

*Enhancing National Climate Services(**ENACTS**) for use in health decision-making*

INTRODUCING

ENACTS

ENHANCING NATIONAL
CLIMATE SERVICES
INITIATIVE

Targeted climate
information
for impactful
decision making



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Outline

- I. The value of Historical Climate Data**
- II. Challenges with Availability of and Access to Climate Data in Africa**
- III. The ENACTS Approach**
- IV. What is Next**

I. Value of Historical Data

How can climate information improve malaria associated health outcomes

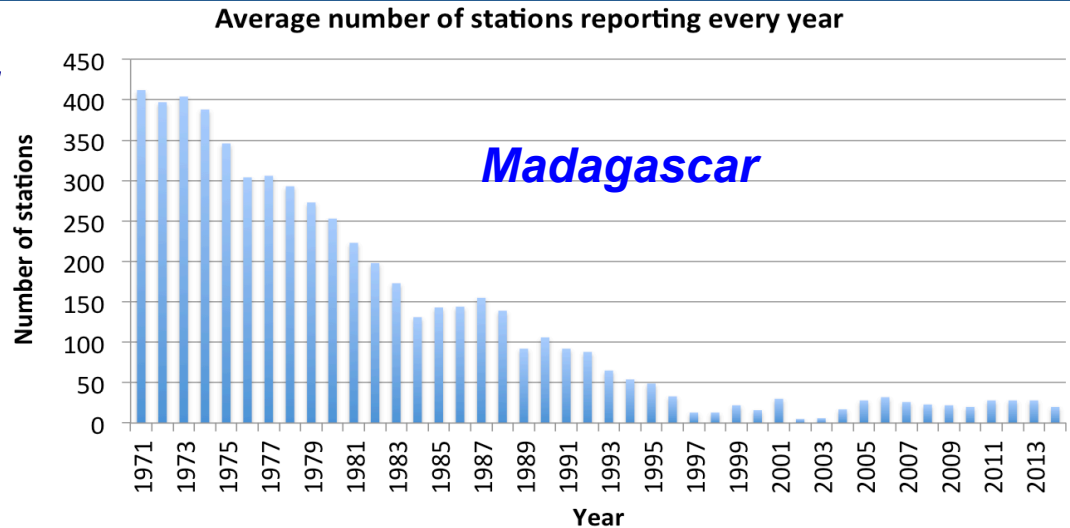
- improve understanding of the **mechanisms** of climate impact on transmission and disease
- estimate populations at risk (**risk mapping**)
- estimate **seasonality** of disease and timing of interventions
- monitor and predict **year-to-year** variations in incidence (including early warning systems)
- **monitor and predict longer term trends (climate change assessments)**
- **improve assessment of the impact of interventions (by removing climate as a confounder)**

II. Major Challenges

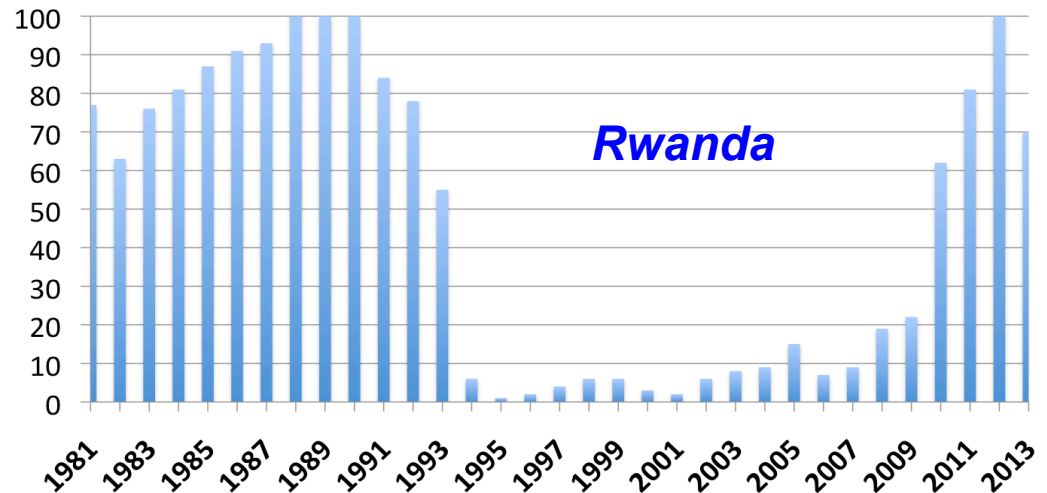
- Number of weather stations not adequate over many parts Africa
- Most stations are located along main roads
 - ➔ Limited availability climate information and services to the rural community
- Serious gaps in observations (missing data)
- Questionable data quality
- Limited access and use of the available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

