

INNOVATION FUND

Enhancing farmers' uptake of digital technologies through empirical research, innovation and policy intervention (EFUDTRIPI)

Parent project: Accelerating inclusive green growth through agri-based digital innovation in West Africa (AGriDI)

PROJECT COORDINATOR



Science and Technology Policy Research Institute, Council for Scientific and Industrial Research (CSIR-STEPRI), Ghana

PARTNER



Ministry of Food and Agriculture (MoFA), Ghana

LOCATION



Ghana

PERIOD



March 2022 – March 2024

EU FUNDING



EUR 160,000

SECTOR

Agriculture (food systems), ICT

KEYWORDS

Digital technologies, policy analysis, stakeholder engagement, digital companies, farmers, technology transfer, technology uptake, farmer, policy makers

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CHALLENGE

Several firms in Ghana are using digital technologies to provide services in the agricultural sector in the form of extension information, data capture, market linkages, and financial and product traceability services. These services are not well connected and coordinated to create synergies among critical agricultural actors to ensure that job opportunities in the agricultural sector for youth and women are attractive. The situation leads to low adoption of the technologies by farmer groups, limited incentives for agricultural digital service providers to improve their service delivery, as well as limited resources to effectively scale up such digital services. There is also poor internet connectivity in some farming communities and the seemingly high cost of internet service which makes it expensive for the farmers to patronise the service.



A farmer displaying a GPS equipment at his farm at Kparigu in the West Mamprusi District.

JUSTIFICATION

Agricultural digital policies are needed to support the deployment, uptake and scaling up of ICT for Agricultural Development (ICT4Ag) services among farmers, based on factual evidence from the field.

PERSPECTIVES

The project focuses on small, medium and large-scale farmers to generate evidence on the level of use of digital technologies and services by farmers and the impacts on their professional activities. The project identifies the enablers and constraints to the use and adoption of digital solutions, existing policy gaps, and the interventions policy makers and digital service providers should adopt to eliminate these constraints.



Interview with a female farmer in the community of Changnaayili in the Tamale Metropolitan District in the Northern Region.





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METHOD

A survey on farmers' uptake of digital technologies and services, focus group discussions and in-depth interviews with farmers in Ghana.

Ethnographic assessment of the quality of digital technologies and services available to farmers by monitoring, collecting and analysing information/services provided by service providers via, among others, digital platforms, WhatsApp groups, SMS and Interactive Voice Response.

Policy review and analysis to identify gaps and make recommendations to fill the policy gaps.

Discussion of findings with policy makers and digital product/service providers and collection of recommendations for addressing key and emerging issues.



Greenhouse farm at Nudo in the Asuogyaman District.

INNOVATIVENESS

The ethnographic approach of 'participant observation' is a qualitative research method that allows the project to collect and analyse socio-economic, cultural and technical information through direct observation and interaction with the farmers (physical or virtual), but also to assess the information obtained from the digital service providers to bolster their agricultural activities.

By this, the project will have access to different types of information that may not be easily accessible to outsiders and thus be able to better understand issues and tell the story more appropriately.

The project focuses on the users of digital technologies and assesses the level of usage, the types of technologies used, and the quality and security of the services received.

The virtual participation in the activities of the farmers through the digital platforms from agricultural digital service providers allows the collection and analysis of information that is currently not available in Ghana.



MINISTRY OF FOOD & AGRICULTURE REPUBLIC OF GHANA

EXPECTED RESULTS

Impact

- Adapted national policies facilitating the enhancement of farmers' access and uptake of good quality digital solutions in Ghana for improved farming practices.

Outcome

- Increased knowledge of policy makers in adapting or formulating national policies that promote the uptake of digital solutions by farmers.
- Increased knowledge of ICT4Ag (ICT for Agricultural Development) companies to develop, adapt and deliver quality, secured and more impactful digital solutions to farmers.
- Increased knowledge and understanding of farmers' usage of ICT and its impact on their operations and productivity.

Outputs

- Awareness created for policy makers on the status of digital technology usage among farmers.
- Awareness created for digital companies on the status of digital technology usage among farmers.
- Awareness created for farmers on the status of digital technology for usage in farming practices.

This project is one of 9 supported by the ACP Innovation Fund project: [AGriDI](#), a project implemented by the International Centre of Insect Physiology and Ecology (icipe) in Kenya, in partnership with the University of Abomey-Calavi in Benin, Gearbox Pan African Network in Kenya and Agropolis Fondation in France.

Contributing to a conducive environment for agri-based digital innovations, especially for women and youth farmers, and accelerating inclusive green growth in West African countries, [AGriDI](#) has selected 9 (third-party) projects that are implemented by academic and research institutions, ministries and government agencies responsible for ICT or science, technology and innovation, farmer cooperatives, MSMEs, and civil society organisations in Benin, Burkina Faso, Ghana and Nigeria.

[AGriDI](#) supports the development and scaling of the use of digital technologies for agricultural development, such as in the areas of soil mapping, agro-inputs, crop management, marketing, and policy making.

