trade.

IPPC contracting parties unanimously participate to develop ISPMs that are effective to manage pest risks and allow safer trade. NPPOs use the ISPMs as the basis for their national phytosanitary regulations.

It is important that everyone involved in trade in plants and plant products understand how these standards and the regulations based on them can affect operational trade issues.

The ISPMs cover a wide range of phytosanitary issues and are published on the IPPC web site⁹.

ISPM No. 1 (2006) is a key reference standard that describes phytosanitary principles for the protection of plants and the application of phytosanitary measures for international trade.

8/ See <https://www.ippc.int/partners/regional-plant-protection-organizations/technical-consultation-among-rppos>

9/ See <https://www.ippc.int/core-activities/standards-setting/ispm> for adopted IPPC standards

The principles are related to the rights and obligations of contracting parties to the IPPC. They should be considered collectively, in accordance with the full text of the IPPC and not interpreted individually.

The basic principles elaborated in the standard are:

1. Sovereignty

With the aim of preventing the introduction of quarantine pests into their territories, it is recognized that contracting parties may exercise the sovereign right to utilize phytosanitary measures to regulate the entry of plants and plant products and other materials capable of harbouring plant pests.

2. Necessity

Contracting parties shall institute restrictive measures only where such measures are made necessary by phytosanitary considerations, to prevent the introduction of quarantine pests.

3. Managed risk

Phytosanitary measures should be based on a policy of managed risk, recognizing that risk of the spread and introduction of pests always exists when importing plants, plant products and other regulated articles.

4. Minimal impact

Phytosanitary measures shall be consistent with the pest risk involved, and shall represent the least restrictive measures available, which shall result in minimum impediment to the international movement of people, commodities and conveyances.

5. Transparency

Contracting parties shall publish and disseminate phytosanitary prohibitions, restrictions and requirements and, on request, make available the rationale for such measures.

6. Harmonization

Phytosanitary measures shall be based, whenever possible, on international standards, guidelines and recommendations, developed within the framework of the IPPC.

7. Non-discrimination

Phytosanitary measures should be applied without discrimination between contracting parties of the same phytosanitary status. For a particular quarantine pest, phytosanitary measures should be no more stringent when applied to imported goods than measures applied to the same pest within the territory of the importing contracting party.

8. Technical justification

Phytosanitary measures should be technically justified based on an appropriate pest risk analysis or, where applicable, another comparable examination and evaluation of available scientific information.

9. Cooperation

Contracting parties should cooperate to prevent the spread and introduction of pests of plants and plant products, and promote measures for their official control.

10. Equivalence of phytosanitary measures

Importing contracting parties should recognize alternative phytosanitary measures proposed by exporting contracting parties as equivalent when those measures are demonstrated to achieve the appropriate level of protection determined by the importing contracting party.

11. Modification

Modification of phytosanitary measures should be determined on the basis of new or updated pest risk analysis or relevant scientific information. Contracting parties should not arbitrarily modify phytosanitary measures.

ISPM No. 1 (2006), in addition to the above-mentioned basic principles, describes 17 operational principles related to the establishment, implementation and monitoring of phytosanitary measures, and to the administration of official phytosanitary systems. The operational principles are: pest risk analysis, pest listing, recognition of pest-free areas and areas of low pest prevalence, official control of regulated pests, systems approach, surveillance, pest reporting, phytosanitary certification, phytosanitary integrity and security of consignments, prompt action, emergency measures, provision of a national plant protection organization (NPPO), dispute settlement, avoidance of undue delays, notification of non-compliance, information exchange and technical assistance.

Other ISPMs approved by the CPM provide guidance to contracting parties in adopting phytosanitary measures to protect wild and cultivated plants by preventing the introduction and spread of pests.

Although ISPMs are internationally agreed to and adopted, they are meant to be used as a guide

to establish national measures and their use is not mandatory within the framework of the IPPC. In addition, their interpretation and application at the national level varies from country-to-country. This variation is illustrated by the many different national systems and procedures that exist for carrying out PRA.

Contracting parties often implement the standards in different ways while still staying true to their intent. ISPMs are designed to be a guide for contracting parties to use as a basis for their own national measures. They may arrange their operational procedures as appropriate to meet their needs.

3 Achieving market access – a practical guide

3.1 Components of a market access proposal

Gaining access to a new market for a plant commodity can, in some circumstances, involve a relatively straightforward process, while in other circumstances the process can be protracted. The complexity of the process will reflect the nature and the level of the phytosanitary risk the importing country might be exposed to, and whether regulatory measures are available to address that risk.

The initiation of the process, whereby a country considers a request for market access, usually takes the form of a written submission from the relevant government authority of the exporting country to the counterpart agency of the importing country. However, in some cases it may simply take the form of a request for an import permit from one country to another originating from industry or from government sources.

The amount of information included in the request for market access is at the discretion of the applicant. However, the recipient government authority will assess the information provided and usually seek supplementary information that will assist it identify any phytosanitary risks that could be associated with the proposed imports. In some instances, procedures for applications for market access can be found for specific countries on the websites of their relevant government authorities.

Information that countries commonly request upon receipt of a market access proposal includes:

- ◆ **Proposed commodity/plants**
Scientific name; common name; variety/cultivar name; plant parts to be exported; susceptibility or resistance to pests; proposed end use; other export destinations.
- ◆ **Production area**
States, regions, province, districts, etc.; climate description of production area; area maps; amount proposed for export.

- ◆ **Production and cultivation**
Specific pest management; surveillance programmes and certification schemes; product sourced from area officially certified pest free by NPPO; internal legislative restrictions; production, harvesting method and harvesting period.
- ◆ **Pests associated with the proposed commodity**
Scientific names, synonyms and common names; classification; hosts and plant parts affected; symptoms/damage; distribution; prevalence and control measures.
- ◆ **Post-harvest management**
Packing methods; inspection procedures; post-harvest disinfestation/disinfection treatments; storage conditions; transportation and security.
- ◆ **Current export programme**
Field inspection; sampling; export destinations; current phytosanitary certification procedures and additional declarations.
- ◆ Results of pest risk analysis (PRA) carried out in other countries
- ◆ Copies of relevant references
The exporting country may choose to include detailed information as part of their original market access submission and/or confirm their intention to cooperate to the fullest practical extent in the provision of further technical and biological information in response to requests through the official IPPC contact point. Such a gesture not only confirms an intention to establish and work as party to a cooperative arrangement but also is an acknowledgement of the obligations of contracting parties under the IPPC (Articles VIII.1(c) and VIII.2 of IPPC, 1997).

Once the submission is lodged with the target country, a consultation phase between both parties will most likely follow.

3.2 A team approach

At the outset, the government agency responsible for seeking market access needs to pay careful attention to establishing and developing a dedicated team of experts, including available staff or, where necessary, individuals contracted at other agencies or institutions. Recognizing the role of the NPPO, as the official service established by governments to discharge the functions of the IPPC (IPPC, 1997, Article IV) the expert team will need to work closely with the NPPO or may be established within that service. The primary tasks of the team will be to:

- ◆ develop a work programme for the market access proposal;
- ◆ establish and develop links with industry and other government representatives;
- ◆ gather information and compile a dossier;
- ◆ prepare the market access submission;
- ◆ prepare consultation briefings;
- ◆ consider results of risk analysis by importing country;
- ◆ manage research of technical issues;
- ◆ recommend policy and operation of regulatory requirements; and
- ◆ review and monitor the trading system.