What is the problem?

1. Declining investment

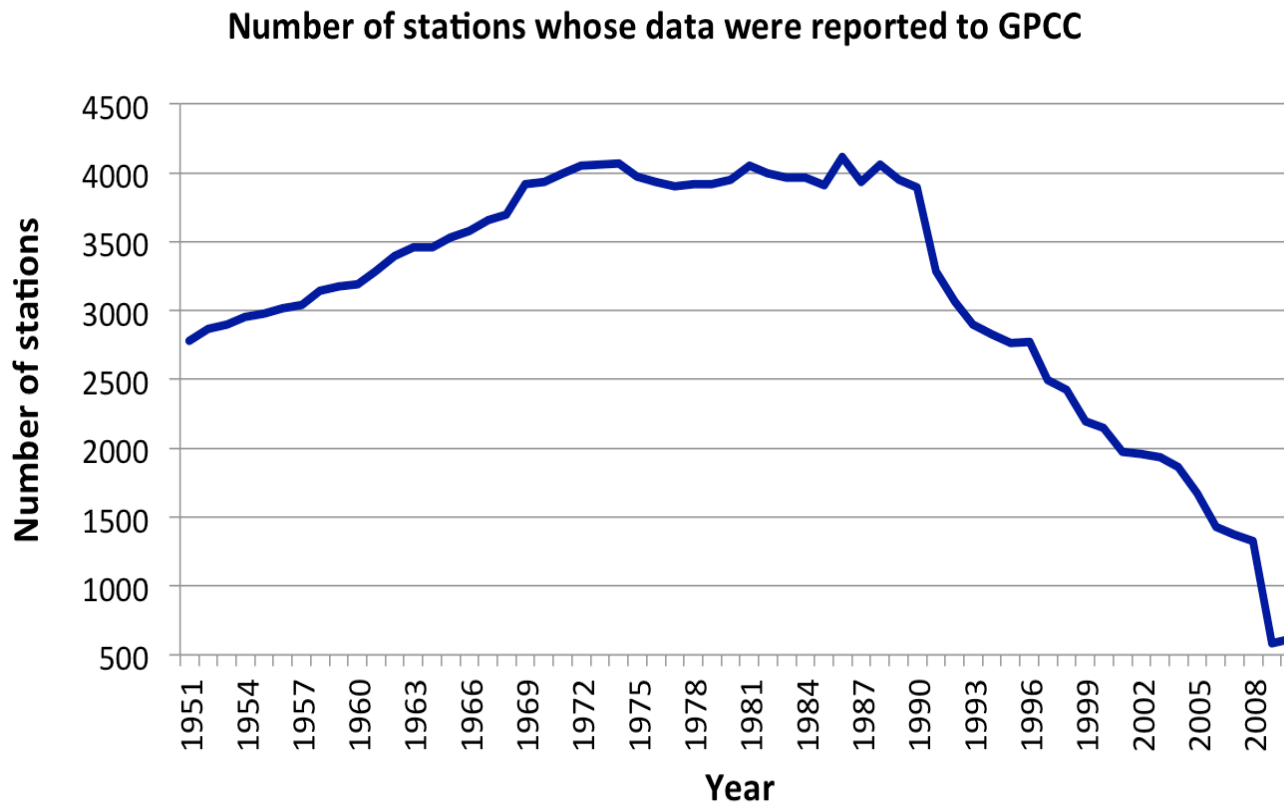


2. Civil unrest



What about globally available datasets?

