
IRI
The International Research Institute
for Climate and Society

The mission of the IRI is to enhance society's capability to understand and manage the impacts of climate in order to improve human welfare and the environment, especially in developing countries.

What do we mean by “impacts of climate”?

droughts.

floods.

fire risk.

pest outbreaks.

epidemics.

Where do we work?

Latin American & the Caribbean

Asia & the Pacific

Africa

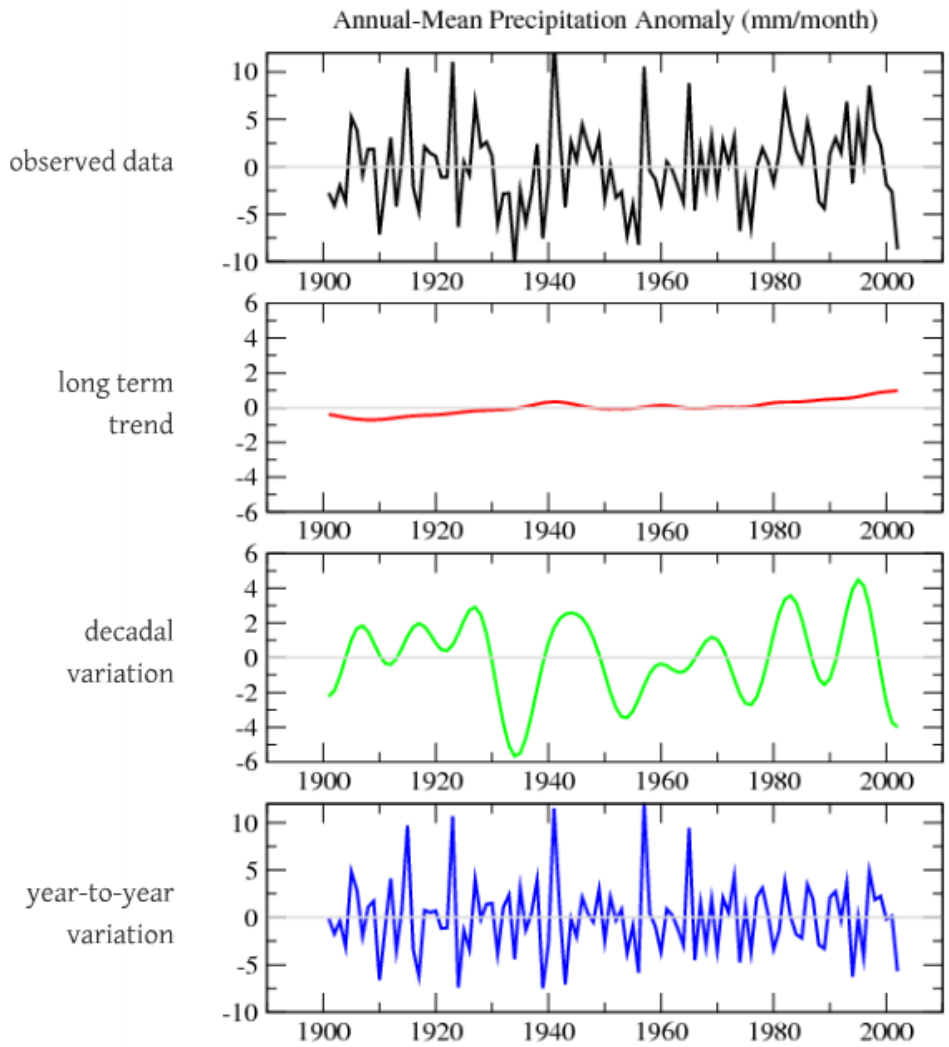
What do we mean by…

“enhance society’s capability to understand, anticipate and manage climate risks”?

