



Climate Data for Conflict States

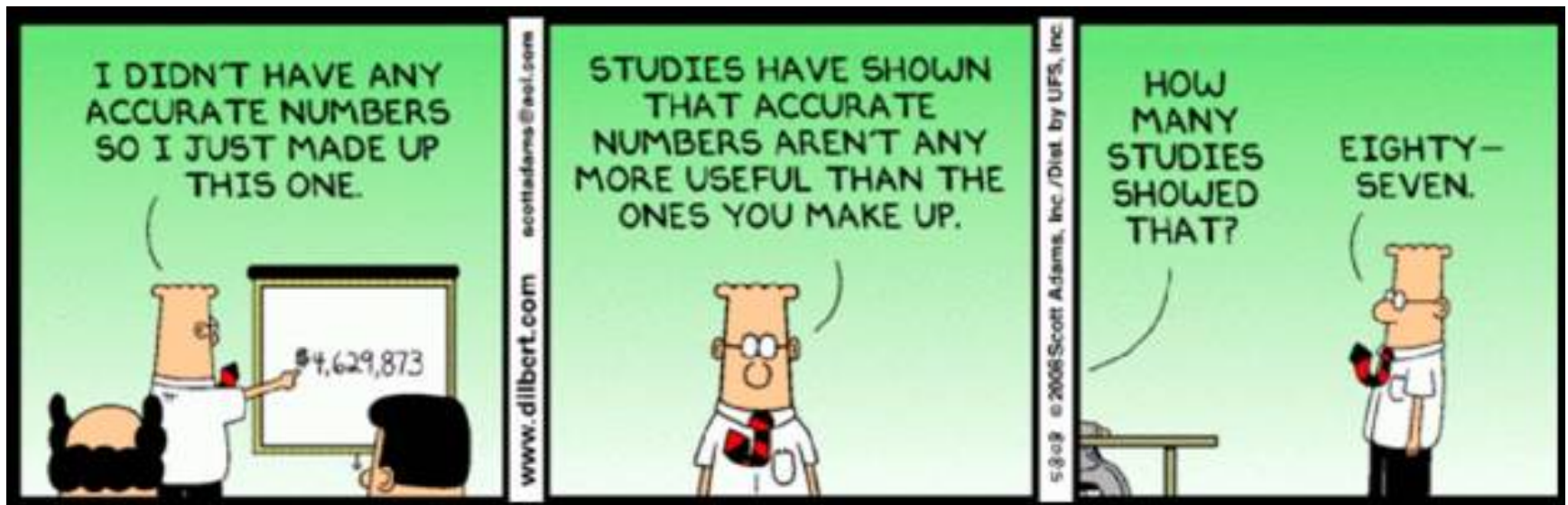
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Climate data in conflict states

What climate data and services are available for states in civil conflict?



