

The importance of plant health and international cooperation in a changing climate

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Food and Agriculture Organization
of the United Nations



International Plant
Protection Convention

Key questions

- 1. Why does Plant Health matter?**
- 2. Does climate change increase the impact of pests?**
- 3. Why is International Cooperation through the IPPC crucial?**



1. Why does Plant Health matter?



Plants



- ✓ Produce oxygen we breathe
- ✓ Are the basis of human and animal's food chain
- ✓ Were the basis of non-renewable energies
- ✓ Source of life, food and energy on earth!

The impact of plant pests



Loss: 10–16% of global harvest, 40% of global food supply

Cost: at least 220 billion USD



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The impact of plant pests

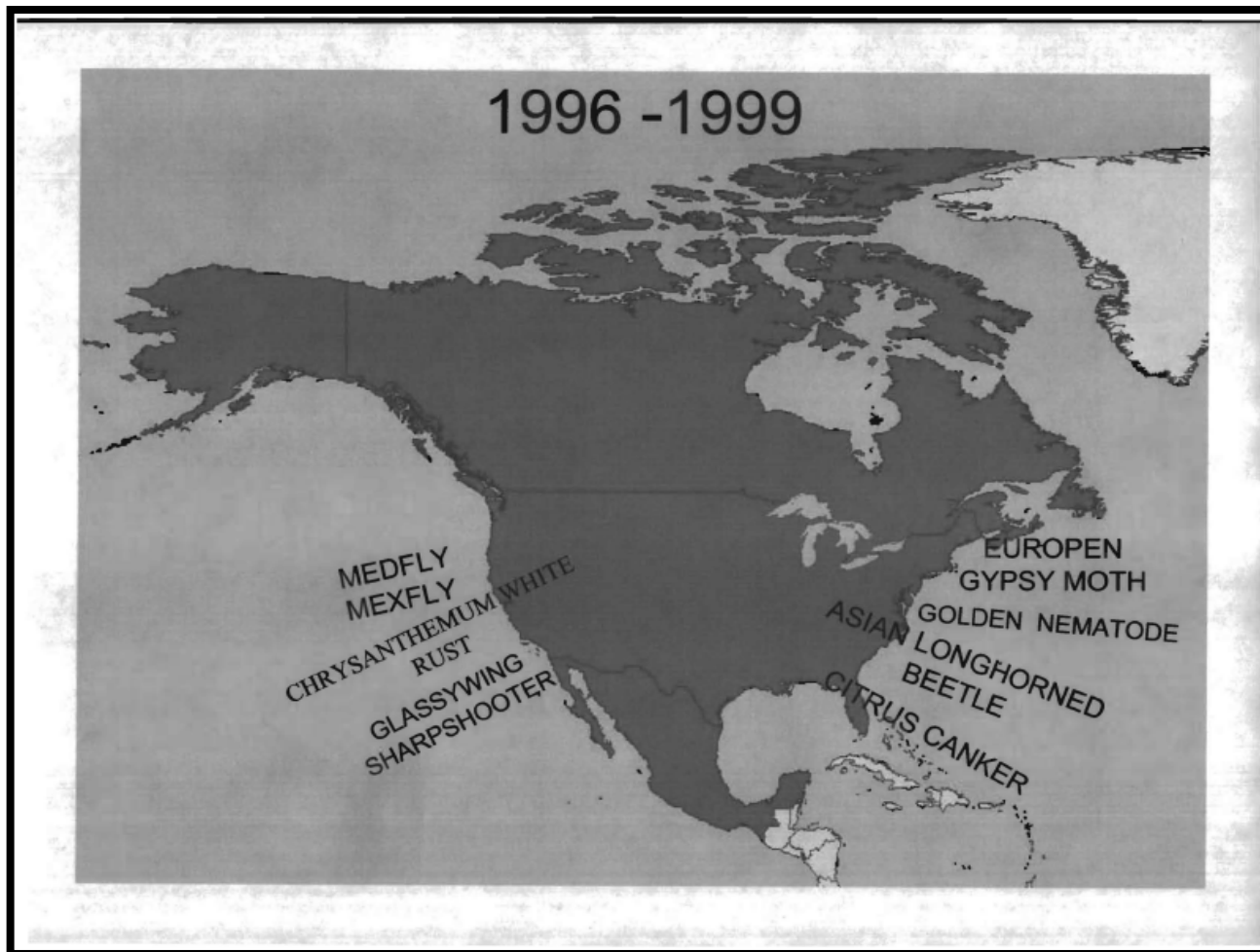


The impact of plant pests

- Emerald ash borer (*Agrilus planipennis*) first detected in the US in 2002. **100 million ash trees** affected.
- The destruction of trees by this pest also **affected human health**, as asthma, stress and cholesterol levels and mortality rates have significantly increased in affected areas since its appearance.



