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منظمة  
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للأمم المتحدة

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# 植物检疫措施委员会

## 第十三届会议

2018 年 4 月 16—20 日，罗马

## 《国际植保公约 2020-2030 年战略框架》

议题 8.3

由缔约方志愿者起草

## I. 引言

1. 2014 年，战略规划小组第三次会议为确定《国际植保公约》未来将面临的挑战开展了“《国际植保公约》未来 20 年”工作。参与者对《国际植保公约》所面临的潜在挑战和机遇加以归类并选取了一系列有潜在进一步研究价值的议题。
2. 在 2015 年战略规划小组第四次会议上，小组决定“《国际植保公约》未来 20 年”工作应为《国际植保公约战略框架》的修订打下基础。会议认为，《国际植保公约 2020-2030 年战略框架》应是一项宏伟的事业，国际植保公约可在该框架内探索在 2020 国际植物健康年之后的年份中开展的新活动。战略规划小组和植检委主席团预见到，《战略框架》可作为在 2020 年“国际植物健康年”可能召开的植检委部长级会议的一项主要成果正式予以通过。战略规划小组成员 Peter Thomson 先生（新西兰）和 Ralf Lopian 先生（渔业及水产养殖部）自愿牵头《战略框架》起草进程。
3. 在 2016 年战略规划小组第五次会议上，志愿者们提交了《战略框架》架构草案供战略规划小组讨论。战略规划小组讨论了草案的拟议战略目标，确定了今后植保公约可能开展的发展活动。

为尽量减轻粮农组织工作过程对环境的影响，促进实现对气候变化零影响，本文件印数有限。敬请各位代表、观察员携带文件与会，勿再索取副本。  
粮农组织大多数会议文件可从互联网 [www.fao.org](http://www.fao.org) 网站获取。

4. 2017年，植检委就《2020-2030年战略框架》拟议的高层构架和内容提出了意见，重点尤其放在愿景、使命和战略目标上。普遍认为，《战略框架》的目标应与联合国可持续发展目标密切联系。为此编制了一份新的草案并在2017年10月的战略规划组会议上进行了讨论。战略规划组几乎就《战略框架》的所有方面提出了详细的意见。战略规划组的反馈意见纳入了该文件新的版本。

## II. 结构和内容

5. 起草人员拟定了《战略框架》的新结构和内容。新的机构和内容反映了植检委和战略规划组的反馈意见。当前的草案见附录 I。该文件包括对环境的审视，探讨2030年我们可能面临的未来。这并非严格的科学，而是作出的最佳估计，力图依据当前趋势、指标和专家意见推测中期未来前景。对战略规划组四年来对未来做出的审视努力赋予了很大的权重。应当承认，该框架是一个目标，而不是一张线路图，将需要在2020-2030年期间定期审查，随着全球形势变化的明朗化而作出相应调整。

6. 总的来说，《战略框架》的主要成分是：

我们的使命：	保护全球植物资源免受有害生物影响，同时促进安全贸易
我们的愿景：	最大程度控制植物有害生物通过人的相互作用而扩散，有效管理其在国家内部的影响
我们的目标：	所有国家都有能力实施协调措施，减少有害生物扩散，最大程度减轻有害生物对粮食安全、贸易、经济增长和环境的影响。
战略目标：	促进安全贸易发展和经济增长 加强全球粮食安全和提高农业生产力 保护环境免受植物有害生物影响
国际植保公约 发展议程	协调电子数据交换 针对商品和路径的国际植物检疫措施标准 管理电子商务和快递邮寄途径 推动使用第三方实体 加强病虫害爆发响应系统 全球有害生物警报系统 新的植物检疫处理方法 诊断实验室网络
核心活动	标准制定 实施工作和能力发展 宣传和国际合作

### III. 时间线

7. 植检委第十二届会议为制定和批准《战略框架》提出了示意性时间线。如果得到落实，这一时间线将《战略框架》能够准备好在 2020 植物健康年期间获得批准，可能是在植检委第十五届会议的一次部长级会议上。从现在起时间线如下：

#### 2018 年

- 根据植检委第十二届会议和战略规划组 2017 年的讨论结果向植检委第十三届会议提出第二稿草案。
- 植检委第十三届会议就草案主要事项—使命、愿景、目标、战略目标以及发展议程达成原则性一致。
- 根据植检委反馈意见，如有需要，就战略框架草案组织一次面对面研讨会，或进行全面国家磋商。

#### 2019 年

- 植检委第十四届会议原则上接受《国际植保公约 2020-2030 年战略框架》。

#### 2020 年

- 植检委第十五届会议期间召开的部长级会议通过《国际植保公约 2020-2030 年战略框架》

### IV. 植检委第十三届会议讨论与建议

8. 为就如何进一步制定《2020-2030 年战略框架》为起草人员提供指导，植检委第十三届会议如能讨论《国际植保公约发展议程》的架构和内容将大有裨益。植检委第十三届会议的指导意见将纳入《战略框架》下一版草案。

9. 提请植检委：

- 1) 就附录 I 所附的《2020-2030 年战略框架》当前的草案内容提出高级别实质性评论意见。

**DRAFT**

**DRAFT**

**Strategic Framework  
for the  
International Plant Protection Convention (IPPC)  
2020 – 2030**

**Protecting the World's Plant Resources from Pests**

**Developed by the Commission on Phytosanitary Measures**

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## Purpose of This Document

This document is designed to communicate in a simple form the work of the Commission on Phytosanitary Measures (the Commission) and our focus for the coming 10 years.

Readers will be able to understand the International Plant Protection Convention is, the work of the Commission, what we are trying to achieve, and why it matters.

This document will guide our actions over the period 2020 - 2030. Ten years is a long time though, so as we move forward we expect to adapt and respond to ensure we stay on course, not with what we decide today, but with where we need to be in the future.

## Who Should Read This Document and Why

The target audiences for this document are broad.

**Contracting Parties and National Plant Protection Organisations and Regional Plant Protection Organisations** – you will use this document at all levels of government and across governmental and non-governmental organisations to communicate how the work of the Commission supports your country to achieve its goals in the areas of trade and economic development, food security, and environmental protection. You may use this strategic framework to align your own strategy to achieve the objectives of the IPPC.

**Agricultural Producers, Farmers, and Exporters** – agricultural industry sector will better understand the threat of plant pests and the vital need for plant protection services and measures, including global standards, to safeguard agricultural productivity and profitability.

**FAO Divisions and Departments** – you will be able to see the work the IPPC Secretariat is doing that could relate to your activities and programmes. You might also see how the IPPC Secretariat could benefit from knowing about or contributing to your work. This will increase the opportunities for alignment of effort, improve resource utilisations, and increase the chance of delivering better results.

**Donor Agencies** – you will be able to identify opportunities to achieve your goals through working with the IPPC. You might find specific areas where you want to invest to effect change at a global level, or it may help you to identify priority areas as you work with individual countries.

**Contracting Party Delegates to the annual Commission meetings** – you will use this document to stay focused on agreed objectives and key result areas and thereby determine priorities for the coming years. We know effecting change can take many years, so this document will help us remember what we considered to be important and why, and help us to pause before changing direction.

