International Plant Protection Convention

Update from the African Phytosanitary Program (APP)

CPM 2024/32 Agenda item: 16.3

COMMISSION ON PHYTOSANITARY MEASURES

EIGHTEENTH SESSION

UPDATE ON THE AFRICA PHYTOSANITARY PROGRAM (APP)

AGENDA ITEM 16.3

(Prepared by the IPPC Secretariat)

Background

- At the request of the CPM-16 in 2022, the IPPC Secretary hosted a meeting with representatives from the Economic Community of West African States (ECOWAS) and the African Union (AU) in June 2022 to discuss the under-pinning cause for ECOWAS' pursuit to become a regional plant protection organization (RPPO), given that under the African Union's authority, the Inter Africa Phytosanitary Council (IAPSC) is the recognized RPPO. After several considerably open discussions on the technical and policy aspects of the phytosanitary issues in Africa, the meeting representatives agreed that Africa lacks a robust phytosanitary system to equip national plant protection organizations (NPPOs) to achieve their mission of protecting agriculture and natural resources against plant pests and facilitating safe trade of agricultural products.
- [2] Meeting participants tentatively agreed that the establishment of a phytosanitary program oriented towards a vision of safeguarding agriculture and facilitating safe trade would adequately address the underpinning concerns of ECOWAS and the rest of Africa. Over the ensuing months, the IPPC Secretariat coordinated with meeting participants and Africa's NPPOs on the initial development of the Africa Phytosanitary Program (APP), which is designed to empower national governments and stakeholders with the technical capacity and support necessary to manage plant pests of regulatory, environmental, and economic significance effectively and consistently.
- The proposal was discussed during a side session at CPM-17 (April 2023) and received unanimous support from all the African representatives. In the subsequent months, the IPPC Secretariat, coordinating with the IPPC community, African Union Commission (AUC), and Regional Economic communities (RECs) in Africa, developed a conceptual plan that started with a pilot phase, which involves two nominated countries from each of the five African subregions, to begin to examine the potential implementation of APP in Africa. A train-the-trainer workshop, involving 100 plant health officers from eleven African countries (pilot phase) was held in September 2023 in Cairo, Egypt. Workshop participants received hands-on training on survey and identification/diagnostic protocols for selected pests and digital applications and the GIS platform that were developed by the USDA Animal and Plant Health Inspection Service (APHIS) for APP. At the time of this writing, workshop participants are currently training field technicians in their respective countries in anticipation of implementing the APP Pilot Phase in 2024.

Alignment to Country Programming Framework (CPF) output(s)

[4] A significant number of FAO member countries continue to emphasize plant health as a priority through the Country Programming Frameworks (CPF) and the Technical Cooperation Programme (TCP). Plant

Health is crucial to enhance global food security, increase sustainable agricultural productivity, protect the environment from the impacts of plant pests, facilitate the safe trade of agricultural products, and boost economic development.

Alignment to the IPPC Strategic Framework 2020-2030

The APP supports achievement of the Development Agenda Items (DAIs) of the IPPC Strategic Framework 2020-2030, primarily the DAI on establishing a pest outbreak alert and response system (POARS). In the pilot phase, the IPPC Secretariat and USDA APHIS provided pilot countries with the digital tools to more timely detect, respond to and manage important plant pests in the region. This complements the intended outcomes from POARS. Similarly, the APP supports other DAIs in that it facilitates the adoption of ePhyto and the harmonized exchange of electronic phytosanitary data (DAI 1); development of commodity-specific standards (DAI 2); management of e-commerce and postal and courier pathways (DAI 3); assessment and management of climate change impacts on plant health (DAI 6); establishment of a global phytosanitary research coordination (DAI 7); and establishing diagnostic laboratory networking.

Problems to be Addressed

- Invasive plant pests can enter a country that lacks a strong and well-functioning national phytosanitary system without being detected. Once introduced, these pests often cause significant damage to plant production, including food crops; negatively impact the environment; and hinder regional and international trade of agriculture products. According to documented reports, "Globally, annual crop losses to plant pests are estimated to be between 20 to 40 percent of production" (Agrios, 2005). In Africa, crop yield losses due to insects are estimated to be between 30 to 60 percent (Oerke, 2005). The level of crop losses ranged from 22 percent in Oceania to 51 percent in Central Africa, which indicates significant differences in the efficacy of crop protection practices (Oerke, 2006). While plant pests continue to cause significant losses in plant production, including food crops, the number of people affected by food shortages in the world continues to surge. In fact, according to The State of the Food Security and Nutrition in the World (FAO, IFAD, UNICEF, WFP and WHO) (2022), the number of people affected by hunger increased from 811 million in 2020 to 828 million in 2021. In terms of economic impact, "plant diseases alone cost the global economy around USD220 billion annually" (Agrios, 2005) and invasive insects another USD70 billion (Bradshaw et al., 2016).
- The ever-changing global situation, resulting from climate change and the seemingly corresponding pest expansion (IPPC, 2021), increased level of pest incursions, and growing world population as well as world hunger, means that many countries are in urgent need of a resilient phytosanitary program. Such programmes are designed to provide early detection of pests, and to position the National Plant Protection Organizations (NPPOs) and Regional Plant Protection Organizations (RPPOs) to prepare for, respond to, and recover from plant pests in the most effective and efficient manner. The primary mission of the International Plant Protection Convention (IPPC) is to protect plant resources from invasive pests and diseases and to facilitate safe trade of agricultural products. The IPPC fulfills its mission by working directly with its 185 contracting parties by developing and implementing International Standards for Phytosanitary Measures (ISPMs). These ISPMs provide the necessary foundational antecedents for the much-needed phytosanitary program.

