

## Abstract

Title: The urgent need to establish satellite nowcasting throughout Africa

The countries of Africa need nowcasting services, in order to give people and organisations a few hours of warning of impending weather hazards. Satellite products have sufficient resolution and skill to provide life-saving information in every country, for many kinds of hazard, including organised convective storms and dust events. This need has been known for decades, while the satellite products have been available since 2006: without further delay, we need to create operational systems to get the information to people quick enough for them to make decisions.

I will review progress in using satellite nowcasting to benefit African people. The South African Weather Service has been deploying nowcasting effectively for a number of years. The GCRF African SWIFT project (2017-2022) demonstrated the effectiveness of satellite nowcasting in 4 countries of tropical Africa and as a spin-off, is now releasing nowcasting products on a smartphone app in Kenya – FASTA (<https://fastaweather.com/>) – soon to be expanded to other countries. The WISER-EWSA project is working with urban user communities in Southern Africa to ensure that organisations and people are able to make use of short-range nowcasting warnings to protect themselves. In parallel with these efforts, global corporations such as Google and Microsoft are actively developing AI-based nowcasting for the whole world. I will argue that we need to invest in African skills to develop such methods locally, and to serve a commercial market for sustainable rainfall nowcasting within the continent.