

Enhancing National Climate Services (ENACTS) in Africa

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Outline

I. The Challenges

II. The ENACTS Approach

- 1. Improving Data Availability**
- 2. Improving Access to Climate Information**
- 3. Improving the Use of Climate Information**

III. Major Outputs

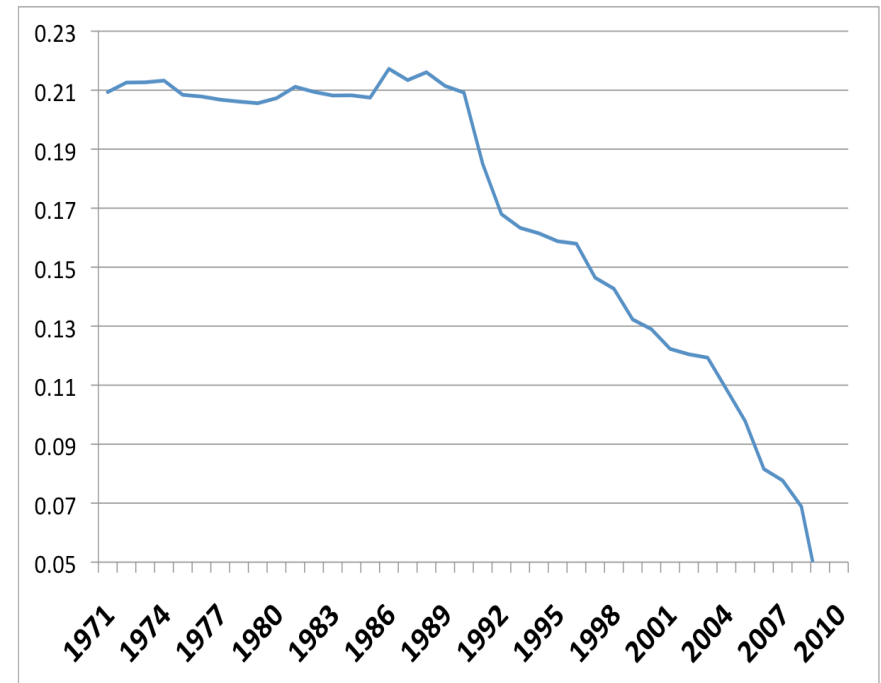
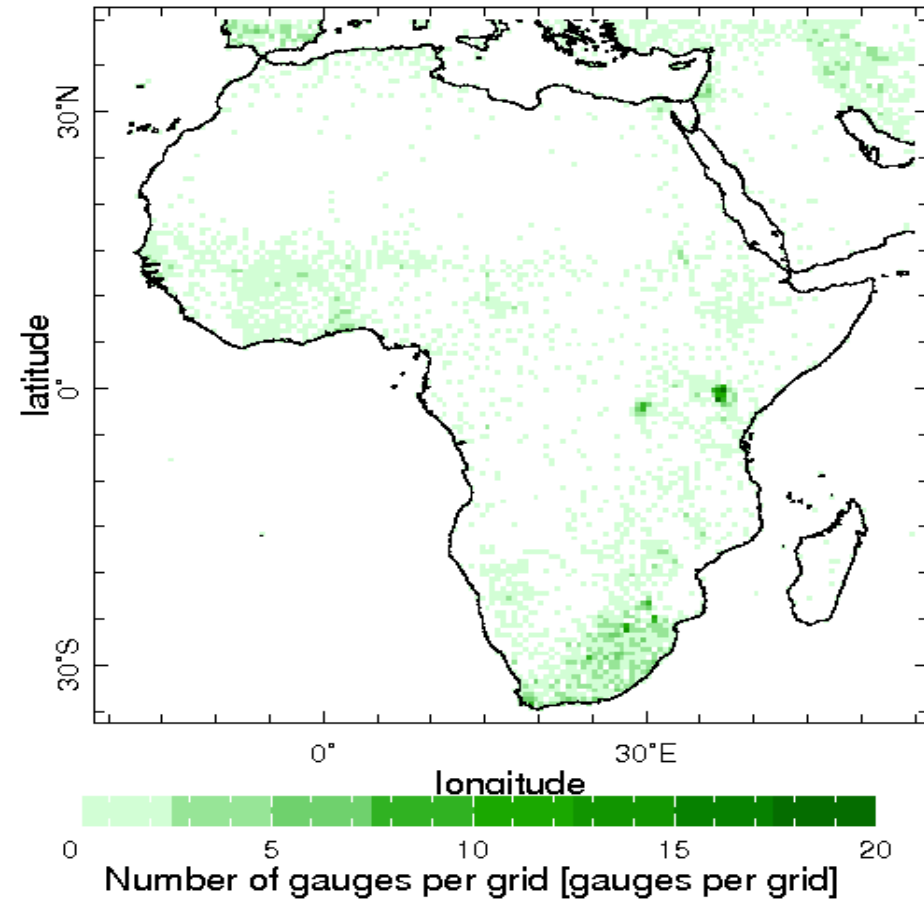
IV. What is next?