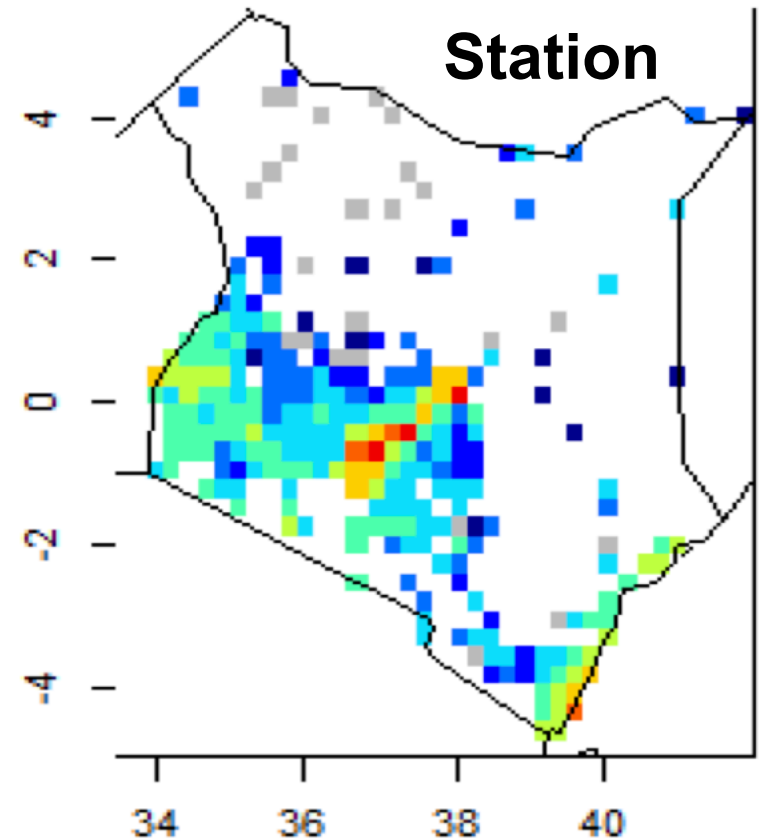
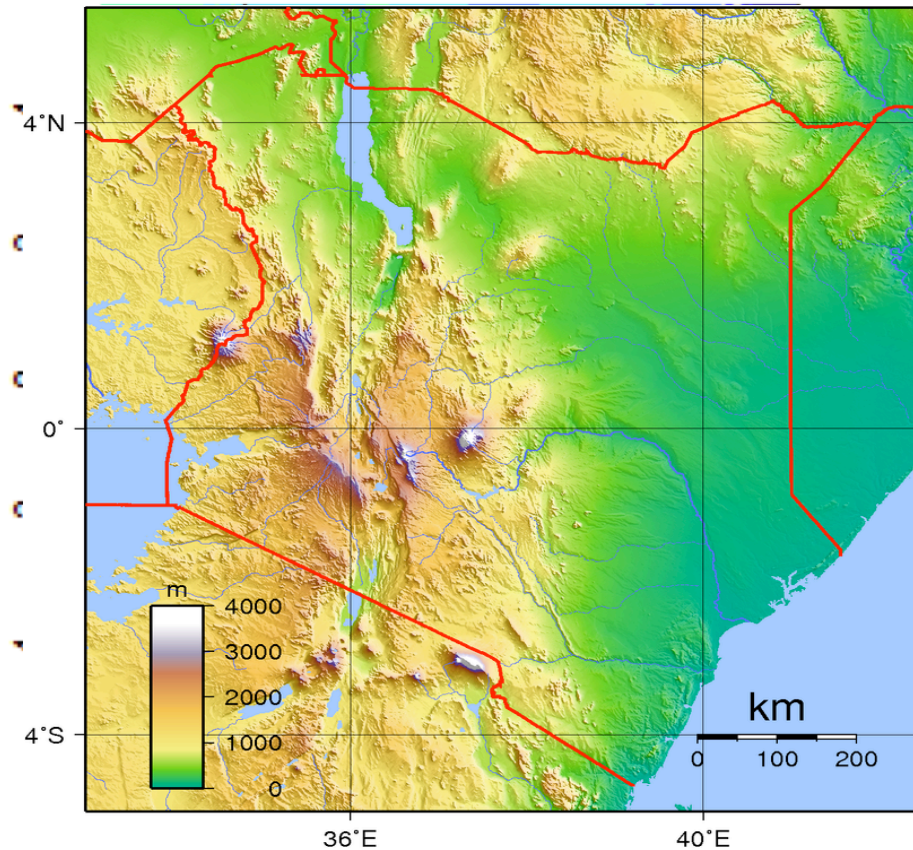
- Most of the global products themselves depend on national observation:
 - Therefore suffer from the the same problem:



