



## **Kenya's experience on PCE and other phytosanitary capacity strengthening Initiatives**

**FLORENCE MUNGUTI, KEPHIS-KENYA**

**CPM-SPG MEETING  
28 – 30 October 2024  
Rome, Italy**



# ACKNOWLEDGEMENT

**EU project: Strengthening Food Control and Phytosanitary Capacities and Governance (GCP/GLO/949/EC)**





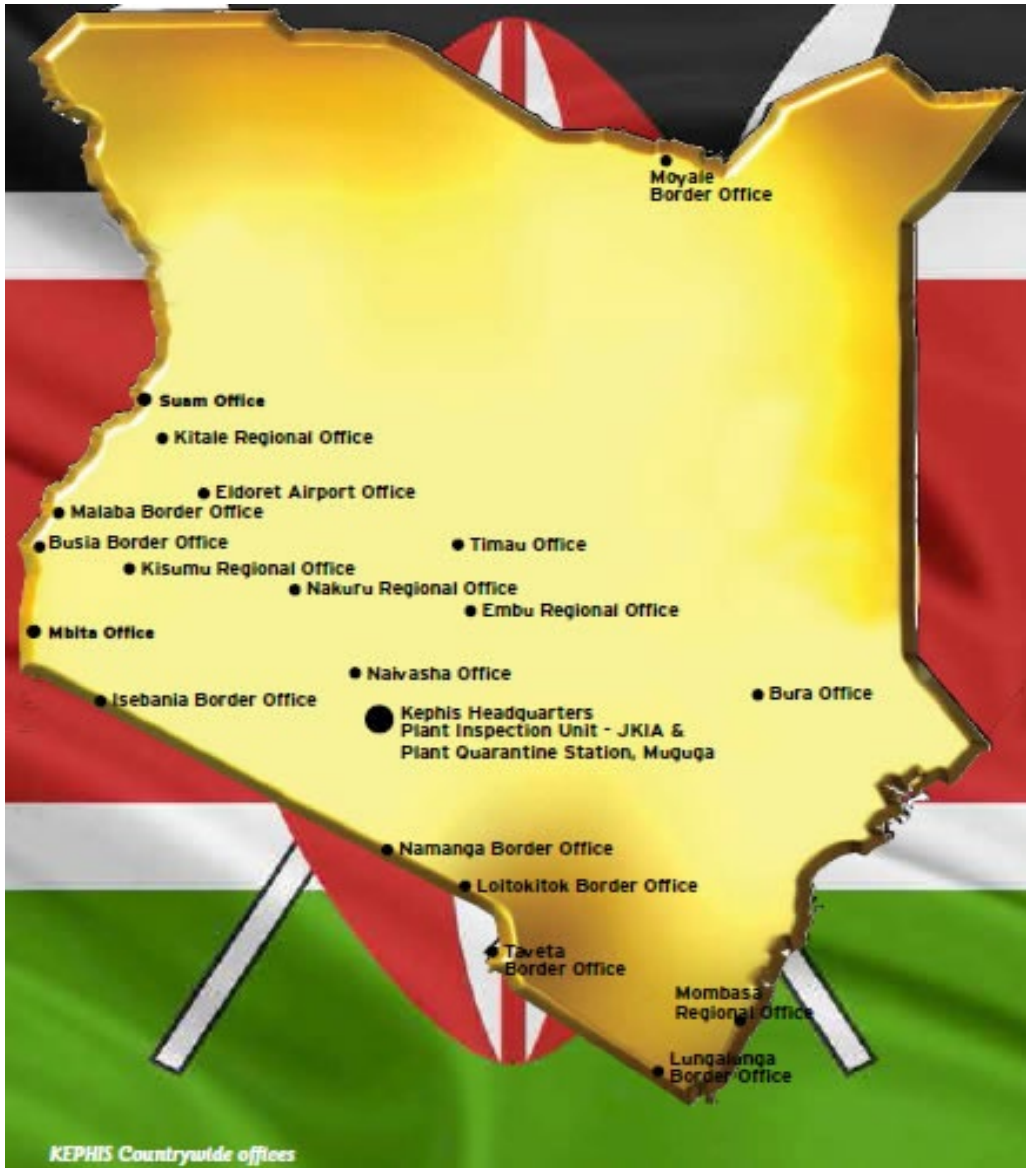
KEPHIS is a state corporation under the Ministry of Agriculture & Livestock Development mandated to offer regulatory services in agricultural sector.

