

POSITION STATEMENT



Digital Development

CABI envisions a world in which our development impact is magnified through digital innovation in agriculture and the environment. Digital tools allow us to work with communities to overcome agricultural challenges, fight invasive species and support resilient livelihoods and enhanced food security, while our user-centred approach helps us ensure no one is left out of the opportunities provided by digital for economic development.

Background

Development in a digital world presents great opportunities for supporting sustainable agriculture and environmental management by improving the scale and efficiency of a variety of activities and opening doors to innovations. As youth involvement in agriculture becomes an increasing priority in many countries, information communication technology (ICT) can provide opportunities to engage youth in digitally enabled agribusiness and extension.

Digital tools help farmers, extension workers and landscape managers to access information quickly and easily, to make data-driven decisions about their activities and to communicate with each other. In many countries, most farmers do not yet have access to smartphones or the Internet. The use of mobile services, as well as targeting intermediaries such as extension officers, helps us reach this population. Innovative new technologies such as image recognition, machine learning, and the Internet of Things also hold significant potential for agriculture, and we are exploring potential uses.

In recognition of the importance of digital development, several major donors (including DFID, BMGF and USAID) have recently published new strategies and guidance notes on digital development and digital agriculture. The Principles for Digital Development, developed by a core group of donors and implementing agencies, lay out best practice guidelines based on lessons learned to date. These have now been endorsed by 100 organisations, and DFID requires digital initiatives in their portfolio to abide by the principles. While there is no specific Sustainable Development Goal (SDG) focusing on ICT or data, several of the indicators of SDG17 (Partnerships for the Goals) focus explicitly on the role of these digital tools in underpinning the achievement of all of the SDGs.

CABI's contribution

- CABI has a mandate from our member countries to build our work in digital development. ICTs and open data, as well as digital approaches to extension, communication and information, are all highlighted in the 2017–2019 Medium Term Strategy
- CABI's expertise in the areas of knowledge creation, knowledge management and knowledge dissemination has become increasingly digitised. Combined with our user-centred design skills and our technical capabilities, this expertise allows us to engage in co-design processes with partners to deliver high quality, science-driven, digital information resources and decision support tools for farmers, extension workers and other stakeholders
- CABI has greatly expanded the use of ICTs in our development work. The introduction of tablet-based apps as part of CABI's Plantwise programme has increased annual clinic data volume by 70%, and provided instantaneous access to plant health information to over 1000 plant doctors worldwide. The inclusion of chat apps has connected plant doctors to diagnostic experts and resulted in several new pests being spotted at plant clinics and reported to the appropriate authorities
- CABI is in a unique position for digital development work. The skills, infrastructure and information resources needed in our publishing business and our digital development work are complementary, and we are able to leverage skills from different areas of the organisation
- CABI's experience in building digital skills and data literacy through GODAN (Global Open Data for Agriculture and Nutrition), Plantwise and other initiatives positions us well to work with a wide range of partners to strengthen local capabilities for digital development



CABI's goals and activities

To achieve this vision, CABI has laid out high-level goals to ensure the effective application of digital tools, data and human-centred design in the improvement of livelihoods, food security and ecosystem management. In doing this, we will apply international best practice and build on the existing body of knowledge and lessons learned by endorsing the **Principles for Digital Development** and focusing strongly on **gender**, planning for **sustainability** from the start, and involving stakeholders in **user-centred design** and co-creation processes.

GOAL 1

Two-way communication channels based on digital tools empower stakeholders, leading to better decisions, increased engagement and improved livelihoods

This goal aims to use digital tools to ensure that stakeholders are able to access scientific evidence, make sound decisions and share information. In particular, CABI will:

- Engage **youth in agriculture and agribusiness** through the development of digital tools that capture their interest and support entrepreneurial and innovative approaches, creating opportunities for self-employment at various points along the value chain. This will also help rural youth stay in their communities by empowering them to create their own livelihood opportunities
- Combine CABI's ICT and development communication expertise in developing approaches to digital and **digitally supported agricultural extension**, using digital tools such as apps, chatbots and decision support tools to overcome barriers, for example low extension agent-to-farmer ratios and the lack of appropriate information material
- Continue to develop and support **information resources and platforms** such as the Plantwise Knowledge Bank, the Invasive Species Compendium, and AgPortal, leveraging CABI's unparalleled expertise in transforming scientific information into practical, actionable knowledge and delivering it to the users who most need it
- 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. This will improve the quality and granularity of CABI's datasets, allowing us to provide tailored information and advice at scale



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

This goal aims to enable CABI, our partners and our customers to make data-driven decisions in agriculture and ecosystem management. In particular, CABI will:

- Use **geospatial tools and spatial and predictive modelling** to provide tailored agricultural advice and alerts (e.g. satellite-driven pest alerts); support landscape-level ecosystem management (e.g. monitoring the spread of invasive species); help developing country farmers access markets (e.g. support horizon scanning and pest risk analysis); underpin climate change adaptation (e.g. prepare for future pest distribution); 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

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