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SIKIA

SAGCOT Integrated Knowledge and Information for Agriculture

2016 - 2020



The SAGCOT Integrated Knowledge and Information for Agriculture project (SIKIA) aimed at improving the livelihoods of smallholder farmers in the rice value chain in the SAGCOT area. SAGCOT stands for the Southern Agricultural Growth Corridor of Tanzania. Radio broadcasts inform smallholder farmers about weather conditions, while giving them the opportunity to register for reception of more specific services. These services range from growth stage-specific weather forecasts to agricultural advice. Agribusinesses can subscribe to SIKIA's Spatiotemporal Agribusiness Framework (SAF) to market their services to farmers and to receive information on farms and their operations.

1 NO POVERTY

2 ZERO HUNGER

8 DECENT WORK AND ECONOMIC GROWTH

13 CLIMATE ACTION

15 LIFE ON LAND

17 PARTNERSHIPS FOR THE GOALS

The project was carried out by TechForce Innovations (a consultancy firm from the Netherlands and the project lead), the Alliance for Green Revolution in Africa (AGRA, with headquarters in Kenya), Kilimo Trust (an NGO with a branch in Tanzania), and Milan Innovincy (a agricultural consultancy from the Netherlands). Kadaster International provided insights on measuring plots with GPS. For the development of several technical elements of the services different specialised companies were contracted.



Provided Services

Three services are offered by SIKIA: plot-specific crop advice, agribusiness support and agronomic advice. Plot-specific crop advice makes use of a combination of plot maps, processed and analysed radar satellite data and information on planting dates. The agribusiness support service links agribusinesses to the registered farmers in the SAF-platform and allows them to see the crop growth status and the weather forecasts of their areas of interest. The agronomic advice service sends weather forecasts twice a week to the registered farmers. The services were developed by making use of demonstration plots.

The SAF-platform is the core of the service provision. Farmers register themselves to the platform. This enables them to get

different types of crop advice for free, e.g. the weather forecasts. Those that sign up for the extended service receive more detailed weather information, advice on good agricultural practices and crop management, and market information. The agribusinesses that are connected to the platform are also paying customers. To serve these businesses a product was developed that gives near real-time information on the growth cycle of rice (every six days) and a prediction of crop growth in the next three weeks. This information is based on an analysis of different types of satellite data. Satellite data is also used as input for the weather forecasts.

The information is transmitted through phone text messages, but also by extension workers.

Business Model

The revenue model is based on farmers, who pay for detailed advice, and agribusinesses that pay for access to information and intelligence. This model has not yet delivered the desired results in terms of revenue generation. Milan Innovincy is the business owner and aims to license the use of the service to other providers. To attract more agribusinesses as clients, a cooperation with an organisation called Mbeya Rice Group was established.



Impact

SIKIA has developed a sound technical concept to support farmers in developing countries with digital advice. After the end of the project SIKIA continued to attract more Tanzanian rice farmers to its services. SIKIA also plans to add other services, such as the provision of micro-credits. There are plans to expand to Kenya (avocado) and Mozambique (cashew). Business development remains a weak point for SIKIA. The number of farmers that make use of the services is lower than the target.

It must be noted that the COVID-pandemic affected the results negatively. Still, it can be concluded that finding a sustainable business model should have been given more priority from the start of the project.

As SIKIA offers novel and innovative agricultural advisory services to farmers and agribusinesses with a clear added value, there are possibilities to create a sustainable business. A closer cooperation with the Tanzanian government in the framework of supporting national agricultural policy is one of the options.

35% of the trained farmers were female

60% of the trained farmers are estimated to have improved their farm operations

Approximately **32,000** farmers are registered to the service and receive weather information

> 400 agri-businesses are registered in the Spatiotemporal Agribusiness Framework system and linked to farmers

5,000 farmers were trained on good agricultural practices, post-harvest handling and farmers' business



Get inspired

The Geodata for Agriculture and Water Facility is a grant programme by the Netherlands Ministry of Foreign Affairs within the policy priorities for food security and water, which is executed by the Netherlands Space Office (NSO). G4AW established 25 public private partnerships in 15 countries to develop and support satellite based information services which positively impact the lives of smallholder food producers in developing countries.

g4aw.spaceoffice.nl



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