The primary criteria for the selection of members of the market access team should be to ensure that the team members collectively provide an appropriate balance of experience and expertise in:

- ◆ risk analysis as related to plant health;
- ◆ science and regulation;
- ◆ plant pests and diseases;
- ◆ industry and commercial processes and practices; and
- ◆ other disciplines relevant to the market access proposal.

A team member, with leadership qualities, should be selected as team leader. The person selected should be experienced in government policy development and have a broad understanding of the disciplines covered by the other team members.

The number of team members will depend on the expertise required, and may vary as the workload fluctuates during different stages of the work programme. While it is necessary to start with a core group with the best skill set, and if possible maintain that group throughout the programme to create an environment of professional stability, there are benefits to having as large a team as possible within organizational constraints.

Within a large group, there is always back-up support, when another team member is otherwise occupied or must leave. Often a shortage of critical skills needs to be overcome. In this case, it can help to take a long-term view of training, mentoring and professional development within a team environment. Professional exchanges with other countries can provide short-term solutions to gaps in expertise while developing closer working relations with other responsible government agencies and NPPOs.

There is little doubt that individuals working as part of a team can fast-track professional development. It can be useful to institute a training and development structure within the team to attract enthusiastic and promising potential members. Competent administrative and secretarial support for the team is essential.

An immediate task of the market access team, as indicated above, is to establish and develop links with groups and individuals with an active interest in the market access proposal including: industry representatives; importers; exporters; freight handlers; grower organizations; individual growers; other government agencies; academics; research agencies; NPPOs and RPPOs. Frequently, the initiative to seek market access for a commodity in a target destination country originates through producer groups or commercial operators, importers and exporters.

At this stage, it would be wise to ensure that the market access proposal is underpinned by a production and marketing plan developed and supported by industry groups. The plan should include reliable information on the capacity of the industry to service the nominated destination market with a reliable supply of the nominated commodity. Furthermore, the plan should include reliable data on the demand for the commodity in the importing country.

While it is not the responsibility of a government agency seeking market access to determine the relevant sections of industry are committed to a production and marketing plan, such assurances will no doubt strengthen the position of the applicant agency in the negotiation process.

3.3 Gathering information and compiling a dossier

Information gathering is an essential activity for any market access endeavor and its importance cannot be over-estimated. Access to complete, current and accurate information is key at all stages - from the outset of considering the feasibility of gaining access to a specific market, to the later possibility of having to assess the determination of a complex pest risk analysis (PRA) by the responsible government agencies of the importing country. Ideally, a complete set of information should be included in a dossier and held in a central and secure location, updated as new information becomes available.

The market access team should take responsibility for gathering the information, with the team administrator given responsibility for compiling the dossier and ensuring security.

A basic, yet essential, set of information about the importing country, similar to that listed in 3.1 above, should be included in the dossier. This will enable the situation in both countries to be compared, noting differences between the:

- ◆ production of plant and plant products in the importing country, that may be the same as, or related botanically to the proposed export;
- ◆ production conditions and climate; and
- ◆ pest occurrence, importance and official control programmes.

More extensive and detailed information will be required if the NPPO of the importing country determines that the proposed imports present a phytosanitary risk and will require phytosanitary measures to manage that risk. The SPS Agreement and the IPPC risk-management measures should be based on international standards or on a pest risk analysis (PRA).

In the absence of relevant international standards and/or a current PRA, the NPPO of the importing country is required to proceed with a PRA to establish a basis for taking regulatory measures. The PRA process is covered in more detail in Section 3.6 of this Guide.

Should this situation arise, the NPPO of the exporting country may proceed to review the basis of the resulting PRA determination to ensure it meets the requirements of the SPS Agreement and the IPPC in that the PRA is:

- ◆ based on sound science;
- ◆ structured and transparent;
- ◆ provides an estimation of phytosanitary risk based on the best information available; and
- ◆ identifies risk management options to reduce the risk to an acceptable level.

This review process is covered in more detail in Section 3.7 of this Guide.

The sourcing of information required, to determine the process followed is science-based, objective, defensible and transparent, is a task that will continue for the duration of the market access programme.

In addition to the scientific and technical information gathered to support the market access programme, other essential information will need to be included in the dossier. This information should include:

- ◆ market access work programme;
- ◆ market access submission;
- ◆ information exchanges with the importing country;
- ◆ consultation briefings and reports (including with and between government and industry stakeholders, the importing country, NPPOs, RPPOs and the IPPC, etc.);
- ◆ meeting reports;
- ◆ contact lists (stakeholders, scientists, national/international experts, etc.);
- ◆ scientific and technical reference lists;
- ◆ frequently used websites (IPPC home/secretariat/portal; RPPOs, etc.); and
- ◆ industry production and marketing plan (if available).

3.4 Preparation and submission of a market access proposal

Preparation for the submission of a market access proposal involves a sequence of interrelated activities, including:

- ◆ establishment of a market access team;
- ◆ documentation of the market access work programme;
- ◆ engagement with industry and government stakeholders; and
- ◆ establishment of a dossier containing scientific and technical information and other items listed in Section 3.3.

Once this preparatory work has been completed, a written submission from the relevant government authority in the exporting country can be forwarded to the counterpart agency in the importing country requesting market access for the specific commodity. At the discretion of the applicant, supporting information concerning the commodity might be includ-

ed with the submission (see Section 3.1). As part of the submission a request for early consultation and a commitment to work cooperatively to reach a mutually satisfactory outcome could be added.

3.5 Consultation between contracting parties

Under the IPPC (IPPC, 1998), contracting parties recognize the need for international cooperation for the control of plant and plant product pests and to prevent their spread internationally, and especially their introduction into endangered areas. Accordingly, contracting parties agree they shall cooperate with one another to the fullest practicable extent in achieving the aims of the Convention, and shall in particular:

- ◆ Cooperate in the exchange of information on plant pests, particularly the reporting of occurrence, outbreak or spread of pests that may be of immediate or potential danger, in accordance with such procedures as may be established by the Commission (Article VIII 1(a) in IPPC, 1998).
- ◆ Cooperate to the extent practicable, in providing technical and biological information necessary for pest risk analysis (Article VIII 1(c) in IPPC, 1998).

As a result, through the exchange of information, parties engaged in the market access proposal can access the pest profiles in both countries for comparison. The NPPO of the exporting country has the added responsibility of providing more extensive information, as required, if the NPPO of the importing country finds it necessary to carry out a PRA.

While the NPPO of the exporting country is responsible for providing additional information as necessary for a PRA, the NPPO of the importing country shall institute only technically justified phytosanitary measures, consistent with the pest risk involved, representing the least restrictive measures available, and resulting in minimum impediment to the international movement of people, commodities and conveyances (Article VIII 1(c) in IPPC, 1998). Under such circumstances, the NPPO of the exporting country has the opportunity of making a

substantial contribution to the PRA process by providing accurate and comprehensive information to achieve outcomes from the PRA that are consistent with Article VIII 1(c).

Meaningful consultation should be initiated between NPPOs of the two countries and continue for the duration of the PRA process as information is gathered and analysed. As the analysis progresses, information gaps may be identified necessitating further enquiries or research.

A further layer of consultation within the exporting country, whereby the Market Access Team engages with government and industry stakeholder groups, is essential to keep everyone fully informed and ensure the quality of information provided to the importing country is comprehensive, current and accurate.