## Glossary of Abbreviations

IPPC	International Plant Protection Convention
CBD	Convention on Biological Diversity
Commission	In this document references to 'the Commission' are to the Commission on Phytosanitary Measures
Convention	In this document references to 'the Convention' are to the International Plant Protection Convention
CPM	Commission on Phytosanitary Measures, "the Commission"
IAEA	International Atomic Energy Agency
IPPC	International Plant Protection Convention, "the Convention"
ISPM	International Standard for Phytosanitary Measures
NPPO	National Plant Protection Organisation
RPPO	Regional Plant Protection Organisation
TFA	World Trade Organization's Trade Facilitation Agreement
WCO	World Customs Organisation
WTO	World Trade Organisation
SPS	The Agreement on the Application of Sanitary and Phytosanitary Measures, the "SPS Agreement"
STDF	Standards and Trade Development Facility

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## Executive Summary

[To be written when the document is completed].

# IPPC 2020-2030 Strategic Framework on a Page

## INTERNATIONAL PLANT PROTECTION CONVENTION STRATEGIC FRAMEWORK 2020-2030



### OUR MISSION

Protect global plant resources  
and facilitate safe trade



### OUR VISION

The spread of plant pests through human interactions is minimized and their impacts within countries are effectively managed

### OUR GOAL

All countries have the capacity to implement harmonised measures to reduce pest spread and minimise the impact of pests on food security, trade, economic growth, and the environment

### STRATEGIC OBJECTIVES

**A**

Facilitate safe trade  
development &  
economic growth

**B**

Enhance global food  
security & increase  
agricultural productivity

**C**

Protect the environment  
from the impacts of  
plant pests

### CORE ACTIVITIES



Standard setting



Implementation &  
capacity development



Communication &  
international co-operation

### IPPC DEVELOPMENT AGENDA 2020-2030

1. Harmonisation of Electronic Data Exchange.
2. Commodity, and Pathway Specific ISPMs.
3. Management of E-commerce and Courier Mail Pathways.
4. Enabling the Use of Third Party Entities.
5. Strengthening Pest Outbreak Response Systems.
6. Global Pest Alert System.
7. New Phytosanitary Treatments.
8. Diagnostic Laboratory Network.

### CONTRIBUTING TO UN 2030 SUSTAINABLE DEVELOPMENT GOALS



## Introduction

The IPPC is the global international treaty for protecting plant resources (including forests, non-cultivated plants and biodiversity) from plant pests and for facilitating safe trade by common and effective action to prevent the spread and introduction of plant pests and to promote appropriate measures for their control.

The IPPC is deposited with and administered through the Food and Agriculture Organization of the United Nations (FAO). The IPPC was established as a convention in 1951 and amended in 1979 and 1997. The Commission on Phytosanitary Measures (Commission) is the governing body for the International Plant Protection Convention (IPPC). The work plan approved by the Commission is administered by the IPPC Secretariat.

The Convention extends beyond the protection of all cultivated plants to the protection of natural flora and plant products. It includes both direct and indirect damage by pests and pest plants. It also covers vehicles, aircraft and vessels, containers, storage places, soil and other objects or material that can harbour or spread pests.

The Convention provides a framework and a forum for international cooperation, harmonization of action, and technical exchange between contracting parties. The Convention is recognized by the World Trade Organization's (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement) as the only international standard setting body for plant health.

Implementation of the Convention involves collaboration by National Plant Protection Organizations (NPPOs) the official services established by contracting parties to carry out the functions specified by the IPPC; and Regional Plant Protection Organizations (RPPOs), which act as coordinating bodies at a regional level to achieve the objectives of the IPPC.

The IPPC is governed by the Commission on Phytosanitary Measures (Commission). The Commission comprises delegates from each of the contracting parties, **183 as at January 2018**. The Commission meets during March or April each year usually at FAO headquarters in Rome, Italy, to promote cooperation and agree a work plan to implement the objectives of the IPPC. In particular, the Commission:

- reviews the state of plant protection around the world
- identifies action to control the spread of pests into new areas
- develops and adopts international standards and guidelines
- approves programmes to support implementation of the Convention and adopted standards; and
- cooperates with international organizations on matters covered by the Convention

The International Plant Protection Convention (IPPC) has become particularly significant and relevant in the light of evolving phytosanitary risks associated with the increasing movement of plants and people, climate change, the spread of pests, and the need to support the safe expansion of global trade and economic growth opportunities for all, protect plant resources and biodiversity, and to ensure food security.

## Plant Pests

[Two page spread of case studies with pictures and edited down to fit on 1 page.]

The spread or outbreak of plant pests has significantly affected food security and economic prosperity (see Box 1). A vast range of plant pests and diseases (collectively called pests under the IPPC) threaten global food production (including animal feed), the productivity and biodiversity of forests and the wild flora of the natural environment. Some historical impacts of plant pests are well known, such as the potato blight (*Phytophthora infestans*) on potatoes in Ireland, coffee leaf rust (*Hemileia vastatrix*) on coffee in Sri Lanka and Brazil, phylloxera (*Viteus vitifoliae*) on grapes in Europe and the United States, South American leaf blight of rubber (*Microcyclus ulei*) on rubber in Brazil, Stem rust (*Puccinia graminis*) on wheat in North America, Dutch Elm disease (*Ophiostoma ulmi*) on elm in Europe and the United States and European Gypsy Moth (*Lymantria dispar*) in the north eastern forests of North America.

Although the impacts of pests range from negligible to extremely high, it is often difficult to fully assess these impacts ahead of time. Preventing pests from spreading and establishing in new countries and regions is invariably more cost effective than maintaining long-term control, containment, or eradication (if possible), or the consequences unchecked impact.

### Pest Case Studies

**Halyomorpha halys**, the Brown Marmorated Stink Bug, is native to Asia. It has recently invaded both Europe and the United States, where it has spread aggressively. In the mid-Atlantic region, serious losses have been reported for a range of crops. Hosts in invaded areas include many tree fruits, vegetables, row crops, ornamentals and native vegetation. BMSB is also a major nuisance pest due to its overwintering behaviour. In autumn adults can aggregate in very large numbers in houses and other manmade structures, emitting a pungent smell when disturbed. This aggregative association with manmade structures (such as shipping containers) also increases the likelihood of long distance transport of BMSB as a hitchhiker. The IPPC has adopted an International Standard for Phytosanitary Measures (ISPM) on the international movement of vehicles, machinery and equipment to minimize the likelihood of introduction of contaminating pests on these pathways.

**Xylella fastidiosa** (Xf) is the causal agent of Pierce's disease of grapevines, and of diseases of many other important crops including citrus, avocado, olives and stonefruit. The bacterium is vectored by xylem-feeding insects, particularly sharpshooters and spittle bugs. The host range of Xf is wide, and expanding rapidly as it encounters new hosts and new vectors in invaded ranges. Over 300 plant species can be affected by one or more of its subspecies or strains. In the 1990s a strain emerged in Brazil as citrus variegated chlorosis disease (CVC). CVC rapidly became one of the most economically important diseases of orange production, causing annual losses of several million dollars. Xf has recently emerged and spread rapidly in Europe, causing a serious outbreak on olives.

**Prostephanus truncatus**, the larger grain borer (LGB) is native to Central America and surrounding regions. It was introduced into Tanzania in the late 1970s and has spread through much of sub-Saharan Africa through movement of infested grain. It is a serious pest of stored maize and dried cassava roots (Africa's most important food crops), and will attack maize in the field just before harvest. LGB is now considered the most destructive pest of these crops in both West and East Africa. In West Africa, yield losses of up to 100% of stored maize and 45% of cassava have been reported as a result of LGB infestation. The IPPC is currently considering the development of an ISPM for the international movement of grain, which may help to reduce the spread of this type of pest.