Proposed Solution

Based on the above context, the IPPC Secretariat has been working with stakeholders, including NPPOs and RPPOs, in coordination with FAO to develop and potentially implement the first ever global phytosanitary program, with an initial focus in Africa. The program is intended to enable NPPOs to detect plant pests of regulatory, economic, and environmental significance effectively and quickly. The program will also position NPPOs to prepare for, respond to, and recover from plant pests in the most effective and

efficient manner. While the proposed program would be global in nature, it will also provide the necessary flexibility and adaptability, taking into consideration the differing levels of capacities and needs around the world. The programme will provide practical solutions tailored to address unique national and regional phytosanitary challenges and needs. Central to an effective phytosanitary program is proactive surveillance of plant pests and diseases; timely and adequate pest identification and diagnostics; and effective pest data collection, storage, and analytics.

- [9] The global initiative encompasses two major parts—safeguarding and safe trade:
 - Safeguarding is designed to aid NPPOs in protecting agriculture and natural resources against the introduction and spread of plant pests and diseases. It includes the following components:
 - Pest Selection Each country or region will select a number of pests and diseases (initially five), based on set phytosanitary criteria.
 - Pest Surveillance Coordinating with cooperators, the IPPC Secretariat will engage subject matter experts to develop the survey, identification, and diagnostics methodology and protocol for each of the selected pests and diseases.
 - Data Management Coordinating with cooperators, the IPPC Secretariat will facilitate the selection of the information management system, including data collection devices, data storage, and the analytics designed to provide timely and consumable reports.
 - Capacity Development and Support Coordinating with cooperators, the IPPC Secretariat will
 facilitate the training, both virtually and in person to ensure consistency in the capacity of
 implementing the program.
- [10] It is important to note that the survey data for the selected pests will be used to develop the emergency preparedness, response, and recovery plans as part of the safeguarding component of the program.
- Safe Trade will aid NPPOs to facilitate the imports and exports of agricultural products in a risk-managed phytosanitary manner. The information collected through the proactive surveillance component of the safeguarding part of the program will provide the empirical evidence for the NPPOs to determine the key facets of safe trade, including:
 - Pest-free area
 - Import requirements
 - Inspection and testing of imported cargoes for plant pests
 - Phytosanitary export certification
 - Expansion of international and regional market access of agricultural products

Program Benefits

- [12] Participating countries and regions are expected to realize overall benefits in agricultural productivity, food security and safety, environmental protection, agricultural trade, and economic development. Specifically, the program will produce the following benefits:
 - Enhanced capacity to manage and prevent pest spread
 - Improved pest surveillance and early warning systems
 - Improved food security and agricultural resilience against invasive plant pests
 - Harmonization of phytosanitary practices, including inspection and other regulatory border activities
 - Coordinated regional plant protection strategies
 - Technical skills development
 - Improved trade facilitation and opportunities
 - Enhanced regional collaboration on emerging plant health issues

Implementation Strategy

- [13] Given the sheer size of Africa, consisting of 54 countries, a phased-in approach provides the necessary strategy for an effective delivery of the program:
 - Phase one (Year 1) will be a pilot area, consisting of two countries per each of the five FAO Subregions, totaling 10 participating countries in Africa. The pilot area would also serve as a demonstration for future participating countries.
 - Phase two (Year 2) will consist of two additional countries per Subregion, adding 10 more countries, totaling 20 countries participating in the program.
 - Phase three (Year 3) will encompass another two countries per Subregion, adding 10 more countries, totaling 30 countries participating in the program.
 - Phase four (Year 4) will include 10 additional countries, totaling 40 countries participating in the program.
 - Phase five (Year 5) will cover the remaining 14 countries, totalling 54 countries being part of the program.
- [14] Countries participating in each phase of the programme would be selected based on criteria set by the IPPC Secretariat, taking into consideration factors such as NPPO readiness to participate in the program. Also, beginning in phase two, the number of selected countries would be determined proportionally based on the size of each FAO Subregion.
- [15] The sixth year of the program would usher in the maintenance phase, which aims to empower countries to build on their gained experiences and begin to expand the program in a sustainable manner. Through this final phase, countries and regions are expected to develop the capacity to address additional pests of concern and collaborate in a consistent and synergetic manner into the future.

