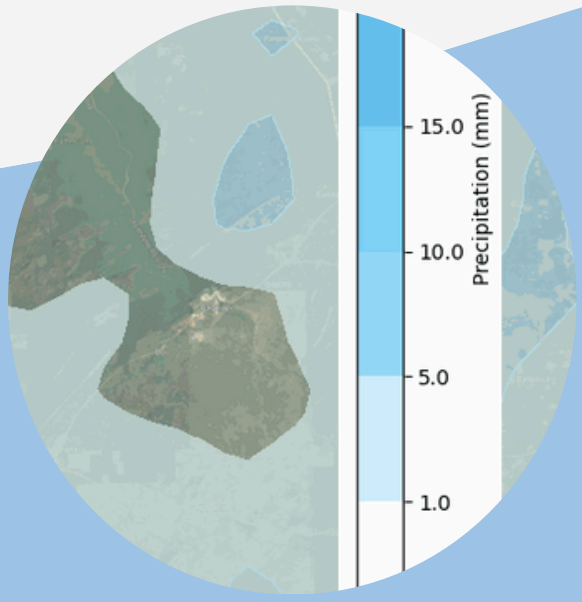
# TEMBO Africa

**Transformative Environmental Monitoring to Boost Observations in Africa**

## Rainfall Maps




### Overview

TEMBO Africa Rainfall Maps provide information about precipitation height in mm, representing the depth of water that would accumulate on a flat surface, if all rain remained where it fell. They offer a spatial resolution of 5 km and update every 3 hours, and are produced at basin and (sub-)continental scale. For this purpose, they make use of data from TAHMO hydrometeorological stations, satellites, commercial microwave links, X-band radar, intervalometers and GNSS, where appropriate.

### Where?

Rainfall maps can be applied anywhere in Sub-Saharan Africa under the condition that sufficient TAHMO stations are present in the area of interest.

### For whom?

Ideal for flood early warning providers, dam managers, agriculture insurance providers, water authorities, agri-finance providers, and meteorological agencies.

### Smart Rainfall Data for smarter decisions

🌧️**Timely** and **precise** information for decision-making related to water management, agricultural insurance and hydropower provision.

🔍High **resolution**.

🔁Frequent **updates**.

💸**Cost-effective** generation of the desired information.

📊Combination of **different data sources**.

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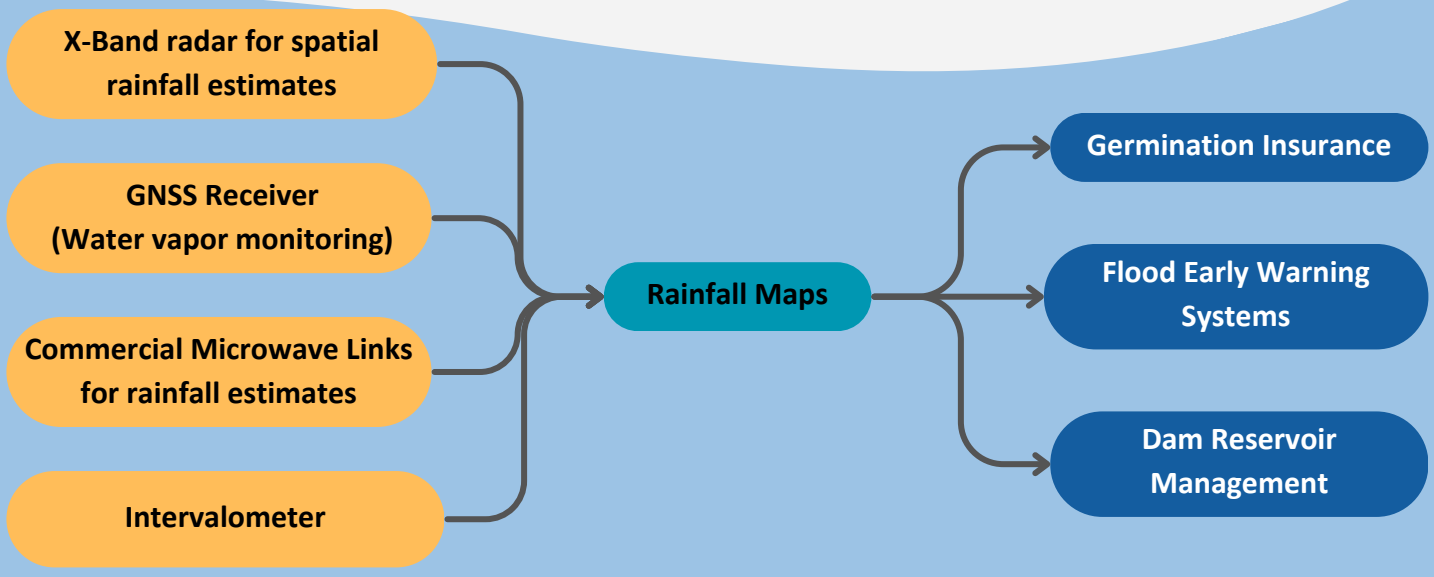
## Flexible, customizable, and adaptable!

**TEMBO Rainfall Maps** are characterised by a "Lego®-ised" approach, integrating a range of **sensors** and enabling customisation and application under different conditions and needs, while can be leveraged by all **TEMBO services**.




Specifically:

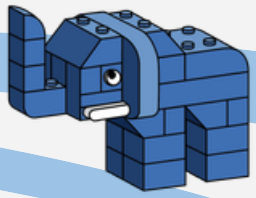
- X-Band Radar provides fine-scale spatial rainfall estimates with fast update rates.
- GNSS Receivers monitor atmospheric water vapor, improving rainfall prediction accuracy.
- Commercial Microwave Links offer cost-effective, real-time rainfall measurements by analyzing signal attenuation between mobile towers.
- Intervalometers deliver ground-truth rainfall intensity and type data at key locations.

All these inputs are assimilated, and combined with data from the GFS Global Model for the selected area, utilising a weather forecasting model. Following, a post-processing step refines the forecasts to produce Rainfall Maps.

### Partners involved in Rainfall Maps

TU Delft · MicroStep-MIS · TAHMO · AgroApps

## Contact us and learn more!



temboafrica.eu · info@temboafrica.eu · TEMBO Africa