3.6 Evaluation of the proposal by the NPPO of the importing country

3.6.1 Introduction

Evaluation of the proposal by the NPPO of the importing country will broadly determine whether or not imports of the commodity will be approved and whether or not specific conditions must be met to achieve and maintain market access.

However, to reach this determination, the NPPO of the importing country must follow a systematic process to evaluate:

- ◆ whether there is a risk of plant pests entering their territories if the commodity is imported;
- ◆ whether it may be necessary to take measures to reduce this risk; and if so,
- ◆ determine the most appropriate measures and their strength.

The process that provides the rationale for this determination is known as a 'pest risk analysis' (PRA). The PRA is a rigorous, science-based process that has been developed under the IPPC, and is consis-

tent with obligations contained in the WTO-SPS Agreement.

In accordance with the IPPC, the PRA process is applied to pests of cultivated and wild flora; it does not cover the analysis of risks beyond the scope of the IPPC (ISPM 2, 2007).

While relevant aspects of the PRA process are dealt with here, it is beyond the scope of this guide to provide extensive detail. The reader is referred to key references that include the IPPC standards (particularly ISPM 2, 2007; ISPM 7, 2007 and ISPM 11, 2013), and to the IPPC Pest Risk Analysis Training Manual (IPPC, 2007), that describe the PRA process in detail and should be read in conjunction with this guide¹⁰.

3.6.2 Overview of the PRA process

The initial response by a the NPPO of the importing country to a proposal seeking market access for a commodity, is to consider the need for initiating a PRA on the basis that the importation of the commodity could be a plant pest in its own right, and/or could be a potential pathway by which plant pests could enter endangered areas in the importing country.

A PRA is defined (in ISPM 5, 2012) as *"the process of evaluating biological or other scientific and economic evidence to determine whether an organism is a pest, whether it should be regulated, and the strength of any phytosanitary measures to be taken against it"*. By this definition, the process in three stages:

1. Are there organisms associated with the proposed commodity import that can be considered plant pests?
2. Should they be regulated? And
3. What appropriate regulatory measures can be taken?

Again, by definition (in ISPM 5, 2012), an organism is *"any biotic entity capable of reproduction or replication in its naturally occurring state"*. Consequently, a PRA is a generic process that can be fol-

¹⁰/ Most of the following text dealing with PRA has been taken from these key references to ensure the accuracy of the information provided. See <http://phytosanitary.info/prs> for training materials on pest risk analysis that are based on IPPC standards.

lowed for 'an organism', which can include all types of plants, insects, other animals, fungi, bacteria, nematodes and viruses.

The three stages of the process (IPPC, 2007a) are:

- ◆ **PRA Stage 1: Initiation** – This stage involves identifying the reason for the PRA and identifying the pest(s) and pathway(s) that may be considered for the PRA in relation to the PRA area.
- ◆ **PRA Stage 2: Pest risk assessment** – In this stage, information about the pests or pest groups identified in Stage 1 is gathered and evaluated. The results are used to decide whether risk management is required. Also, the endangered area within the PRA area is identified.
- ◆ **PRA Stage 3: Pest risk management** – This stage determines appropriate management options to reduce the risks identified in Stage 2 to an acceptable level.

In conducting a PRA, the obligations established in the IPPC should be taken into account (ISPM 2, 2007). Those of particular relevance to the PRA process include:

- ◆ cooperation with the provision of information (Section 1.9 of ISPM 1, 2006);
- ◆ minimal impact (Section 1.4 of ISPM 1, 2006);
- ◆ transparency (Section 1.5 of ISPM 1, 2006);
- ◆ harmonization (Section 1.6 of ISPM 1, 2006);
- ◆ non-discrimination (Section 1.7 of ISPM 1, 2006); and
- ◆ avoidance of undue delay (Section 2.14 of ISPM 1, 2006).

Information gathering, documentation and risk communication (ISPM 2, 2007) are important activities that are carried out throughout the PRA process. The PRA process is iterative rather than linear because, when conducting the entire analysis, it may be necessary to go back and forth between various stages.

It is important to be aware that, as indicated in the IPPC-PRA training manual (IPPC, 2007), the PRA can stop during or after any one of the three stages, depending on the conclusions reached. Reasons to end the process can include the following:

- ◆ concerns that the risk no longer exists;
- ◆ all associated risks are considered acceptable; existing management measures are deemed to be sufficient and
- ◆ the activity generating the risk has ceased.

3.6.3 Stages of a PRA

PRA Stage 1: Initiation

While there are a number of ways a PRA can be initiated (detailed in ISPM 2, 2007), the situation covered by this guide focuses on the initiation point being the identification of organisms and pathways that may be considered for pest risk assessment in relation to an identified PRA area. The trigger for initiating the PRA process in this situation is a request for market access submitted by an exporting country to a potential importing country. In effect, a request to consider market access for a commodity is the same as a request to consider a pathway.

Once the process has been initiated, the importing country is required to identify the pests and pathways of concern that should be considered for risk assessment in relation to the identified PRA area.

The initiation stage involves four steps:

- ◆ determining whether an organism is a pest;
- ◆ defining the PRA area;
- ◆ evaluating any previous PRA; and
- ◆ concluding the initiation stage.

Before proceeding with these steps, the importing country needs to compile a list of organisms likely to be associated with the pathway and to be of possible regulatory concern.

At the same time, information is needed to support identification of each organism and its potential economic impact, which includes its impact on the natural environment.

The first step in the initiation stage of determining whether an organism is a pest involves a screening process for each organism that takes into account indicators covering a range of characteristics, which by inference, would suggest an organism might be a pest. [ISPM 2 \(2007\)](#) includes the following examples of indicative characteristics:

- ◆ previous history of successful establishment in new areas;
- ◆ phytopathogenic characteristics;
- ◆ phytophagous characteristics;
- ◆ presence detected in connection with observations of injury to plants, beneficial organisms, etc. before any clear causal link has been established;
- ◆ belonging to taxa (family or genus) commonly containing known pests;
- ◆ capable of acting as a vector for known pests; and
- ◆ adverse effects on non-target organisms beneficial to plants (such as pollinators or predators of plant pests).

The second step in the initiation stage, defining the PRA area, is by definition an area in relation to which a pest risk analysis is conducted ([ISPM 5, 2012](#)). The importing country should clearly define the area referred to in the PRA. It may be the whole or part of a country or several countries. Whereas information may be gathered from a wider geographical area, the analysis of establishment, spread and economic impact should relate only to the defined PRA area ([ISPM 2, 2007](#)). It is useful to precisely define the PRA area so the area's relevant phytosanitary characteristics can be considered in subsequent stages of the analysis.

The third step in the initiation stage involves the evaluation of any previous PRA. [ISPM 2 \(2007\)](#) recommends that before performing a new PRA, a check should be made to determine whether the

organism(s), pest(s) or pathways have been subjected to a previous PRA. If so, the existing analysis should be reviewed to determine whether the circumstances and information may have changed and whether it may be relevant to the PRA area defined.

Investigating existing PRAs of similar organisms, pests or pathways may also be useful but cannot be a substitute for a PRA.

The final step in the initiation stage concludes Stage 1 of the PRA. During this stage, pests and pathways of concern will have been identified as candidates for further assessment in Stage 2 of the PRA.

If there are no pests or pathways that need further assessment, the PRA can be stopped at this point and imports of the commodity approved.

PRA Stage 2: Pest risk assessment

In this stage, the information on the pest or pest group identified in Stage 1 is evaluated.