I. Major Challenges

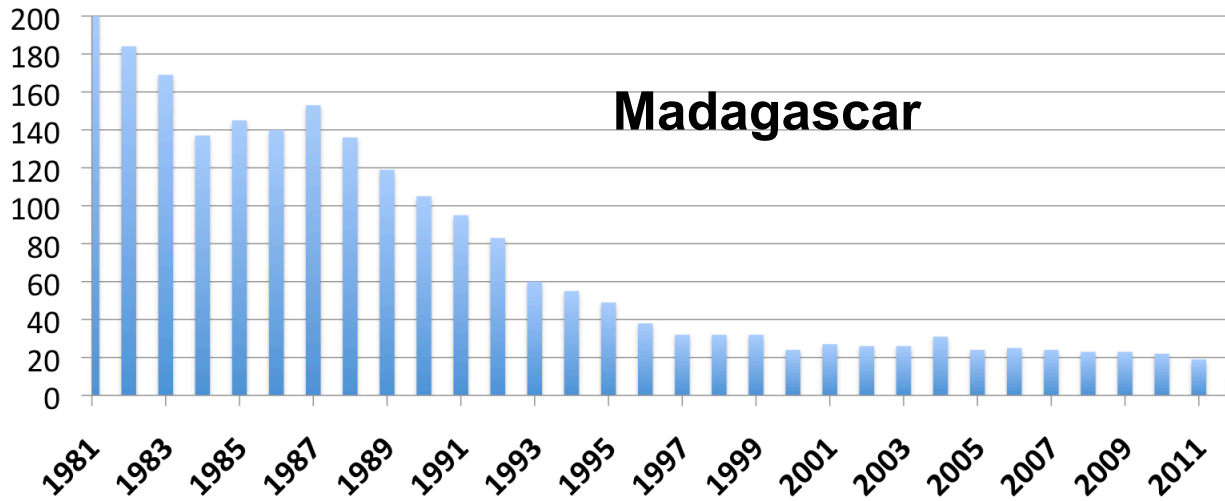
- Number of weather stations not adequate over many parts Africa
- Most stations are located along main roads
 - ➔ Limited availability climate information and services to the rural community
- Serious gaps in observations (missing data)
- Questionable data quality
- Limited access and use of the available data

Sparse and Declining Observations Network

Average(1971-2010) number of stations in a 50kX50km grid box used for the GPCC gridded rainfall dataset