Pests of concern for 1996-1999 in North America



Pests of concern in 2009 in North America



Some reasons for pest increase



Port facility in Agadir, Morocco, where hundreds of tons of commodities are imported.



Wood imported in Agadir, Morocco.

The increase in the movement of plants and plant products

The increase in the movement of commodities and people



Plant Health inspections activities at the Sea Port of Valparaíso, Chile.

2. Does climate change increase the impact of pests?



Climate change and pests

- There is **clear evidence** that climate change is altering the distribution of animal and plant pests and diseases, but the full effects are **difficult to predict and need to be assessed on a case by case basis**. Climate change allows species to appear **earlier** in the season and to have **greater impacts**.
- Climate change also allows the establishment of pests in areas where they **could so far not establish**.
- Climate change also **threatens the survival** of insects critical to sustaining plants themselves.

Pests can establish earlier and have greater impact

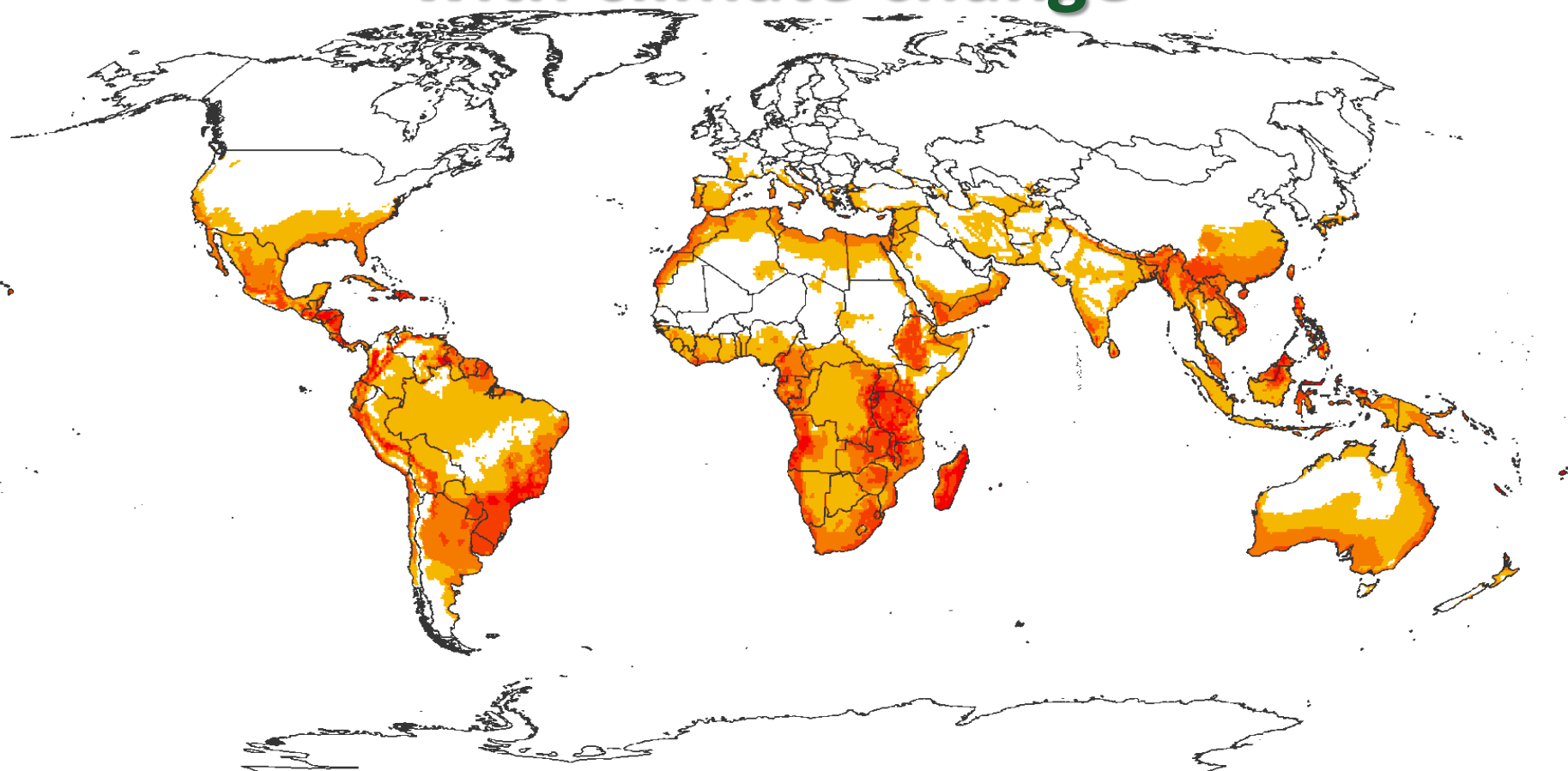


Potato leafhopper (*Empoasca fabae*) on a leaf

The potato leafhopper (*Empoasca fabae*) appears on average **10 days earlier** than in the early 1950s, and their infestations are more severe in the warmest years.

With over 200 plant species as potential hosts, its earlier arrival each year **causes millions of dollars each year.**

Pests can extend their range with climate change



A1B CSIRO Mark 3.0 by 2080 for the world

Source: Kriticos & Brunel, Data in publication.

Global food production must increase by 50% to meet the projected demand of the world's population by 2050.



Devastations from plant diseases can be far reaching and alter the course of society and political history.



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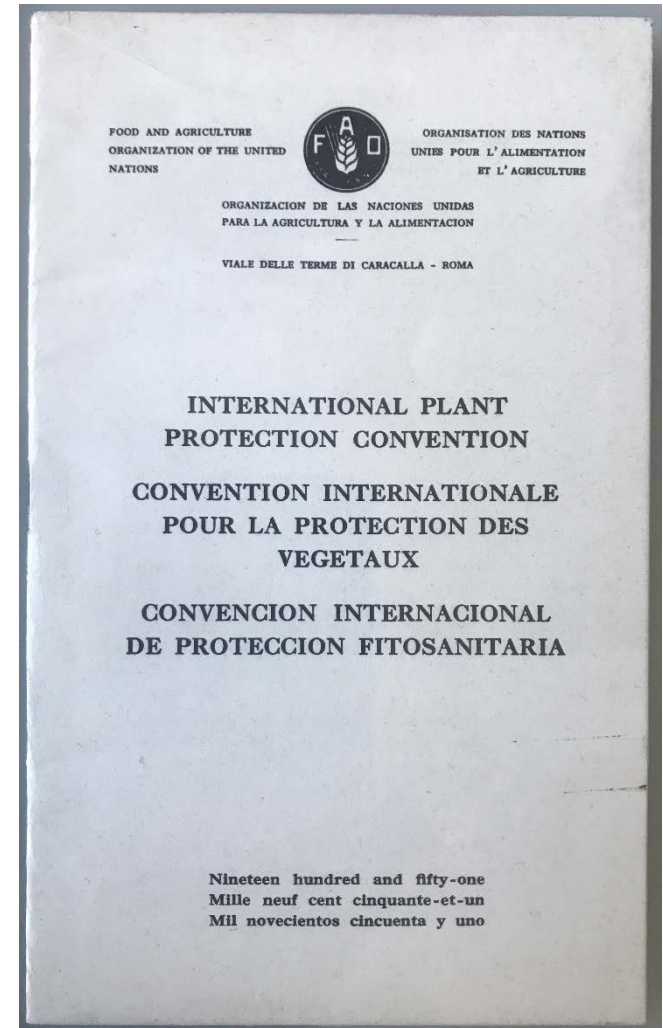
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3. Why is International Cooperation through the IPPC crucial?



What is the IPPC?

- An international plant health agreement that aims to protect cultivated and wild plants by preventing the introduction and spread of pests.