The importing country is required to categorize pests to determine whether the criteria for a quarantine pest or a non-quarantine regulated pest are satisfied. The risk assessment is then continued for quarantine pests with an evaluation of the probability of pest entry, establishment and spread and of the potential economic consequences ([ISPM 11, 2013](#)).

The results are used to decide whether risk management is required.

The pest risk assessment stage involves three inter-related steps ([ISPM 11, 2013](#)):

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

The first step in the assessment stage, pest categorization, is a classification phase to group pests identified in Stage 1 as either 'quarantine pests', or not. The objective of pest categorization is, therefore, to screen what may be a large and unmanageable list of potential quarantine pests, before progressing to a more in-depth examination within the risk assessment proper.

The screening procedure is based on the following five criteria:

- ◆ **Identity of the pest** – should be clearly defined to ensure the assessment is performed on a distinct organism. Where a vector is involved, the vector may be considered a pest to the extent that it is associated with the causal organism and is required for transmission of the pest.
- ◆ **Presence or absence in the endangered area** – The pest should be absent from all or part of the endangered area.
- ◆ **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.
- ◆ **Potential for establishment and spread in the PRA area** – Evidence should be available to support the conclusion that the pest could become established or spread in the PRA area.
- ◆ **Potential for economic consequences in the endangered area** – There should be clear evidence that the pest is likely to have an unacceptable economic impact (including environmental impact) in the PRA area.

The second step in the assessment stage, which covers the probability of introduction and spread, involves determining the probability that a quarantine pest will enter the importing country as a result of trade in a given commodity, be distributed to an endangered area, establish on a suitable host plant and subsequently spread in the PRA area.

The assessment of the probability of introduction and spread is based primarily on biological considerations and should be expressed in terms of the most suitable data and the methods most suitable for analysis. The overall probability may be expressed qualitatively or quantitatively, and may be expressed by comparison with results obtained from PRAs of other pests. The reader is referred to [ISPM 11 \(2013\)](#) for more extensive detail of this stage of a PRA.

The final step in the assessment stage, assessment of potential economic consequences, is guided by Article 5.3 of the SPS Agreement (WTO, 1994) that states:

"Members shall take into account as relevant economic factors: the potential damage in terms of loss of production or sales in the event of entry, establishment or spread of a pest or disease; the costs of control or eradication in the territory of the importing member; and the relevant cost-effectiveness of alternative approaches to limiting risks."

[ISPM 11 \(2013\)](#) provides guidance on factors to consider when assessing potential economic consequences, including environmental consequences. It encourages obtaining information on areas where a pest currently occurs and comparing this situation with the PRA area. Case histories concerning comparable pests can be usefully considered.

[ISPM 11 \(2013\)](#) also provides guidance with the identification of the effects of pests and analysis of the economic consequences associated with the introduction and establishment of a pest. Where possible, it is useful to describe the output of the assessment in monetary terms. However, qualitative or quantitative measures can also be used.

At the conclusion of the pest risk assessment stage, a quantitative or qualitative estimate of the probability of introduction of a pest or pests, and a corresponding estimate of economic consequences (including environmental) will have been obtained and documented or an overall rating could have been assigned.

Nevertheless, it is acknowledged that deriving such estimates can involve many uncertainties. In particular, the estimations extrapolate from the situation where the pest actually occurs to the hypothetical situation in the PRA area. Consequently, it is important that the areas of uncertainty and the degree of uncertainty in the assessments are well documented and, where expert judgement has been used, this is clearly identified. This is necessary for transparency when these estimates, with associated uncertainties, are utilized in the pest-risk management stage of the PRA. The consideration of areas of uncertainty may also be useful for identifying and prioritizing research needs.

As a result of the pest risk assessment:

- ◆ all or some of the categorized pests may be considered appropriate for pest risk management;
- ◆ for each pest, 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(s), and a corresponding estimate of the economic consequences, will have been obtained; or
- ◆ an overall rating may have been assigned.

PRA Stage 3: Pest risk management

Overall risk is determined by the examination of the outputs of the assessments of the probability of introduction and the economic impact (ISPM 11, 2013). 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.

The last stage in the PRA process is pest risk management, which is the process of determining appropriate management options to reduce the risks identified in Stage 2, pest risk assessment, to an acceptable level.

There are many concepts and definitions of risk and what constitutes risk. However, In the context of a PRA, risk is considered to consist of two major components: the probability or likelihood of a pest entering, establishing and spreading in an endangered PRA area; and the consequences or impacts of this event. The two components are combined to give an overall estimate of the risk.

Although methods for quantifying risk do exist, in a plant protection context this can be very difficult to achieve. Consequently, pest risk is often described in qualitative terms. Similarly, 'level of risk' is frequently a descriptive or qualitative measure (e.g. the pest presents a low risk, or introduction of the pest is very unlikely to occur). Precise quantification of pest risk, or elements contributing to overall pest risk, may be appropriate in some circumstances but in general a qualitative approach to describing level of pest risk is adequate, provided the rationale used is consistent and transparent.

Some countries have gone further and have established national guidelines for estimating overall risk and interpreting those findings to determine acceptability (or not) of the identified risk. This approach may become more widespread as countries become more experienced and proficient in the PRA process. However, this approach is not currently widespread.

Following on from the pest risk assessment stage of the PRA, for those pests that have been identified as presenting unacceptable risks, the conclusions from the PRA are used to support decisions on the strength and nature of the measures to be used to reduce the risks to acceptable levels. Because there is always some risk of introducing a quarantine pest, IPPC contracting parties agree to a policy of risk management when formulating phytosanitary measures (ISPM 1, 2006). When implementing this policy contracting parties should decide on what level of risk is acceptable to them.

The SPS Agreement (WTO, 1994) provides guidance to determine the 'appropriate level of sanitary and phytosanitary protection' (ALOP) as follows:

...“the level of protection deemed appropriate by the member establishing a sanitary and phytosanitary measure to protect human, animal or plant life or health within its territory”.

While it is the sovereign right of a country to determine its own appropriate level of protection, in practice this is achieved by establishing and consistently applying phytosanitary measures to trade.

Identification of possible risk management options

In proceeding with Stage 3 of the PRA process, the initial step is to identify possible risk management measures that could be used to reduce the risks to acceptable levels including, where available, measures set by international standard-setting bodies.

Appropriate measures should be chosen based on their effectiveness in reducing the probability of introducing the pest. This choice should be based on the following considerations, which include several of the IPPC phytosanitary principles that relate to international trade (ISPM 1, 2006):

- ◆ **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 restrict trade more than necessary. Measures should be applied to the minimum area necessary for the effective protection of the endangered area.
- ◆ **Principle of 'equivalence'** – If different phytosanitary measures having 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 has limited distribution and is 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 having the same phytosanitary status.

Measures that are commonly applied to commodities in trade can be classified into broad categories that relate to the pest status of the pathway in the exporting country.

Suggested categories include the option of measures:

- ◆ *to prevent or reduce infestations in the growing crop*, e.g., pest management practices, monitoring, etc.;
- ◆ *to ensure that the area, place, or site of production is free from the pest*, e.g. surveillance and monitoring, treatments, etc.;
- ◆ *for consignments and commodities*, e.g., post-harvest treatments, inspections, etc.;
- ◆ *for other types of pathways*, e.g., certification of packing materials, transportation pathways, etc.;
- ◆ *within the importing country for preventing or reducing crop infestation*, e.g., inspection at the point of entry, end-use restriction, treatments, etc.;
- ◆ *concerning the prohibition or restriction of commodities*;
- ◆ *for phytosanitary certification or other compliance measure*.

