

D Romney, N Perkins, C Finegold

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#### Introduction

- CABI works in key areas of technical competence including: plant health, management of invasive species, SPS and trade, production of commodity crops to deliver positive social outcomes
- Development communication and digital development are used to support the application of technical competences to address challenges such as:
  - Crop pests and diseases
  - Invasive species that threaten crops and the environment
  - Lack of food and nutritional security
  - Low incomes for smallholder farmers
  - Livelihoods that are vulnerable to shocks









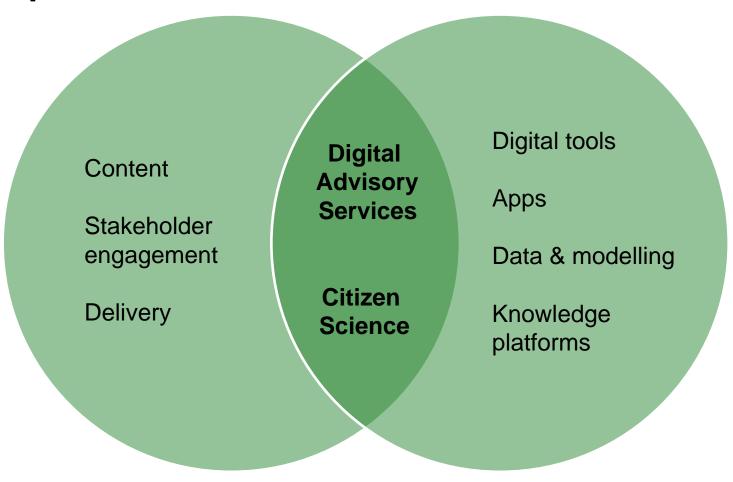
CABI envisions a world in which our development impact is magnified through digital innovation.

Digital tools allow us to work with communities to overcome agricultural challenges, fight invasive species and support resilient livelihoods while our user-centred approach helps us ensure that no one is left out of the opportunities provided by digital for economic development





## **Development Communication**



**Digital Development** 







Establish evidence base of what works and what doesn't

#### **Activities:**

- Integrate Action Research into programmes
- Implement After Action Reviews of key milestones
- Generate supporting resources for governments, civil society and the CABI partnership



Establish evidence base of what works and what doesn't

Goal 2: Develop innovative hybrid models

Multiple channels / formats based on context and audience

#### **Activities**

- Appraise environments including audience segmentation
- Address objectives with different timeframes: early warning; emergency; new technology
- Blend emerging digital technologies with more traditional extension services – mobilising local resources for sustainability and mixing approaches to achieve scale)



Establish evidence base of what works and what doesn't

Goal 2: Develop innovative hybrid models

Multiple channels / formats based on context and audience

**Goal 3:** Support entrepreneurship

Support value chains, input availability, market access

#### **Activities**

- Enterprise development addressed as a key part of agricultural transformation
- Raise awareness among policy makers of problems and solutions for transformation
- Develop guidelines for investors in new technology



Establish evidence base of what works and what doesn't

**Goal 2:** Develop innovative hybrid models

Multiple channels / formats based on context and audience

Goal 3: Support entrepreneurship

Support value chains, input availability, market access

**Goal 4:**Partnership building

Bridge local agendas and international expertise

#### **Activities**

- Map the institutional landscape around farmers and key partners:
  - Knowledge partners proven technologies or practices;
  - Input partners support input supply chains
  - Delivery partners use proven methods
  - Research partners support learning



Establish evidence base of what works and what doesn't

Goal 3: Support entrepreneurship

Support value chains, input availability, market access

Goal 4: Partnership building

Bridge local agendas and international expertise

**Goal 2:** Develop innovative hybrid models

Multiple channels / formats based on context and audience



## Case study: the power of mixed media campaigns



Total Number of Responses
1.118

Radio Stations

Radio Simba

Poll Duration

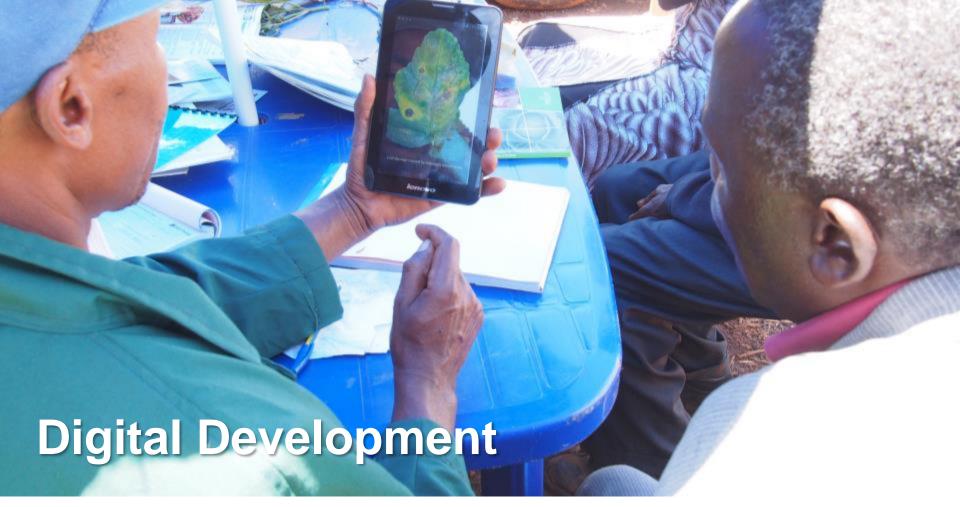
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- Combining media capitalises on different ways of learning e.g. campaign on soybean production in Ghana used: film screenings to set up a Q&A with farming families; print and radio to reinforce messages and, a partnership with a supplier to deliver inputs
- Farmer feedback can be solicited through radio and SMS e.g. Fall Army Worm information from radio managed polls in Uganda
- We have shown positive results e.g. farmers in Tanzania avoided losses by taking advice on managing pests, and sales of drought tolerant maize seed increased following an SMS campaign with 40,000 maize farmers

