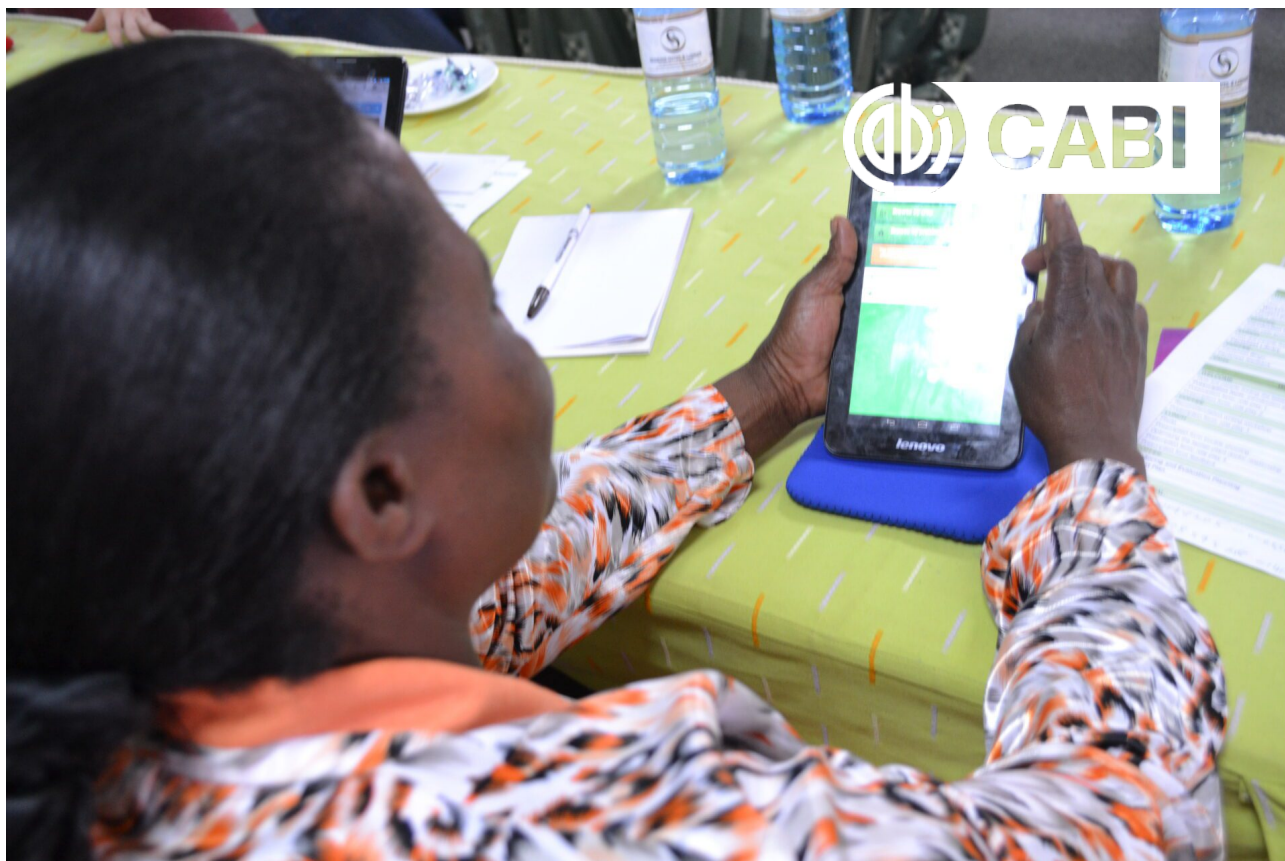




DEVELOPMENT OF FARMER-FRIENDLY PLANT HEALTH DIGITAL CONTENT FOR SMALLHOLDER FARMERS IN KENYA

Locations Kenya

Dates 01/04/2021 - 31/08/2021

Summary

Digital technology has the potential to improve farmer livelihoods through access and utilization of agricultural digital platforms and digital online content across the agricultural value chain. However, despite the rapid global interest and growth of digital services, smallholder farmers face challenges that hinder them from realising the benefits of new and existing digital services, particularly in the areas of crop pests and disease management. Some of the challenges which farmers face include a lack of knowledge, poor mobile internet connectivity, limited finances and skills gaps, especially among women. In this project, CABI developed farmer-friendly, digital plant health content for six main crops with the aim of improving access and encouraging the use of digital resources to enable sustainable agriculture production and food security.