Extensive information dealing with the identification and the rules of application of risk management options, which is beyond the scope of this report, can be found in key references including ISPMs No. 2, No. 4, Nos. 6 to 14, and Nos. 22 to 24. Other ISPMs, such as ISPM No. 18 (2003), provide guidance on treatments for specific pests or groups of pests. Much of this information is integrated into the *IPPC Pest risk analysis training manual* (IPPC, 2007).

Conclusion of pest risk management

The results of the pest risk management procedure will be either that:

- ◆ no appropriate measures are identified; or
- ◆ one or more options have been identified that lower the risk associated with the pest(s) to an acceptable level.

These management options form the basis of phytosanitary regulations or requirements.

3.6.4 Gathering information

The importing country is required to gather all the information necessary to complete the PRA. Importantly, as indicated in the IPPC-PRA training manual (IPPC, 2007), the quality and completeness of the information gathered relating to the PRA will dictate how well the analyst is able to properly assess the risk and therefore make appropriate management decisions or recommendations.

A primary source of information is the NPPO of the exporting country, which is required to provide information specified in the IPPC, including:

- ◆ list of regulated pests (Article VII.2(i). IPPC, 1997);
- ◆ pest status (Article VII.2(j). IPPC, 1997); and
- ◆ technical and biological information necessary for pest risk analysis (to the extent practicable) (Article VIII.1(c). IPPC, 1997).

ISPM 8 (1998) provides guidance in describing and reporting pest status, and ISPM 19 (2003) provides procedures for preparation, maintenance and ensuring the availability of lists of regulated pests.

Furthermore, the NPPO of the exporting country is often uniquely placed to provide specific technical and biological information that assist the process and influence the outcome of PRAs, and should take the opportunity to do so.

In addition to the information provided by the NPPO in of the exporting country, other sources of scientific information may include:

- ◆ published scientific literature, such as reference books and journals;
- ◆ previous PRAs (national and international) and PRAs of similar pests and pathways;
- ◆ official files, published and unpublished reports and other correspondence from plant health and quarantine authorities, information from RPPOs;
- ◆ pest or commodity databases (e.g. CAB International Crop Protection Compendium) and other abstract compilation services;
- ◆ climate data, maps and models;
- ◆ crop production data from the PRA area;
- ◆ pest and disease interception databases from quarantine authorities;

- ◆ data on control or mitigation measures;
- ◆ pest records and pest reports;
- ◆ reference collections of plants, insect pests and plant pathogens of agricultural importance;
- ◆ trade data;
- ◆ expert judgment (consultation with botanists, entomologists, nematologists, plant pathologists, plant health and quarantine officers, climatologists, risk analysts, etc.);
- ◆ national IPPC contact points;
- ◆ environmental impact assessments; and
- ◆ internet and online information sources.

Throughout the PRA process, information will be actively gathered and analysed as required to reach recommendations and conclusions. As the analysis progresses, information gaps may be identified requiring further enquiries or research. Where information is insufficient or inconclusive, expert judgment may be used if appropriate.

3.6.5 Documenting the process

The IPPC and the principle of '*transparency*' require that contracting parties should, on request, make available the rationale for phytosanitary requirements. Consequently, the entire PRA 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 to reach the management decision can be clearly demonstrated (ISPM 11, 2013). A well-documented PRA has the additional benefit of providing a valuable record of the process that can be easily communicated or updated when necessary and may serve as a useful resource for future PRAs on related issues.

Documenting a PRA has two levels (ISPM 2, 2007):

- ◆ documenting the general PRA process; and
- ◆ documenting each analysis made.

The NPPO should, preferably, document procedures and criteria of the general PRA process.

Documenting each specific PRA requires that the entire process should be sufficiently documented so that the sources of information and rationale for management decisions can be clearly demonstrated. However, a PRA does not necessarily need to be long and complex. A short and concise PRA may be sufficient, provided justifiable conclusions can be reached after completing a limited number of steps in the PRA process.

The main elements to be documented are listed in ISPM 2 (2007) and include:

- ◆ purpose of the PRA;
- ◆ identity of the organism;
- ◆ PRA area;
- ◆ biological attributes of the organism and evidence of ability to cause injury;
- ◆ for quarantine pests: pest, pathways, endangered area;
- ◆ sources of information;
- ◆ nature and degree of uncertainty and measures envisaged to compensate for uncertainty;
- ◆ for pathway-initiated analysis; commodity description and categorized pest list;
- ◆ evidence of economic impact, which includes environmental impact;
- ◆ conclusions of pest risk assessment (probabilities and consequences);
- ◆ decisions and justifications to stop the PRA process;
- ◆ pest risk management: phytosanitary measures identified, evaluated and recommended; and
- ◆ date of completion and the NPPO responsible for the analysis, including appropriate names of authors, contributors and reviewers.

An example of a PRA format is included in the IPPC PRA training manual (Appendix 2 in IPPC, 2007).

3.6.6 Risk communication

Risk communication, as considered in ISPM 2 (2007), is an important and integral part of the PRA process that is meant to reconcile the views of all parties who have an interest and stake in all stages of the analysis.

It is generally recognized as an interactive process that encourages the exchange of information between the NPPO of the importing country and stakeholders including regulators, scientists, politicians and individuals in the private sector involved with the production, processing and marketing of the commodity or related commodities at the centre of the analysis.

It is important to recognize that a well-planned and executed risk communication strategy will draw together wide-ranging views of all stakeholders for careful consideration throughout the PRA process. According to ISPM 2 (2007), it is meant to:

- ◆ achieve a common understanding of the pest risks;
- ◆ develop credible risk management options;
- ◆ develop credible and consistent regulations and policies to deal with pest risks; and
- ◆ promote awareness of the phytosanitary issues under consideration.

At the end of the PRA, evidence supporting the PRA, the proposed mitigations and uncertainties should preferably be communicated to stakeholders and other interested parties, including other contracting parties, RPPOs and NPPOs, as appropriate.

Although ISPMs make no specific mention of the contracting party of the exporting country participating in risk communication, it would obviously be important for that country's NPPO to seek as much involvement as possible throughout the process. While active involvement in this respect may be limited, the NPPO of the importing country is required, on request, to supply information about the completion of individual analysis and, if possible, the anticipated time frame, taking into account avoidance of undue delay (Section 2.14 of ISPM 1, 2006).

3.7 Consideration of the risk analysis results

When the NPPO of the importing country has completed the PRA, as long as the process followed has met the requirements of the IPPC and the SPS Agreement, a fully documented analysis should be available for consideration by the NPPO in the exporting country.

Under the principle of transparency of sanitary and phytosanitary regulations in Annex B of the SPS Agreement (WTO, 1994), the notification procedures require that whenever an international standard, guideline or recommendation does not exist or the content of a proposed sanitary or phytosanitary regulation is not substantially the same as the content of an international standard, guideline or recommendation, and if the regulation may have a significant effect on trade of other WTO member countries, WTO members shall:

- ◆ Publish a notice at an early stage in such a manner as to enable interested members to become acquainted with the proposal to introduce a particular regulation.
- ◆ Notify other members, through the Secretariat, of the products to be covered by the regulation together with a brief indication of the objective and rationale of the proposed regulation. Such notifications shall take place at an early stage, when amendments can still be introduced and comments taken into account.
- ◆ Without discrimination, allow reasonable time for other members to make comments in writing, discuss these comments upon request, and take the comments and the results of the discussions into account.