**Oriental fruit fly**, *Bactrocera dorsalis* (OFF) is a highly invasive Asian species and an example of the significant impact economic fruit flies can have on production and trade. It has spread to parts of the Americas and Oceania, and most of sub-Saharan Africa (as *Bactrocera invadens*). OFF and closely related species in this complex are amongst the world's most important horticultural pests, attacking hundreds of species of commercial and wild fruits. Larval infestations affect primary production, while new invasions threaten export markets and prompt costly eradication attempts. Invasive OFF has been shown to be highly competitive with native fruit flies, quickly becoming the dominant fruit fly pest. The identity of constituent species of the complex is a matter of some debate, so **a new annex to ISPM 27 (Diagnostic protocols for regulated pests) is currently being drafted to provide international harmonization by NPPOs. Phytosanitary treatment protocols for OFF are also being developed under ISPM 28.**

**Pine Wood Nematode**, *Bursaphelenchus xylophilus* (PWN) is the causal agent of the economically and environmentally significant 'pine wilt disease' in species of pine (*Pinus* spp.). PWN is native to North America and is vectored by species of the wood-inhabiting longhorn beetle *Monochamus*. PWN was introduced into Asia (Japan) at the turn of the 20th century via timber exports, and has now spread into China, Korea and Taiwan. PWN was first detected in Europe (Portugal) in 1999 and now has now spread to Spain. While spread of the disease from tree to tree is primarily through the vector (*Monochamus*), and the emergence of adult beetles from PWN infested wood is believed to be the most likely method of introduction, species of *Monochamus* have not been introduced with PWN. Local species of *Monochamus* that can vector PWN are found throughout the Northern Hemisphere. The IPPC introduced ISPM 15: Regulation of wood packaging material in international trade, to minimise the likelihood of PWN or its vectors spreading internationally via wood packaging material, and is developing further ISPMs (e.g. for wood and wood products) to manage other potential pathways for introduction. The IPPC has also produced a diagnostic protocol for *Bursaphelenchus xylophilus* (ISPM 27 Annex 10) and phytosanitary treatments for PWN and its vectors are currently being drafted under ISPM 28.

## Operating Environment 2020 – 2030

To plan for the future we need an appreciation for what the future might look like. Rather than attempt to make specific predictions a useful approach is to identify and extrapolate emerging major trends and some of their drivers. These provide a general picture of the future that this strategic framework needs to address, both in terms of challenges and opportunities. Major trends we expect to be present during this period with relevance to the Commission and its members include:

### Increasing and More Diversified Trade

Global trade in food and agricultural products has tripled in value terms since the turn of the millennium and it is expected that this trend will continue. In 2015, the Food and Agriculture Organization of the United Nations (FAO) noted that the global trade in food products will continue to expand rapidly, but that the structure and pattern of trade will differ significantly by commodity and by region. FAO also predicted that the greater participation in global trade is an inevitable part of most countries' national trade strategies, but that the process of opening up to trade, and its consequences, will need to be appropriately managed if trade is to work in favour of improved food security outcomes. In addition, how commodities are traded is anticipated to change. The geographical separation of individual steps in the production chains will affect trade and require countries to cooperate. Specific drivers for this trend have been identified as:

- Governments will continue to pursue economic growth strategies that rely on expanding trade and seeking access to new markets.
- Volume and speed of passenger and freight movements will continue to increase, presenting the potential to move pests faster than ever before.
- Complex global supply-production chains will result in goods crossing multiple borders for processing before being sold as finished product. The importance of traceability and phytosanitary security will increase.
- Direct to consumer trade (including e-commerce) will continue to expand rapidly, decreasing size and increasing number of consignments to be assessed for phytosanitary risk.

### Structural and Operational Changes in the Way National Plant Protection Organisations Work

NPPOs have undergone considerable changes in the past 20 years. The increase in traded commodities requiring certification or checking at border has increased. Developments in data processing and transmission have made it possible to communicate phytosanitary relevant information in real-time. Producers and other stakeholders have increasingly understood the benefits of plant health standards and procedures to their business prospects, and are increasingly willing to cooperate with NPPOs in order to streamline production and regulatory activities. As public funding comes under pressure, funding of NPPOs is expected to decline which will necessitate further gains in productivity and increased collaboration to achieve necessary plant health goals. The main drivers in this area are expected to be:

- Border clearance processes will be simplified to get products to consumers faster, creating challenges for import inspection.

- Importing industry participants will increasingly take responsibility for ensuring phytosanitary risks are managed off-shore through industry standards and commercial arrangements.
- Changes will occur in production practices enabling new approaches to pest management, e.g. vertical farming.
- Communication and data exchange capabilities will enable easier access to specialist expertise and sharing of information on pest risks.
- Public sector and international organization funding will become more constrained, putting pressure on agencies to innovate to find efficiencies in phytosanitary management, e.g. targeted inspection and other risk-based interventions.
- Public trust in government could continue to decline and licence to operate may be under constant pressure, requiring NPPO's to more effectively communicate their value proposition.
- Importing countries will expect higher levels of protection, and disagreements on appropriate measures are expected to intensify, slowing market access negotiations or disrupting existing trade.
- Consumer demand for fresh, pesticide-free fruits and vegetables will continue to increase, requiring new approaches to phytosanitary risk management by exporting and importing countries.

### Scientific and Capacity Development

Although overall research in traditional plant health related disciplines is expected to decline, it is expected that a number of research developments will affect plant health activities substantially. Continuing developments in molecular biology and genetic sequencing are expected to deliver new tools but also new challenges for plant health diagnostics. Increased data analysis capabilities will open doors for new developments in surveying and monitoring for plant pests. Some of these positive developments will be offset by capacity needs in developing countries and especially in least developed countries. The capacity of such countries needs to be strengthened in order to allow those countries to participate in world trade. The main drivers in this area are expected to be:

- Scientific advances will improve ability to detect pests faster and provide new methods to manage pests and their spread.
- Detection of new microorganisms without reliable information on their potential to cause harm will present challenges to risk management.
- “Big data” and advanced analytical tools will provide new opportunities to detect patterns and target pest surveillance and border inspections.
- Differing capacities among countries to monitor and respond to pest threats will impact trade and put neighbouring countries at risk.
- Less developed countries will continue to face difficulties acquiring technology and setting up viable phytosanitary systems for participation in agricultural trade.

### Impacts of Climate Change on Plant Health

The mitigation of climate change related impacts on agriculture and plant health will present a major challenge to NPPOs and international organizations in the plant health field. Changes in food production patterns and their trade will become apparent over the next two decades. The consequential changes in plant health, such as pest epidemiological anomalies and frequent

distribution extensions will provide challenges, especially in the areas of surveillance, monitoring and pest risk analysis. The danger of pest adaptations to changed climate parameters may cause new pest threats to major staple crops. The main drivers in this area are expected to be:

- Climate change will cause more frequent extreme weather events altering locations and methods of food production around the world.
- Climate change will affect epidemiology and the global distribution and range of pests.
- Water security/availability will become an increasing challenge for more regions in the world, affecting where crops are grown and marketed.
- New or mutated pests will emerge and impact on significant crops.

[Insert a pictograph of the future]



## **Mission of the IPPC**

*Protect global plant resources and facilitate safe trade*

## **Vision of the Commission on Phytosanitary Measures**

*The spread of plant pests through human interactions is minimized and their impacts within countries are effectively managed*

## **Goal of the Commission on Phytosanitary Measures**

*All countries have the capacity to implement harmonised measures to reduce pest spread and minimise the impact of pests on food security, trade, economic growth, and the environment.*

## Strategic Objectives

The Commission does not exist to serve its own interests. As an international body the Commission is focused on outcomes at a global level. The IPPC is the primary international treaty for protecting global plant resources (including forests, non-cultivated plants and biodiversity) from plant pests and for facilitating the safe movement of plants and plant products and other regulated articles in international trade. The core purpose of the IPPC is to prevent the international spread of plant pests and reduce their impact, but this only matters to the extent it enables the achievement of broader outcomes. Achieving the purpose of the Convention contributes positively to outcomes that are important to the entire world.