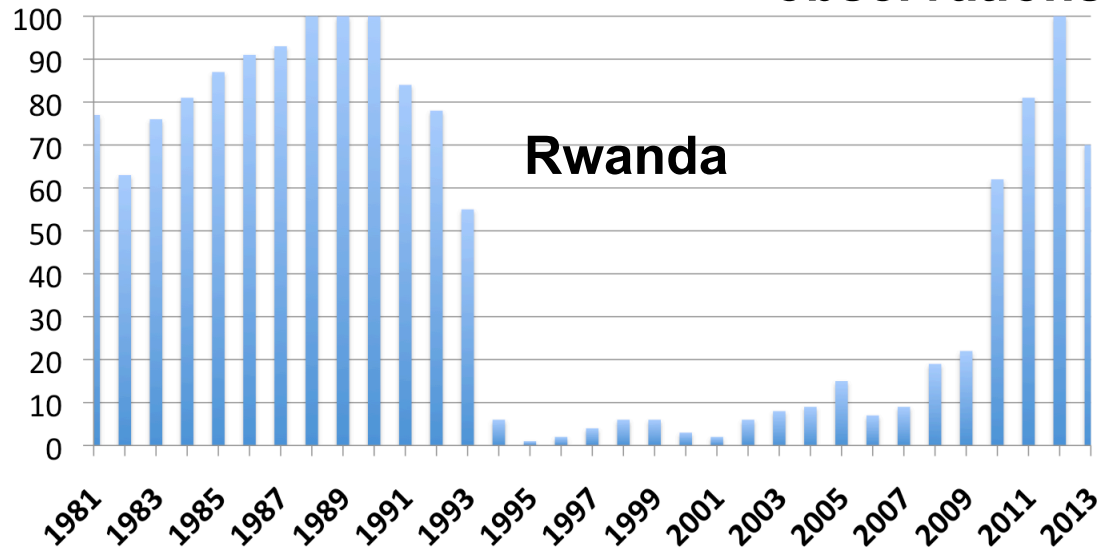


Challenges at National levels



Declining station network

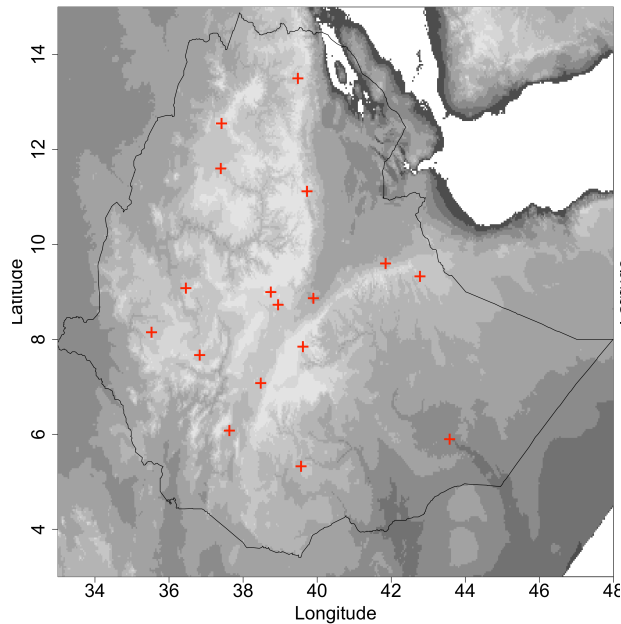
Average number of stations reporting each year



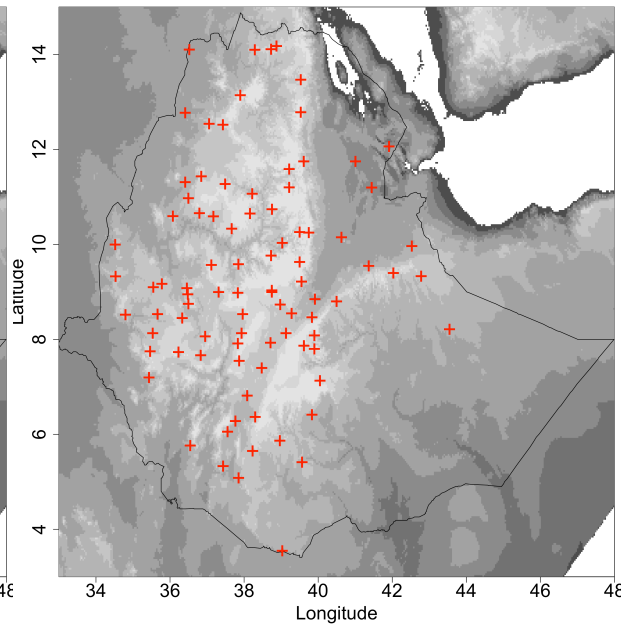
Disruption in observations

Opportunities

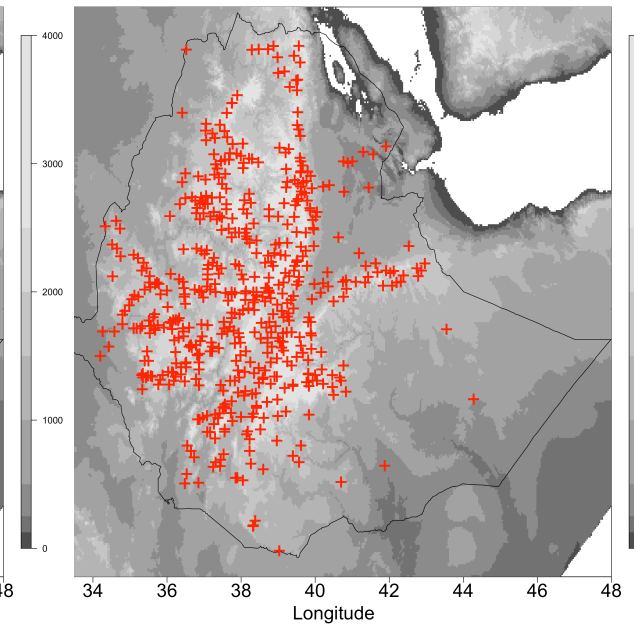
However, most NMS have much more data than what is accessible outside the country/NMHS