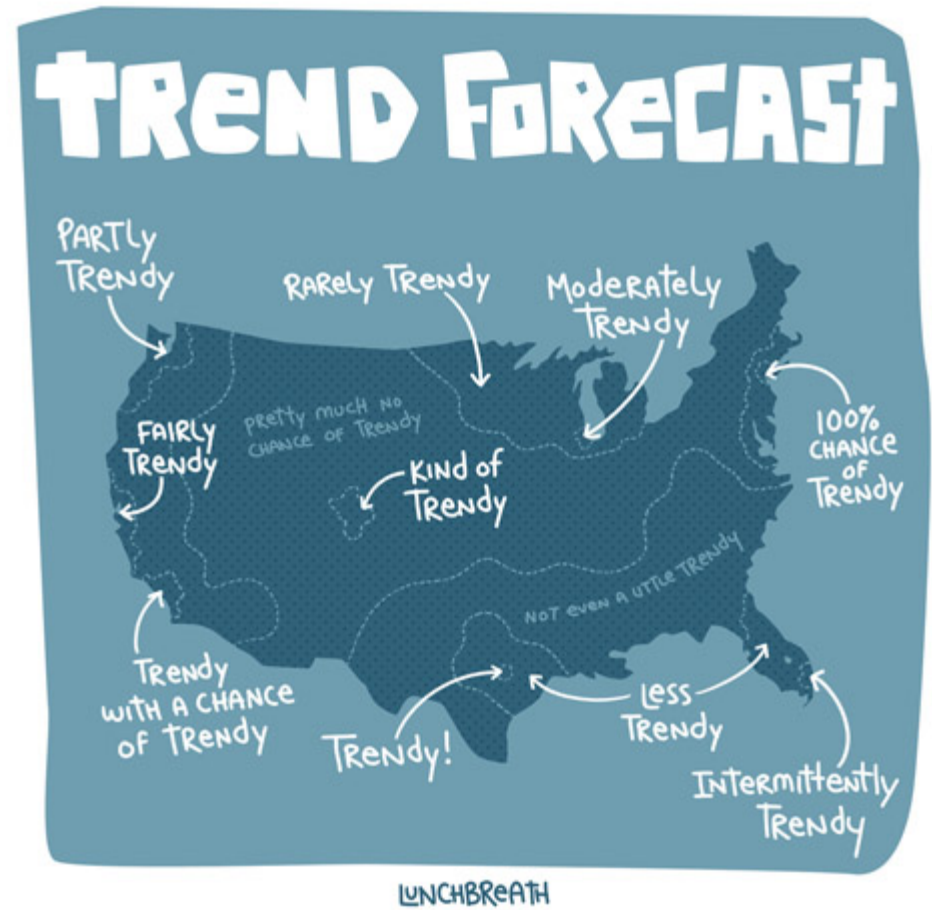
Climatological products

Climate risk assessments

- What normally happens?

Trend analyses

- Is recent experience typical?
- Is climate changing?

