

# Forecasting the onset of the rainy season for African farmers

Bob Ammerlaan\*, Fiona van der Burgt



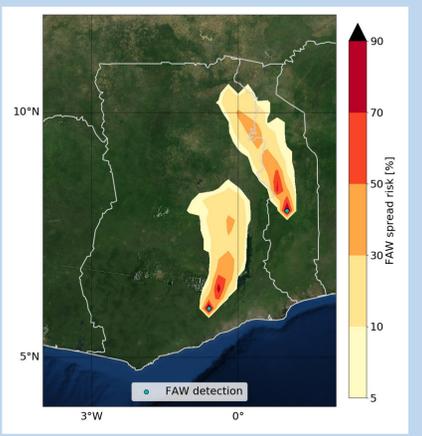
We provide weather forecasts to farmers in Africa and are investigating the onset of the rainy season and the skill of seasonal forecasts over Africa. As there is an increasing demand for seasonal forecasts, these forecasts have our increased attention.

We want to extend our services to farmers by providing skilful seasonal forecasts. We know how to reach the farmers. We need high quality input data. Work with us to help farmers improve their agricultural planning!

David Ngetich, Kenyan farmer: "I use the weather forecast to plan my farming activities. The onset of the rainy season is important for the planning of my planting date. If I could get a good seasonal forecast, I can even buy the seeds that are optimal for the coming season."

## FAW early warning system

In Ghana we run a fall armyworm (FAW) early warning system. The warnings are issued via voice-SMS in 15 local languages.



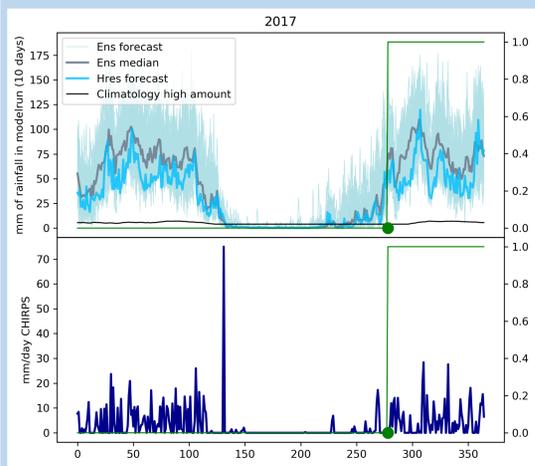
**Weather SMS**  
We provide SMS messages with weather information in 6 languages in Ethiopia, Kenya and Tanzania.

**AgriCloud app**  
The AgriCloud app gives farmers in South Africa farming advices in 11 languages based on high resolution weather data.



## Onset of rainy season

Using the method of Bombardi *et al.* (2017), we developed an algorithm to forecast the start of the rainy season. The algorithm uses the climatologic rainfall and combines it with the likelihood of rainfall exceeding a threshold.



# Weather Impact

## References

- Bombardi *et al.*, *Front. Earth. Sci.* 2017, 5, 14
- Richardson, *Pred. weather and clim.* 2006, 628
- Ratri *et al.*, *J. Appl. Meteorol. Clim.* 2019, 58.8, 1709

## About us

Weather Impact provides smart weather solutions to strengthen resilience of the African food producers. Our mission is to have a positive impact on food production and lower the risk of extreme weather and climate change in Africa. We provide small-scale farmers, commercial farmers and other stakeholders in the agricultural sector with access to high quality and local weather information.

[www.weatherimpact.com](http://www.weatherimpact.com) — [bob.ammerlaan@weatherimpact.com](mailto:bob.ammerlaan@weatherimpact.com)