The Commission has identified three Strategic Objectives that capture the major contributions we make in a global context. While we cannot take complete accountability for any of the objectives, we can play an important role, and must ensure our efforts stay focused on achieving results in these areas. The three Strategic Objectives are equally important and the Commission work programme must be balanced to ensure the collective work programme contributes to all three objectives.

Key Result Areas are described for each Strategic Objective. The Key Result Areas outline the impact we expect to see under each Strategic Objective when the Commission, contracting parties, and partnering organisations successfully work together to deliver this Strategic Framework. Results will be delivered through both the core work of the IPPC and the IPPC Development Agenda Initiatives described later in this document.

The Commission's three Strategic Objectives are to:

### **A. Facilitate safe trade development and economic growth**

### **B. Enhance global food security and increase agricultural productivity**

### **C. Protect the environment from the impacts of plant pests**

The IPPC, as a convention established under FAO Article XIV, plays a critical role in supporting each of these Strategic Objectives through its programmes, standards, and actions.

All IPPC core activities contribute to these Strategic Objectives. In addition, the IPPC 2020-2030 Development Agenda initiatives will significantly strengthen the impact the work of the Commission will have on these Strategic Objectives. Delivery of the Development Agenda will depend on whether sufficient resources can be secured in addition to the FAO regular programme funding for core activities.

Within the framework of the IPPC the NPPO's and RPPO's play a critical role in advancing the implementation of the convention at a national and regional level. The NPPO's are important partners to the IPPC in terms of developing concrete actions at a national level to fulfil their mandated role, implement the convention and ISPMs and prevent the spread of pests that can affect agriculture, food security and biodiversity. RPPO's are also critically important in coordinating these efforts at a regional level and especially in developing and the implementing capacity building

programmes. For this reason effective partnerships with NPPO's and RPPOs are essential for achieving progress with these Strategic Objectives.

## A. Facilitate Safe Trade Development and Economic Growth

Trade is a critically important part of most national economies. Trade in plants and plant products and the foreign exchange earnings from this trade, stimulates economic growth and brings well-being and prosperity to rural communities and agricultural sectors. The main pathway for the spread and introduction of harmful pests is through international trade.

Minimising production losses from pests and reducing pest control costs is important to maximising returns for domestic growers. Eradicating newly established pest populations, or creating recognised pest free areas simplifies access to export markets. Exporting countries need strong phytosanitary systems to assure their trading partners that the imports they receive will not come with pests that would harm the importing country economy or environment. When the phytosanitary assurances and certification of exporting countries have integrity, trade pathways are smoothed and barriers to trade can be less.

Economies and citizens benefit from imported plant products through availability of a greater variety of products, and year round access. Imports are also an important source of new plant varieties or breeding material to grow the agricultural economy. Importing countries need good systems to understand the pest risks that may be associated with inward trade in plants and plant products. This capability supports robust border controls, science-based trade negotiations, and the establishment of technically justified phytosanitary measures.

The IPPC provides standards (ISPMs) for countries to develop import and export systems that manage the pest risks associated with trade in plants and plant products. When properly implemented trade can occur safely – without spreading plant pests. When countries operate their phytosanitary systems according to the Convention and harmonised measures adopted by the Commission, trading partners have a common understanding, they can trust each other's assurances, and trade negotiations should be simpler and quicker.

The World Trade Organization's (WTO) Trade Facilitation Agreement (TFA) entered into force on 22 February 2017 after two-thirds of members completed their domestic ratification process. This agreement will support NPPOs in their responsibilities as border agencies. There will be increasing imperatives to work more closely with other border agencies, including Customs. The IPPC will seek to increase collaboration with the World Customs Organisation and the WTO on the trade facilitation agenda.

### 2030 Key Result Areas

A1: Pest specific and commodity specific standards with harmonised phytosanitary measures have sped up trade negotiations and simplified trade in significant plant products.

A2: Detections of pests on trade pathways are declining as exporting countries take more responsibility for managing the pest risk on exports, and importing countries report detections more quickly and more consistently.

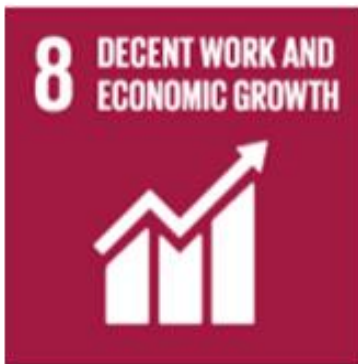
A3: NPPOs have been supported to establish export assurance and certification systems that have strong integrity and are trusted by trading partners.

A4: The cost of administering export certification systems has reduced and the circulation of fraudulent certificates has been eliminated through the electronic phytosanitary certification systems including the Generic National System and the Global ePhyto Hub.

A5: NPPOs have ready access to expert advice on phytosanitary issues in trade.

## Contribution to the UN 2030 Sustainable Development Agenda

The work of the IPPC for this Strategic Objective strongly supports the UN 2030 sustainable development goals 1, 8, and 17.



Goal 1. End poverty in all its forms everywhere.

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Goal 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

## B. Enhance Global Food Security and Increase Agricultural Productivity

High impact pests can challenge primary production and food supplies in all nations. Global crop losses due to plant pests and pest plants (weeds) are typically estimated to range between 20% and 35% of potential production. The losses caused by the spread of a new pest into new areas or crops can be much more catastrophic, sometimes causing total loss of crops until new strategies can be deployed to combat the pest. As pest spread is managed, crop losses are reduced and food security increased.

Food security – the availability of and access to adequate food supplies has many dimensions, including population dynamics, land use choices, climate change, crop production practices and management of plant pests (including invasive alien species), access to genetic resources, new production technologies, trade, food aid, and rural development.

Demographic trends may exert pressure on the food security situation globally but particularly in developing regions. Overall, FAO estimates that global agricultural output needs to expand by about 70 percent to meet the food needs of the population expected in 2050. Crop production is expected to continue to account for over 80 percent of the world's food.

Crop production intensification and pest management strategies need to be more sustainable than current or historical ones i.e. they must value and enhance ecosystem services such as soil nutrient dynamics, pollination, pest population control, and water conservation. They must also build on elements that include integrated pest management, conservation agriculture, access to and sustainable use of plant genetic resources, while also reducing soil, air and water pollution.

The impact of plant pests on food security is particularly evident in the developing world where phytosanitary regulatory frameworks often lack capacity. Contracting parties should be ensuring their phytosanitary regulatory frameworks are appropriately structured and resourced to avoid plant pests putting their food security at risk. The IPPC can support contracting parties to have the skills, capacity and knowledge they need to do this.

As pest spread is reduced and existing pests are well managed, crop productivity is increased minimised, and production costs can fall. This can result in significant economic benefits to growers. In addition, their ability to produce food increases for both the domestic food supply and for exports.

### 2030 Key Result Areas

B1: All NPPOs have effective pest surveillance systems in place for timely detection of new pest arrivals.

B2: All NPPOs have strong capacities to monitor, detect, report, and prepare rapid responses to pest outbreaks, so these pests do not have major impacts on food supplies and they do not spread to threaten other regions and trading partners.

B3: A phytosanitary emergency response system facilitates timely action against new pest incursions and supports countries with emergency response systems tools and knowledge.

B4: Sustainable pest management 'systems approaches' are implemented widely to minimise pest impacts right through the production process and harvesting, and minimise the need for endpoint treatments.