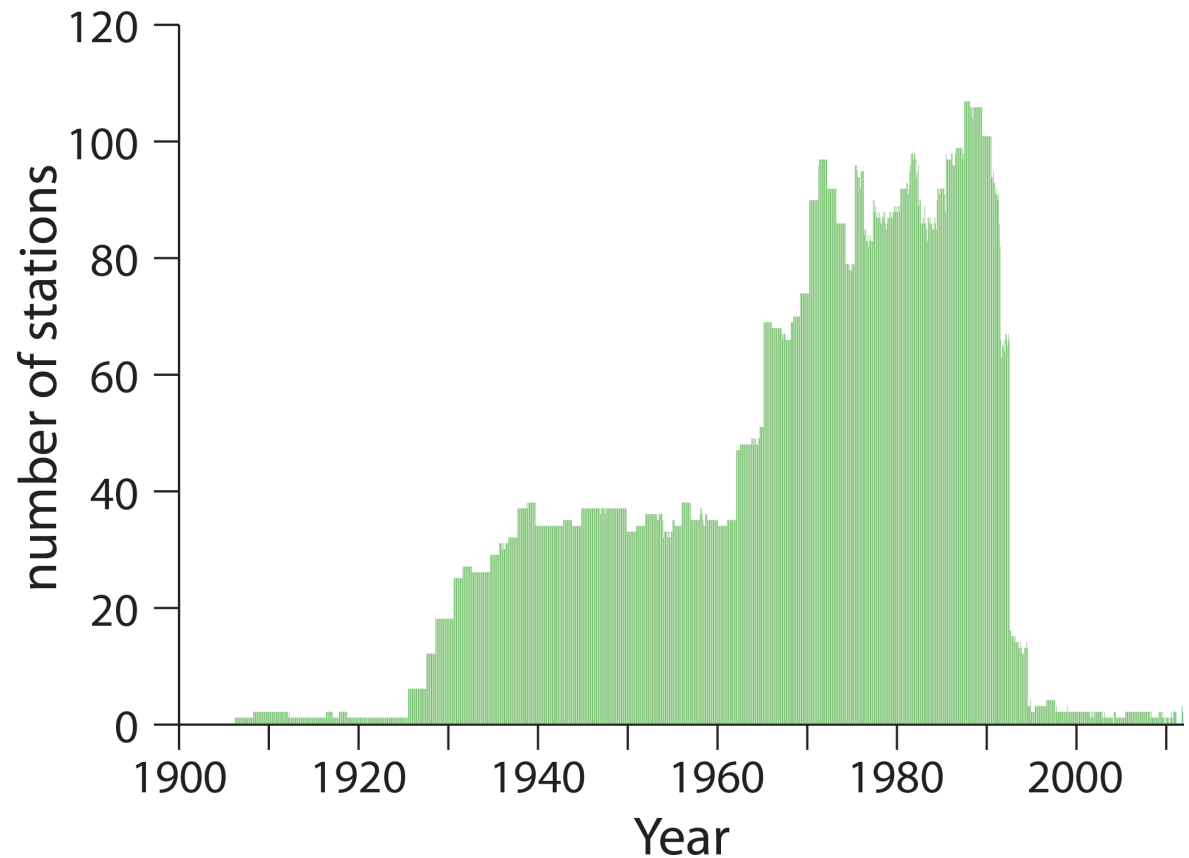


Pre-conflict

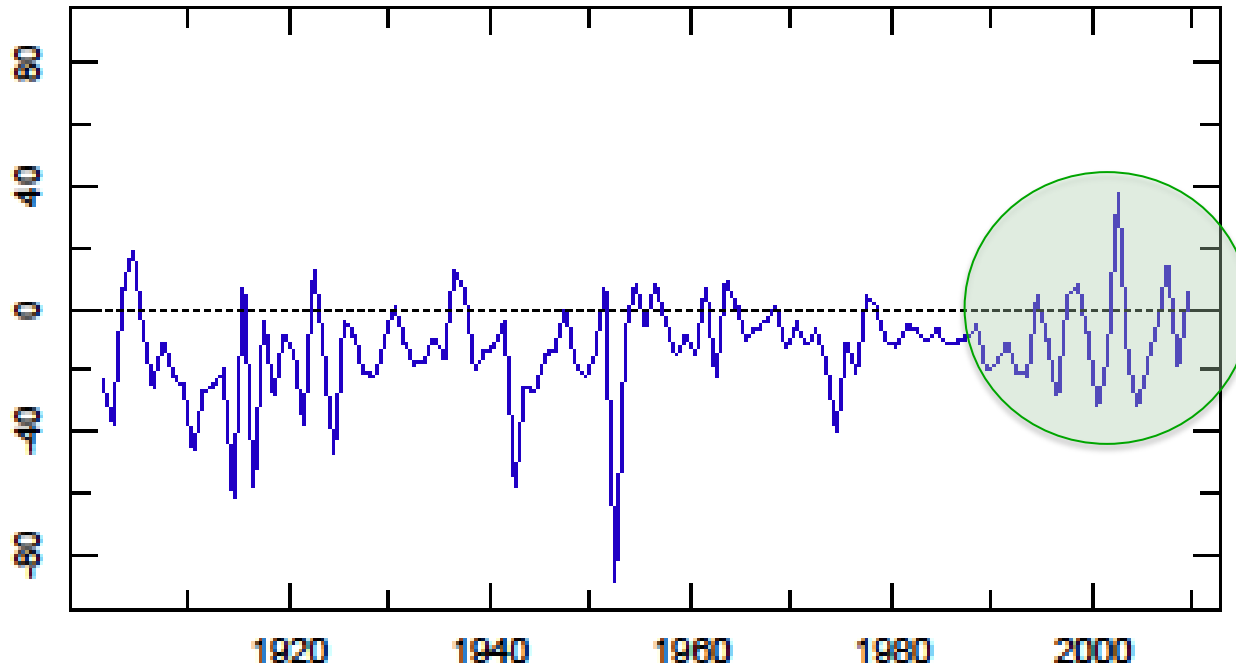
There are often good historical pre-conflict data.

These data are incorporated in many of the global gridded datasets, eg. GPCC.

Number of meteorological stations for Rwanda (GPCC)



Data consistency



Increased climate variability or increased sampling error given fewer stations?

Rainfall variability, Rwanda 1901-2010

Monitoring products

The context

- What has happened recently?
- Are there possible looming humanitarian crises in fragile states?