Consequently, if the PRA results in a proposed change of regulation in the importing country, the exporting country (and other interested member countries) can proceed to review the PRA and refer their comments to the importing country in sufficient time for them to be considered and amendments introduced after taking into account the results of discussions of the comments.

With the purpose of ensuring the most appropriate terms of trade, a comprehensive consideration of the PRA should be carried out by the exporting country to determine whether the main elements of the PRA have been addressed and documented in a structured, science-based and transparent manner.

The main elements to consider in the PRA, are listed in ISPM 11 (2004) as:

- ◆ scope and purpose of the PRA;
- ◆ pest, pest list, pathways, PRA area, endangered area;
- ◆ sources of information;
- ◆ categorized pest list;
- ◆ conclusions of pest risk assessment including probability and consequences; and
- ◆ pest risk management options identified and selected.

In reviewing each of these elements, issues should be recorded where there is some doubt regarding decisions or conclusions reached because:

- ◆ Decisions and conclusions are not supported by the scientific, technical and economic information used in the PRA (incomplete, unreliable, not directly relevant, out of date, etc.).
- ◆ Different interpretations can be reached considering the same scientific, technical and economic information used in the PRA.
- ◆ The scientific, technical and economic information is weakened by uncertainty that should be acknowledged in the PRA.

All issues recorded during the process of reviewing the PRA should be fully documented. Careful consideration should be given to identifying specific issues to submit to the importing country in writing, requesting that comments regarding the issues be taken into account in finalizing the PRA and seeking an opportunity for them to be discussed at an earlier time.

3.8 Researching scientific, technical and economic issues

After reviewing the PRA, and subsequently advising the importing country of issues that should be taken into account when finalizing the PRA process, the exporting country may choose to initiate independent research to address areas of scientific, technical or economic concern.

Research of limited duration should be undertaken to provide urgent additional scientific, technical or economic information and should be taken into account by the importing country prior to finalizing the PRA process. Research of a more extensive nature, could, nevertheless, justify a review of the conditions of trade after they come into effect.

In order to address issues identified during the review process, two areas of research should be explored:

- ◆ Research aimed at providing additional scientific, technical or economic information to be taken into account in situations where results reported in the PRA were not supported by the information used, either because it was incomplete, unreliable, not directly relevant, out of date, or for some other reason.
- ◆ Research aimed at refining implementation of risk management options, including identification and evaluation of alternative measures. Export simulation trials may also be done to determine the efficacy of measures under consideration.

Other areas of research may be identified in discussions between the NPPOs and agreement reached on how the research might be conducted.

3.9 Engaging in bilateral negotiations

All IPPC contracting parties may participate regularly in formal multilateral meetings, including the Annual Meeting of the CPM in Rome, the Annual Technical Consultation among RPPOs and meetings of RPPOs convened within their respective regions. While opportunities are often taken for bilateral discussions 'in the margins' of such fora, such discussions have secondary importance to the overall purpose of the main meetings.

Although there are no formal procedures for bilateral meetings, such meetings are commonly held annually or as needed between countries that have developed a trading history. The common purpose of these meetings is for each country to gain access to each other's markets for commodities they wish to export. As trade develops, each country increases its understanding of the pest status, the production and marketing environment and the regulatory framework of the country into which it is exporting. It is likely the trading relationship between the two countries will be strengthened over time, which will lead to the development of harmonized risk-management strategies.

The opportunities that can flow from a positive bilateral trading partnership are generally favourable, and should encourage countries negotiating access to a new market for one or more commodities to consider engaging in bilateral negotiations with the long-term view of developing a strong trade relationship.

3.10 Review by visiting delegations to the exporting country

When the PRA is nearing completion, it is very likely that the importing country will request one or more visits to the exporting country, particularly where the results of the PRA require that phytosanitary measures need to be implemented prior to export or during shipment of the commodity.

From the perspective of the importing country, the main purpose of the visit will be to view first-hand how the measures will be implemented and what procedures will be in place to:

- ◆ ensure measures are effective;
- ◆ detect non-conformity; and
- ◆ take corrective action.

For the exporting country, this can be a good opportunity to show the visiting delegation the production areas from which the commodity will be sourced, and through the handling, packaging and transport chain to the point of export. Phytosanitary management procedures should be identified and demonstrated where they occur along the chain. Industry stakeholders including producers, exporters and shipping agents should be involved with planning and participate in the tour at appropriate times.

If the exporting country has instigated research to clarify concerns about the quality of the information used in the PRA, to refine risk management procedures or to evaluate alternative risk management options, a review of the progress of this research should be included in the visiting delegation's itinerary.

Once the visiting delegation has departed, the NPPO of the exporting country should prepare a report including details of the visit and any resulting decisions or commitments. A copy of the report should be forwarded to the NPPO of the importing country with a request for confirmation that the report represents an accurate account of the visit. Copies of the report signed by both parties, and any related correspondence, should be included in the market access dossier.

3.11 Confirmation of the terms of trade

The terms of trade, comprising phytosanitary requirements, restrictions and prohibitions, for importing commodities can be confirmed as soon as the recommendations of the PRA have been finalized.

Prior to finalizing the recommendations of the PRA, the NPPO in the destination country must be satisfied that the risk analysis process has been followed in accordance with the requirements of the WTO and IPPC. In particular, that due consideration has been given to all comments received after consultation with stakeholders and other interested parties and, where appropriate, recommendations have been modified. The NPPO should ensure the final document is structured, science-based and transparent and clearly identifies the sources of information and the rationale used in reaching the management decisions.

Having accepted that the PRA is finalized, the NPPO is required to follow official notification procedures (Article VII 2 (b) and 2 (c) in IPPC, 1997) and publish the phytosanitary requirements, restrictions and prohibitions and forward them to any contracting party or parties believed to be directly affected by such measures; and on request, make available to any contracting party the rationale for phytosanitary requirements, restrictions and prohibitions.

A further responsibility of the NPPO is to initiate the process of drafting basic laws that may be required to update phytosanitary legislation providing legal authority for implementing requirements of the terms of trade.

3.12 Commencement of trade

In certain situations, when the exporting country has considered the determination of the import policy and the related terms of trade it may consider the determination is unacceptable, and it may proceed to pursue a course of dispute settlement. This course of action is discussed further in Section 4.3 of this guide. However, in most situations, the exporting country will proceed to take the necessary steps to initiate and develop an export trade.

Acceptance of the terms of trade will require the NPPO in the exporting country to take legal responsibility to provide assurance to the NPPO in the importing country that consignments of the commodity meet the importing country's phytosanitary import requirements. The instrument of assurance used by NPPOs is phytosanitary certification.

Article V.2(a) of the IPPC stipulates how phytosanitary certificates should be issued:

"Inspection and other related activities leading to the 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 document."

According to [ISPM 7 \(2011\)](#) the NPPO of the exporting country has the sole authority to undertake phytosanitary certification and should establish a management system to deal with the legislative and administrative requirements. [ISPM 7 \(2011\)](#) provides details of the requirements.

Legal authority extends to assuming sole authority by legislative or administrative means to conduct, develop and maintain a phytosanitary system related to exports in accordance with Article IV.2(a) of the IPPC.