Average (2001 to 2010) number of stations per 100km X 100km grid box used by GPCC gridded rainfall product

What about globally available datasets

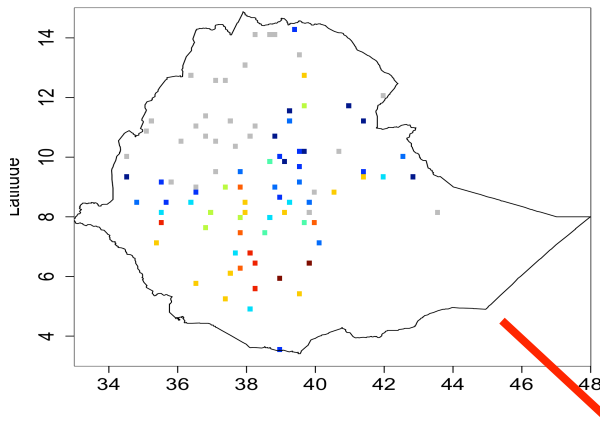
The global datasets may not represent local features well because of spatial resolutions or/and insufficient observations.



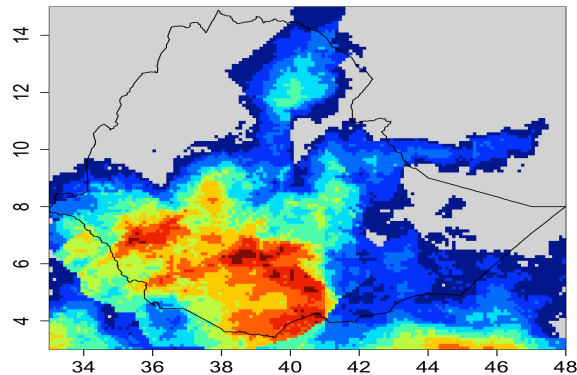
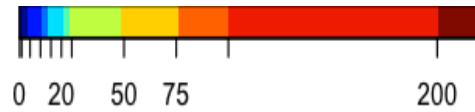
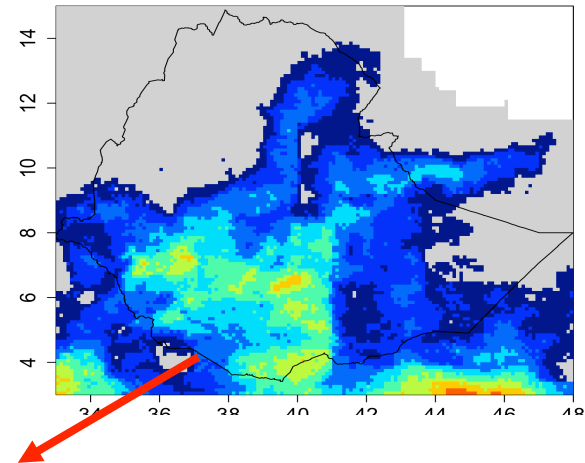
III. The ENACTS Approach