The problem

With a rise in the development and application of digital technologies, their potential to support sustainable agriculture and the opportunity to improve livelihoods is significant.

In agriculture, digital resources including digital content, apps, websites, smartphones, are now a way for smallholders to access up-to-date, real-time information, either first-hand or through advisory services, in a new way that will only enhance their decision-making and ability to improve yields.

With pests and diseases cause devastating losses. Digital technologies pave the way for smallholder farmers to identify problems early and effectively manage them.

But, despite the rapid growth in access and utilization of digital services, smallholder farmers face challenges that limit their access and benefits from new and existing digital services.

An assessment, by the African Centre for Women, Informations and Communications Technology (ACWICT) to assess user needs, barriers, critical success factors and opportunities in the use and development of locally-relevant digital content for excluded or underserved agricultural farmers in Laikipia County in Kenya, revealed that there is high interest in digital agricultural content but low usage of digital agricultural platforms and content such as crop production, and general agricultural information such as weather and floods, inputs, pest controls. This is due to a lack of knowledge, poor mobile internet connectivity, limited finances and skills gaps, particularly among women,

Access by farmers can be improved by building the capacity of farmers and providing content that is based appropriately on their level of knowledge and skills. This involves taking into consideration the gender constraints, especially women, who, in the study, were found to have limited digital skills.

Therefore, development initiatives need to consider target audience user needs, access barriers, critical success factors and common models and opportunities to develop, and use, locally available content for better utilization.

What we are doing

The overall aim of the project was to improve access and utilization of relevant digital agricultural content for sustainable agricultural production and food security in the Laikipia County of Kenya.

The project enhanced farmers' digital skills by training farmers on basic internet usage skills, digital money transactions skills and intermediate digital skills on how to use platforms and by providing access to relevant digital agricultural content aligned to priority information needs identified as farmers' pain points through the ACWICT bundled service platform.

Key activities of the project included:

- Developing farmer-friendly, plant health advice for six main crops: maize, potatoes, beans, peas, onions and tomatoes that included content on pest and disease management (identification, symptoms and recommendations for management)
 - Maize: fall armyworm, Maize Lethal necrosis Disease (MLND), Maize stalk borer and maize streak virus
 - Potatoes; Early blight, Late blight and Red Spider mite
 - Beans: Bean fly, bean aphids, bean rust and bean anthracnose
 - Green grams: Powdery mildew, Rust, Pod borer and aphids
 - Onions: Onion purple blotch, onion thrips, downy mildew of onion and Oxalis weed in onion
 - Tomatoes: Late blight, bacterial wilt, blossom end rot and tomato leaf miner (*Tuta absoluta*)

- Uploading content to the ACWICT bundled service platform
- Providing technical support and advice for the four most common pests and diseases for the crops on the ACWICT bundled service agricultural platform

Results so far

The underserved and excluded farmer communities in the Laikipia County (including women and youth) are now digitally included and able to use available, locally-relevant digital agricultural content and resources for sustained community development.

An agricultural information resource centre has also been established in the Laikipia County to provide agricultural information services to the farmers within the community.

Donors

UK Government prosperity fund through the African Centre for Women, Information and Communications Technology (ACWICT)

Partners

Digital Green, DigiFarm, Kenya Agricultural Livestock and Research Organisation (KALRO), Acre Africa

CABI Project Manager Henry Mibei

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