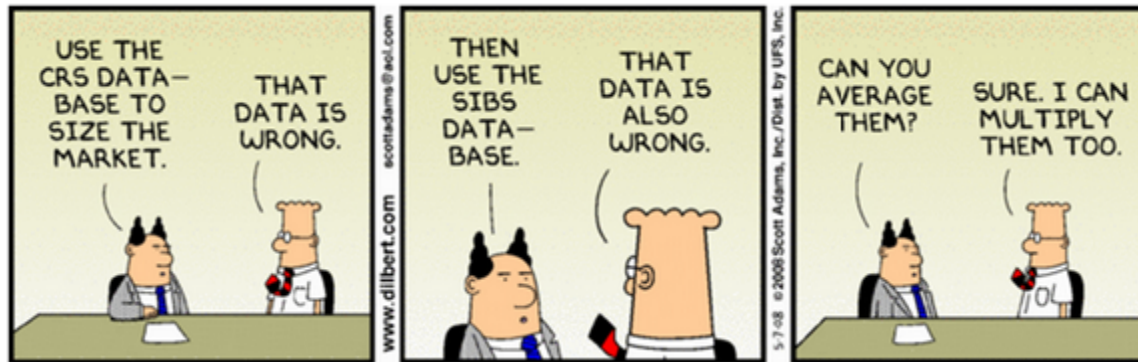
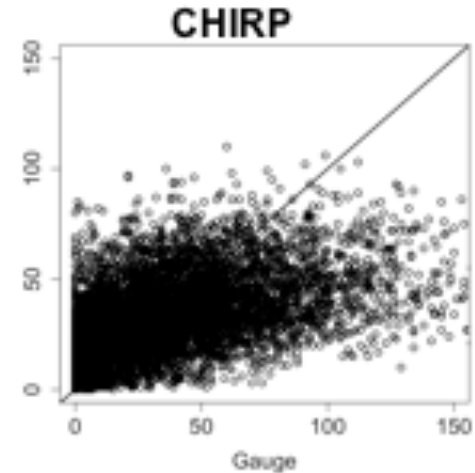
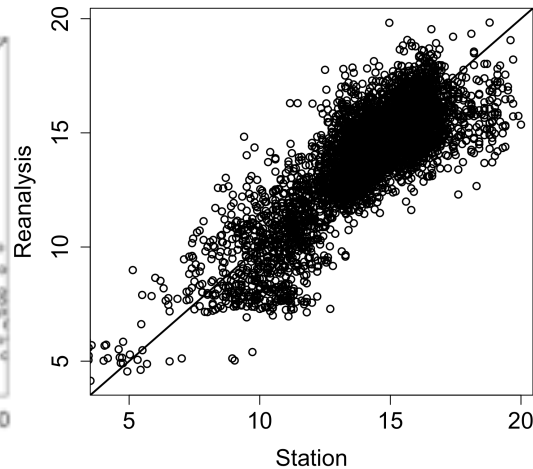
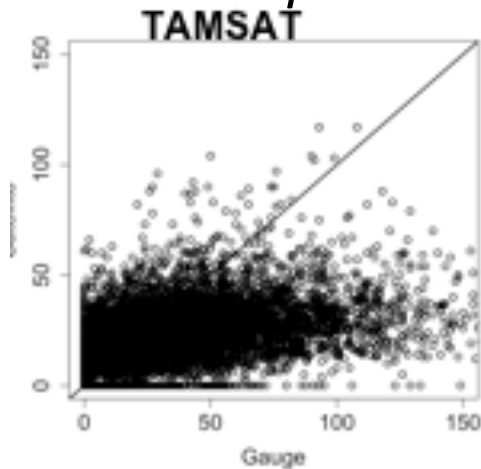


"Yes, I said '#\$%!%', but it was taken out of *context!*"

Satellite products?

