



Food and Agriculture  
Organization of the  
United Nations



International  
Plant Protection  
Convention



Department  
for Environment  
Food & Rural Affairs

# Facilitating Safe Trade and Economic Development

Leveraging on ICT for safe trade and economic development  
Kenya experience

London, 21 – 23 September 2022

## International Plant Health Conference



# Presentation Outline

- Introduction
- IPPC ePhyto Solution
- Country Experience – Kenya
- Benefits of IPPC ePhyto solution
- Challenges - implementing electronic certification (ePhyto)

# Introduction

- We all know importance of **safeguarding** our agriculture, forests and environment from invasive species
- Application of ISPMs provides **harmonized approach** on implementation of global plant health systems
- ISPM 12 provides the framework for NPPOs to **communicate** the **phytosanitary status** of a consignment in secure, authentic and verifiable manner



*Apple snail – invasive species*



*Plant health laboratory*

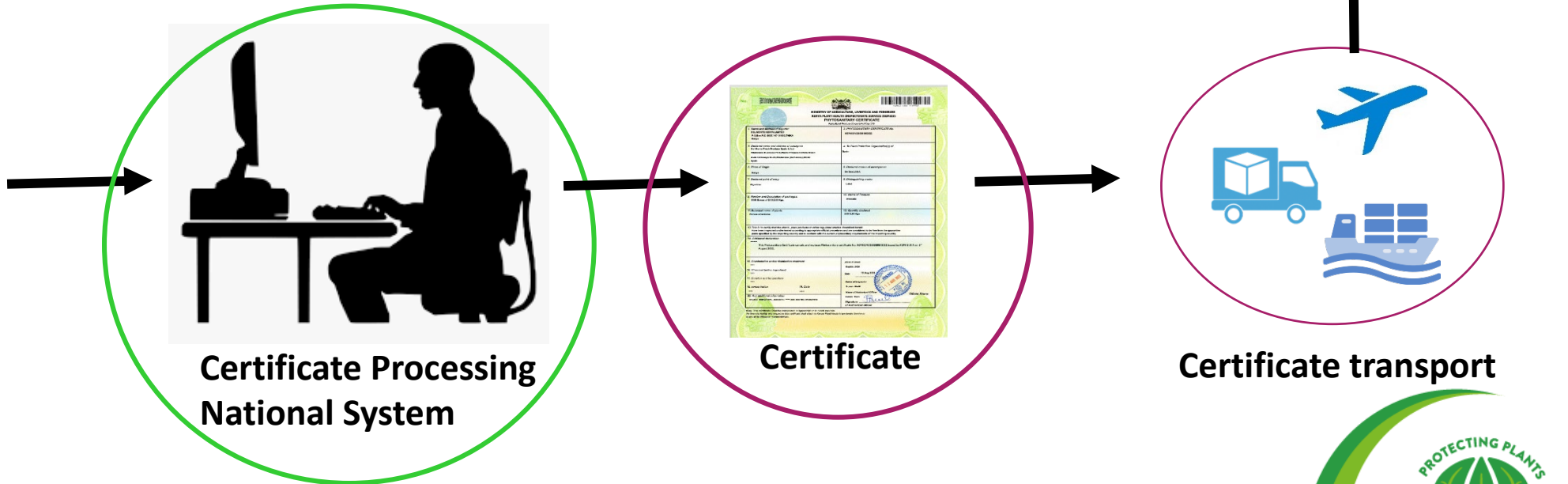
# ePhyto Solution

## Phytosanitary certificate requirements (ISPMs 7, 12 & 23)

- **Authenticity** - verifiable origin and sender
- **Integrity** – No interference or alteration after issuing
- **Non repudiation** - the legitimacy of data cannot be denied,
- Its challenging to achieve the above with paper certificates (*Bryant Christie Inc. Report 2014*)



Inspection





# ePhyto Solution

Authenticity –  
verifiable origin

Non-repudiation

Integrity – not changed



Importing NPO  
Inspection



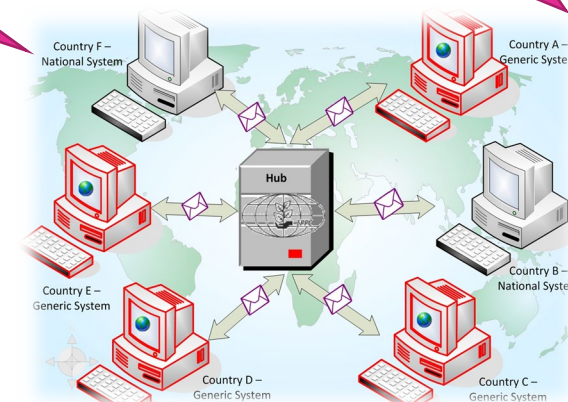
ePhyto  
Certificate (XML)



