

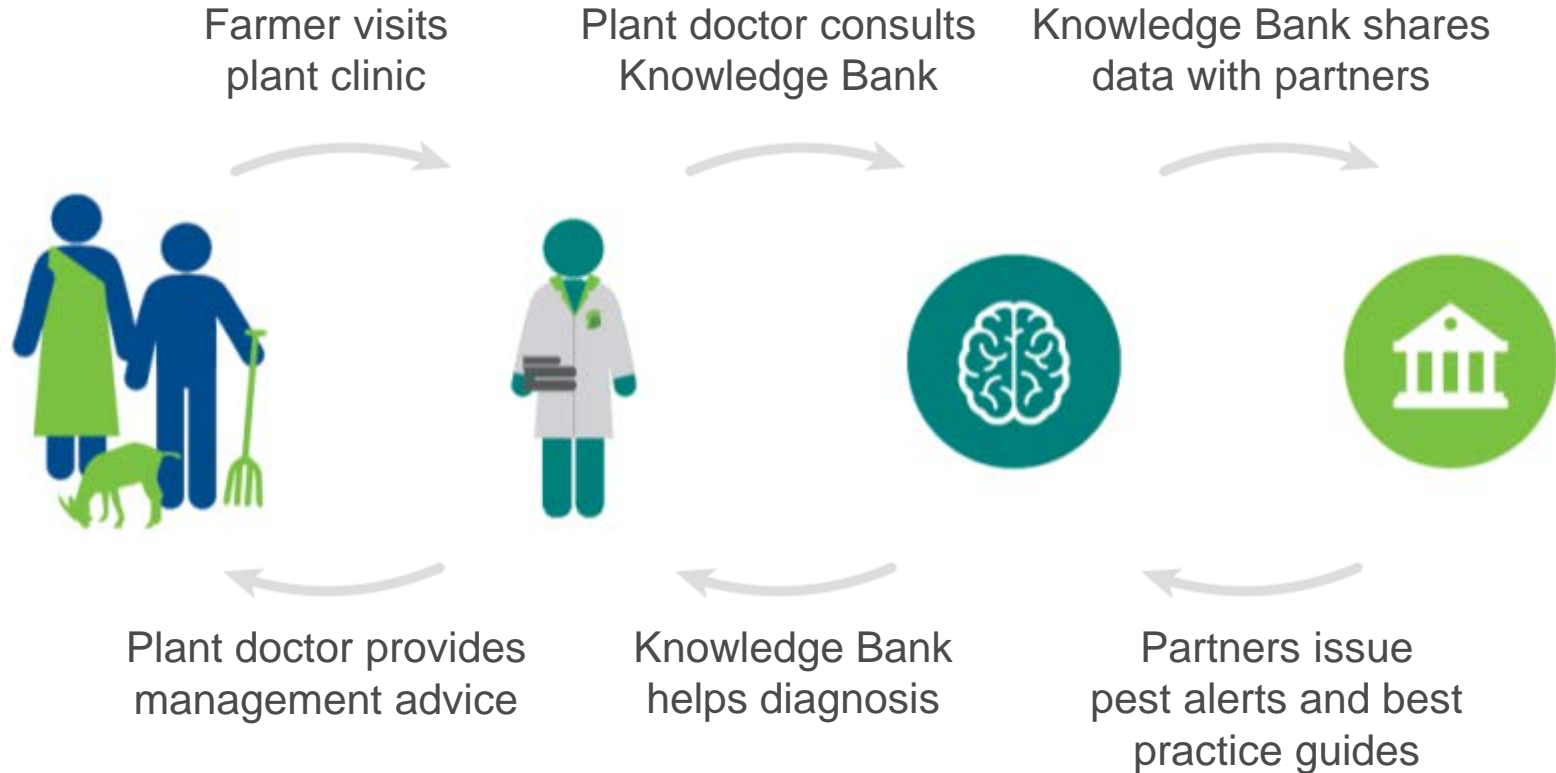


Evolution of Plantwise

Dr Noah Phiri, Regional Representative, CABI Southern Africa Centre

Member Countries Regional Consultation: Africa
25-28 February 2019, Gaborone, Botswana

Plantwise process: two-way flow





Major areas of change

- Digital development and e-plant clinics
- Outcomes and impact
- Synergies with other projects
 - Pest Risk Information Service
 - Action on Invasives
- Engagement with private sector
- Enabling safer food
- Supporting food supply systems



Digital development and e-plant clinics

- Knowledge Bank (KB) - an open access internet resource
 - covering 2,500 crop pests in 80 languages
 - over 13,600 factsheets available
- Plantwise Online Management System (POMS) - restricted access
 - > 340,000 records from plant clinics now processed through POMS
 - harmonization and basic inbuilt analytics
- Digital devices and apps networks now play a key role in Plantwise
- E-plant clinics using tablet computers to:
 - access factsheets in KB
 - collect PC data and upload to POMS
 - efficient delivery of advice to farmers



Digital development and e-plant clinics (cont.)