The administrative responsibilities include ensuring that all legislative and administrative details related to phytosanitary certification are satisfied, providing the NPPO with authority to:

- ◆ identify a person or office within the NPPO responsible for the phytosanitary certification system;
- ◆ identify the duties and communication channels of all personnel involved in phytosanitary certification;
- ◆ employ or authorize personnel who have appropriate qualifications and skills;
- ◆ ensure that adequate and sustained training is provided; and
- ◆ ensure that adequate personnel and resources are available.

As regards operational responsibilities, the NPPO should be capable of undertaking a range of functions related to phytosanitary certification, including:

- ◆ establishing and maintaining a record-keeping system;
- ◆ producing operational instructions to ensure phytosanitary import requirements are met;
- ◆ performing, supervising or auditing the required phytosanitary systems;
- ◆ verifying that appropriate phytosanitary procedures have been established and correctly applied;
- ◆ performing surveys and monitoring and control activities to confirm phytosanitary status attested in phytosanitary certificates;
- ◆ completing and issuing phytosanitary certificates;
- ◆ ensuring the phytosanitary security of consignments after phytosanitary certification prior to export; and
- ◆ investigating and taking corrective action (if appropriate) on notification of non-compliance.

To administer the considerable responsibilities of the NPPO, essential resources and infrastructure need to be available including skilled and experienced personnel capable of the duties and responsibilities required to conduct phytosanitary certification activities. Where government staff is limited, the NPPO can outsource expertise, providing this does not involve a conflict of interest and the external expertise is responsible to the NPPO.

The NPPO must ensure that adequate equipment, materials and facilities are available to carry out the phytosanitary certification procedures.

The final requirement of an effective phytosanitary certification system is one that can document the relevant procedures applied and maintain records. The system should allow the ability to trace-back phytosanitary certificates and related consignments. The system should permit verification of compliance with the phytosanitary import requirements.

Trade will commence when the first consignment of the commodity is sent to the importing country. A phytosanitary certificate must accompany the consignment or be transmitted by mail or other means, or where agreed between countries, NPPOs may use electronic phytosanitary certificates.

ISPM 12 (2011) provides details of the requirements and guidelines for the preparation and issuance of phytosanitary certificates.



4 Maintaining trade

4.1 Compliance with the terms of trade

To maintain trade, the NPPO of the exporting country must ensure correct application in all situations of the procedures introduced to meet the phytosanitary import requirements of the importing country.

The NPPO is required to be diligent when applying phytosanitary certification and operating the export certification system to ensure information and additional declarations accompanying the phytosanitary certificate are accurate (ISPM 1, 2006).

The IPPC makes provision for contracting parties to report when consignments do not comply with phytosanitary import requirements, including non-compliance in relation to documentation or to report appropriate emergency action, which is taken when an organism posing a potential phytosanitary threat is detected in an imported consignment. The NPPO of the importing country is required to notify the NPPO of the exporting country as soon as possible if there are significant instances of non-compliance and emergency actions have been applied to imported consignments. The notification should identify the nature of non-compliance in such a way that the NPPO of the exporting country may investigate the non-compliance and make the necessary corrections. The NPPO of the importing country may request a report of the results of such investigations.

Notifications are provided by the NPPO of the importing country to the NPPO of the exporting country to identify significant failures of consignments to comply with specified phytosanitary import requirements, or to report emergency measures taken on detection of a pest posing a potential threat. The use of notifications for other purposes is voluntary, but in all instances should only be undertaken with international cooperation to prevent the introduction and spread of regulated pests (IPPC, Articles I and

VIII). When there is a non-compliance, notification is intended to help investigation of the cause of non-compliance and to facilitate steps to avoid recurrence.

If there is need for emergency action, the importing country should investigate the new or unexpected phytosanitary situation to justify the emergency action taken. Any such action should be evaluated as soon as possible to ensure that its continuance is technically justified. If continuance of action is justified, phytosanitary measures in the importing country should be adjusted, published and transmitted to the NPPO of the exporting country (ISPM 13, 2001).

4.2 Reviewing and amending the terms of trade

Once trade has commenced and gained a commercial footing, data will begin to accumulate, providing an indication of the success or otherwise of the agreed terms of trade. Importantly, phytosanitary measures can be monitored and data analysed as it becomes available.

Where the results of analysis of trade data provide new information regarding risk management, or where other new and relevant scientific information becomes available, a review of the PRA may determine that the risk management measures adopted require modification. Under such circumstances, the IPPC directions are clear:

"... contracting parties shall, as conditions change, and as new facts become available, ensure that phytosanitary measures are promptly modified or removed if found to be unnecessary" (IPPC, Article VII.2(h)).

Results of independent research, or research by the exporting country into alternative risk management measures, can provide the opportunity for review and amendment to the terms of trade with importing countries. This is required under Article 1.10 of ISPM 1 (2006) to recognize alternative phytosanitary measures proposed by the NPPO of the exporting country when those measures are demonstrated to achieve the appropriate level of protection determined by the NPPO of the importing country. ISPM 24 (2005) provides guidance in the determination and recognition of phytosanitary measures that are equivalent in such situations.

Mutual recognition of the importance of equivalence of phytosanitary measures is an important element in establishing and maintaining a close and positive trading relationship between countries. Where bilateral meetings are part of this arrangement, it can be opportune to agree to a schedule of regular reviews regarding trade in specific commodities.

4.3 Settlement of disputes

Throughout the process of negotiating and achieving market access, and during the later phase of maintaining trade through compliance with the terms of trade and reviewing and amending the terms of trade in response to changing circumstances, situations arise when the NPPO of the exporting country may question or challenge actions taken by the NPPO of the importing country; especially regarding phytosanitary regulatory requirements restricting imports of commodities.

In such situations, guidance from the IPPC (Article XIII.1) requires that the: *"...contracting parties concerned shall consult among themselves as soon as possible with a view to resolving the dispute"* and, in most situations the matters are resolved during bilateral negotiations. However, where disagreements cannot be settled in this manner, the disputing parties have re-

course to dispute settlement under complementary mechanisms of the IPPC (Article XIII) and the WTO-SPS Agreement (Article 11).

The history of trade disputes shows that members of the WTO have usually used the dispute settlement system provided for by the WTO. However, this can be a relatively time consuming and expensive procedure, and hence, has generally been reserved for the most serious and complex trade issues. Mindful of these concerns, the IPPC perceived the need for a less expensive, yet effective technical system that could deal with many of the less onerous phytosanitary trade issues. Consequently, the IPPC has included dispute settlement procedures under Article XIII of the new revised text.

Building upon this initiative, the CPM developed a dispute settlement system that provides for procedures and administrative support to assist contracting parties to resolve disputes and implement the process set out in Article XIII. The IPPC has published a brief guide to the dispute settlement system (IPPC, 2006a), and a more detailed manual (IPPC, 2006b) that provide the rules and procedures for their implementation¹¹. Administrative support is provided through a subsidiary body known as the Subsidiary Body on Dispute Settlement (SBDS), which is specifically devoted to overseeing, administering and supporting the IPPC's dispute settlement procedures.

When the dispute cannot be resolved through bilateral negotiations, the contracting party or parties concerned may request the Director-General of FAO to appoint a committee of experts to consider elements of the dispute, in accordance with the rules detailed in the IPPC dispute settlement manual (IPPC, 2006a).

