

SASSCAL WeatherNet – Regional climate observation for climate service provision in Southern Africa

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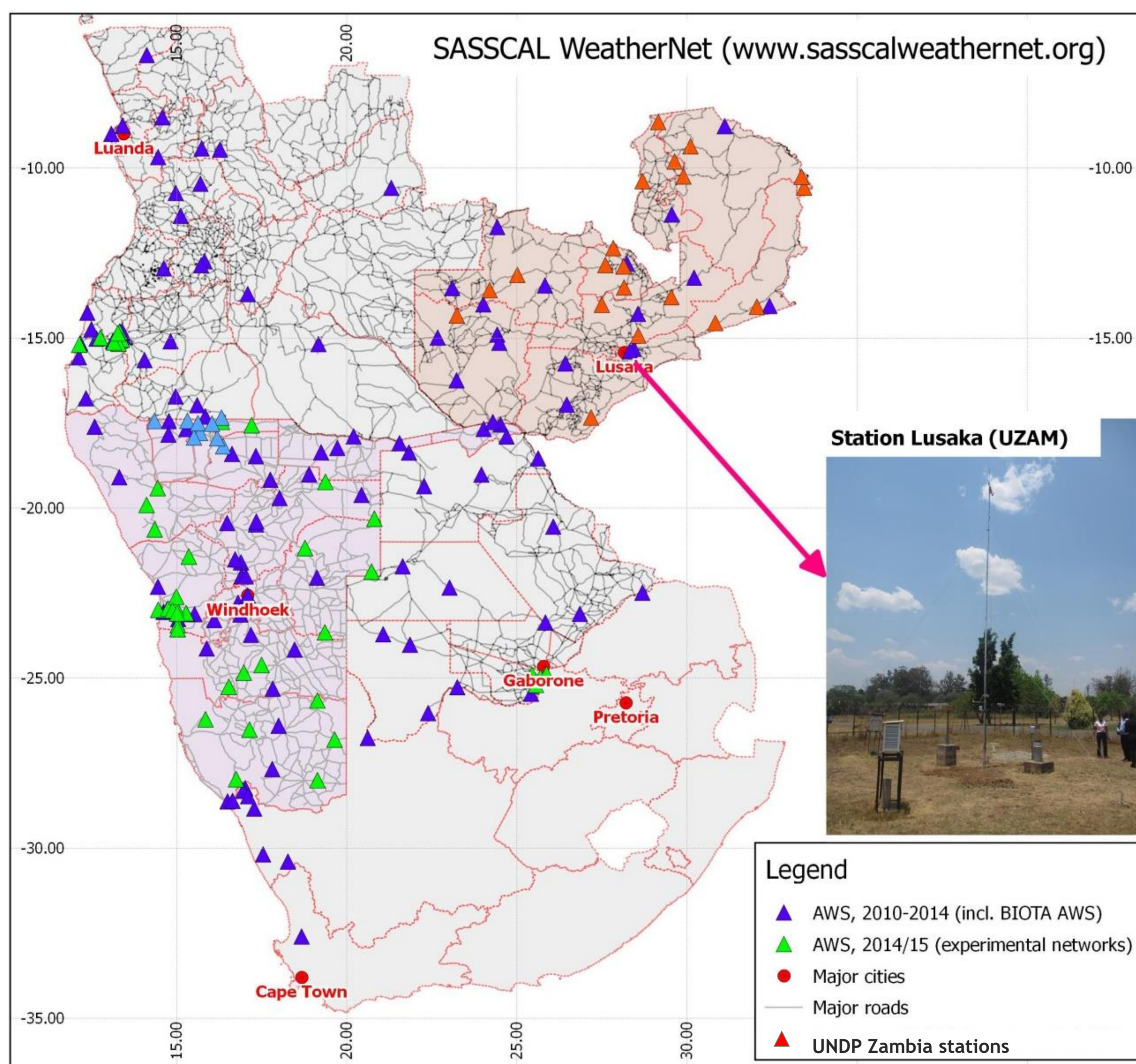
Introduction

Considering projected climate and socio-economic development for Southern Africa, a major challenge in southern Africa is to find mechanisms to adapt to climate change and to secure water at sufficient quality and quantity for both, human well-being and the stability of ecosystem functions and services. Many countries of southern Africa face inadequate monitoring networks to provide reliable data for the development of efficient management strategies for sustainable water and land resources management, drought and flood risk analyses and forecasts, but also climate change impact assessments. The Southern African Science Service Centre for Climate Change and Adaptive Land Management (SASSCAL; www.sasscal.org) addresses this deficiency and complements the national

monitoring efforts by operating the SASSCAL WeatherNet which provides a consistent and freely accessible data set at regional scale.