It is the official **National Plant Protection Organisation (NPPO)** of Kenya  
Kenya's National Competent Authority for plant health (Art. IV, IPPC, FAO-2011)





# KEPHIS offices distributed in major border points and production areas



1. Headquarters- Karen	17. Muguga Plant Quarantine and Biosecurity Station
2. Kitale Regional office (Kitale)	18. Kisumu Regional Office (Kisumu)
3. Eldoret Airport	19. Busia
4. Malaba	20. Isebania
5. Suam	21. Mbita
6. Lwakhakha	22. Kisumu Airport
7. Jomo Kenyatta International Airport,	23. Nakuru Regional office (Nakuru)
8. Namanga,	24. Naivasha
9. Loitoktok	25. Mombasa regional office (Msa)
10. ICD Nairobi	26. Taveta
11. Embu Regional Office (Embu)	27. Lunga Lunga
12. Moyale	28. Bura
13. Timau	29. Taveta
14. Nyeri	30. Shimoni
15. Mandera	31. Lamu
31. Isiolo Airport	

# A case study of PCE impact in Kenya

- The first PCE for Kenya conducted in **2002** with support from IPPC Secretariat
- Identified several areas for improvements in the national phytosanitary system, particularly in the following areas;
  - Diagnostic capacity
  - Pest Risk Analysis
  - Surveillance
  - Import and export control
- From the first PCE, Kenya was able to develop and obtain funding for a series of programs and projects that enabled the NPPO to buy equipment and construct laboratories.



# Enhanced phytosanitary system as a result of PCE

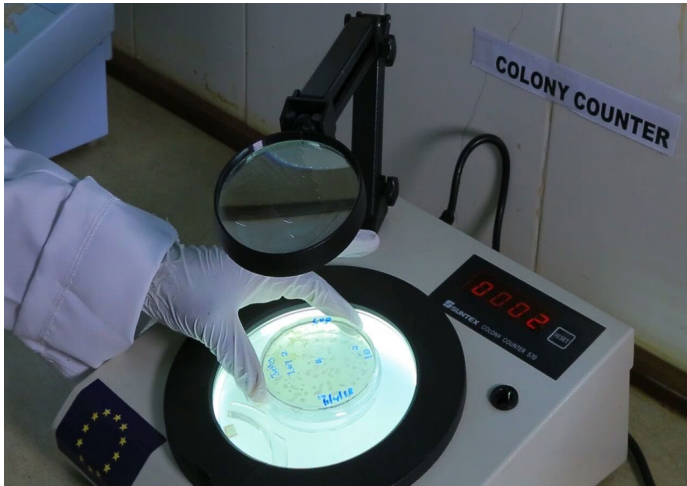
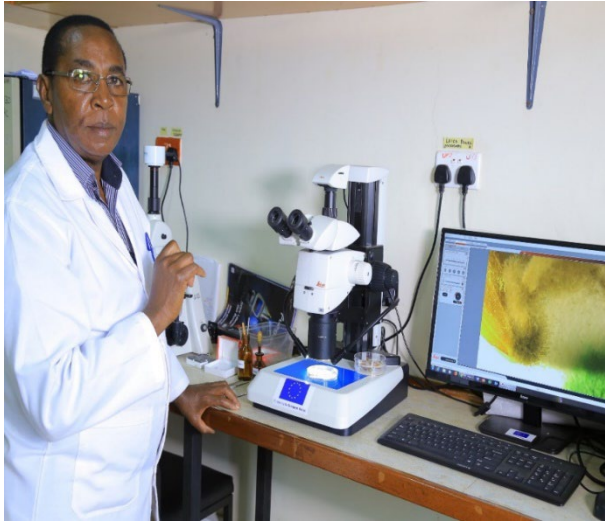


- Plant Health Laboratories were constructed at headquarters and Plant Quarantine Station
  - Horticap (2007 to 2011) – funded by EU; built lab at KEPHIS-HQ; purchasing of equipment
  - PRAP (2008 to 2011) – funded by USAID; built lab in Plant Quarantine & Biosecurity station, Muguga and equipment purchase





