



CPM-18 Written reports from international organizations (agenda item 21.3) - CABI Updates

Overview

1. CAB International (CABI) is a global, intergovernmental, not-for-profit organisation, owned and run by its 48-member countries. By providing information and applying scientific expertise to solve problems in agriculture and the environment, CABI's work contributes to the objectives of the IPPC, particularly in the areas of phytosanitary capacity building, value chains and trade, invasive species management, knowledge management and development, and communication and extension. In October of 2023, the FAO and CABI signed a Memorandum of Understanding with the aim of consolidating, developing and strengthening the existing cooperation to achieve common objectives of plant production and protection for sustainable crop production systems. The associated work plan includes continued collaboration between CABI and IPPC.

2. The contributions in the reporting period (March 2023 to March 2024) were made under various CABI's programmes and projects through activities that support phytosanitary capacity development and provide technical assistance relating to the overall implementation of the IPPC and its standards. In some of these activities CABI used its information resources and tools such as the CABI Compendium, Horizon Scanning Tool and Pest Risk Analysis Tool to train personnel from National Plant Protection Organizations. In many cases work was undertaken collaboratively, such as with FAO sub-regional offices in Africa and Asia, the Standards and Trade Development Facility (STDF), Regional Plant Protection Organisations (RPPOs), contracting parties' National Plant Protection Organizations (NPPOs) and other public and private sector partners.

Outline of the activities

3. CABI is participating as a member of the Pest Outbreak Alert and Response Systems Steering Group which has started meeting in 2024.

4. Under CABI's PlantwisePlus programme, horizon scanning activities were continued or initiated in Bangladesh, Pakistan, Burkina Faso, Burundi, Kenya and Rwanda during 2023. National pest risk analysis (PRA) training and/or write shops to draft PRAs on priority pests were conducted in Bangladesh, Pakistan, Burkina Faso and Ghana. In partnership with the African Union Inter-African Phytosanitary Council (AU-IAPSC) and the Food and Agriculture Organization (FAO), the process for undertaking regional PRAs was also initiated with Regional Economic Communities (RECs) in Africa, namely East African Community (EAC), Economic Community of West African States (ECOWAS) and Sahel, and the Southern Africa Development Community (SADC). Ethiopia, Eritrea and Somalia also participated in the regional PRAs. Follow-on activities in 2024 will seek to roll out this approach in other regions globally.

5. Likewise, as part of the PlantwisePlus programme in 2023, Pest Risk Registers (PRRs) were established for the first time in Zambia, Ghana and Kenya with the associated risk assessment and other workflows. A prototype Pest Risk Register has been set up in each country based on the output of the previously conducted horizon scanning activities, and a working group/committee was established to oversee the workflows in pest risk identification

and monitoring. Additionally, a Pest Insight Reporting Management Hub was created for use by CABI, and the first insight reports produced using the new system were provided to NPPOs in three countries: Ghana, Kenya and Zambia.

6. CABI continues to improve the PRA and Horizon Scanning Tools whilst working closely with NPPOs and regional organizations. Updates during this period included plant health risk analysis for organisms intended for introduction and a French language version of the PRA Tool that was used in the regional PRA workshop with the member countries of the Economic Community of West African States (ECOWAS), Sahel NPPOs and Ethiopia, Eritrea and Somalia. The Horizon Scanning Tool was enhanced to include the REC and RPPO regions and a climate change feature. Free access to these tools continues to be available to NPPOs of over 100 low- and middle-income countries.

7. CABI supported the back-to-back 4th International Phytosanitary Conference (IPC) and International Pest Risk Research Group 2023 (IPRRG) which were held in Nairobi in September. Presentations and displays were contributed by staff from Africa and the UK and PlantwisePlus partners from Zambia and Burundi.

8. CABI is supporting KEPHIS with the implementation of project *Managing scale insects in fresh fruits in East Africa to enhance market access (STDF/PG/807)*, that was launched on 7 – 8th June 2023, in Kenya. The project will increase compliance with phytosanitary requirements for target horticultural products by improving surveillance and management of scale insect pests thus leading to improved production and market access for fresh fruits e.g. pawpaw, mango, avocado, and citrus. The project will be implemented in Kenya, Burundi and Uganda and aims to train taxonomists, NPPO staff and extension officers trained in the identification of invasive scale insects, strengthen the NPPO's capacity in the identification, surveillance and monitoring of invasive scale insects, enhanced capacity for management of invasive scale insects at farm level, and enhanced stakeholder dialogue and application of an integrated systems approach for the management of scale insect pests.

9. As part of activities for management of emerging invasive pests, CABI assisted Kenya and Uganda to introduce *Acerophagus papayae*, a biological control agent of papaya mealybug, *Paracoccus marginatus*, in the country's coastal region, in accordance with ISPM 3 (Guidelines for the export, shipment, import and release of biological control agents and other beneficial organisms) following the completion of risk assessments and efficacy testing under quarantine. The parasitoid has established at Coastal Kenya with early results showing that the agent effectively controls *P. marginatus*. Post release impact on the target pest is continuing, with plans to expand the release to inland counties in 2024. Risk analysis and consultations were undertaken for release to other countries in EAC region affected by the pest. Releases in Uganda were initiated in 2023, and South Sudan is also ready for release. Cape Verde regulatory authorities have also requested CABI for support in tackling the papaya mealybug problem in the Country.