Synoptic/GTS stations



Operational stations



ENACTS stations

II. The ENACTS Approach

- Strives to simultaneously improve availability, access and use of climate information.
- Works with NMHS to quality-control all available station data and combine them with satellite and reanalysis products.
- The main focus of ENACTS is creation of reliable climate information for **local decision-making**.

The Three Pillars of ENACTS

ENACTS

Improve Availability

- Build capacity of NMHS
- Quality Control station data
- Combine station data with proxies
- Improve seasonal forecast

Enhance Access

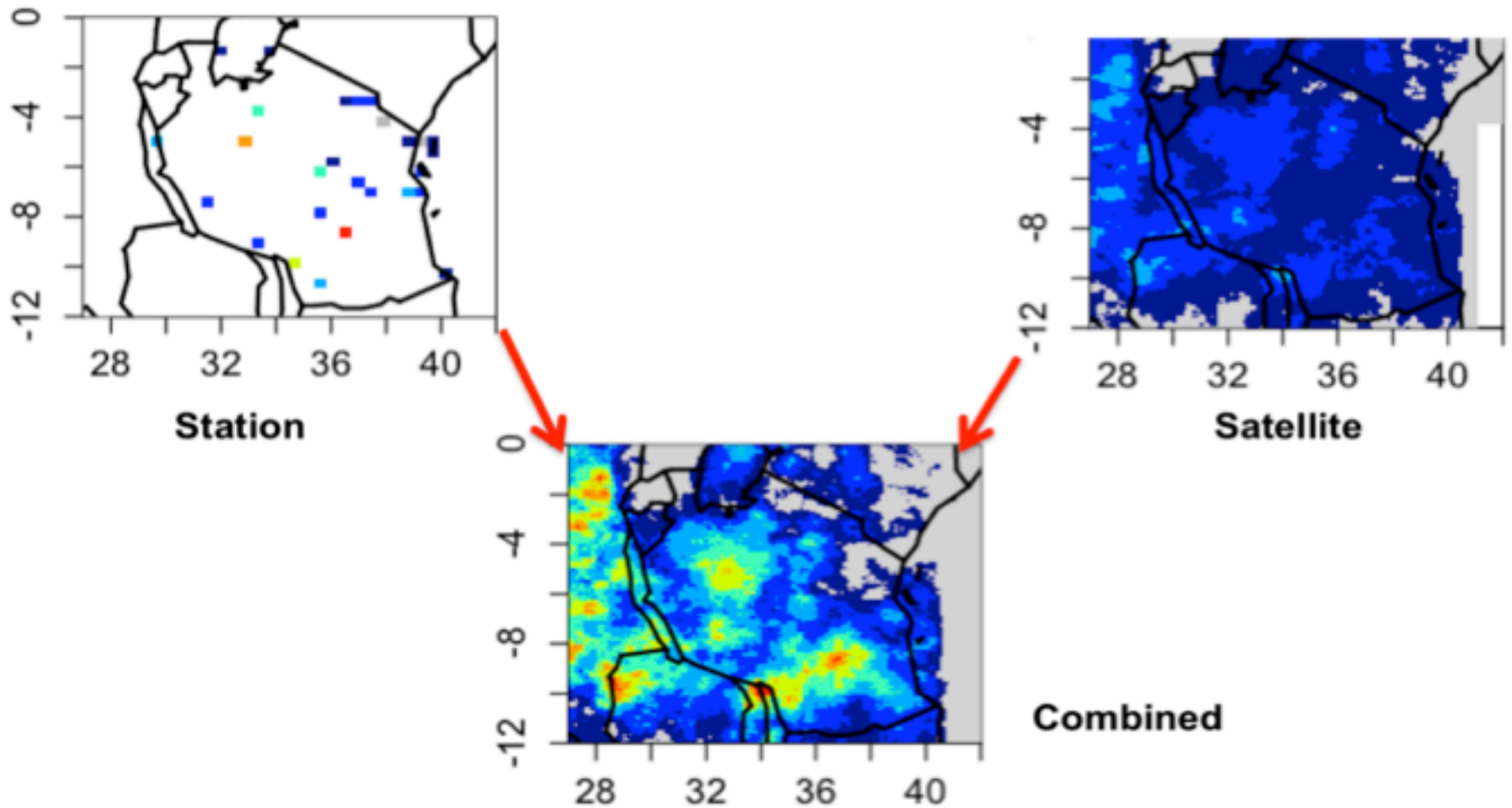
- Install IRI Data Library
- Develop online tools for data analysis and visualization
- Create mechanisms for data sharing