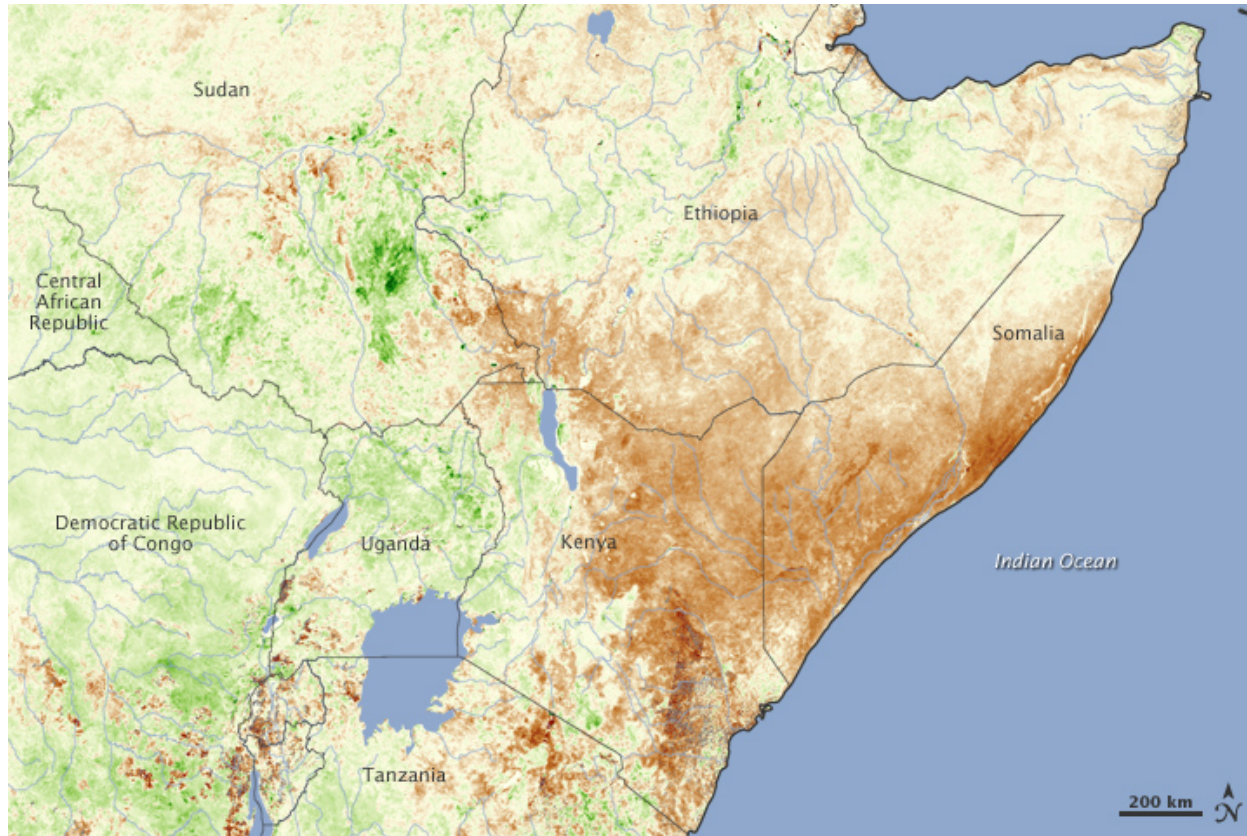
Can satellite products be used to monitor climate in Rwanda?

Minimum temperature



Satellite products?