Combining station data with global proxies: **Rainfall**

Station



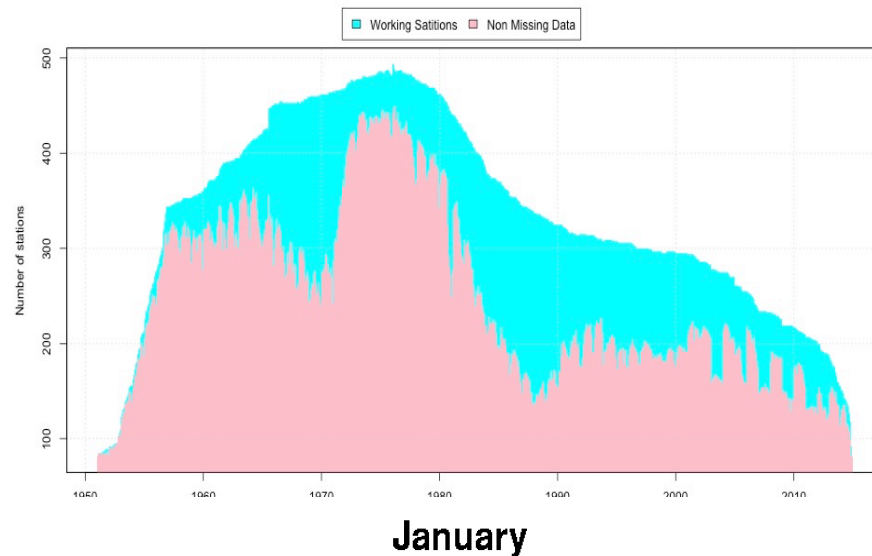
Satellite



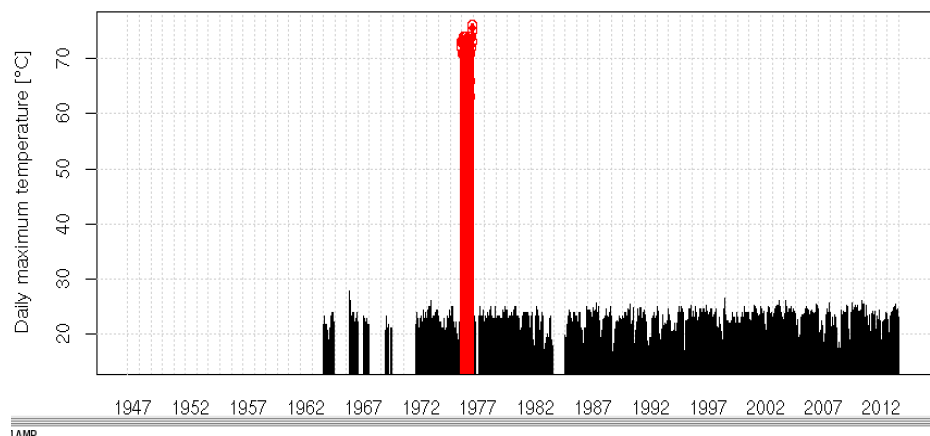
Combined

Steps

1. Assess available data



2. Perform quality check

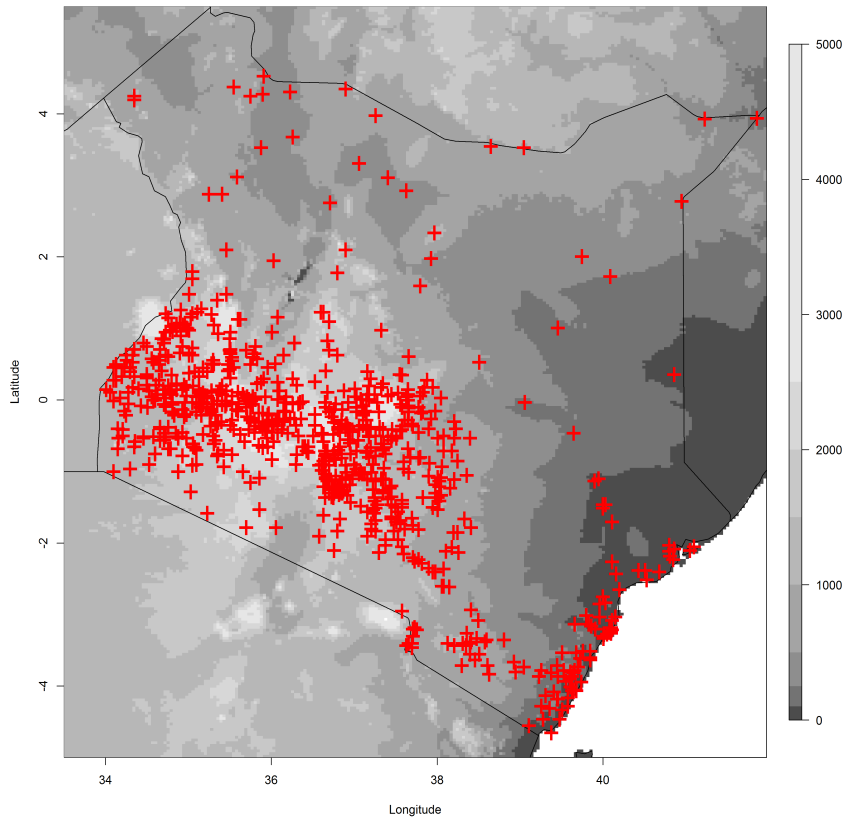


3. Perform Merging

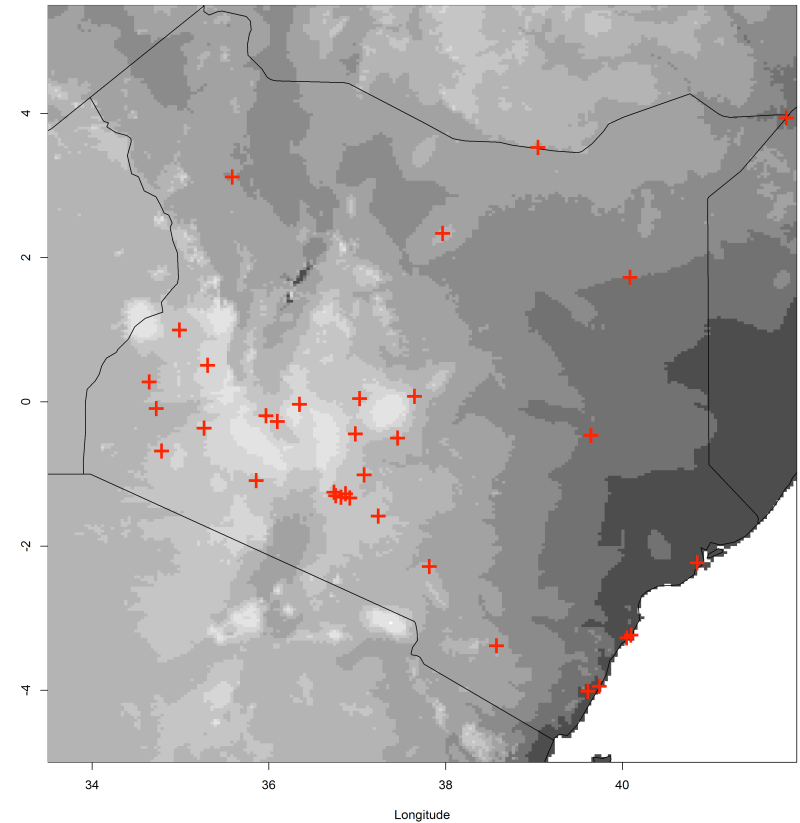