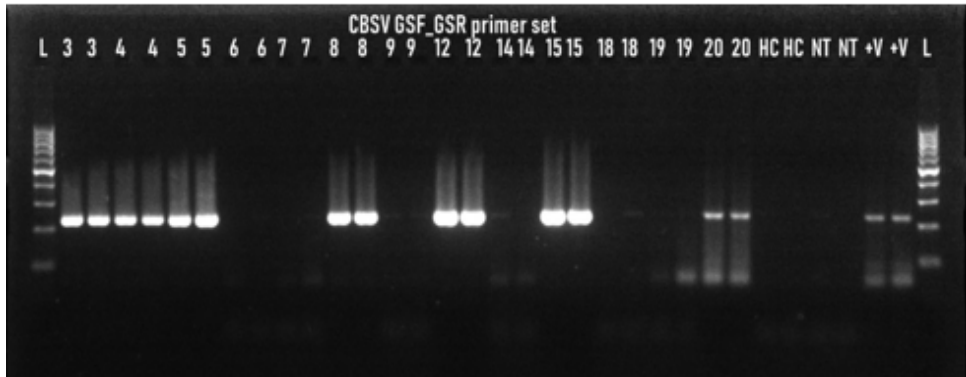
# Enhanced diagnostics system as a result of PCE



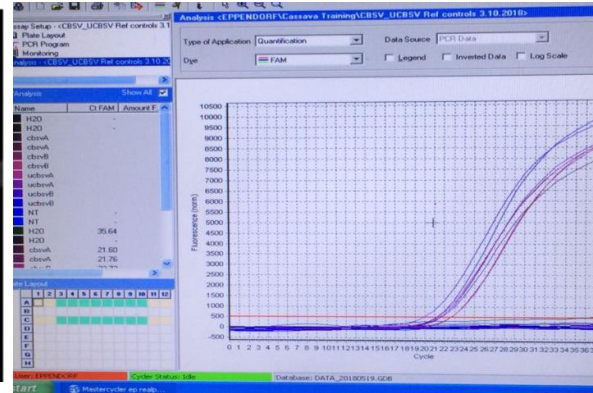
- Acquisition of various modern laboratory equipment;
  - SMAP (2014-2017)- funded by the EU, equipment support
  - FOODSCAP Project (2017 – 2020 ) – funded by USAID, equipment
- Laboratory staff skills and competencies enhanced
- Plant health Laboratories Accreditation to ISO17025:2017
- Development and validation of diagnostic protocols quarantine pests



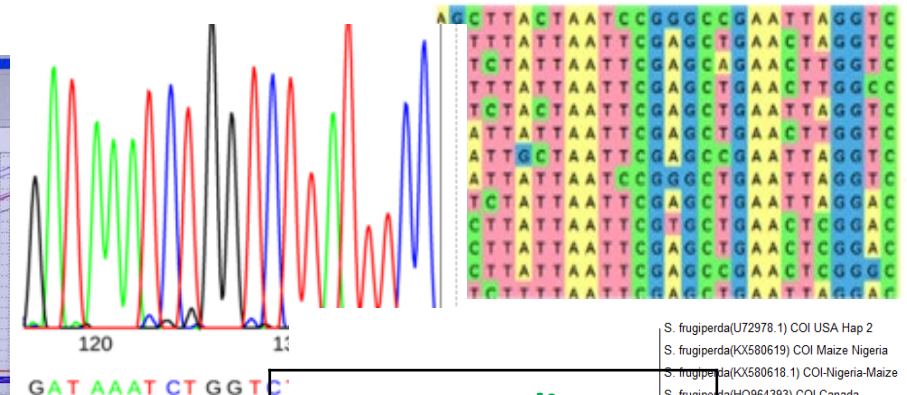
# Enhanced diagnostics system as a result of PCE



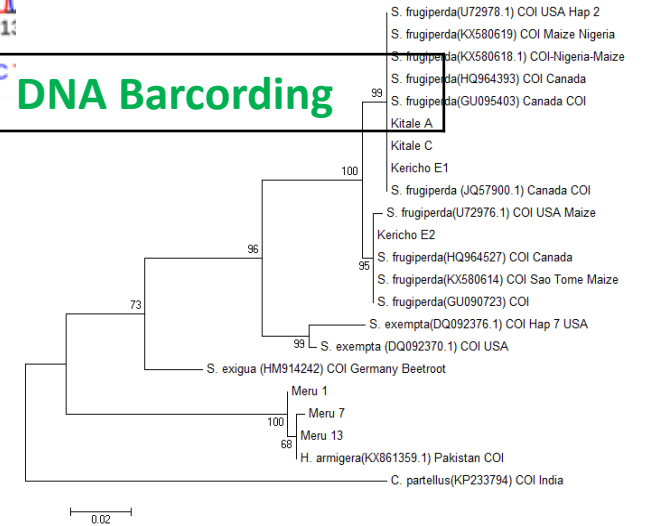
RT-PCR for pest diagnostics



Real-time PCR



DNA Barcoding



On-field disease detection using LAMP and RPA

Move towards HTS for plant health diagnostics





# A case study of PCE impact in Kenya

- The second PCE was undertaken in **2018** with support from the IPPC Secretariat.
- A more detailed analysis of Kenya's phytosanitary capacity was conducted
- Identified weaknesses and developed a robust legal framework that included the following;
  - Draft Regulations on Import and Export Certification
  - National phytosanitary policies aligned with international standards