## Contribution to the UN 2030 Sustainable Development Agenda

The work of the IPPC for this Strategic Objective strongly supports the UN 2030 sustainable development goals 2 and 12.



Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 12. Ensure sustainable consumption and production patterns

## C. Protect the Environment from the Impacts of Plant Pests

Awareness has increased of the importance of invasive alien species, which can and do have a significant and devastating impact on the terrestrial, marine and freshwater environments, agriculture and forests. Continuing concern with climate change and protecting the environment compels the Commission and NPPO's to be aware of the potential for pest distribution and impacts to change with the changing climate. Governments' policies to minimize harm to the environment, climate change and invasive alien species will have to be matched with the need to maintain sustainable food production in order to ease poverty and feed their populations. Identification and promotion of environmentally sustainable measures to manage plant pests will be needed.

The IPPC standards and the IPPC framework are applied to address environmental concerns as they relate to plant biodiversity and emerging problems associated with invasive alien species that are plant pests. As climate change impacts as felt more widely, more frequent extreme weather events have the potential to increase the rate of natural windborne spread. Climate is often a limiting factor for a pest both in terms of their survival and fecundity. As climates modify, environmental ranges will change and pest impacts have the potential to increase significantly.

Importantly the IPPC has recognised the need to protect environments from plant pests in ways that don't themselves have negative environmental impacts. Acceptance of pest management systems approaches such as integrated pest management is reducing reliance on end-point chemical treatments. The prevention of pest spread also significantly reduces the need to use harmful chemicals in the environment.

The IPPC engages with biodiversity and environment related conventions, international collaborations, and capacity development arrangements such as the Convention on Biodiversity, the Global Environmental Facility and the Green Climate Fund. Whereas the Convention on Biodiversity addresses biodiversity and the environment in general, the IPPC deal specifically with those invasive alien species that are pests of plants, and establishes standards and provides guidance for protection against them. Many ISPMs have elements directed to protection of biodiversity. The IPPC standards on pest risk analysis, for example, can be essential and important tools for the assessment of environmental pest risks. The standard concerning the treatment of wood packaging material is aimed at risk management of tree and wood pests that can affect biodiversity or commercial forests.

The IPPC has and continues to progress the development of a number of other standards, guidance and recommendations dealing with the potential movement of invasive alien species important to the protection of biodiversity. These deal with invasive aquatic plants, minimizing pest movement by sea containers and air containers, and reducing the pest risk from waste material from ships.

The IPPC also makes accessible a wide range of resources for environmental agencies to take action against plant pests with environmental and biodiversity impacts.

### 2030 Key Result Areas

- C1: NPPOs recognise management of environmental plant pests as part of their responsibilities and work with national environmental sector agencies to support pest management programmes aimed at environmental protection.
- C2: NPPOs have mechanisms in place to control the spread of environmental contaminant pests on non-plant trade pathways, e.g. invasive ants on vehicles and machinery, or gypsy moth egg masses on sea containers and vessels.
- C3: Mechanisms are in place to share adaptation strategies for responding to the impacts of climate change.



C4: Agencies with environmental and natural forest stewardship responsibilities regularly access information and other resources managed by the IPPC Secretariat.

#### Contribution to the UN 2030 Sustainable Development Agenda

The work of the IPPC for this Strategic Objective strongly supports the UN 2030 sustainable development goals 13 and 15.



Goal 13. Take urgent action to combat climate change and its impacts

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss



## IPPC Development Agenda 2020 - 2030

The IPPC Development Agenda 2020-2030 aims to identify priority programmes of new work aligned to the Commissions' Vision, Mission, and Strategic Objectives. The identification of these priority programmes is based on the prospective changes to the operational environment of national, regional, and global plant protection organizations.

The Commission, as an international body with an underlying secretarial structure will be subject to policy and budgetary changes of its hosting entity, FAO. The success of the Commission to deliver on the purpose of the Convention will ultimately be measured against its ability to support the needs of member countries to stop the spread and reduce the impact of pests, but it will also be measured on its contribution to achieving the UN Sustainable Development Goals. To face possible budgetary constraints the Commission may have to streamline operations and integrate operational delivery much more closely with relevant FAO departments and offices.

The IPPC Development Agenda 2020 – 2030 helps to address these anticipated changes to the operational environment of the Commission by proposing several development programmes for the 2020 – 2030 period. Delivery of these programmes will contribute significantly to achieving the Strategic Objectives of the Commission and also the UN 2030 Sustainable Development Goals. The development programmes are firmly grounded within the strategic objectives. They ensure that the Commission is well positioned to continue development and coordination of international plant health activities to well beyond 2030. However, each of the new programmes is subject to securing required resources to sustain them.

Nine key development programmes have been identified. Each of these are described in terms of the outcome envisaged for 2030 and a more detailed description of each development programme.

### 1. Harmonisation of Electronic Data Exchange: Implementing a global system for production and exchange of electronic certification information

#### **Desired 2030 Outcome:**

A global system for production and exchange of electronic certification information is fully operational and integrated at a country level into trade single windows. The system is supported by a sustainable business model and is self-funded. A significant global effort to implement it in all countries has been completed. The system has strengthened and simplified trade in plants and plant products, reducing transaction costs, expediting the clearance of compliant products and eliminating fraud.

#### **Description:**

Electronic systems to facilitate the implementation of the Convention and its standards have been focused on by the Commission for several years. The establishment of an international hub for the exchange of electronic phytosanitary certificate information (ePhyto) and the development of a Generic ePhyto National System have received much attention and been viewed as major keys to facilitating safe trade. The successful establishment of an ePhyto system firmly positions the Commission within the trade facilitation context our ability to contribute more than just ISPMs to support the trade environment.

The development of any electronic system faces the prospect of rapidly advancing technology which makes it impossible to fathom now what the developments and opportunities will be from 2020 - 2030. For the Commission, the aim must be to keep abreast of the newest developments in electronic systems and identify their potential to enable implementation of the Convention and its ISPMs. This would primarily focus on information exchange activities and further extension of the ePhyto system. An activity of the Commission could be to investigate the value of a centralized import requirements database, based on information uploaded by each importing country. It could simplify achieving common understanding of each country's phytosanitary requirements. In addition, it could be connected to an extended ePhyto system to simplify the certification process. Other notification requirements, such as notification of non-compliance, could be included into the ePhyto system.

Intensifying the Commissions efforts to maintain or develop electronic systems to facilitate the implementation of the IPPC and international harmonization, would significantly contribute to trade development and the implementation of the Convention and its standards.

Activities to be carried out during 2020 - 2030 would include:

- Successful establishment of the IPPC ePhyto hub as the international system for exchange of electronic phytosanitary certificate information.
- Successful establishment of the IPPC Generic ePhyto National System for production, sending, and receiving of electronic phytosanitary certificate information.
- The successful implementation of both the ePhyto hub and the Generic National System, where needed, in all member countries.
- Investigation of including other databases into the ePhyto hub or associating them with the electronic certification requirements.
- Establishment of pilot projects for new or improved electronic systems.

**2. Commodity & Pathway Specific ISPMs:** ISPMs developed for specific commodities and pathways, with accompanying diagnostic protocols, phytosanitary treatments and guidance.

#### **Desired 2030 Outcome:**

Many new ISPMs have been adopted and implemented for specific commodities and pathways, with accompanying diagnostic protocols and phytosanitary treatments to support implementation. They provide NPPOs with ready-made phytosanitary measures, which they may use instead of undertaking their own pest risk analysis or bilaterally negotiating unique treatments for common pest risk. This has simplified trade and expedited market access negotiations.