SASSCAL WeatherNet: Station network



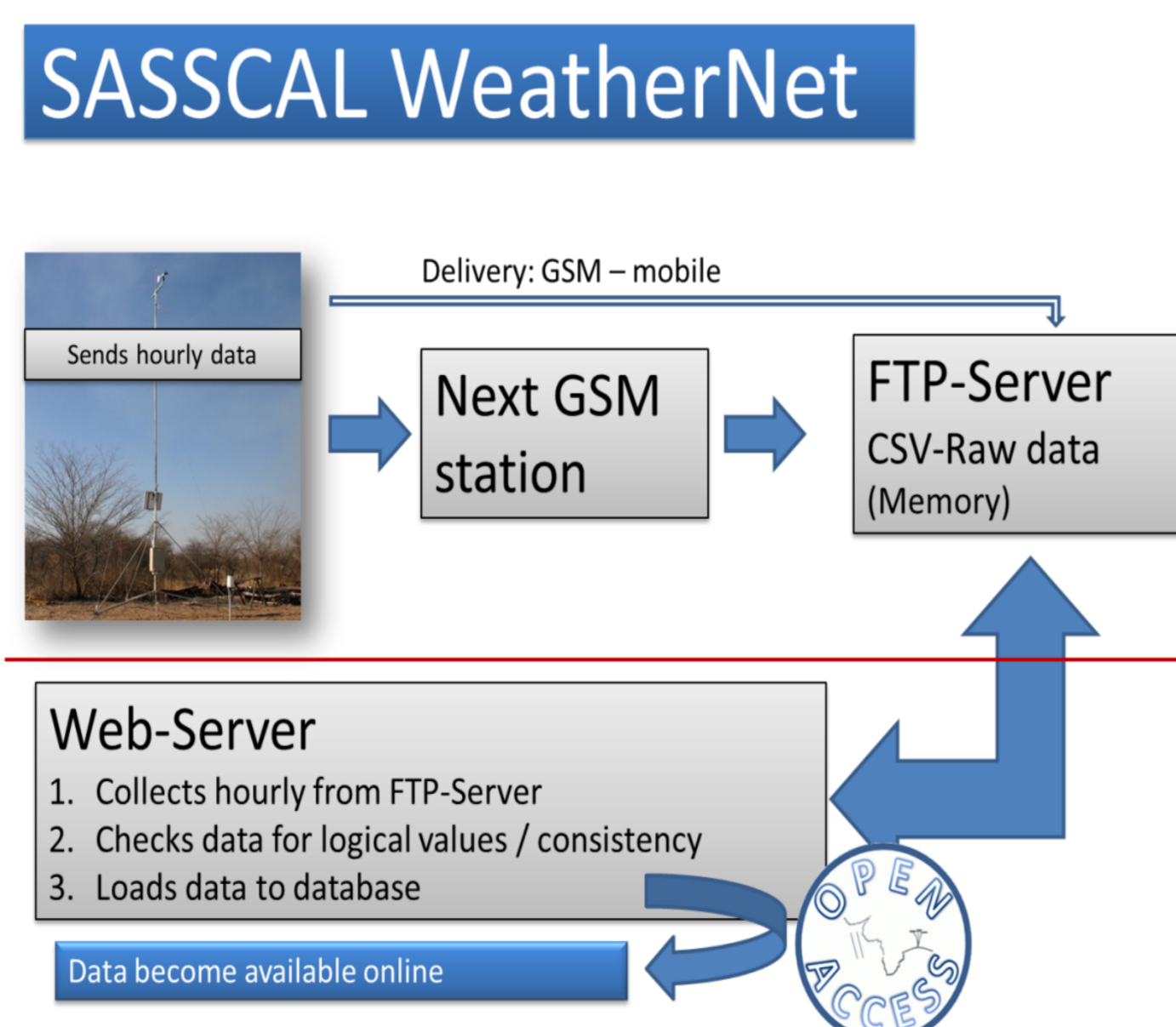
- More than 140 weather stations installed since 2010
- Recording rainfall, air temp, solar radiation, pressure, relative humidity, wind speed/direction, soil temperature (+ optional parameters)
- Resolution: 15-mins, hourly, daily, monthly

WeatherNet website: www.sasscalweathernet.org

- station overview with up-to-date rainfall/temperature (a)
- station information sheet incl. position, google earth link, sensor setup, installation date (b)
- e-mail-based daily weather report, 70 users (c)
- near real-time data (hourly) (d)
- daily and ten days rainfall summaries (d)
- export functions (e,f)
- various statistics for selected variables like e.g. diagrams for selected variables (e,f)