10. CABI is currently collaborating with the AU-IAPSC and the AU Department on Agriculture, Rural Development, Blue Economy, and Sustainable Environment (AU-DARBE), with funding from USDA Foreign Agriculture Service, in a project to support AU-IAPSC in the implementation of the AU Plant Health Strategy and provide technical support to the RPPO and its the member country NPPOs in Pest Risk Analysis (PRA), pest surveillance, inspection, certification and other official controls for market access) including capability to

implement electronic phytosanitary certification system (ePhyto). CABI has supported the development of the PHS Implementation plan. The project has also supported ePhyto adoption study to identify challenges and strength of the AU Member States in the adoption of the ePhyto. In collaboration with IPPC, the study draft report has been presented at the AU IAPSC Pre CPM meeting in Douala Cameroon. In collaboration with IPPC, an ePhyto workshop was held 27-30 June 2023, Entebbe, Uganda, and was attended by development partners including TradeMark Africa, STDF, Global Alliance for Trade Facilitation (GATF), World Bank, IPPC and Land O'Lakes Venture 37 to raise awareness and rally support for ePhyto adoption. The workshop made recommendations on the ePhyto study report, the adoption Roadmap and the ePhyto Steering group Terms of Reference. The study report was also presented at the 4th Phytosanitary Conference from 18th -21st September 2023.

As part of the support for implementation of the Plant Health Strategy, CABI also prepared an inventory of guidelines and regulations governing the registration of biopesticides in Africa and identified areas of overlap, divergence and opportunities for alignment. This analysis included identification of policies related to the export, shipment, import and release of biological control agents and other beneficial organisms. The findings have been presented at a recent workshop on "Advancing Regulatory Harmonisation and Biopesticide Innovation in Africa" that was held at the Southern Sun Hotel, Cape Town, South Africa. The workshop aimed at promoting harmonisation and best practices adoption in relation to Biopesticide regulations and registration in Africa.

11. CABI is the Regional Champion for the new 3-year EUPHRESCO III project funded by EU to coordinate Phytosanitary research globally. This is aligned to the Global Phytosanitary Research Coordination agenda 7 of the IPPC development agenda of 2020-2030.

12. CABI received funding from the UK Research and Innovation (UKRI) Science and Technology Facilities Council (STFC) January 2023 for a 15-month study to improve irrigation data layers used in species distribution modelling using earth observation data (EO). Additionally, proof of concept data layers will be produced for canopy temperature and locations of protected agriculture which can be utilised in species distribution models. CABI worked with Assimila LTD who provided EO expertise and Cervantes Agritech (Australia) who helped to apply the data layer to CLIMEX species distribution models. The ultimate aim is to provide the agricultural sector with tools to assess the impact climate change has on pest and diseases associated with agricultural production and their associated biological control agents. The consortium won further funding from STFC in June 2023 to integrate spatial and temporal pest modelling with EO supported crop phenological models and maps to improve mapping of wheat blast in Bangladesh. New partners RAL Space, University of Leicester and CSIRO are inputting into the project work using hyperspectral sensors mounted on drones to detect the differences between biotic and abiotic stresses on wheat. This information will then support detection using hyperspectral satellite data when integrated into this risk mapping as part of the project.

13. CABI with support of United States Department of Agriculture, Foreign Agriculture Services (USDA-FAS) led an initiative "Regulatory harmonization in Pakistan for MRLs and Biopesticides" with collaboration of Government of Pakistan. CABI partnered with Pakistan Agricultural Research Council (PARC) and an industry partner – Rafhan Maize Co Pvt Ltd aimed to provide safer food with reduced levels of aflatoxin and promoting regional trade. Through this cooperation, CABI demonstrated aflatoxin biocontrol technology in country and

being pioneer in South Asia. This public-private partnership led the development of guidelines for registration of biopesticides in country, which have been approved by respective ministry and Statutory Regulatory Order (SRO) has been issued. This is one of the longstanding achievements of CABI in partnership with Government of Pakistan. This will provide opportunities for private sector to bring in and commercialize safer plant protection products in the country. Additionally, CABI facilitated to generate residue decline data for profenofos on red chilies and conducted bio-efficacy trials using neem oil to control whitefly on red chilies. Educational videos (in English and local language) were developed to create awareness among regulatory authorities and growers on MRLs and aflatoxin workstreams.

14. In 2023, CABI collaborated with leading researchers to summarise and assess new reports of plant disease epidemics and outbreaks. Information was gathered through a literature review on articles published in 2022 relating to emerging pathogen problems. This was compared with new records added to the CABI Distribution Database. The team assessed the two approaches and reported on the most significant results, reviewing patterns in the host plants and geographic trends.

15. CABI was contracted by TradeMark Africa to collect and collate data, information and knowledge on animal health, plant health and food safety measures that are being applied by EAC partner states during regional and international trade, intended to be used to develop an EAC SPS information sharing platform. The assignment was undertaken in six EAC partner countries: Burundi, Kenya, Rwanda, Uganda, Tanzania and South Sudan.

16. In May 2023, CABI coordinated the joined the P-IMA evaluation mission in Kenya from the 7th -9th May 2023. This external learning and evaluation were to assess the results and impacts of P-IMA and was carried out by Dr (Ms) Karen Iles. The mission met relevant public and private stakeholders, as well as representatives of development partners and donors previously and currently involved in P-IMA and related activities.

17. CABI in partnership with USDA-APHIS and KALRO is undertaking an augmentative biological control strategy against the Coffee berry borer (CBB) in Hawaii and Colombia. Under the partnership, CABI is mass rearing a parasitoid of CBB, namely *Phymastichus coffea*, in Kenya for onward transfer to Hawaii for augmentative releases. CABI has facilitated the signing of the Prior Informed Consent (PIC) and the Mutually Agreed Terms (MAT) between the Kenyan authorities who are the providers of the material and USA authorities (recipients of the material) to facilitate the transfer of this material, in accordance with the Nagoya Protocol. The biological agents from the wild will be mass reared in Hawaii and Colombia for area wide augmentative releases.