Certificate Processing  
National System  
GeNS



Pdf Certificate



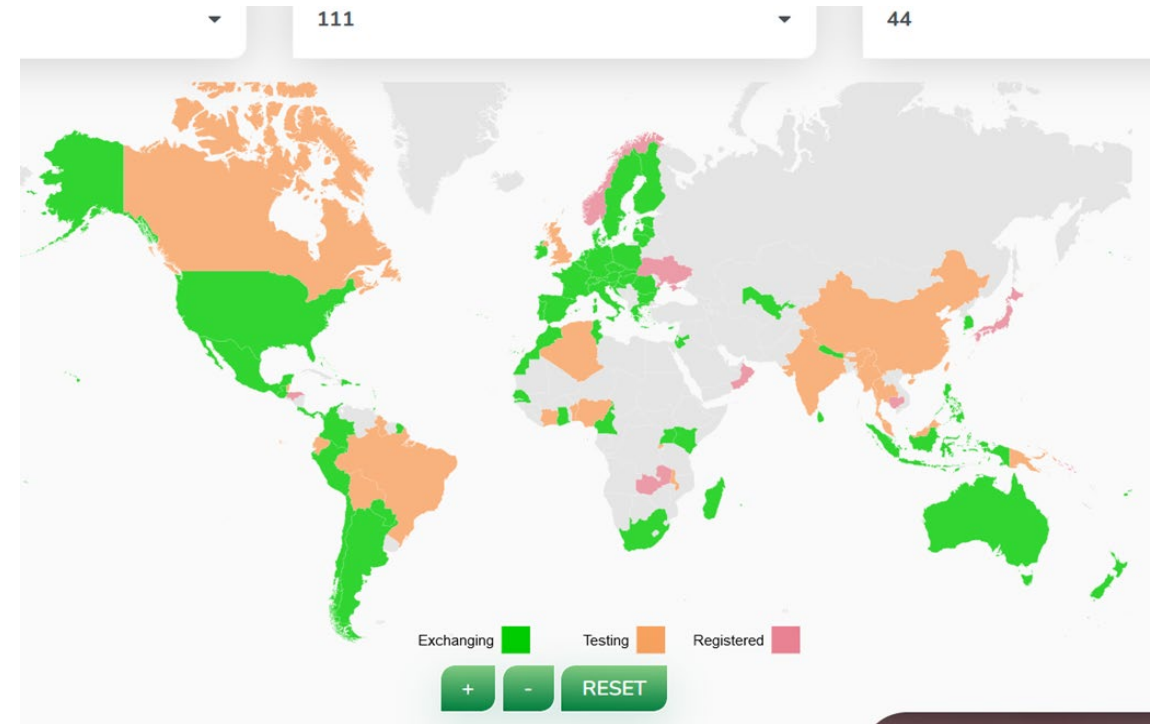
ePhyto Hub



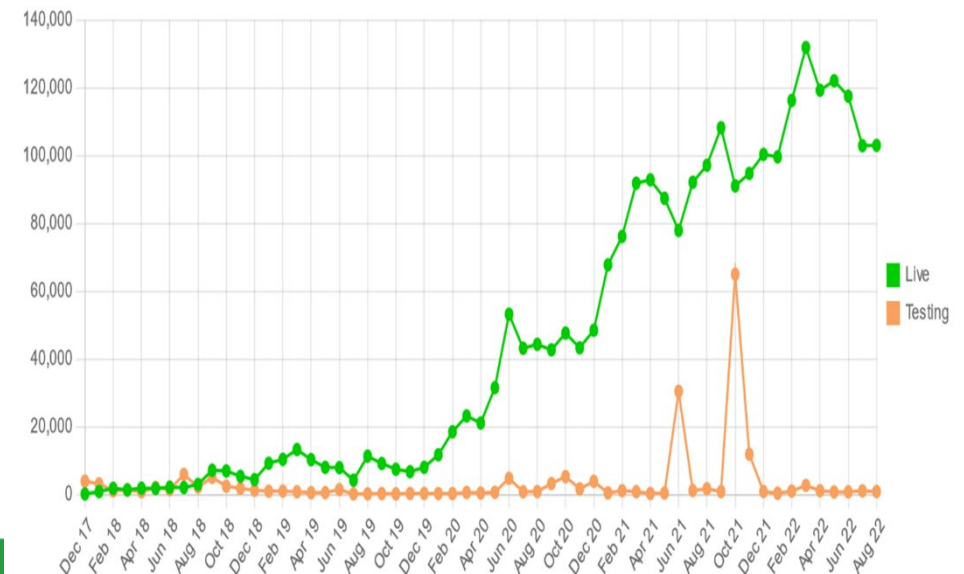
Inspection

# IPPC ePhyto Solution

- ePhyto - The electronic version of a phytosanitary certificate (ISPM 12 Appendix 1)
- IPPC ePhyto Hub & GeNS were open in 2018 and 2019 respectively
- August 2022 – a total of 111 (60%) of 184 CP connections to the Hub
- 70 countries are doing live exchange
- Over 2.5 million ePhyto exchanged
- 9 African countries doing live exchange, while 7 are testing