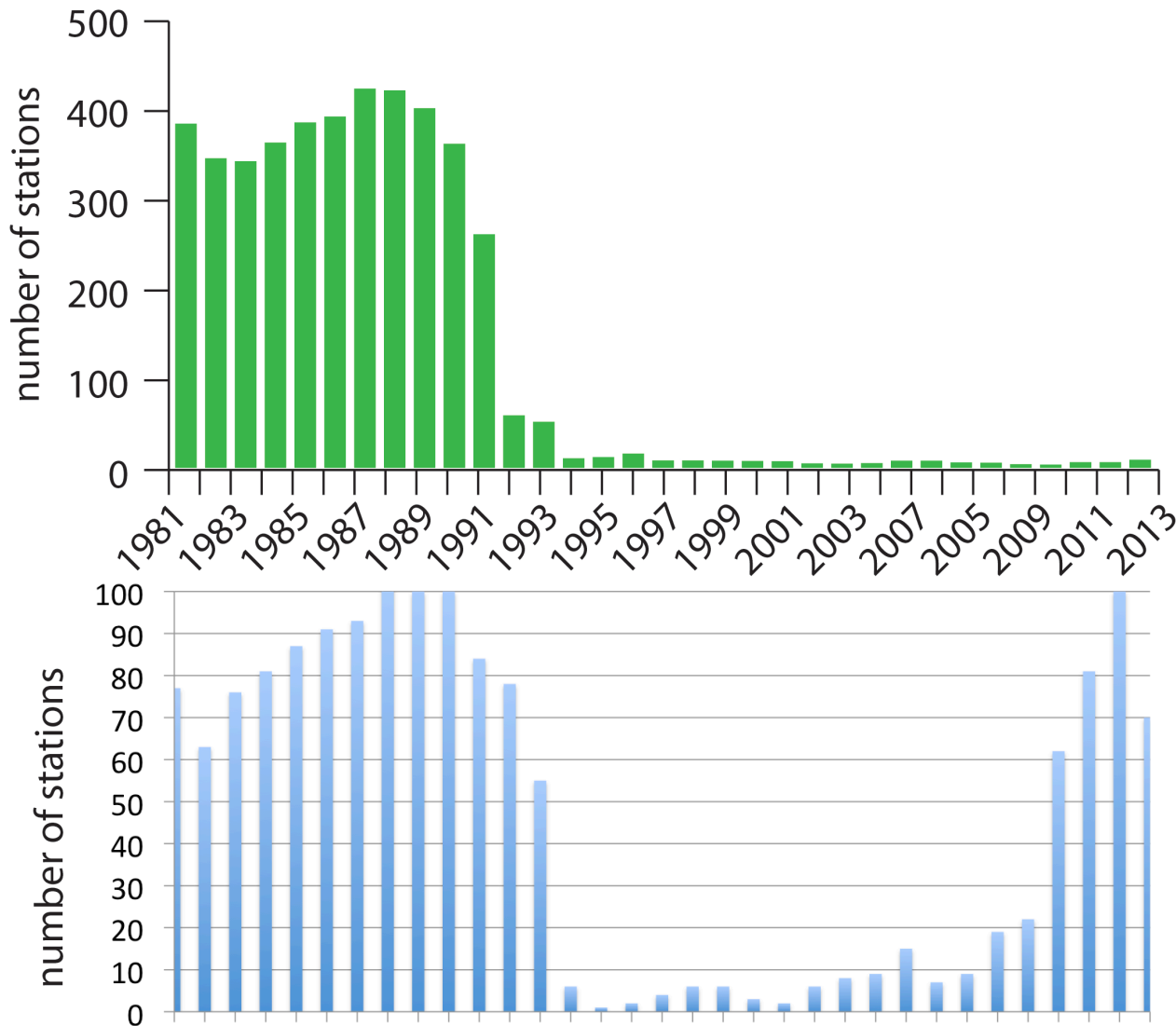
Vegetation?



NDVI

Jan 2011

Post-conflict



Number of meteorological stations in Rwanda and its vicinity (GPCC)

Number of meteorological stations in Rwanda (NMS)