Promote Use

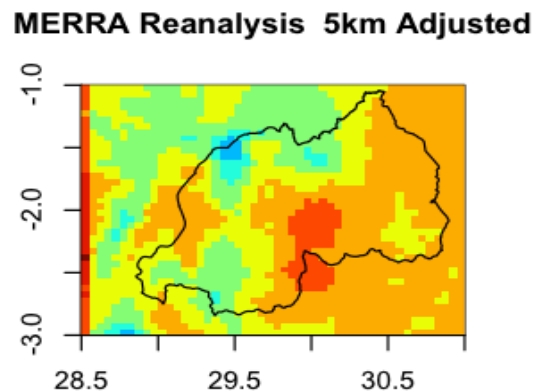
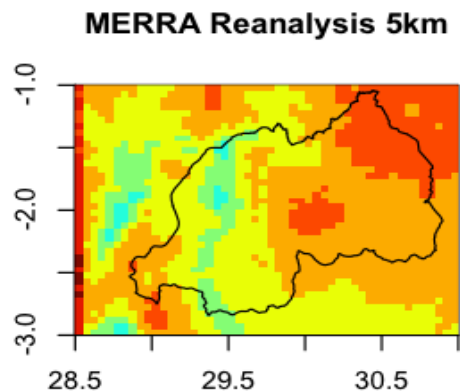
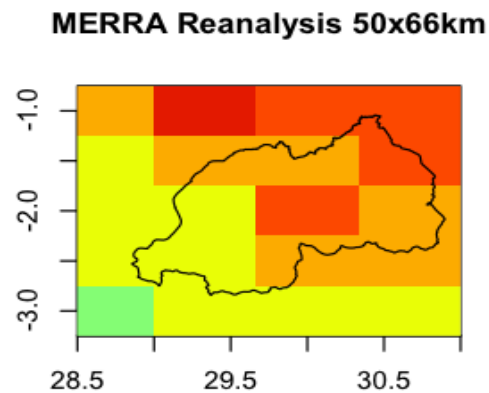
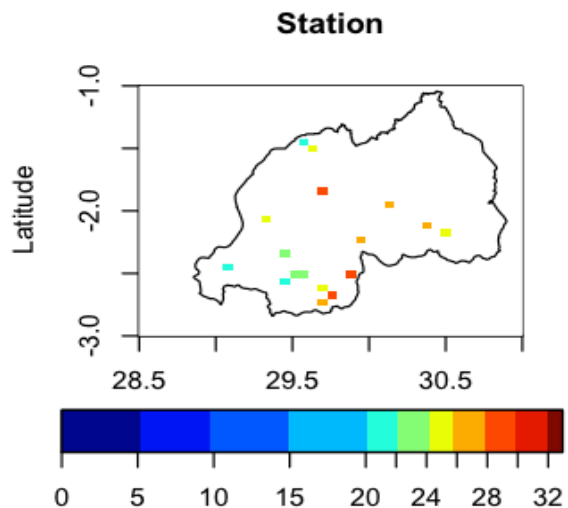
Engage users:

- *Raise awareness*
- Build capacity of users to understand and use climate info
- Involve users in product development

