Rain for Africa Project (R4A)

The Rain for Africa (R4A) project makes a significant contribution to empowering the most important actors in the food production chain: the farmers.
The project aims to provide food producers with useful information at the right time to improve the quantity and quality of food production in a sustainable manner, and to alleviate local food insecurity.
Information from in-situ monitoring, earth observations with satellites, geo-data and modelling are used together with farming system details to provide agricultural advice at a specific location are updated on a daily basis. This will be accessible via the web and mobile technologies (computers, cellular telephones and tablets) to enable higher crop yields and more efficient use of seed, water, pesticides and fertilizer.

R4A uses a portal as a single access point for all historical, current and forecast weather information in Africa. The portal is fed by constant operational data streams through direct connections to many sources of meteorological data such as weather radars, satellites and automatic weather stations.
Applications using weather data integrated with expert agricultural knowledge have been developed for farmers, service providers and other potential clients at affordable prices which is also available for national weather services in Southern Africa.

Target user group

Inputs from Small-scale farmers were used to develop the "AgriCloud" mobile App through which they receive free agricultural related advice for their own fields such as planting and spraying. "AgriCloud" is also a useful tool for extension practitioners to obtain local planting and spraying information for a number of farmers at specific locations. AgriCloud also enables farmers to submit the current weather conditions.
The project aims to reach 125 000 small-scale farmers, thereby helping to increase income by 10% while also optimising input resources (water, fertilizer, pesticides) and increasing yields. The R4A partnership intension is to scale-up this initiative across sub-Saharan Africa to meet the information needs of a number of different users including local commercial, small-scale and subsistence farmers, input- and financial service providers, as well as national weather services. Additional applications will be developed and tailored for diverse user groups by means of various knowledge engines.

Business Proposition

The co-creation business model of the HydroNET " IT engine" encourages companies, institutions and governments to jointly develop information services to a wide range of users through web technologies, Apps, portals and mobile devices.

Agricultural advice based on weather information for use by farmers and other agri-business users, enhanced with locally collected data, giving timely advice on planting and spraying of crops


Photo Credit: ESA/ATG medialab

The HydroNET platform is currently licensed to 1 750 users in eight countries, including South Africa. The 'R4A platform' is tailored to meet specific individual requirements of applications and is continuously upgraded and validated in South Africa.Sustainability hinges on an innovative business model based on public/private partnerships and services charges based on user affordability.

Partnership

- Agricultural Research Council (South Africa)
- eLEAF (Netherlands)
- HydroLogic (Netherlands)
- HydroLogic Research Delft (Netherlands)
- Mobile Water Management (Netherlands)
- Royal Netherlands Meteorological Institute (KNMI) (Netherlands)
- South African Weather Service (SAWS) (South Africa)
- WeatherImpact (Netherlands)
- Water Authority Drents Overijsselse Delta (Netherlands)
- Wine Job (Netherlands)

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