Understanding…

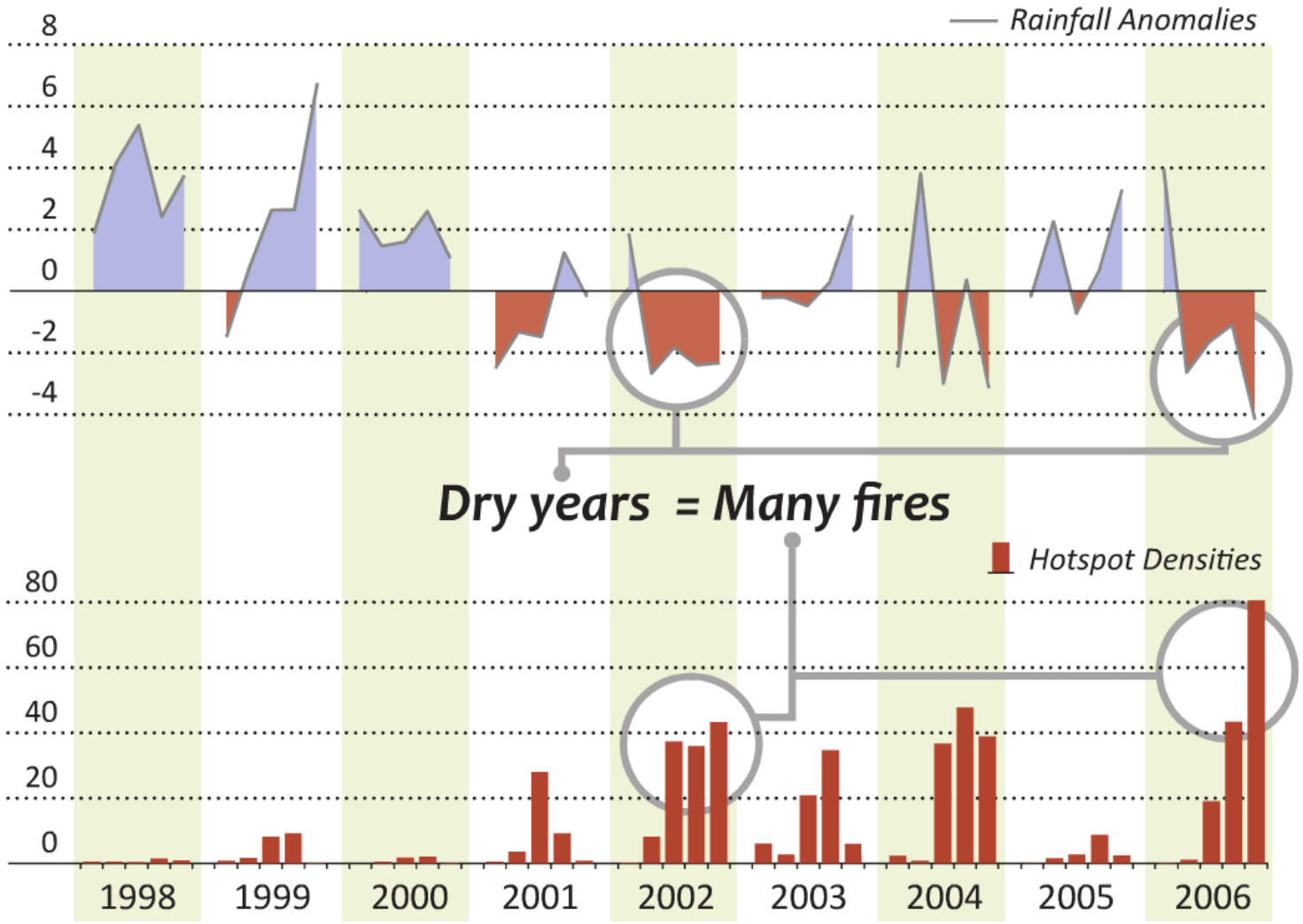
- *dynamics of the physical climate*
- *when and where it is predictable*
- *nature of variability*
- *variability at different timescales*