The main benefits of the IPPC dispute settlement system are listed in the dispute settlement guide (IPPC, 2006a):

- ◆ emphasizes dispute avoidance before engaging in formal dispute settlement process;
- ◆ offers a range of mechanisms that contracting parties can select from to deal with their specific dispute;

11/ The IPPC dispute settlement manuals are available at <https://www.ippc.int/publications/dispute-settlement-manual>

- ◆ operates at a technical level. The disputing parties have the opportunity to resolve their differences at this level instead of using potentially more complex legal processes of other dispute settlement systems;
- ◆ offers dispute settlement processes at a different level from those offered by the WTO and, therefore, offers complementary alternative processes for IPPC contracting parties;
- ◆ potentially less costly than other dispute settlement systems;
- ◆ potentially allows resolution of disputes more quickly than other dispute settlement systems – recognizing that most IPPC mechanisms do not provide binding decisions; and
- ◆ the Secretariat and SBDS offers support to disputing parties, subject to available resources. This may take the form of advice on how to use the system and facilitating the efforts of parties to resolve their dispute.

Proceeding with the IPPC dispute settlement system, in cases where a phytosanitary dispute arises, contracting parties are encouraged to consult with the IPPC Secretariat concerning the range of available dispute settlement procedures and what might be appropriate for the dispute in question. Once the

contracting parties have agreed on the procedure, the Secretariat will usually be able to facilitate further arrangements.

Where the Director-General of FAO has appointed a committee of experts, at the completion of its deliberations a report is prepared summarizing the dispute's technical aspects and recommending how it may be resolved. Importantly, the recommendations are not binding on the parties involved, but could become the basis for renewed consideration of the matter.

If the phytosanitary trade dispute remains unresolved after using the technically oriented procedures under the IPPC, contracting parties might consider using the WTO dispute settlement procedures. So, while the outcomes of the IPPC may not be legally binding, the results are likely to have significant weight if the issue is taken to the WTO, particularly if the issue is related to the use of international standards (ISPMs) under the IPPC.

Note that WTO dispute settlements are legally binding and can have serious economic and political consequences. For this reason, the IPPC encourages governments to begin with technical consultation early so as to avoid phytosanitary disputes before they arise.

5 References and resources

References used in this guide

- FAO. 2011. Guide to Implementation of Phytosanitary Standards in Forestry, FAO Forestry Paper 164. Rome, FAO.
- IPPC. 1997. International Plant Protection Convention. Rome, IPPC, FAO.
- IPPC. 2006a. IPPC Dispute Settlement System. Rome, IPPC, FAO.
- IPPC. 2006b. IPPC Dispute Settlement Manual. Rome, IPPC, FAO.
- IPPC. 2007. Pest Risk Analysis (PRA) Training, Participant Manual. Rome, IPPC, FAO.
- IPPC. 2009. International Plant Protection Convention Commission on Phytosanitary Measures Business Plan 2007-2011. Rome, IPPC, FAO.
- IPPC. 2011. International Plant Protection Convention Procedural Manual. Rome, IPPC, FAO.
- IPPC. 2012a. Commission on Phytosanitary Measures Strategic Framework 2012-2019. Rome, IPPC, FAO.
- IPPC. 2012b. Global Workshops to Help Countries Implement Phytosanitary Standards. Rome, IPPC, FAO.
- ISPM 1. 2006. Phytosanitary principles for the protection of plants and the application of phytosanitary measures in international trade. Rome, IPPC, FAO.
- ISPM 2. 2007. Framework for pest risk analysis. Rome, IPPC, FAO.
- ISPM 3. 2005. Guidelines for the export, shipment, import and release of biological control agents and other beneficial organisms. Rome, IPPC, FAO.
- ISPM 4. 1995. Requirements for the establishment of pest free areas. Rome, IPPC, FAO.
- ISPM 5. 2012. Glossary of phytosanitary terms. Rome, IPPC, FAO.
- ISPM 6. 1997. Guidelines for surveillance. Rome, IPPC, FAO.
- ISPM 7. 2011. Phytosanitary certification system. Rome, IPPC, FAO.
- ISPM 8. 1998. Determination of pest status in an area. Rome, IPPC, FAO.
- ISPM 9. 1998. Guidelines for pest eradication programmes. Rome, IPPC, FAO.
- ISPM 10. 1999. Requirements for the establishment of pest free places of production and pest free production sites. Rome, IPPC, FAO.
- ISPM 11. 2013. Pest risk analysis for quarantine pests. Rome, IPPC, FAO.
- ISPM 12. 2011. Phytosanitary certificates. Rome, IPPC, FAO.
- ISPM 13. 2001. Guidelines for the notification of non-compliance and emergency action. Rome, IPPC, FAO.
- ISPM 14. 2002. The use of integrated measures in a systems approach for pest risk management. Rome, IPPC, FAO.
- ISPM 18. 2003. Guidelines for the use of irradiation as a phytosanitary measure. Rome, IPPC, FAO.
- ISPM 19. 2003. Guidelines on lists of regulated pests. Rome, IPPC, FAO.
- ISPM 20. 2004. Guidelines for a phytosanitary import regulatory system. Rome, IPPC, FAO.
- ISPM 22. 2005. Requirements for the establishment of areas of low pest prevalence. Rome, IPPC, FAO.
- ISPM 23. 2005. Guidelines for inspection. Rome, IPPC, FAO.
- ISPM 24. 2005. Guidelines for the determination and recognition of equivalence of phytosanitary measures. Rome, IPPC, FAO.
- World Trade Organization. 1994. Agreement on the Application of Sanitary and Phytosanitary Measures. Geneva, WTO.

Easy-access list of additional resources

International Plant Protection Convention website: www.ippc.int

Adopted ISPMs: <https://www.ippc.int/core-activities/standards-setting/ispms>

IPPC Convention text: <https://www.ippc.int/publications/1997-international-plant-protection-convention-new-revised-text>

Phytosanitary Resources page: www.phytosanitary.info – manuals, training materials, and other resources. Materials posted to the page have been reviewed and noted by the IPPC Capacity Development Committee for relevance and consistency with the IPPC framework.

- Training manuals and e-learning course on pest risk analysis: <http://phytosanitary.info/pr>
- Additional materials can be contributed (in any language) through a form on the page, for review by the IPPC Capacity Development Committee.

IPPC helpdesk: <http://irss.ippc.int/helpdesk> – includes a question and answer forum, frequently asked questions and links to additional resources

IPPC

The International Plant Protection Convention (IPPC) is an international plant health agreement that aims to protect cultivated and wild plants by preventing the introduction and spread of pests. International travel and trade are greater than ever before. As people and commodities move around the world, organisms that present risks to plants travel with them.

Organization

- ◆ The number of contracting party signatories to the Convention exceeds 179.
- ◆ Each contracting party has a National Plant Protection Organization (NPPO) and an Official IPPC contact point.
- ◆ 10 Regional Plant Protection Organizations (RPPOs) have been established to coordinate NPPOs in various regions of the world.
- ◆ IPPC liaises with relevant international organizations to help build regional and national capacities.
- ◆ The Secretariat is provided by the Food and Agriculture Organization of the United Nations (FAO-UN).



International Plant Protection Convention (IPPC)

Viale delle Terme di Caracalla, 00153 Rome, Italy
Tel: +39 06 5705 4812 - Fax: +39 06 5705 4819
Email: ippc@fao.org - Web: www.ippc.int

The IPPC Secretariat is
hosted and provided by