ENACTS Outputs

- **Built capacity of NMHS**
- **Quality controlled stations data**
- **Over 30/50-years of rainfall and temperature data for every 4km grid across each country:**
 - **Now data available where there are no stations**

Advantages of ENACTS Data

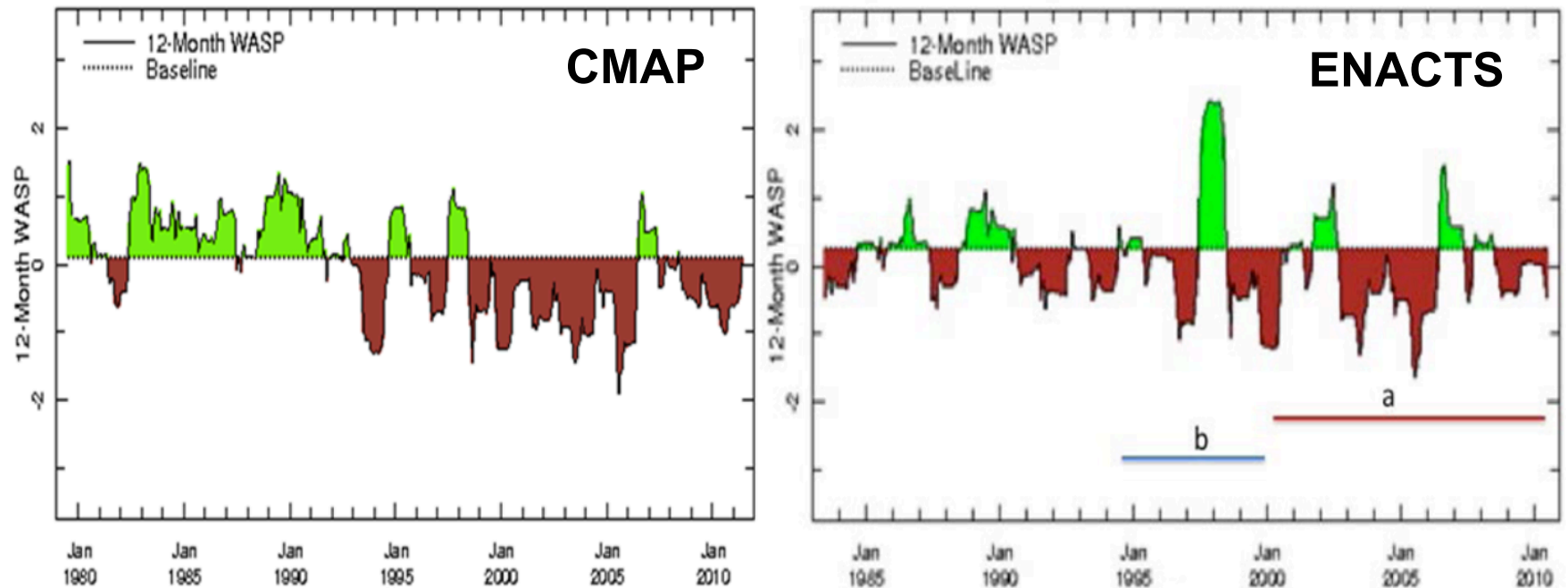


Rainfall Stations used in ENACTS



Rainfall Stations available globally

Advantages of ENACTS-based products



Weighted Anomaly Standardized Precipitation (WASP) Index using left) latest CPC Merged Analysis of Precipitation (CMAP) monthly precipitation data set for user-selected country (Tanzania) and right) using ENACTS blended station and satellite data for Tanzania