Climate Analysis



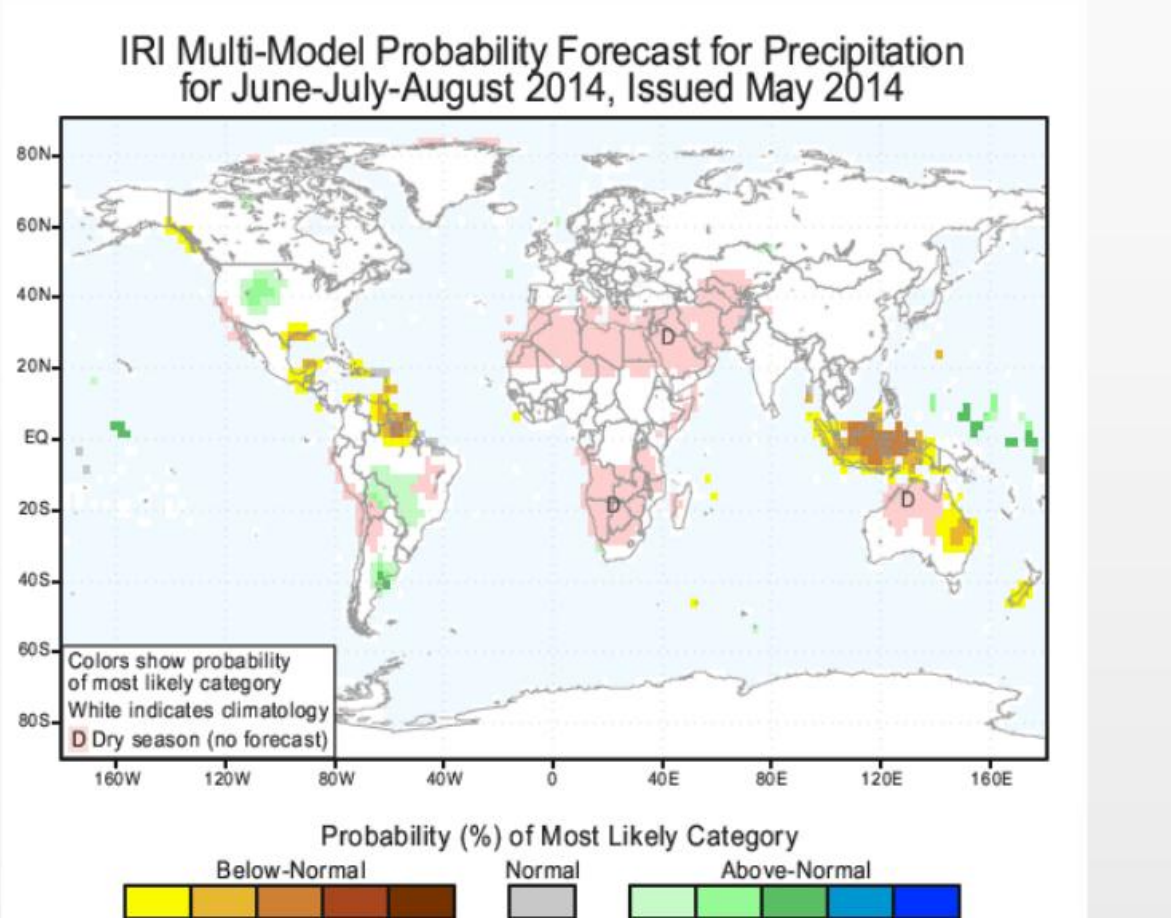
Understanding…

how climate phenomena in one part of the world drive important biophysical processes thousands of miles away


Rainfall Anomalies
8
6
4
2
0
-2
-4
Dry years = Many fires
Hotspot Densities
80
60
40
20
0
1998
1999
2000
2001
2002
2003
2004
2005
2006