#### **Description:**

Trade is no longer characterized by the exchange of finished products alone, but also by the co-production of goods between countries. Some of the largest agricultural companies diversify their presence and production around the world. This enables companies to shift plants and plant products around the world to respond to fluctuations in demand, as well as source agricultural materials from different countries and regions. Plant health strategies need to evolve to respond and manage pest risks as business practices and production methods change. The IPPC can respond by generating commodity and pathway specific standards that will facilitate safe trade and reflect both traditional and changing business practices for the international movement of plants and plant products. These standards should be accompanied by pest specific diagnostic protocols, phytosanitary treatments,

surveillance methods, and other guidance material which will help countries to fully implement new standards.

In most cases, trade can only occur after bilateral negotiation between countries to ensure they are satisfied phytosanitary risks will be appropriately managed. These negotiations are based on SPS principles and IPPC standards. Over the years, multiple trading partners bilaterally, negotiate rules to manage pest risks associated with a commodity or pathway, even though often, many of the pests associated with the commodity are identical in each of the bilateral negotiations. Significant advances in trade facilitation would be made if standards (ISPMs) were developed that established a baseline level of risk management for the major pests associated with a commodity or a pathway. Countries would still be free to negotiate measures for pests of concern not cover by the baseline commodity or pathway specific ISPM.

Future standard setting will focus more and more on commodity or pathway specific topics rather than on broad conceptual and foundational issues which have been largely addressed. This may necessitate that standard setting formats, procedures and practices are reviewed and if necessary adjusted to facilitate the smooth identification and prioritization of topics as well as the efficient development and adoption of such standards.

Activities to be carried out during 2020 - 2030 would include:

- Develop two initial commodity or pathway specific ISPMs with accompanying diagnostic protocols, phytosanitary treatments, surveillance methods, and other guidance material, and as needed, adjust the standard setting and implementation support processes.
- Conduct an assessment of the critical factors necessary for an NPPO to effectively implement a new commodity standard, and the barriers that have to be overcome.
- Agree on a priority list of commodity and pathway specific ISPMs and secure country and industry commitments to support development.
- After implementation, evaluate the economic, trade, food security, and environmental benefits delivered by a selection of commodity or pathway specific standards.

**3. Management of E-commerce and Courier Mail Pathways:** A coordinated international effort to address the spread of pests and pest host material sold through e-commerce and distributed through rapid mail and courier pathways.

**Desired 2030 Outcome:**

A coordinated international effort has largely addressed the spread of pests and pest host material sold through e-commerce and distributed through rapid mail and courier pathways. Volumes of high risk plant material purchased online in small quantities and shipped via courier pathways is sourced from high health programs, and compliance is tracked and enforced in collaboration with other border agencies, the international postal services and courier services.

**Description:**

Sales of plants and plant products ordered through the internet (e-commerce) and courier mail services have increased significantly in the years since the IPPC and most ISPMs were adopted. E-commerce is fueling an increasing volume of traded commodities. In many cases online traders of

plants and plant products do not take into account a customer's location before agreeing to a sale and shipping their purchases to them. This lack of knowledge of a customer's location can lead to consignments of regulated articles being imported into a country without any effort to meet the phytosanitary requirements of the customer's country.

It is expected that e-commerce and the shipment of products via courier services will grow significantly. This will be associated with an upsurge in regulated articles traded and shipped internationally by mail services. Phytosanitary services around the world will need efficient tools and procedures to screen courier mail and small packages. In addition, international harmonization of measures and procedures for e-commerce and courier mail operators may be the most efficient way to address this problem. Cooperation with other sectors such as customs (WCO) and the prevention of trade in endangered species (CITES) who face similar problems as the phytosanitary services may help to develop a far reaching and efficient international system.

Activities to be carried out during 2020 - 2030 would include:

- An international communications effort targeting companies selling through e-commerce channels and consumers, to ensure they understand the need and how to comply with importing country phytosanitary requirements.
- Establishment of an inter-agency network (CITES/WCO/IPPC) to create synergy in developing a joint policy and requirement catalogue with regard to E-commerce and courier/postal pathways.
- Establishment of a joint inter-agency toolkit for the regulation and screening of E-commerce and courier/postal pathways.

**4. Enabling the Use of Third Party Entities:** Enabling use of third parties to perform phytosanitary actions, including treatments, inspections, etc.

**Desired 2030 Outcome:**

Standards have been adopted and implemented that enable use of third party entities to perform various phytosanitary actions, including treatments, inspections, diagnostic identification, etc. This provides more timely services for stakeholders and results in cost savings for government and business. Governments are able to direct internal resources to areas of highest risk.

**Description:**

Authorization of third party entities to perform specific phytosanitary actions such as inspection, testing, surveillance and treatment on behalf of the NPPO is increasingly common. In some cases the authorization process is regulated by general country legislation which is not necessarily plant health specific. In the absence of harmonising guidance, NPPO's have used a variety of systems for authorizing third party entities and widely varying levels of oversight, control and verification takes place. This variation can contribute to reduced confidence in the reliability of actions undertaken by the third party entities. This in turn can lead to trade difficulties where importing countries impose additional import requirements to lift their confidence in the safety of the import.

An ISPM on the "Authorization of entities to perform phytosanitary actions" is currently being developed. This ISPM will provide good guidance to NPPOs, however the need for further harmonised guidance is anticipated as the use of third parties becomes a more common practice. The IPPC may

develop additional policy or guidance on third party involvement in official phytosanitary actions. Countries could find it useful to have guidance transitioning smoothly to the use of third party entities. Potentially the use of international accreditation of entities to increase confidence in their actions may be beneficial.

Activities to be carried out during 2020 - 2030 would include:

- Adoption of relevant ISPM(s) and guidance providing guidance on authorization of third party entities to perform phytosanitary actions such as inspection, testing, surveillance and treatment on behalf of the NPPO.
- Explore how confidence in authorization systems can be increased internationally, e.g. through an international accreditation system.
- Provide capacity develop resources as needed to assist NPPOs wanting to start using a third party entity model.

## 5. Strengthening Pest Outbreak Response Systems: Strengthening country and regional ability to respond effectively to pest outbreaks including new incursions.

### **Desired 2030 Outcome:**

Strengthened pest outbreak response systems and tools are helping countries take much more timely action against outbreaks and especially new incursions. NPPOs, RPPOs and the FAO have collaborated to develop and roll out a comprehensive but easy to use toolbox to support countries responding quickly and effectively. RPPO's are playing an active role to assist NPPO's and coordinate outbreak responses across their regions.

### **Description:**

Outbreaks including new incursions of pests can present significant challenges to the countries and region in which these pests occur. Challenges such as the lack of know-how, lack of tools, or insufficient plant health capacity in science or operational delivery, are in many cases not addressed sufficiently to prevent further spread and mitigate impacts on crops and the environment. This results in unnecessary threats to trade, food security and the environment.

The risk of new pest incursions and outbreaks can be reduced by phytosanitary actions on trade pathways, but not eliminated. Therefore it is critical countries are able to detect and respond quickly, through access to appropriate incursion response support. In many cases regional coordination structures to efficiently combat cross-border pests have not been developed. RPPO's have an important role to play coordinating within regions, supporting for NPPO's responding to pests and facilitating neighbouring countries to assist.

There is an urgent need to lift the capacity of countries to respond and this can, at least in part, be achieved through the establishment of an easily accessible toolbox of resources. Such resources can be developed under the Commissions work programme or simply made available by contracting parties. The Commission also has a role to facilitate the uptake of such resources in advance of an outbreak through training and other implementation activities. The Commission could also explore the establishment voluntary funding mechanisms for donors and contracting parties wanting to assist countries for which funding is the critical limiting factor in successfully responding to pests.