"Coupling inputs with extension information through mobile phones is critical to supporting small holder farmers ... no single agency will reach every one physically" **Meru Agrotours** 















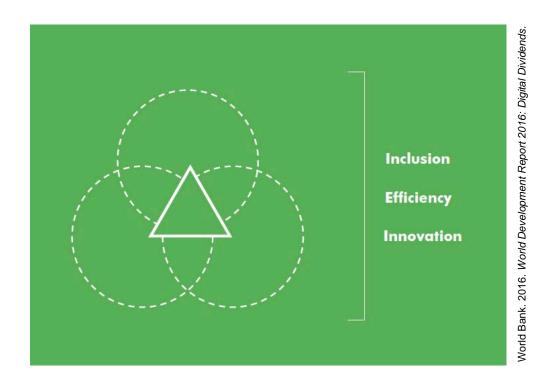






## **Digital Development – Background**

- Digital tools help farmers, extension workers, and landscape managers access information quickly and easily, make data-driven decisions about their activities, and communicate with each other
- Major opportunities improved scale/efficiency, enabling new innovations, involving youth in digitally enabled agribusiness and extension





## The Principles

- 1. Design with the User
- 2. Understand the Existing Ecosystem
- 3. Design for Scale
- 4. Build for Sustainability
- 5. Be Data Driven

- 6. Use Open Standards, Open Data, Open Source, and Open Innovation
- 7. Reuse and Improve
- 8. Address Privacy & Security
- 9. Be Collaborative

https://digitalprinciples.org/





# Digital DevelopmentCABI contribution

- Digital approaches to knowledge creation, management, and dissemination, and user centred design deliver high quality, sciencedriven, digital information resources and tools
- Skills, infrastructure, and information resources needed in our publishing business and our digital development work are complementary







## **Digital Development**

#### - CABI contribution

- Mandate from member countries keen interest in last round of regional consultation, featured in 2017-2019 Medium Term Strategy
- Well positioned to work with a wide range of partners to strengthen local capabilities for digital development



## Digital Development: CABI Goals and Activities

- Goal 1: Two-way communication channels based on digital tools empower stakeholders, leading to better decisions, increased engagement and improved livelihoods
- Goal 2: Harness the power of data to deliver solutions at scale, taking advantage of opportunities created by earth observation, sensors and modelling to automate analyses and generate targeted advice across huge areas

 Cross-cutting: Principles for Digital Development, gender, sustainability, user-centred design and co-creation



# Digital Development – Goal 1 (Two-way communication channels)

- Engage youth in agriculture and agribusiness through the development of digital tools supporting self-employment and other livelihood opportunities
- Combine CABI's ICT and development communication expertise in developing approaches to digital and digitally supported agricultural extension
- Continue to develop and support information resources and platforms, transforming scientific information into practical, actionable knowledge
- Develop systems for two-way communication and crowdsourcing, enabling end users such as extension workers to contribute citizen science data and drive the direction of the information services they use





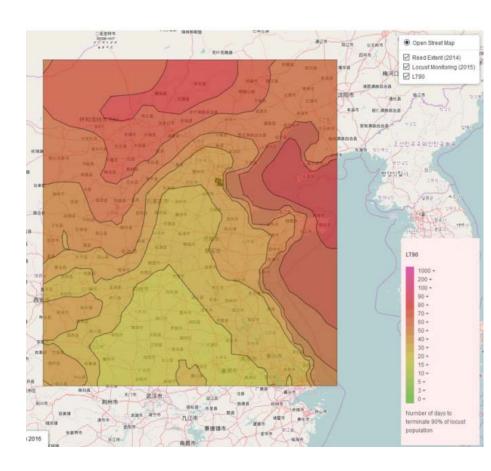
# Digital Development – Goal 2 (Data-driven solutions at scale)

- Use geospatial tools and spatial and predictive modelling to provide tailored agricultural advice and alerts; support landscape-level ecosystem management; help developing country farmers access markets; underpin climate change adaptation and strengthen programme design and monitoring and evaluation
- Taking a data-driven approach, we will be able to do all of this at scale by automating the generation of tailored insights
- Promote and build capacity for data use by partners, including data literacy, analytics tools, open data, data policy and responsible data approaches. We will undertake capacity building, consultancy and data policy work to support good data practice across the sector



## Case study: the power of geospatial work

- Improving pest monitoring and forecast information, integrating multi-source data to support decision making in sustainable management of locusts and wheat stripe rust
- Locust body temperature and conditions in reed beds ground-truthed against Earth Observation (EO) data products
- Satellite-driven real-time maps predict biopesticide time-to-kill, optimising application timings to support the uptake of biopesticides at scale







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