# Enhanced phytosanitary Legal Framework as a result of PCE

- ✓ Phytosanitary Policy developed in 2022
- ✓ Plant Protection legal framework reviewed and regulation developed
- ✓ Mechanism for resource mobilized established





# A case study of PCE impact in Kenya: 3<sup>rd</sup> PCE in 2023



- **Coordinated by IPPC: supported by Project: Strengthening Food Control and Phytosanitary Capacities and Governance (GCP/GLO/949/EC)**
- This PCE evaluated the progress made so far in strengthening Kenya's phytosanitary system and identified new opportunities.
- Capacity Development Strategy outlined a comprehensive plan to advocate for improvement of the NPPO





# A case study of PCE impact in Kenya: 3<sup>rd</sup> PCE in 2023

The developed strategy emphasizes on;

- The importance of phytosanitary surveillance, pest eradication programmes
- It addresses import regulation, traceability, procedures review, to enhance export certification, documentation and collaboration
- Infrastructure development including efficient laboratory operations, and a national pest emergency response
- It focuses on increasing awareness among policymakers, enhancing understanding of phytosanitary issues, and strengthening partnerships to enable research.

**\*All the activities outlined in the strategy aim at strengthening Kenya's phytosanitary system, in line with relevant international standards and in view of global climate challenges.**



# Enhanced phytosanitary system as a result of PCE

- ✓ Digitalization of import and export processes including e-phyto exchange
  - ✓ Creation of PRA and surveillance unit
  - ✓ Creation of Directorate for laboratory services to enhance coordination of laboratory services
  - ✓ Creation of a Research unit
- 
- ✓ Designated as a regional reference laboratory for plant health for COMESA.
  - ✓ Enhanced molecular identification and new pests and pathogen discovery



# Enhanced use of online certification system as a result of PCE

- KEPHIS has online Integrated Export and Import Certification System (IEICS)
- The systems enables issuance of Phytosanitary certificates and Plant import permits
- KEPHIS has connected the platform to the IPPC ePhyto HUB for exchange of Certificates (ePhyto) and already exchanging with several countries
- Several member states are receiving ePhytos from Kenya until 2021 when EU introduced a new requirement where ePhyto certificates were to be digitally signed.





# Enhanced Quality control at farm level and point of exit as a result of PCE



# Enhanced collaboration with key partners as a result of PCE



- KEPHIS partnered with CIP and IITA to source funds from GIZ crops to end hunger (Cteh) program to Construct and equip a regional lab (RTB-EAGEL lab)

- RTB-EAGLE Laboratory under construction at KEPHIS to support exchange of clean germplasm for vegetative propagated crops



# Management of emerging pests enhanced thanks to the PCE

- PRA unit to inform phytosanitary measures
- Surveillances unit to inform early detection, pest status and management of new invasions
- Availability of advanced diagnostics facilities
- Continuous capacity building of personnel
- Enhance import regulation system including import of biocontrol agents
- Enhance post entry quarantine facilities





## Enhanced collaboration a result of PCE: Horizon scanning workshop supported by CABI



- Horizon Scanning for supporting pest prioritization, development of pest risk registers, updating of pest lists, identifying other priorities including development of diagnostic capacities





# KENYA hosted FOC-TR4 simulation exercise May 2024



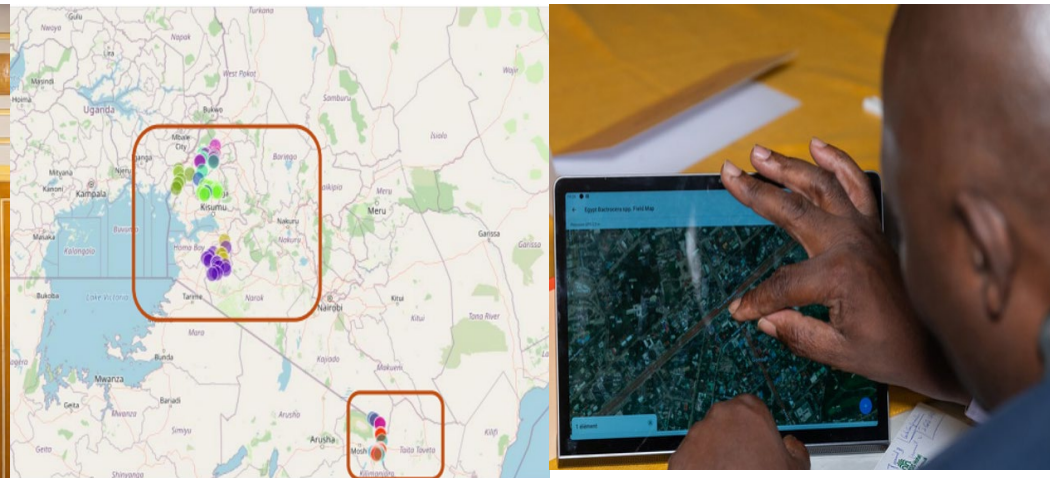
**Coordinated by IPPC, FAO-meso America, FAO-KE and hosted at KEPHIS; 13 COMESA member state NPPOs representatives participated; enhanced capacity in preparedness and emergency response**