Anticipating climate…

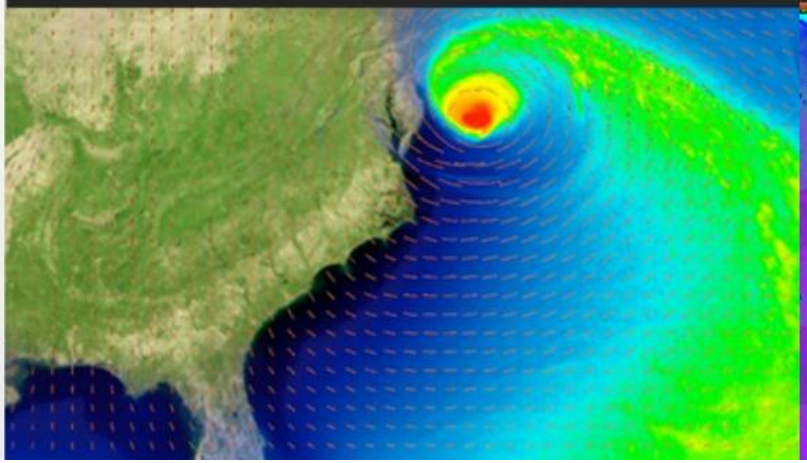
Seasonal climate forecasts

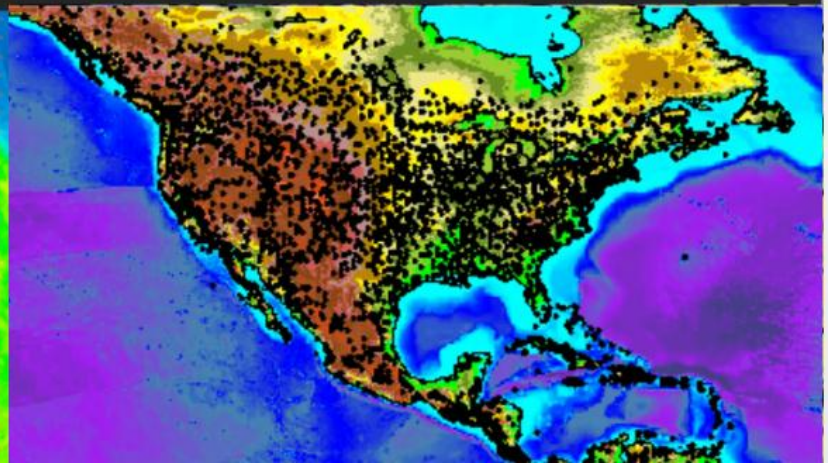


Managing...

risks + opportunities

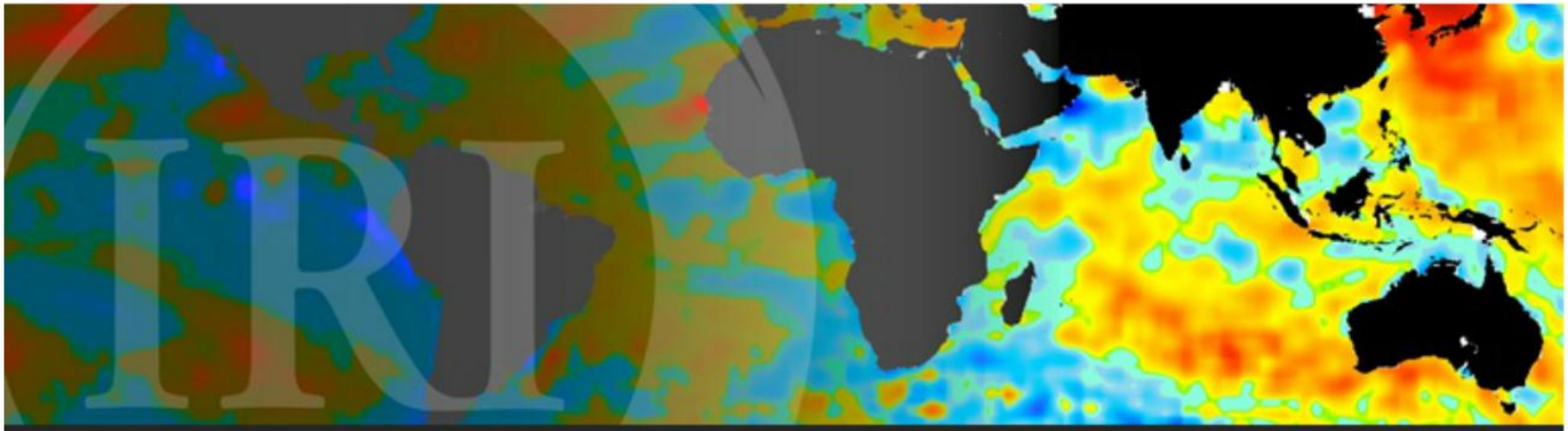
DATA DRIVES OUR LIVES





WHAT DATA DRIVES THEIRS?

IRI Data Library



OUR APPROACH TO BIG DATA

BIG DATA for BIG PROBLEMS

International Federation
Forecasts in Context

Six-Day Forecasts: Where is it expected to be wetter than average?

Region: Global

Language: english

Description | More Information | Instructions | Dataset Documentation | Single-Day Precipitation Maps | Contact Us

International Federation of Red Cross and Red Crescent Societies

Where is it expected to be wetter than average?