1. Improving Availability: Data Blending



Improving Availability: Example of Rwanda TMax



2. Improving Access: Map Rooms

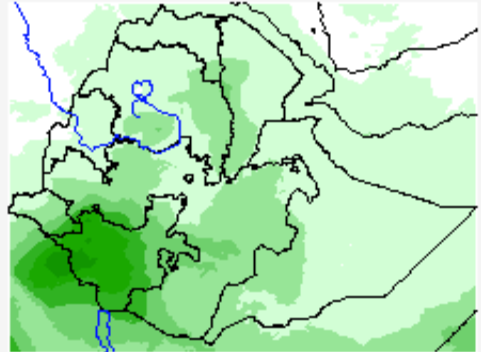
Data + IRIDL =

Climate Analysis | Climate Monitoring | Climate Forecast

Climate Analysis

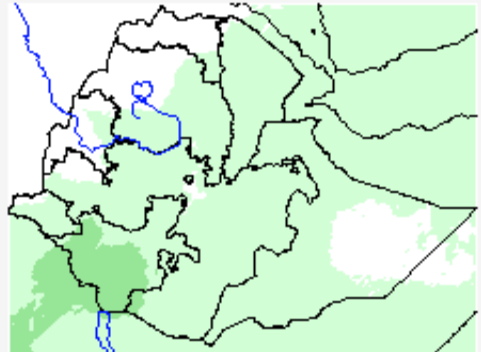
Monthly Climate Analysis

Rainfall and temperature time series (1983-2010) reconstructed from station observations and remote sensing proxies. This interface allows users to view rainfall, maximum and minimum temperature climatologies and anomalies.

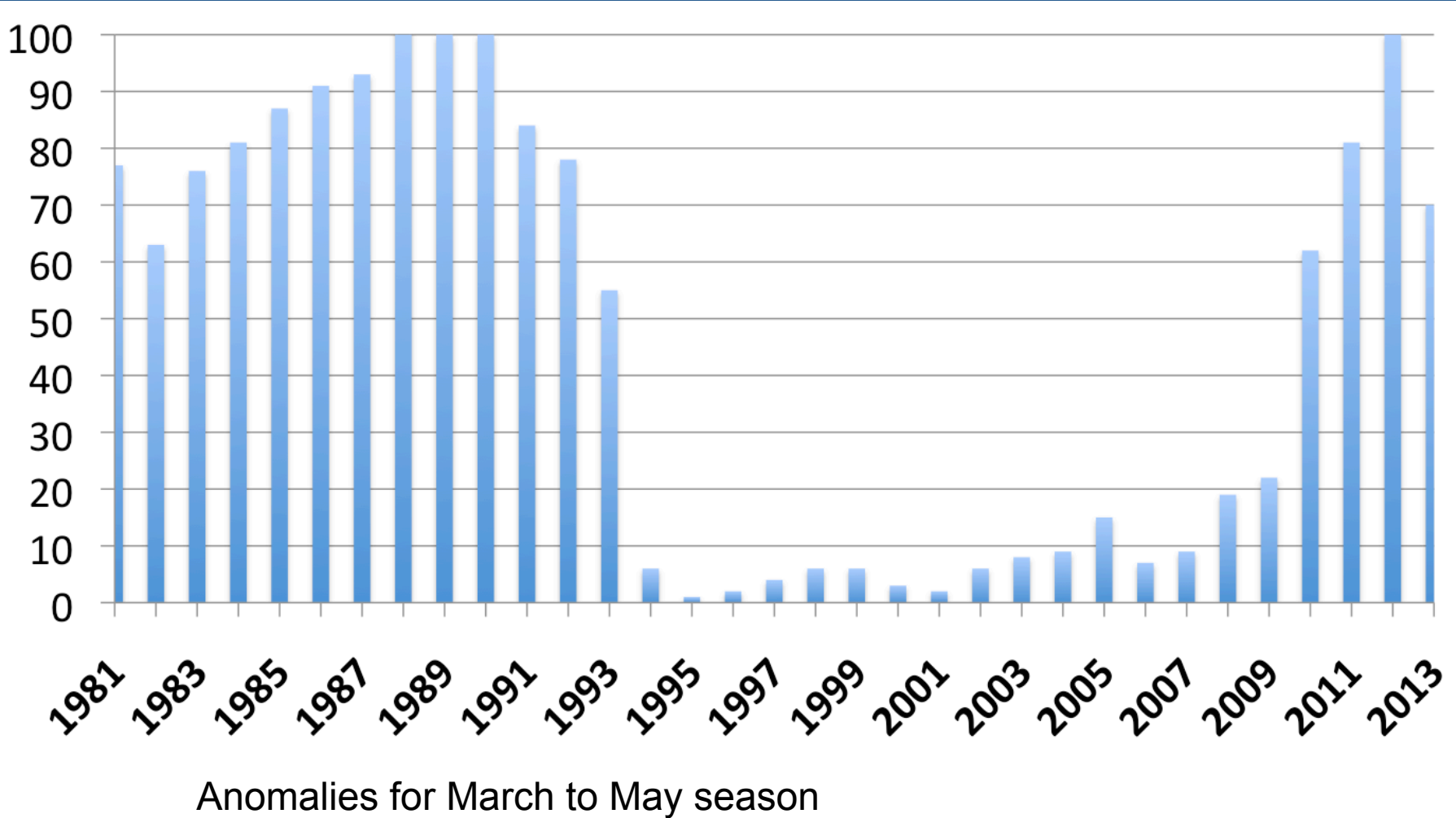


Dekad Climate Analysis

Rainfall and temperature time series (1983-2010) reconstructed from station observations and remote sensing proxies. This interface allows users to view rainfall, maximum and minimum temperature climatologies and anomalies.