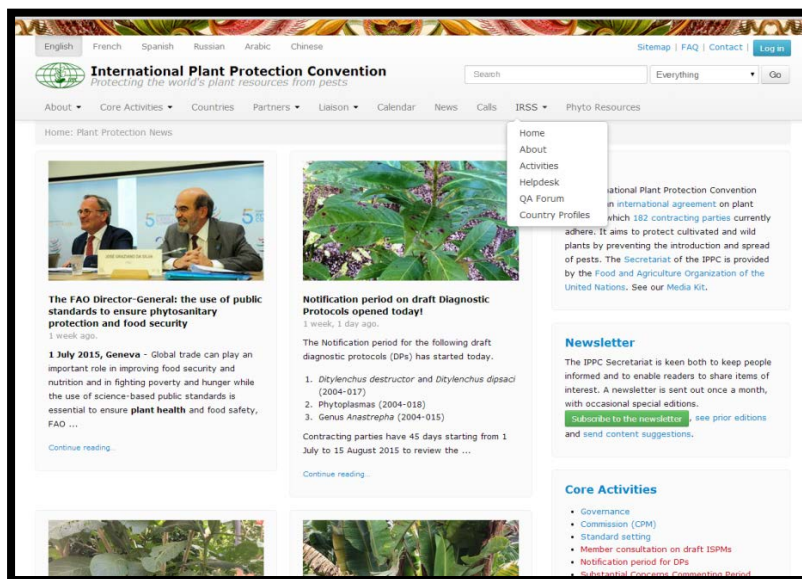


What are the IPPC objectives?

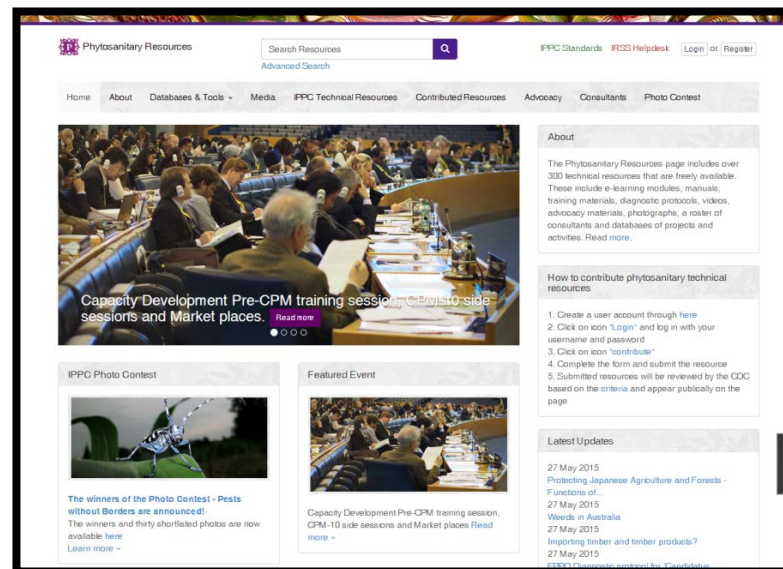
- Protect **sustainable agriculture** and enhance **global food security** through the prevention of pest spread
- Protect the **environment, forests and biodiversity** from plant pests
- **Facilitate economic and trade development** through the promotion of harmonized scientifically based phytosanitary measures
- **Develop phytosanitary capacity** for members to accomplish the preceding three objectives

What does the IPPC do?

- The IPPC develops and facilitates the implementation of international standards to ensure food security and reducing the risks to agriculture and biodiversity.



www.ippc.int



<http://www.phytosanitary.info/>



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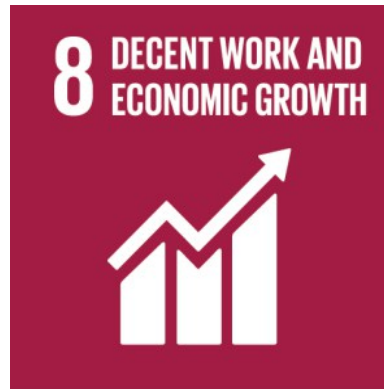
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IPPC and UN SDGs

1. Food Security & Poverty-reduction



2. Safe & Efficient Trade



3. Biosecurity & Environmental Protection



IPPC and climate change

The IPPC is actively trying to make a difference for issues related to climate change, through:

- Improved **exchange of information** among contracting parties.
- **Capacity development** assistance to developing countries.
- Increased and harmonized **surveillance activities**.
- Widened circle of cooperation in mitigating the effects of climate change through the **Biodiversity Liaison Group**.

Contacts

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