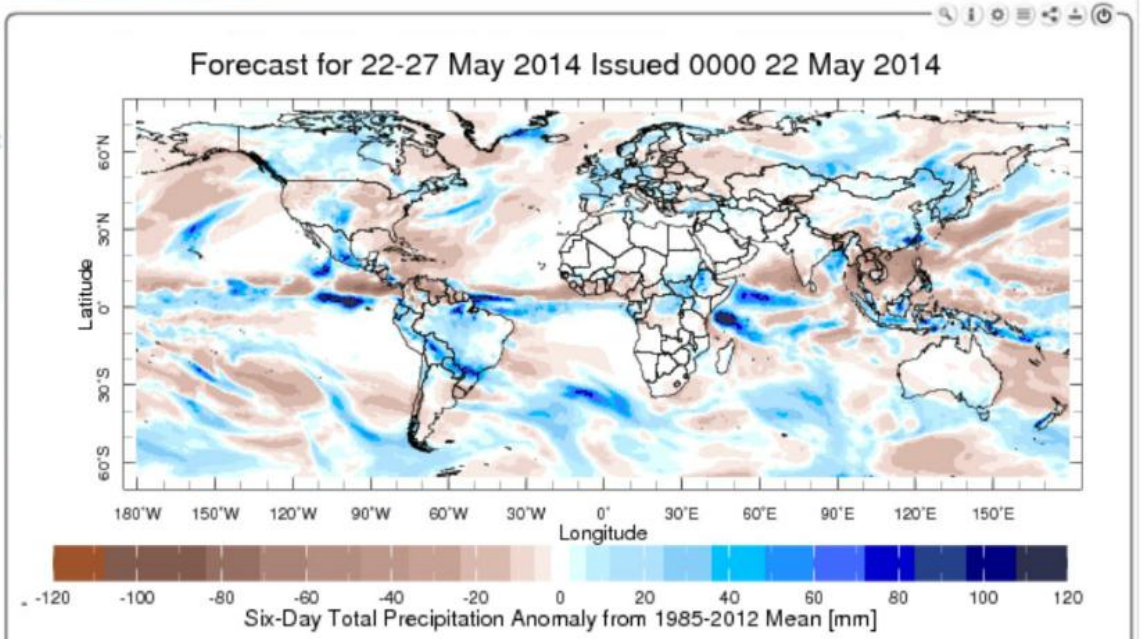
This map shows where the total rain/snow over the next six days is expected to be more or less than what is average for this time of year.

What do I do next?

If you see either brown or blue colours over your region, possible responses include:

- Contact your local/regional meterological department and monitor their forecasts for the next six days.
- Consider who may be most affected by the rainfall forecast of above-average or below-average rainfall.
- Review your contingency plans and update as necessary.

See the "More Information" tab for details.