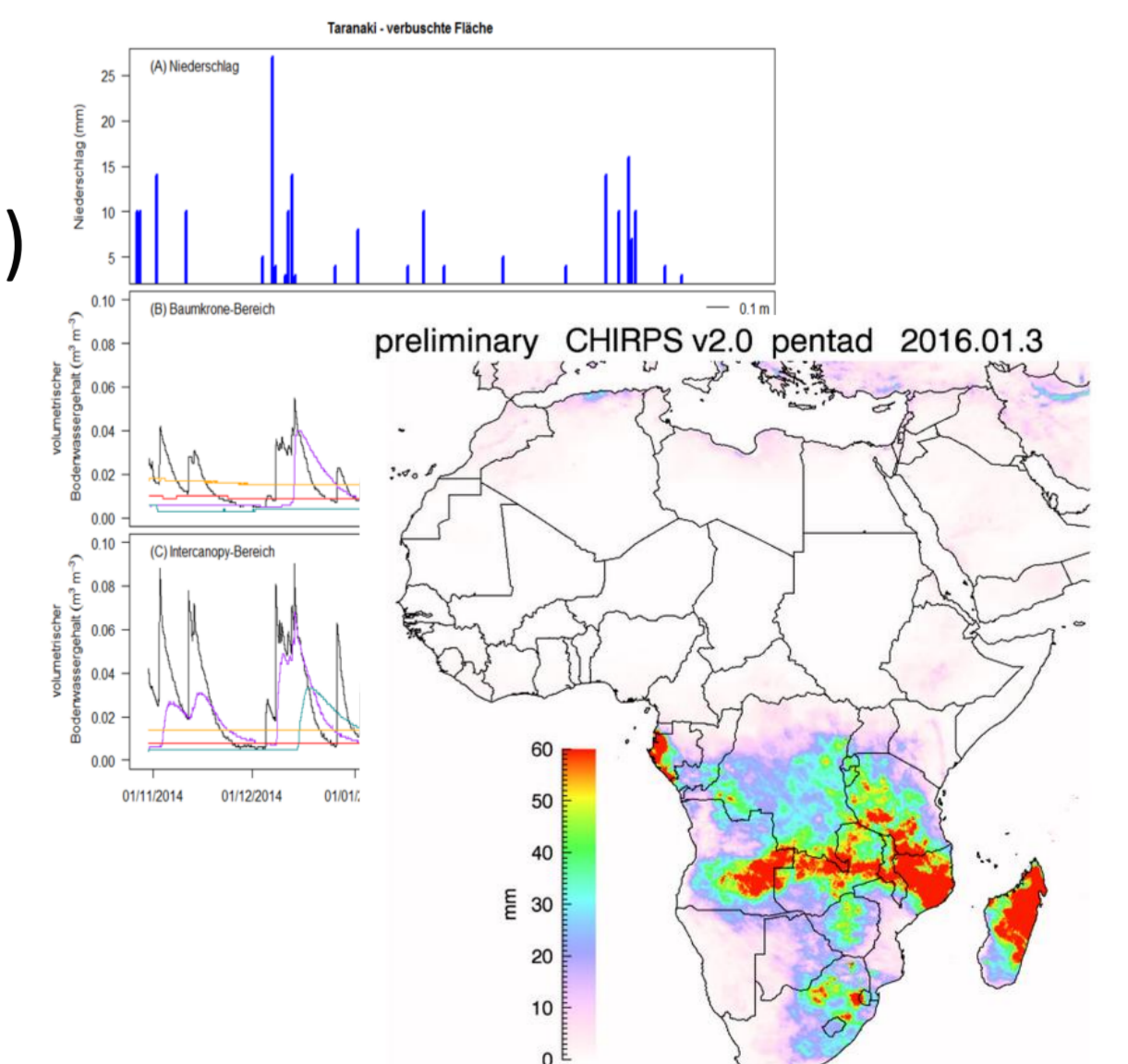
Data transmission/access

- Transmission via GSM/GPRS or Meteosat (7 systems)
- Temporal resolution of data: 15 min, hourly
- Near real-time data availability
- Automatic checks
- Data repositories and backups at each national weather service and SASSCAL
- Open Access to data



Users and stakeholders

- Scientific applications (among others)**
- process research (e.g. hydro, biodiv, agric)
 - climate modelling and forecast
 - fog studies, yield forecast
- Operational applications**
- FEWSNET/CHG/USGS
 - WMO
 - Ministries (MAWF Namibia)
 - weather forecast, flood warning
- Public users**
- radio channels, farmers, lodge owners



Funded by



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