Activities to be carried out during 2020 - 2030 could include:

- Develop a clear IPPC mandate, policy and structure including, if appropriate, the integration of EMPRESS plant health activities into an overall plant health mandate.
- Establish a network of phytosanitary emergency response expertise
- Facilitate engagement of expertise and response resources in a timely manner
- Develop a simple and effective incursion response toolbox that countries can use including contingency response plans, delimitation methods, diagnostic protocols, containment protocols, lists of lures, lures, attractants and control agents, control options, phytosanitary treatments, etc.

**6. Global Pest Alert System:** A global pest alert system to communicate emerging pest risks, so countries can proactively adapt their phytosanitary systems to reduce the risk of introduction and establishment.

**Desired 2030 Outcome:**

A global pest alert system with mechanisms to evaluate and communicate emerging pest risks is in place, providing regular information to NPPOs on changes in pest status around the world. NPPOs are using this to quickly adapt their phytosanitary systems to reduce the risk of introduction and establishment.

**Description:**

The speed and volume of internationally traded commodities provides the opportunity for pests to disseminate into new areas with considerable swiftness. For NPPOs to keep abreast with rapidly changing pest occurrences and distribution scenarios considerable investments in emerging risk scanning is necessary. This scanning activity is undertaken by some countries and RPPO's but is not always shared widely.

A Global Pest Alert System could receive outputs from countries and RPPO's already scanning them and make them more readily available and digestible by all contracting parties. For countries or regions not already well covered, a generic tool could be developed to allow easy entry and dissemination of emerging pest risk information. RPPO's could play an important role across regions to identify and communicate emerging pest risks.

Having improved situational awareness of changes in pest risk will support countries to proactively adapt their phytosanitary systems to reduce the risk of new introduction and establishment. Consideration is also needed on how to improve pest reporting from countries. Some countries are slow to report changes in pest status due to the risk of export market closures or additional measures being applied to their exports. New strategies are needed to overcome this reporting reluctance as a pest alert system would function sub-optimally for all if contracting parties do not commit to participate in an efficient, timely and comprehensive pest reporting system.

Activities to be carried out during 2020 - 2030 could include:

- Understand the global state of emerging pest risk scanning and reporting at NPPO and RPPO levels, and user requirements for an enhanced system.
- Continue to work with countries to facilitate the development of pest surveillance systems, based on IPPC standards and other technical guidance, necessary for early detection and response to emerging pest threats.



- Develop a system to coordinate the dissemination of emerging pest risks and changes in pest status, including establishing common data standards for all countries and regions engaged in this activity.
- Set-up a generic system countries and RPPO's could use to enter and report emerging risks including changes in pest status.
- Explore new ways to remove current barriers that work against proactive pest reporting.

**7. New Phytosanitary Treatments:** A strengthened and coordinated effort to identify and develop new sustainable phytosanitary treatments and alternative pest risk management approaches.

**Desired 2030 Outcome:**

New sustainable phytosanitary treatments and alternative pest risk management approaches are continually being developed through a global coordination and funding program, ensuring a strong technical basis for harmonisation and effective tools for NPPOs to mitigate pest risks and impacts.

**Description:**

Treatments and alternative pest risk management approaches stand at the forefront of NPPO's considerations when trying to mitigate pest risks posed by international trade. For many countries the treatment of commodities has been the primary requirement before a specific commodity is allowed to enter the country. Concerns over the use of methyl bromide even if only for phytosanitary purposes has caused considerable concern through-out the phytosanitary community. It can be envisaged that the current quarantine and pre-shipment exemption for methyl bromide could be phased out or more severely constrained in the medium-term.

Most countries import a wide range of commodities from a large number of sources, so it is important to have a suite of viable and verified treatments available for use in any given situation. Increasingly, these new treatments need to have a very low environmental impact while still being efficacious against target pests. Although the IPPC has focused over the last decade on the development of treatment protocols, the pace of the adoption of such protocols does not correspond to the need of contracting parties. This is largely a function of the slow progress in research and lack of international coordination of research efforts. It could also reflect the challenges of quantifying the risk management outcome of alternative approaches. Consequently, the IPPC should intensify its current work on treatments and risk management options to facilitate the needs of its contracting parties.

Activities to be carried out during 2020 - 2030 could include:

- Identify top priority commodities and pests for new treatments and communicate these widely to the science and treatment provider community.
- Intensify current activities on phytosanitary treatments.
- Establish technical panels to develop alternative pest risk management approaches for individual pests or commodities.

**8. Diagnostic Laboratory Network:** A network of recognised diagnostic laboratory services to support countries to identify pests in a more reliable and timely manner.

**Desired 2030 Outcome:**

An international network of recognised diagnostic laboratory services provides reliable and timely pest identifications. National laboratories with strong diagnostic functions are officially recognised as capable of offering reliable services within regions or globally, reducing the need for all countries to develop duplicated capacity.

**Description:**

Diagnostic expertise is one of the major capabilities for the proper functioning of any NPPO. For many countries, however, the availability of diagnostic expertise or services is severely restricted due to structural capacity and know-how limitations. Any country wishing to take part in the trade of agricultural commodities must be able to demonstrate that its products are free from pests. To do that only access to diagnostic services is essential. In addition, without proper access to diagnostic expertise countries are not able to reliably detect pests in imported commodities and therefore are in danger of accidentally allowing the entry of pests which may cause considerable damage to agriculture or environment.

Establishing world-class diagnostic laboratories and keeping up with advances in diagnostic technology is extremely costly. It is emerging that the only viable option for many countries to access high-end diagnostic services will be through cooperation across countries to remotely access diagnostic capacity at an international, regional or sub-regional level. For example a diagnostic laboratory, established on a sub-regional level could efficaciously and efficiently service the needs of several countries in the region. Country A in the region may have a laboratory for entomology while country B may specialise in plant pathogens and country C nematodes, etc. In the near future, joint diagnostic centres and laboratories may be the only way for many countries to access state of the art diagnostic services.

The IPPC could focus on this lack of access to diagnostic capacity by establishing standards and a network of diagnostic laboratories. A mechanism to assess laboratory capability would be developed and laboratories recognised or accredited for specific diagnostic procedures. Existing generic laboratory standards could also be leveraged. The IPPC could also develop a project model for sub-regional diagnostic centres which could serve as a blue-print for donors when providing technical assistance to developing countries (e.g. STDF).

Activities to be carried out during 2020 - 2030 would include:

- Conceive a model for the establishment of sub-regional joint diagnostic laboratories.
- Establish required standards and protocols
- Facilitate the establishment of an international laboratory network.
- Establish and communicate a listing of available diagnostic laboratories and their expertise.

## Core Activities

### Standard Setting

Standards developed under the auspices of the IPPC Secretariat are recognized by the World Trade Organization (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement) as the only international standard setting body for plant health. International Standards for Phytosanitary Measures (ISPMs) are adopted by the Commission on Phytosanitary Measures (the Commission) and come into force once countries establish aligned requirements within their national legislation. The standards of the IPPC are recognized as the basis for phytosanitary measures applied in trade by the Members of the World Trade Organization.

The standard setting work of the IPPC is led by the Commission's Standards Committee. The Standards Committee is supported by various technical panels, expert working groups, and the IPPC Secretariat.

Three main types of standards have been developed to provide an internationally agreed approach for the harmonisation of phytosanitary regulations and to guide and assist NPPO's in performing their various functions.