Example from Rwanda



3. Improving Use

i. Awareness raising



iii. Involving users in product generation



ii. Training



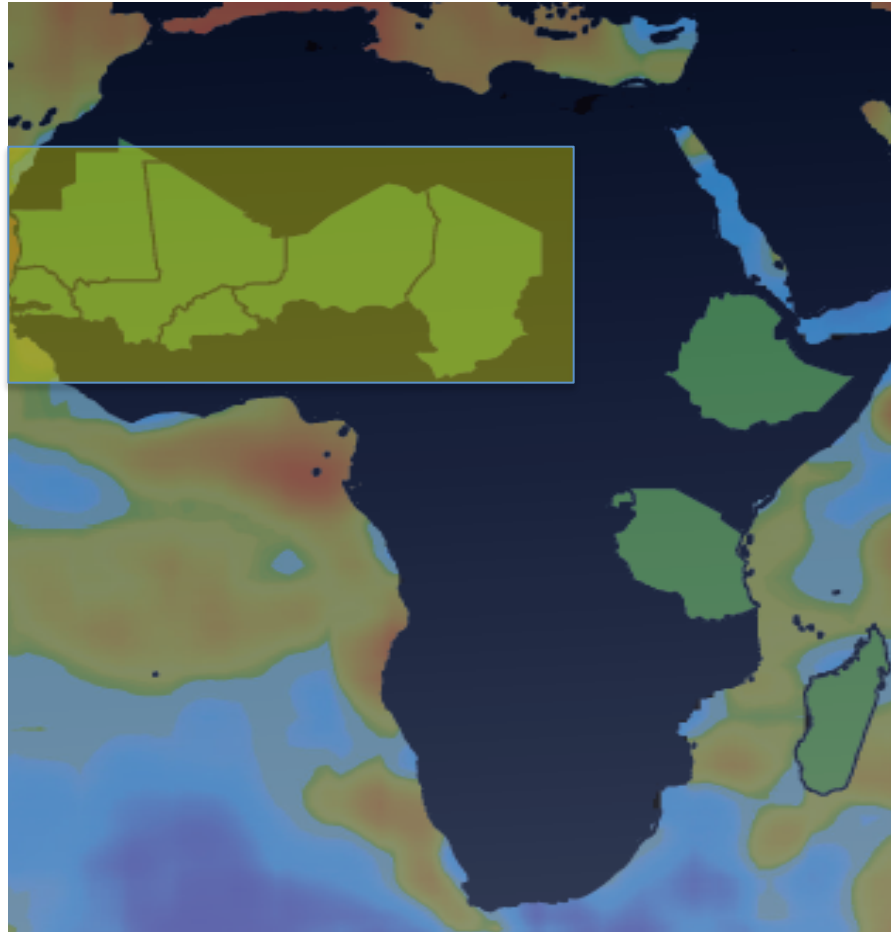
III. Major Outputs

- **Over 30-years of climate data for every 4km/5km grid across each country:**
 - Now data available where there are no stations
- **Installation of the IRI Data Library at NMS**
 - A powerful tool for generating climate information
- **Unprecedented online access to information products:**
 - Satisfies the needs of many users
 - Overcomes (partly) the challenges of data access
- **Built capacity at NMS and some user communities**

Major Outputs: ENACTS Countries

Ethiopia
Tanzania
Madagascar
Rwanda
Gambia
CILSS

Next:
Ghana
Mali
Burkina(?)



IV. What is Next?

1. Add more climate variables (RH, PET/ET, ...)

2. Include seasonal prediction

- Evaluate
- Improve
- Implement

3. Add sector-specific Maprooms: Health, Agriculture, Water, Disaster, ..

4. Further user engagement and working with NMHS on creating sharing mechanisms at national level.



Thank You

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