- Information exchange: Telegram and WhatsApp
 - Aid diagnosis including use of technologies based on image recognition
 - Build capacity for greater self-reliance in agro-advisory services
 - Enable pest alerts and rapid response
- Aided identification of new/emerging pests/pest situations pests including: fall armyworm, tomato leafminer, citrus greening, turnip yellow mosaic virus
- Focus is now to demonstrate how ICTs link with impact of Plantwise
 - Monitor and report innovative ICT uses as outcomes



Outcomes and impact

- Plantwise reach of 18 million (cummulative) by 2017 mainly through **plant clinics** and other **complementary extension campaigns**
- Impact measured through two pathways
 - Plant clinic advice adoption
 - Plant health system change
- Now demonstrated in terms of farmers adopting (90%) advice, **avoided crop losses and increasing productivity** (+27% for maize production in Rwanda; +20% for tomato production (Malawi))
- Bio-economic **modelling** of banana skipper outbreak showing **value of loss** avoided as a result of Plantwise intervention amounting to **US \$23m**



Outcomes and impact (cont.)

- Improved country systems for managing plant health in Ethiopia, Kenya and Malawi showing:
 - Increased focus on plant health in national extension services, strengthened agricultural information management and diagnostic services
- The improvements are in the areas of **timeliness, availability, affordability, acceptability** by farmers and **broader reach**
- The programme has also resulted in **strengthened** plant health stakeholder linkages
- **Cost:benefit ratio of 1:3** for improved maize in plant clinic catchment areas of Kenya



Synergies with PRISE

- Pest Risk Information Service (PRISE) for sub-Saharan Africa is a five-year project funded by the UK Space Agency International Partnerships Programme
- Combines **earth observation technology**, plant health **modelling**, and **real-time field observations**
- Works with three UK-based and four Africa-based organizations as partners to create an **EWS to forecast the risk of pest outbreaks** using space infrastructure, **earth observation data** and **modelling techniques**
 - Initially Kenya, Ghana, Zambia (plus three others) but later scalable to other countries/regions?

Partners

Implementation partners:



National partners:



Republic of Zambia



MINISTRY OF
FOOD & AGRICULTURE
REPUBLIC OF GHANA



Republic of Kenya
Ministry of Agriculture, Livestock and Fisheries





Action on Invasives

- Applying lessons and experience from Plantwise to respond to invasive species
- Using collaborative infrastructure
 - National coordination structure
 - Partnerships for in-country implementation
 - National work plans and budgets
- Works to achieve effective control of priority invasive species through:
 - National task forces
 - Advice via plant clinics and mass extension campaigns
 - Evaluation of practices to respond to threats
- Awareness for prevention:
 - Alerts to allow early detection
 - Systems for rapid response



Partnering with the private sector

- Engagement with private sector in Plantwise being pursued with the vision to leverage the resources and expertise in order to increase:
 - Sustainability, scale and impact of the programme in the long term
- Priority organizations are those that:
 - Operate across the whole range of small-holders (commercial oriented, transitional and subsistence farmers)
 - Focus on transitional farmers and working with farmer based organisations
- The aim is to embed Plantwise components in businesses that can help make Plantwise:
 - More sustainable, increase its reach and improve its impact





Biopesticides

- Building on Plantwise: recommendations to farmers are IPM-based
- Development of the **Biopesticide portal**
 - An online tool that facilitates the identification, sourcing and application of biological control products
 - Increasing farmers' access to affordable effective low toxicity products for pest management



Supporting food supply systems

- Lessons from Plantwise show the need for demand by farmers for improved advisory service spurred by prospects for guaranteed market for farm produce
 - This would create some business around food supply systems in some countries
 - However, systems for public extension provide limited opportunities to develop business around services to smallholder farmers
- Arising from innovations developed under Plantwise, CABI is testing the potential for creating business for educated youth around agro-advisory services through a **self-employed technical support system (STSS)** model



Supporting food supply systems (cont.)

- STSS aims to identify youth that can be trained in agricultural advisory services with specific focus on agro enterprises and driven by innovations using ICT tools and applications
- It is envisaged that STSS would run private agricultural advisory services serving commercially oriented farmers producing for markets that require compliance with certain quality and safety standards



Awards won in 2017

- Plantwise won two major awards:
 - St Andrews Prize for the Environment
 - Bond Development Award for Innovation





Thank you

*We wish to acknowledge the support of our donors,
as well as our national and international partners,
who make Plantwise possible*



Ministry of Agriculture,
People's Republic of China