**FAO support to COMESA trade facilitation programme (GCP/INT/387/COM)**





# The Africa Phytosanitary Programme (APP); Enhancing capacity in digital pest surveillance

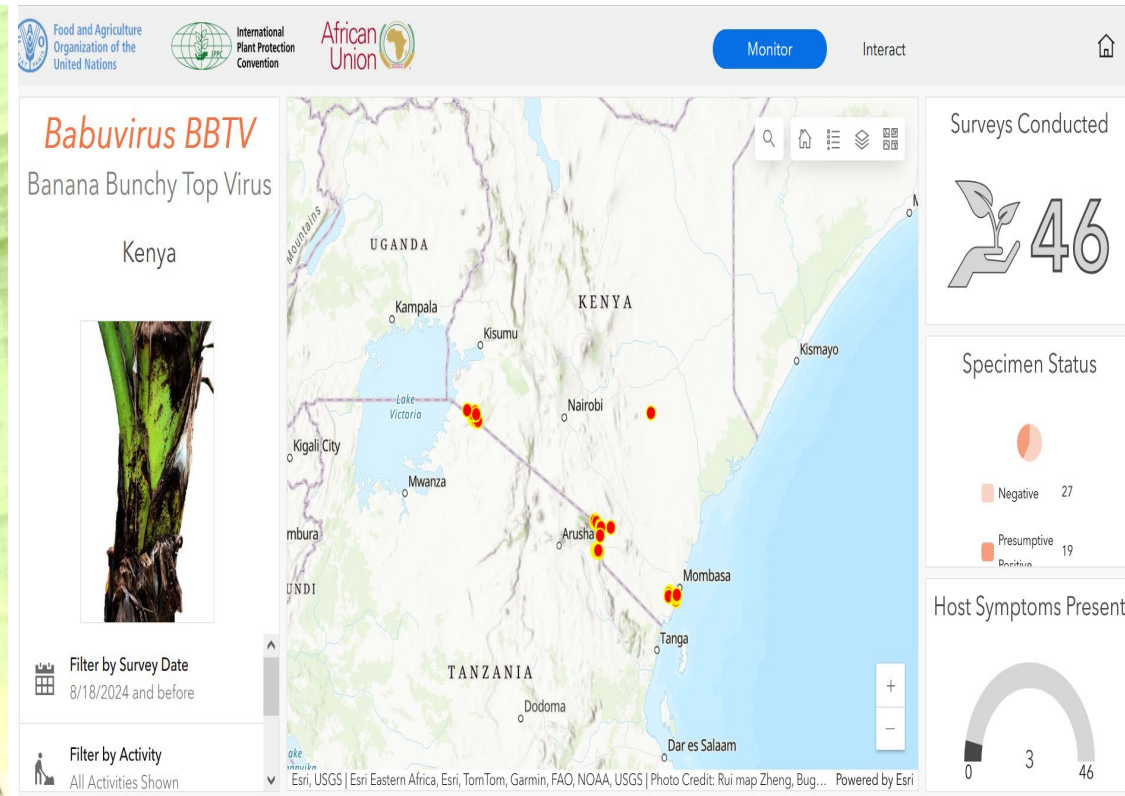


- Coordinated by International Plant Protection Convention (IPPC)
- To be implemented in 54 African countries (NPPOs)
- Use of digital surveillance tools to empower countries to rapidly detect and respond to and recover from outbreaks of plant pests that have regulatory, economic, and environmental consequences
- Kenya is part of the **11** pilot countries





# Use of APP digital surveillance tools during BBTV surveillance in Kenya



**\*The United States Department of Agriculture Animal and Plant Health Inspection Service (USDA APHIS) supported the development of survey protocols and digital applications for priority pests for the different countries in pilot phase**



**THANK YOU**

