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## Assessing and managing climate change impacts on plant health

Climate change is having an increasing impact on the health of plants and agricultural crops. **With every degree that the world warms, up to 15 percent of global yield from staple crops are lost** including wheat, rice and maize.

This **impacts millions of people** who depend on these for food, nutrition and livelihoods.

Rising temperatures have enabled plant pests to establish in previously uninhabitable areas. In new areas of establishment, the pests can be damaging to crops, forests and other native plants **impacting the diversity of plant life** in the area.



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### About the International Plant Protection Convention (IPPC)

The IPPC is a multilateral treaty established to protect the world's plants, agricultural products and natural resources from plant pests. Established in 1951, IPPC is ratified by 185 countries.

The IPPC Secretariat and community are focusing on eight **development agenda items (DAIs)** to achieve the objectives in the [IPPC Strategic Framework 2020–2030](#).

These agenda items, in various stages of implementation, are:

1. harmonization of electronic data exchange;
2. commodity- and pathway-specific International standard phytosanitary measures (ISPMs);
3. management of e-commerce and postal and courier pathways;
4. developing guidance on the use of third-party entities;
5. strengthening pest outbreak alert and response systems (POARS);
6. assessment and management of climate change impacts on plant health;
7. global phytosanitary research coordination; and
8. diagnostic laboratory networking.

## Challenges

- » Climate change and inconsistent weather patterns leads to shifts in the life cycle, epidemiological characteristics and spread of plant pests and diseases.
- » Changing weather conditions can impact upon the physiology and structure of plants, making them more vulnerable to pests.
- » Plant pests spreading or entering new territories affect the production of agricultural crops, plants and plant products. They disrupt international trade through movement of pest-contaminated commodities and articles such as sea containers. If pests become established in importing countries, they can cause a trickle-down effect on local flora and fauna, livelihoods and economy.

## Why your investment matters

- » Enhancing how the risks of climate change to plant health are assessed and managed will boost countries' knowledge and resilience.
- » Highlighting plant health risks in the international debate on climate change will elevate advocacy towards putting more financial and technical resources on plant protection against climate change impacts.
- » Generating science-based knowledge will support advocacy for national policies and systems towards better plant protection.
- » Raising awareness among the public and key stakeholders will rally greater support to protect plant health from the impacts of climate change.

## Solution

The International Plant Protection Convention (IPPC) has jump-started **an initiative to assess and manage the impacts of climate change on plant health and the international trade** of plants and plant products.

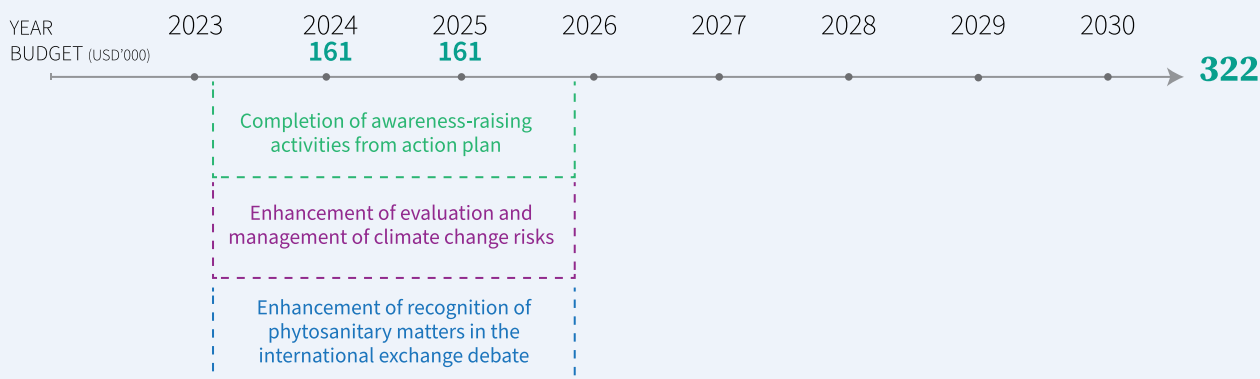
The Commission on Phytosanitary Measures (CPM), the governing body of the IPPC, has established a focus group of experts from around the world with the IPPC Secretariat on this initiative.



## Current status and opportunity to invest

# USD 322 000

total budget from 2023–2030





To **raise awareness** of the impacts of climate change on plant health, the following activities will be undertaken:

- » Convene and participate in meetings and side events related to the impact of climate change on plant health such as the UN Climate Change Conference Forums.
- » Raise awareness through cultural and social media, develop a climate change webpage on the International Phytosanitary Portal, and engage with stakeholders through surveys and by other means to gather information on the topic.
- » Facilitate discussions within IPPC subsidiary bodies, regional workshops as well as other IPPC technical groups and the Commission on Phytosanitary Measures (CPM), the IPPC's governing body.
- » Assist NPPOs to meet their national reporting obligations established by IPPC. The national reporting system could be enhanced to further share information on changes to pest distributions, host range, and adaptability of pests and host plants.



To **enhance the evaluation and management of climate change risks to plant health**, the following will be done:

- » Support countries to collect, analyse and use climate change impact-related information in decision-making.
- » Review existing use of climate change considerations in pest risk analysis and surveillance. Provide advice on climate change models, assessment and tools, and develop guidance on incorporating climate change assessments in pest risk analysis, surveillance and risk management.
- » Create Regional climate hubs e.g., USDA Climate Hubs that provide science-based information to agricultural and natural resource managers to help address the effects of climate change.
- » Review linkages to the safe provision of food aid.
- » Develop, review and promote tools to enhance the preparedness and response of Agricultural Extension Agents, farmers and other relevant stakeholders to the impacts of climate change on plant health.
- » Incorporate climate change references and technical resources into IPPC guidance materials.
- » Incorporate 'climate change impacts on plant health' criteria into the template for draft 'standard' specifications, draft guidance material specifications, and into the assessment criteria for the upcoming IPPC Call for topics.
- » Develop an IPPC guide to assist in identifying cultural and social impacts of climate change on plant health, including island communities under threat of rising sea levels.



To **enhance the recognition of phytosanitary matters in the international climate change debate**, the following will be done:

- » Strengthen collaboration with relevant organisations, such as the Intergovernmental Panel on Climate Change (IPCC) and the Secretariat of the Convention of Biological Diversity.
- » Facilitate, promote and support phytosanitary issue-related policy dialogue at the global level through mainstreaming phytosanitary policies into the climate change debate.

## Funding mechanism

Contact us on how you can contribute financially or in kind by sending an email to [ippc-dai@fao.org](mailto:ippc-dai@fao.org)

For other inquiries, please email Arop Deng at [arop.deng@fao.org](mailto:arop.deng@fao.org).



**Your investment in managing climate change impacts on plant health will make a difference in protecting the world's plants and natural resources.**

## CONTACT US

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## MORE RESOURCES

- » Brochure: [Plant health and climate change](#)
- » Report: [Scientific review of the impact of climate change on plant pests](#)
- » Video: [Plant Health and Climate Change](#)
- » Web: [Plant Health and Environmental Protection](#)



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