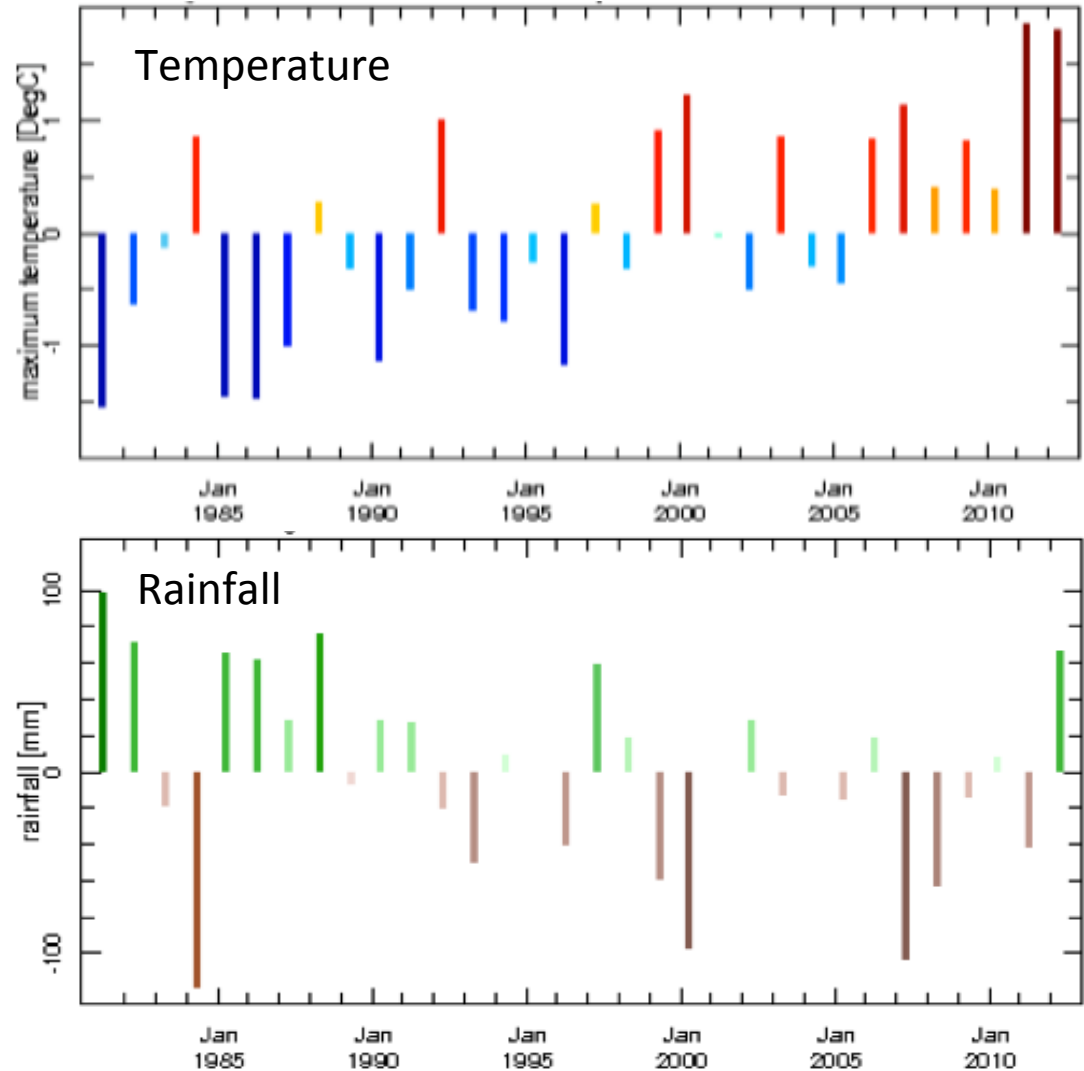
Climatological and monitoring products

ENACTS

Enhanced National Climate Services

Combining remotely sensed and nationally available station observations.