ENACTS is much more than just data: 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

More Outputs

- **Installation of the IRI Data Library at NMHS**
 - 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
- **Engagement with user communities**

ENACTS Countries

ENACTS Countries:

Ethiopia

Gambia

Ghana

Madagascar

Mali

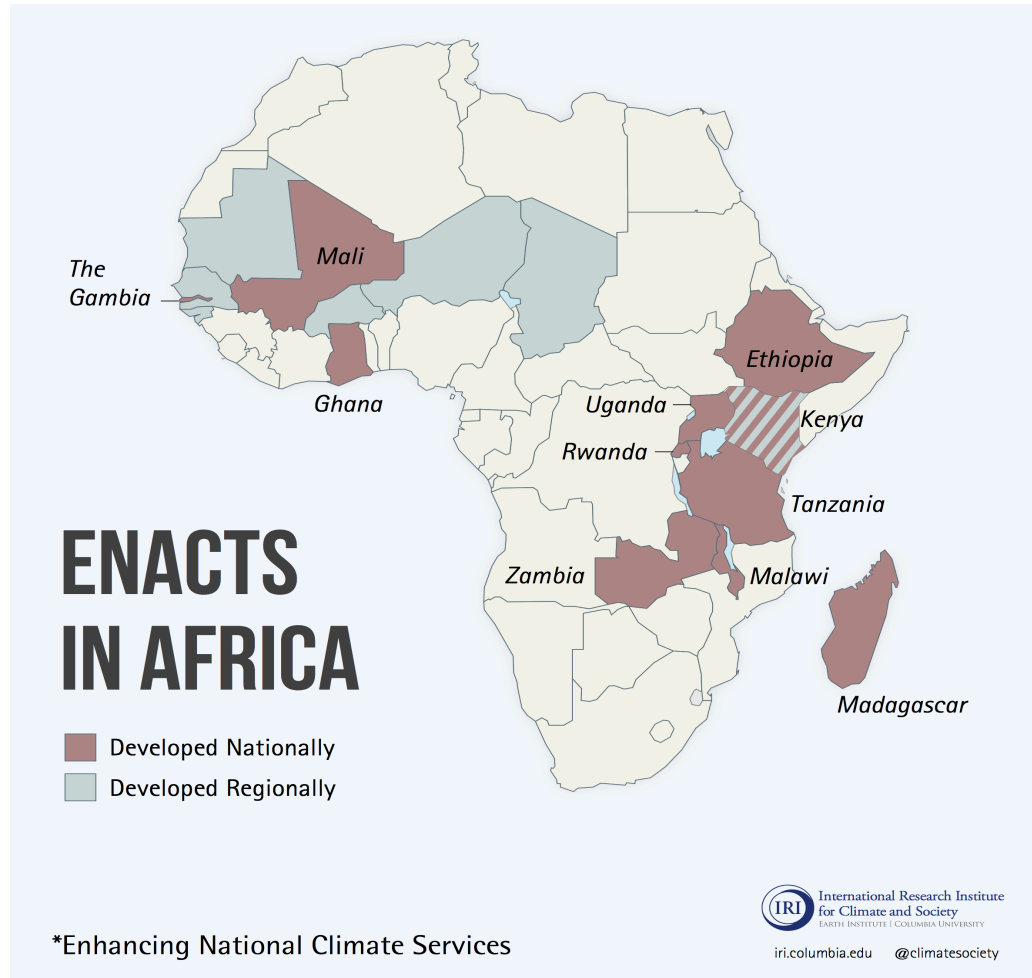
Rwanda

Tanzania

Zambia

Kenya

Uganda



IV. What is Next?

1. Strengthen ENACTS where it has already been implemented

- More climate variables
- More application-specific products
- More user engagement

2. Expand ENACTS to more Countries



Thank You

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