



Food and Agriculture
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International
Plant Protection
Convention



IPPC Global Workshop on Systems Approaches

Santiago, Chile
1 – 4 December 2025

In partnership with:



Australian Government
Department of Agriculture,
Fisheries and Forestry

Implementation and Capacity Development tools for market access: operationalizing the systems approach

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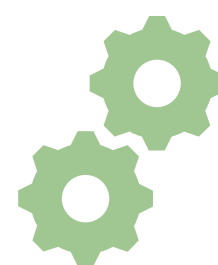


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Why Systems Approaches Matter: From an NPPO Implementation Lens



Systems Approach

Demand for Alternatives

Increasing trade demands
alternatives to single treatments
and prohibitions

Regulatory Flexibility & Equivalence

SA offers *flexibility, equivalence,*
and *less trade-restrictive* options
(ISPM 14 Sections 1 and 2)

Operational Capacity Constraints

Many countries may lack
operational experience.
Implementation is the real
bottleneck, not the concept



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Current implementation issues with systems approaches

Gap in Practical Application: Although ISPM 14 offers broad flexibility in selecting measures, NPPOs often struggle to translate this variety into consistent, auditable, and mutually recognized systems

Capacity Gap: Effective systems approaches require strong Pest Risk Analysis (PRA) foundations and robust surveillance systems, but many NPPOs lack sufficient field data, diagnostic capacity, and monitoring infrastructure to support SA design and verification.

Technical Gap: Determining the combined efficacy of multiple independent measures (qualitatively or quantitatively) is technically demanding. Evidence to demonstrate cumulative risk reduction is often incomplete or inconsistent across production systems.

Equivalence: Demonstrating that a multi-measure system is equivalent to a single prescriptive measure (e.g. fumigation or cold treatment) requires detailed technical justification, strong documentation, and extensive bilateral discussions, which can slow trade negotiations.



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IPPC Plant Health Campus – a key milestone in plant health capacity development

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A growing library of learning: a rich selection of e-learning courses

1

Upon completing a course, learners receive a **digital badge** or certificate.

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Dominique Pelletier • 1st

National Manager - Forestry Section at Canadian Food Inspection Agency
4mo •

I did a thing! I just completed a course on National Reporting Obligations and it took me just over an hour to do so.

The course is part of a increasing body of eLearning courses intended to Plant Health workers, from decision makers, regulators to inspectors. Developed jointly by the **#IPPC** Implementation Facilitation Unit and the **#FAO** Learning Academy, under the oversight of the Implementation and Capacity Development Committee, the courses are dynamic and interactive AND you can enroll to complete them at your own pace!



NPPO FUNDAMENTALS



Working with an
NPPO

PATHWAYS



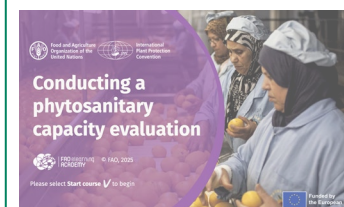
NPPO's learning
pathways

GOVERNANCE



How an NPPO
functions

CAPACITY EVALUATION



Conducting a PCE

RESOURCES



Mobilizing
resources for plant
health

SURVEILLANCE



Surveillance and
pest status
determination

REGULATION



NROs & export
certification
systems

TRADE & OUTREACH



Engaging
stakeholders &
market access



The IRSS Equivalence Study Supports Systems Approaches (2016)

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- Clarifies how importing NPPOs assess whether a *combination of measures* provides the same level of protection as a single measure (core to ISPM 14).
- Notes that NPPOs rarely have sufficient field data to demonstrate the performance of measures and their cumulative impact.
- Reinforces the need for harmonized, transparent information requirements (ISPM 24). NPPOs lack clarity about which data are needed to support alternative measures or systems approaches.
- Highlights Bayesian network models (same basis as Beyond Compliance and DSSA) as suitable for evaluating combinations of measures.
- Explicitly states that experiences with alternative/combined measures should be collected under the IPPC (now Observatory) to support implementation.



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A starting point: an IPPC Observatory study on the current use of system approaches

(proposed by Australia, Canada and CPTPP countries)

What is the IPPC Observatory?

Is the IPPC's system for **monitoring and evaluating the implementation of the Convention, ISPMs, and CPM Recommendations**.

It provides NPPOs with evidence, analysis, and recommended actions to improve implementation.

Why it matters for Systems Approaches:

- It identifies implementation challenges across NPPOs.
- It captures best practices from real cases.
- It supports countries in operationalizing complex standards, including ISPM 14.
- It informs CPM recommendations and international guidance



This study will aim to:

Compile a global evidence base by:

- Mapping the *current accepted use* of phytosanitary systems approaches that facilitate safe trade in plant products.
- Identifying *practical impediments* to the use, evaluation and approval of systems approaches (e.g. data gaps, capacity constraints, negotiation hurdles).



Practical Implementation and Case Studies



Beyond Compliance: Integrated Systems Approach for Pest Risk Management ([STDF/PG/328](#), [STDF/PG/503](#)). These projects focused on developing and testing decision support tools (like Bayesian Networks) to improve the confidence and competency of NPPOs in applying systems approaches, particularly in developing countries (e.g. Southeast Asia).

Seed Industry Initiatives: The International Seed Federation (ISF) has proposed to develop a Systems Approach for Seed.

- **Focus:** Creating a harmonized framework for a **multilaterally recognized systems approach** for seeds to facilitate trade, which would include risk evaluation, pest monitoring, quality management systems (QMS), and traceability, rather than relying on measures for individual pests.



The Beyond Compliance tool on the IPP for systems approaches



The Kenya examples with the Beyond compliance tool.

- Mangoes (EU market): Systems approach design completed and implemented in Makueni County.
- Roses (EU market): DSSA-based systems approach designed and implemented to comply with EU Regulation—allowing trade to continue.
- Avocados (China and South Africa markets): DSSA design under finalization, with stakeholder engagement ongoing.

The Beyond Compliance tool helps to implement a systems approach based on ISPM 14 to design, evaluate, and compare combinations of phytosanitary measures along the production/trade chain through an Excel file that:

- enables the assessment effectiveness of measures
- maps measures, highlights gaps & critical points

Trained facilitators support NPPOs, enhancing credibility and trade opportunities.



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Possible way forward for systems approach implementation

- Aggregate SA information with the Observatory study and real pilot country experiences to improve decision frameworks, identify control points, validate measure performance, and document practical lessons for NPPOs.
- Digitalize the Beyond Compliance tool.
- Develop guidance on data requirements, equivalence, trends, and emerging risks.
- Certified SA facilitators using standardized modules; support NPPOs with mentoring,
- Showcase successful systems approaches, create model templates for negotiation,
- Promote cross-country and regional learning to strengthen global phytosanitary capacity.





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Thank you