Summary of the certificates successfully exchanged through the HUB

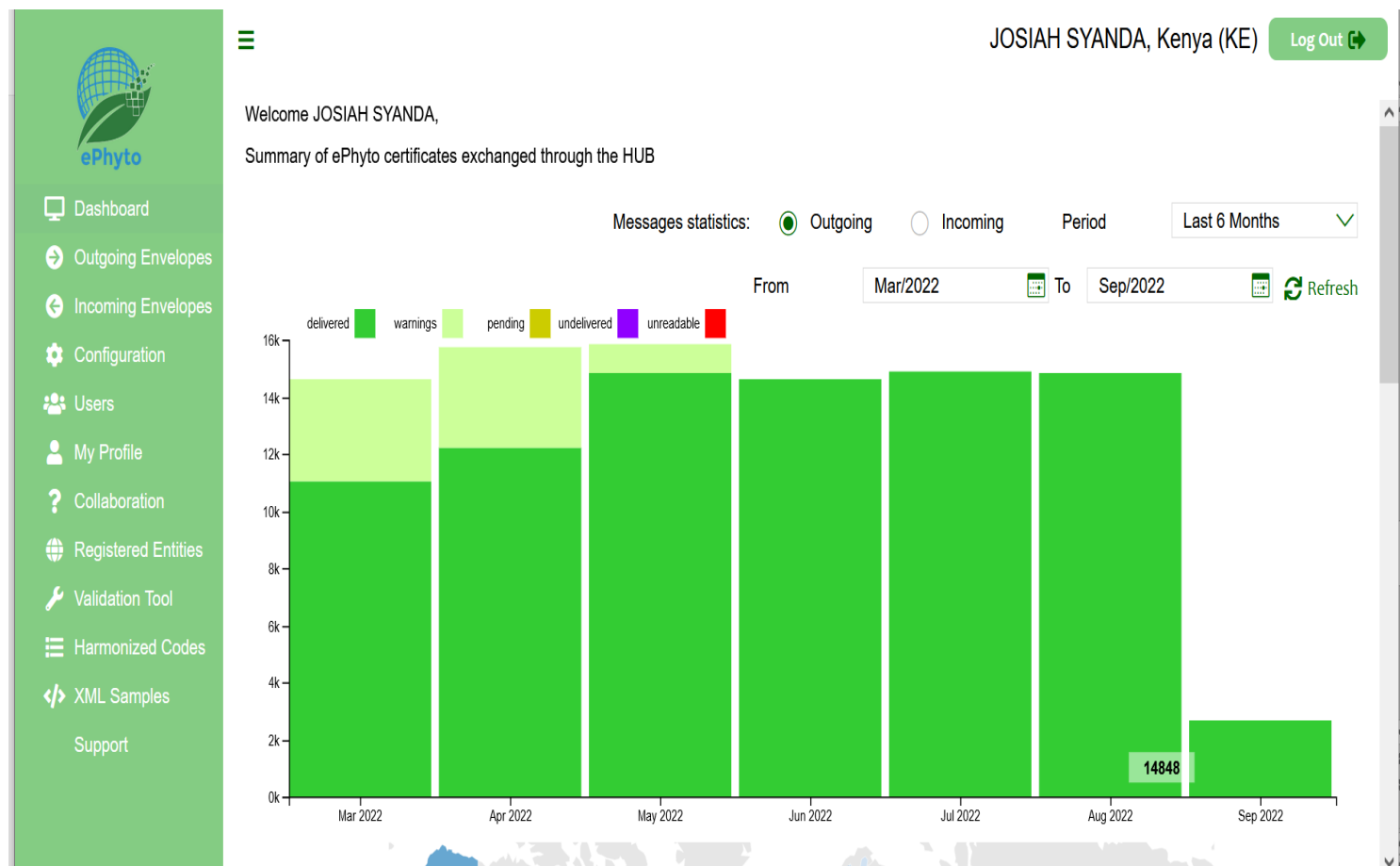


Total Live Exchanges:  
2,561,680

Total Test Exchanges:  
185,501

# Country Experience – Kenya

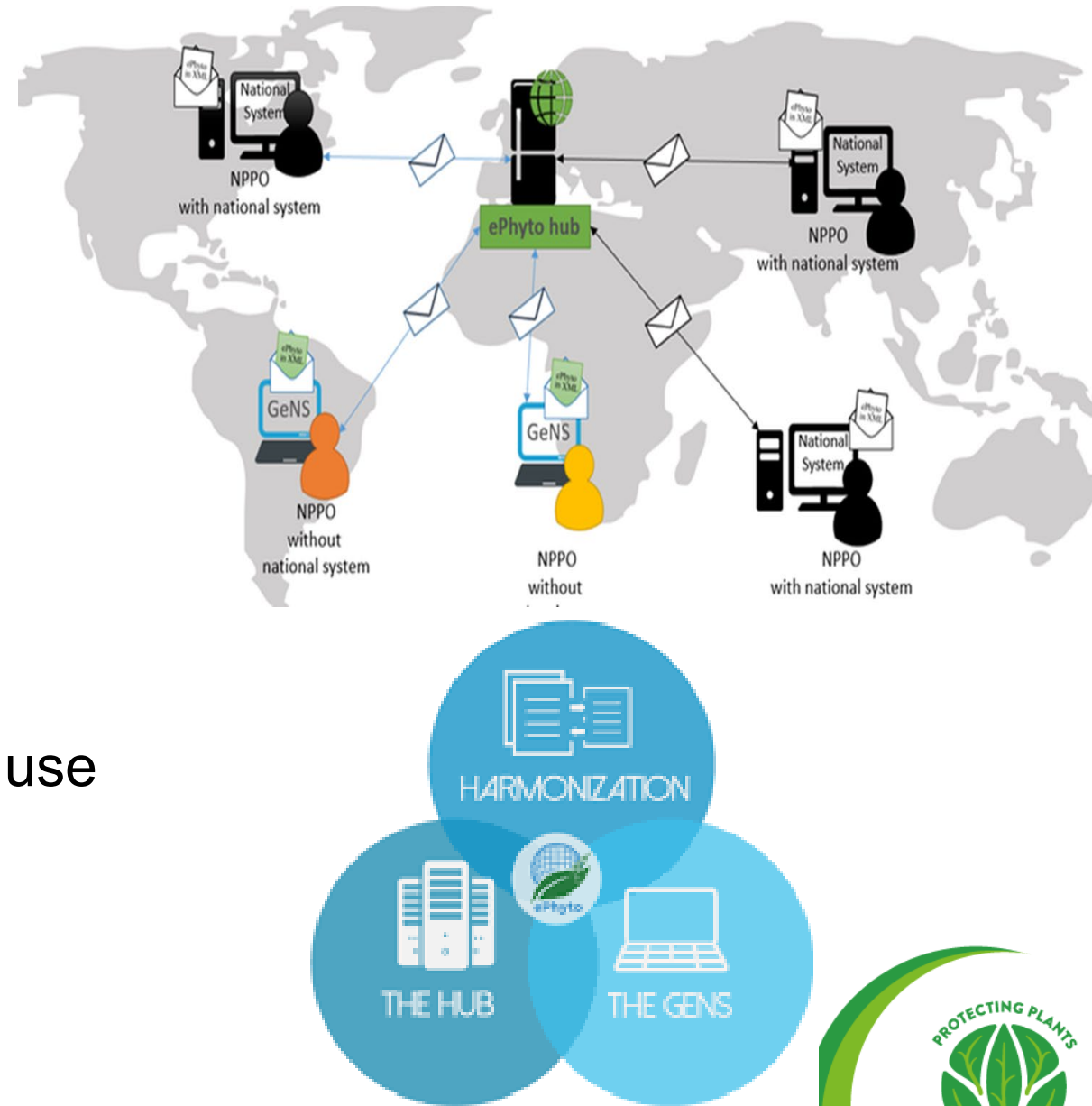
- Initiated electronic certification in 2011
- In 2014 – bilateral exchange with Netherlands
- 2018 – connected to IPPC ePhyto HUB for sending
- Over 950,000 certificates issued
- Improved efficiency in trade facilitation, enhanced phytosanitary certification



*ephyto exchange through IPPC ePhyto Hub*

# Benefits of IPPC ePhyto solution

- Low risks of forgery, alteration
- Elimination physical document transmission intermediaries
- Reduced physical movement to collect certificates
- Digital storage – hence reduced risk of losing the certificate
- Easier authentication and verification
- Global harmonization
- Countries without national systems can use GeNS for ephyto exchange
- System integration and interoperability





# Challenges - implementing electronic certification (ePhyto)

- Application of digital technology for information management
- ICT and Phytosanitary information integration knowledge gaps
- Systems integration for data exchange – Combining information and business processes, border control agencies
- Legal framework
- Infrastructure – Computers , software, servers internet



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# Comments / Questions? Thank you

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