Coordination and Cooperating Organizations Strategy

- [16] The proposed program envisions a coordinated partnership among primary organizations, including NPPOs, Africa Union- Inter Africa Phytosanitary Council (AU-IAPSC), the Near East Plant Protection Organization (NEPPO), RECs, and FAO (IPPC, Regions, Subregions, Country Offices, and NSP). At the center of program implementation are the National Plant Protection Organizations (NPPOs). Using their existing infrastructure and the additional resources, NPPOs would be responsible for carrying out the day-to-day implementation of the program in their respective countries. The role of the Regional Economic Communities (RECs) is to provide regional program coordination and logistical support for their member countries to ensure consistent and effective program delivery as well as collaborating with other RECs in Africa.
- The role of AU-IAPSC is to provide the overall strategic coordination among all eight RECs and will continues to serve as Africa's RPPO in fostering the strategic "One Africa Voice" in the international and regional fora. Working with NPPOs and RECs, the FAO regions and FAO country offices will provide the administrative and operational support of program delivery. Coordinating with the IPPC Implementation and Facilitation Committee and the Pest Outbreak Alert and Response Systems (POARS) Steering Group, the IPPC Secretariat will provide the overarching technical coordination of the program. The IPPC Secretariat will also coordinate and partner with relevant FAO divisions, chiefly the Plant Production and Protection Division to ensure optimum synergy and harmonization of program delivery, particularly as it relates to emergency preparedness and response plans.

Estimated Budget

[18] The estimated cost of program delivery in each country is USD 700,000 over a five-year period. The budget estimates are calculated as follows:

Item	Estimated Costs in USD
Capacity Building (Training)	100,000
Travel	50,000
Coordination	50,000
Technical Cooperation Agreement	500,000
Total	700,000

[19] The overall budget estimates for the entire program, including all 54 countries, is USD 37.8 million over five years.

Current Status

- [20] In May 2023, NPPOs in each of Africa's five subregions (North Africa, Southern Africa, East Africa, Central Africa, and West Africa) nominated a total of 11 countries for the pilot phase of APP. These countries include Cameroon, Democratic Republic of Congo, Egypt, Guinea Bissau, Kenya, Mali, Morocco, Sierra Leone, Uganda, Zambia, and Zimbabwe. In June each of the 11 countries provided a list of five pests to be considered for inclusion in the pilot phase. Between July and September 2023, the IPPC Secretariat coordinated with the USDA APHIS the development of survey, identification/diagnostics protocols for the selected pests. In addition, APHIS developed the digital application for each of the pests and the GIS platform for the pilot phase of the program.
- In September 2023, the IPPC Secretariat and APHIS, with support from FAO Near East and North Africa Region, conducted a train-the-trainer workshop in Cairo, Egypt. The workshop provided hands-on training on survey, identification/diagnostic protocol and using the digital application on the selected pests for approximately 100 plant health professionals from the 11 pilot phase countries. As of this writing and using the same materials and tools at the Cairo workshop, trainers are delivering the same training to approximately 50-100 field technicians in each of their respective countries. In addition, each country is developing an operational plan detailing areas to be surveyed and requiring resources to implement the pilot phase. In 2023, the IPPC Secretariat received in excess of one million USD in cash and in-kind contributions, supplies, and materials in support of the pilot phase of APP. APHIS has also agreed to continue its support in 2024. In addition, the IPPC Secretariat is in the process of developing agreements with other donors who expressed interest in providing support to APP. Further information on APP is available on the IPP¹

Recommendations

- [22] CPM is invited to:
 - (1) *Note* the significant progress made by the IPPC community in support of the development of the Africa Phytosanitary Program (APP).
 - (2) Note the significant contribution and support provided by the United States.

¹ APP webpage: https://www.ippc.int/en/about-app/

- (3) Recognize the significant work of and commitment by the pilot-phase contracting parties, including Cameroon, Democratic Republic of Congo, Egypt, Guinea Bissau, Kenya, Mali, Morocco, Sierra Leone, Uganda, Zambia, and Zimbabwe.
- (4) Urge contracting parties to advocate for donor technical and financial support for APP.
- (5) Support the continued development of APP with the potential vision for it to become a global phytosanitary program.

References

- Agrios, G.N. (2005). Plant pathology. Fifth edition. Elsevier Academic Press.
- Bradshaw, C.J.A., Leroy, B., Bellard, C., Roiz, D., Albert, C., Fournir, A., Barbet-Massin, M., Salles, J.M., Simard, F. & Courchamp, F. 2016. Massive yet grossly underestimated global costs of invasive insects. Nature Communications, 7(12986): 1–8.
- FAO, IFAD, UNICEF, WFP and WHO. 2021. The State of Food Security and Nutrition in the World 2022. Repurposing food and agricultural policies to make healthy diets more affordable. Rome, FAO. https://doi.org/10.4060/cc0639en
- IPPC Secretariat. 2021. Scientific review of the impact of climate change on plant pests A global challenge to prevent and mitigate plant pest risks in agriculture, forestry and ecosystems. Rome. FAO on behalf of the IPPC Secretariat.
- Oerke, E.C. (2005). Crop losses to pests. Journal of Agricultural Science 144:31-43.