1. Foundational Standards – these establish internationally accepted principles and approaches for NPPO's to undertake such activities as pest risk analysis, establishing pest free areas, surveillance, establishing a phytosanitary certification system, pest reporting, etc.
2. Phytosanitary treatments – these establish internationally accepted treatments for pests on commodities such as irradiation, fumigation, temperature treatment, etc.
3. Diagnostic Protocols – these are targeted at specific pests and establish the internationally accepted method for accurate diagnostic pest identification.

In addition, CPM recommendations are also adopted on a range of topics that are highly relevant to contracting parties but not deemed suitable for the development of an ISPM. The Commission is now starting to develop more ISPMs for specific commodities and pathways. Examples include ISPM 15 for international movement of wood packaging and ISPM 41 for international movement of used vehicles, machinery and equipment. Developing ISPMs for major traded commodities including fresh produce and grain would fill a significant need when used as the starting point for market access agreements. They have the potential to significantly simplify bilateral trade negotiations. Similarly ISPMs for pathways (such as used vehicles and machinery) will do much to limit the spread of invasive alien species that commonly spread as contaminating pests on inanimate objects.

The Standards Committee works hard to ensure ISPMs are not only technically robust, but that they are also practical and can be implemented in real situations. Increasingly the IPPC is inviting industry bodies to participate in expert working groups to provide advice on development of ISPMs. Industry perspectives will further enhance the value of ISPMs but some conflicts of interest may also arise and these need to be recognised and managed.

### 2030 Key Result Areas

SS1: Major traded commodities and trade pathways are covered by an ISPM adopted or being developed by the commission.

SS2: NPPOs can be seen to be basing their phytosanitary systems and import requirements on adopted ISPMs.

SS3: Efficient mechanisms are in place to globally coordinate plant health research, with evidence that duplication of effort is reducing.

### Implementation and Capacity Development

The IPPC is typically referred to as a standard setting body, which it is. However, the IPPC has long recognised the futility of setting standards without also supporting capacity development to enable the Convention and its standards to be effectively implemented by member countries.

Within each member country, fully functioning NPPOs are charged with operating an effective national system to prevent the introduction and spread of pests. Delivery of the system often requires the joint effort of multiple government agencies and the private sector. The Phytosanitary Capacity Evaluation tool was developed by the Commission many years ago to help countries evaluate their capacity to implement the convention. This forms the basis for many capacity development plans, and also provides an insight into global capacity needs and programs.

Through the suite of ISPMs and capacity development programmes, the Commission provides the framework for the NPPOs and the support to help NPPOs build capacity to carry out their functions. Examples of national capacity include the ability to establish and operate an import regulatory system, the ability to conduct pest risk analysis, pest surveillance, pest eradication operations, and operation of an export system capable of providing official assurances through phytosanitary certification.

The Commission collaborates with donor partners and contracting parties to assist NPPO's to develop the required capacity. This collaborative work is essential for countries to capitalise on the economic growth opportunities available through trade development, and protect their natural resources.

In 2014 the Commission agreed to significantly strengthen its focus on implementation of the Convention and ISPMs. Since then:

- the first major implementation pilot programme has been established focused on pest surveillance,
- the IPPC Secretariat has been reorganised to more strongly focus on implementation and capacity development, and
- a new subsidiary body has been created, the Implementation and Capacity Development Committee charged with oversight of the IPPC's long-term Capacity Development Strategy.

Substantial efforts are being focused on implementation and capacity development, however, it is limited by the extra-budgetary resources that can be secured (additional to the FAO regular programme funds). Fortunately, development agencies are willing to assist with programs to lift the capacity of countries to improve their economy through trade, and support communities to manage pest problems. Capacity development projects can have a major positive impact on the ability of NPPOs to discharge their responsibilities. The project to develop and implement a Global ephyto Hub and Generic National System funded by the STDF and member country contributions is an outstanding example of this (see inset box).

[INSERT A BOX BRIEFLY DESCRIBING THE EPHYTO PROJECT AS A CASE STUDY ]

## 2030 Key Result Areas

ICD 1: The state of plant health in the world is understood, needs are known and mechanisms to facilitate action are functioning.

ICD 2: All contracting parties have used the Phytosanitary Capacity Evaluation tool to understand strengths and weaknesses and develop plans to address issues.

ICD 3: The IPPC Secretariat is resourced to help countries access assistance to address phytosanitary capacity needs.

## Communication & International Cooperation

The communications efforts of the Commission are aimed at ensuring understanding of the potential for serious negative impacts from introduced pests worldwide. This must be understood not just by the plant health community but also by key audiences such as the general public, national governments, and decision makers (policy and financial), to demonstrate the importance of plant health being a national and global priority that justifies and receives appropriate and sustainable support.

These communication efforts are guided by the [IPPC Communications Strategy](#). The four objectives of the IPPC Communications Strategy are to:

1. increase global awareness of the importance of the Convention and of the vital importance to the world of protecting plants from pests;
2. highlight the IPPC's role as the sole international plant health standard setting organization with the objective of helping to ensure the safe trade of plants and plant products
3. improve the implementation of the International Standards for Phytosanitary Measures (ISPMs); and
4. support the activities of the IPPC Secretariats Resource Mobilization programme.

The IPPC make use of many different opportunities to reach out internationally so its mission is understood, well connected and actively participating where doing so will advance achieving its mission. Annual themes were introduced to promote specific aspects of the IPPC mandate on an annual basis. For the period 2016-2019 the IPPC focused on the following themes:

- **2016 Plant Health and Food Security**
- **2017 Plant Health and Trade Facilitation**
- **2018 Plant Health and Environmental Protection**
- **2019 Plant Health and Capacity Development**

In addition, through the efforts of contracting parties to the IPPC, the United Nations proclaimed **2020 the International Year of Plant Health (IYPH)**.

The IPPC recognizes the importance of maintaining strong links with organizations that share common interests. These relationships can range from informal flexible arrangements to highly defined relationships. The IPPC Secretariat has strong relationships with all [Regional Plant Protection Organizations \(RPPOs\)](#) in facilitating contracting parties to implement the IPPC.

The IPPC Secretariat also cooperates with many other organizations and those which have an established relationship are listed below:

- [Convention on Biological Diversity \(CBD\)](#)
- [Biological Weapons Convention \(BWC\)](#)
- CAB International (CABI)
- [Codex Alimentarius](#)
- Container Owners Association (COA)
- Imperial College
- [Inter-American Institute for Cooperation on Agriculture \(IICA\)](#)
- International Advisory Group on Pest Risk Analysis
- [International Air Transport Association \(IATA\)](#)
- [International Atomic Energy Agency \(IAEA\)](#)
- International Chamber of Shipping
- International Civil Aviation Organization (ICAO)
- [International Forest Quarantine Research Group \(IFQRG\)](#)
- International Grain Trade Coalition (IGTC)
- [International Maritime Organization \(IMO\)](#)
- [International Seed Federation \(ISF\)](#)
- [International Seed Testing Association \(ISTA\)](#)
- International Standards Organization (ISO)
- [Phytosanitary Measures Research Group \(PMRG\)](#)
- [Ozone Secretariat \(United Nations Environment Program\)](#)
- [Standards and Trade Development Facility \(STDF\)](#)
- United Nations Economic Commission for Europe (UNECE)
- United Nations Programmes (UNIDO, UNEP etc.)
- [World Animal Health Organization \(OIE\)](#)
- World Customs Organization (WCO)
- World Health Organization (WHO)
- World Shipping Council (WSC)
- [WTO-SPS Agreement Secretariat](#)

#### 2030 Key Result Areas

- CP 1: ??
- CP 2: ??