March - May climate variability for Rwanda



Forecast products

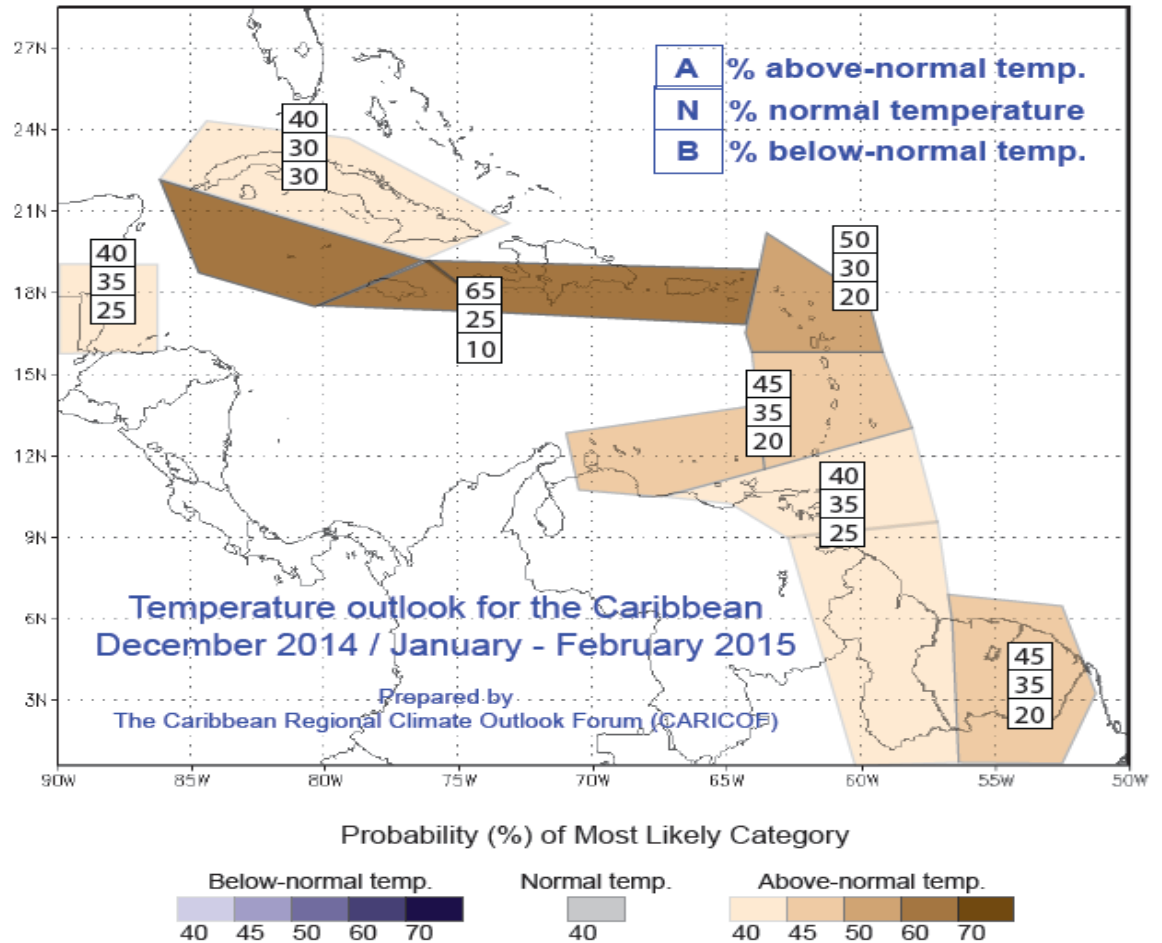
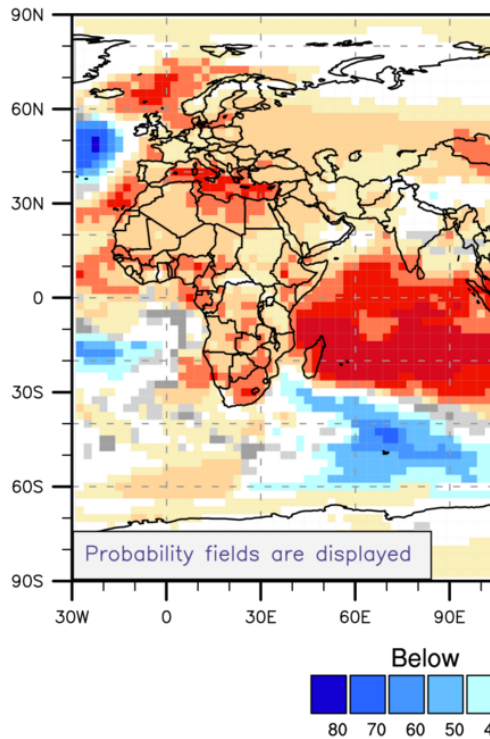
Response planning – adaptation

- What is going to happen over the next few days / months / years?



Global Producing Centres and Regional Climate Centres

Temperature at 2m



Conclusions

- Global datasets contain some good historical data for many conflict states, but there are inhomogeneities, and recently restored observing networks in post-conflict states are not well-represented.
- Remotely-sensed data provide some indications of current conditions, but they have many limitations.
- Valuable work is possible at national level to restore climate records in post-conflict states using station and satellite data.
- Forecasts are widely available from global and regional centres, but they need to be properly recalibrated.

