

## **Probabilistic rainfall predictions for tropical agriculture in West Africa**

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### *Abstract:*

Accurately predicting convective rainfall is a meteorological challenge with implications for billions of people in the Tropics, including West Africa, where agriculture is extremely rain-dependent. Addressing this, Ignitia developed a high-resolution numerical ensemble prediction system for tropical rainfall predictions. Ignitia reliably predicts the rainfall's spatiotemporal distribution allowing for improved lives and livelihoods in West Africa. Through its forecast product "iska", Ignitia provides location-specific, SMS-based 48-hour probabilistic rainfall forecasts to about a million daily users across West Africa. The enabling of better-informed decisions through "iska" allows West African farmers to reduce crop-losses while increasing yields by 60% on average as found from field surveys.