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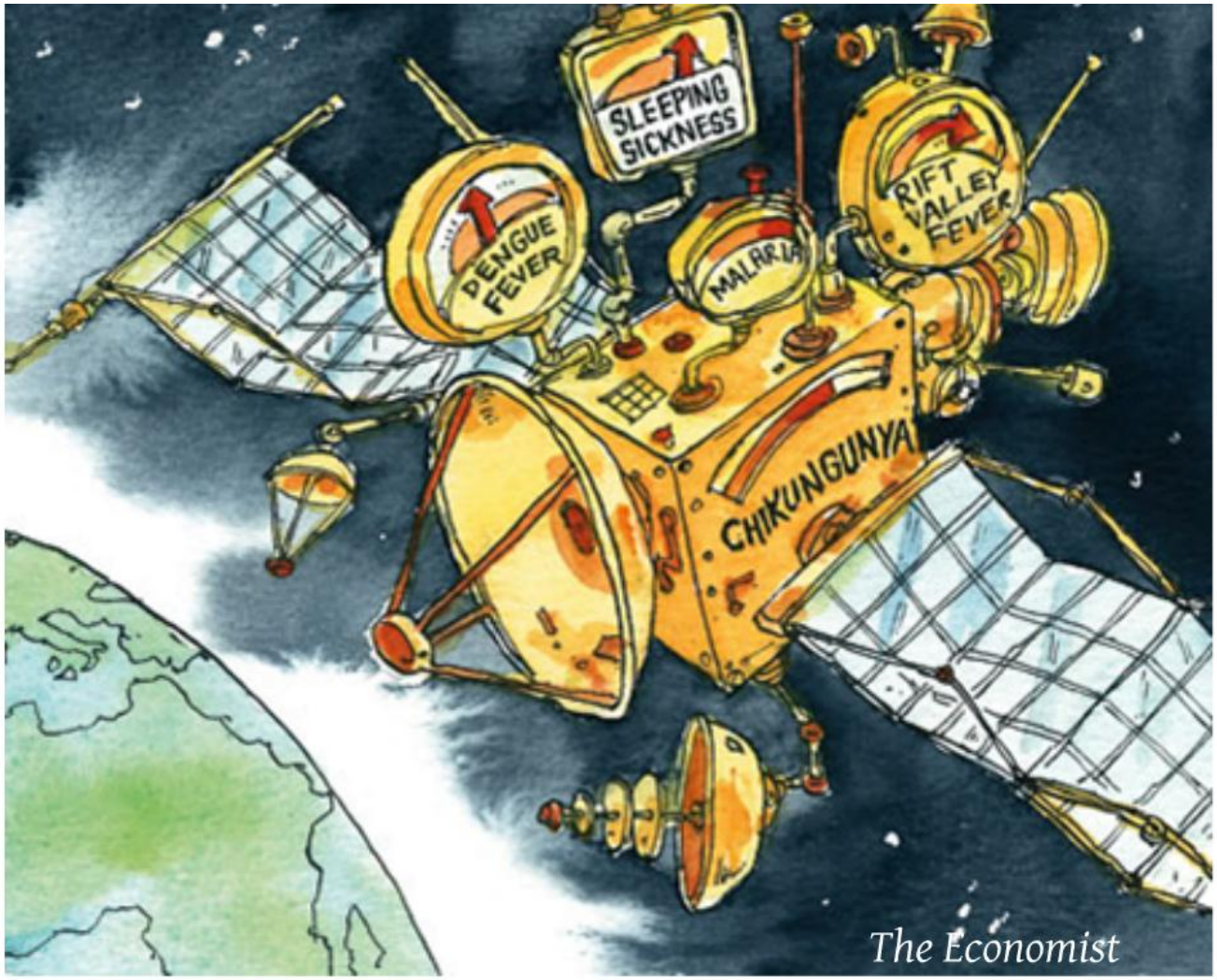
Like 0

+1 Recommend this on Google

IRI


SLEEPING SICKNESS
DENGUE FEVER
MALARIA
RIFT VALLEY FEVER
CHIKUNGUNYA
The Economist

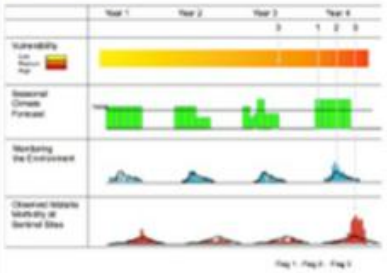
Malaria Early Warning System

Climate and Health | Climate and Malaria | Malaria Early Warning System

Malaria Early Warning System

The Malaria Early Warning System (MEWS) aids in the prediction of malaria outbreaks. The system consists of four elements; Vulnerability, Seasonal Climate Forecasts, Monitoring the Environment and Observed Malaria Morbidity. In certain regions, these products may be used to determine the timing and severity of an outbreak.

This maproom outlines each element of the MEWS. Each element contains products, some of which may be used to help determine the risk of a malaria outbreak in a specific region.



Using all of the elements as a system may be useful in understanding the socioeconomic and climatic drivers of malaria in particular regions. The diagram above depicts how the four elements can be employed on different time scales using flags to raise concern of a potential outbreak.

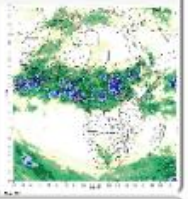
Climatic and environmental variables can indicate an increased risk in vector (mosquito) and malaria parasite development (when inside its mosquito host). Examples of such indicators include

Vulnerability | Seasonal Climate Forecast | Monitoring The Environment | Observed Malaria Morbidity

Monitoring The Environment

Dekadal (10-day) Precipitation

This map shows dekadal (10-day) precipitation estimates from the Climate Prediction Center.



Precipitation Estimate Differences

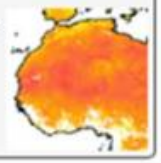
This map shows dekadal (10-day) precipitation estimates as the difference from the short term average (from 2000 to last recent complete year).

Precipitation Estimate Percentages

This map shows dekadal (10-day) precipitation estimates as a percentage of the short term average (from 2000 to last complete year).

Inferred Maximum Air Temperature

This map shows approximated maximum air temperatures at 2 meters above the ground.



Minimum Land Surface Temperature (LST)

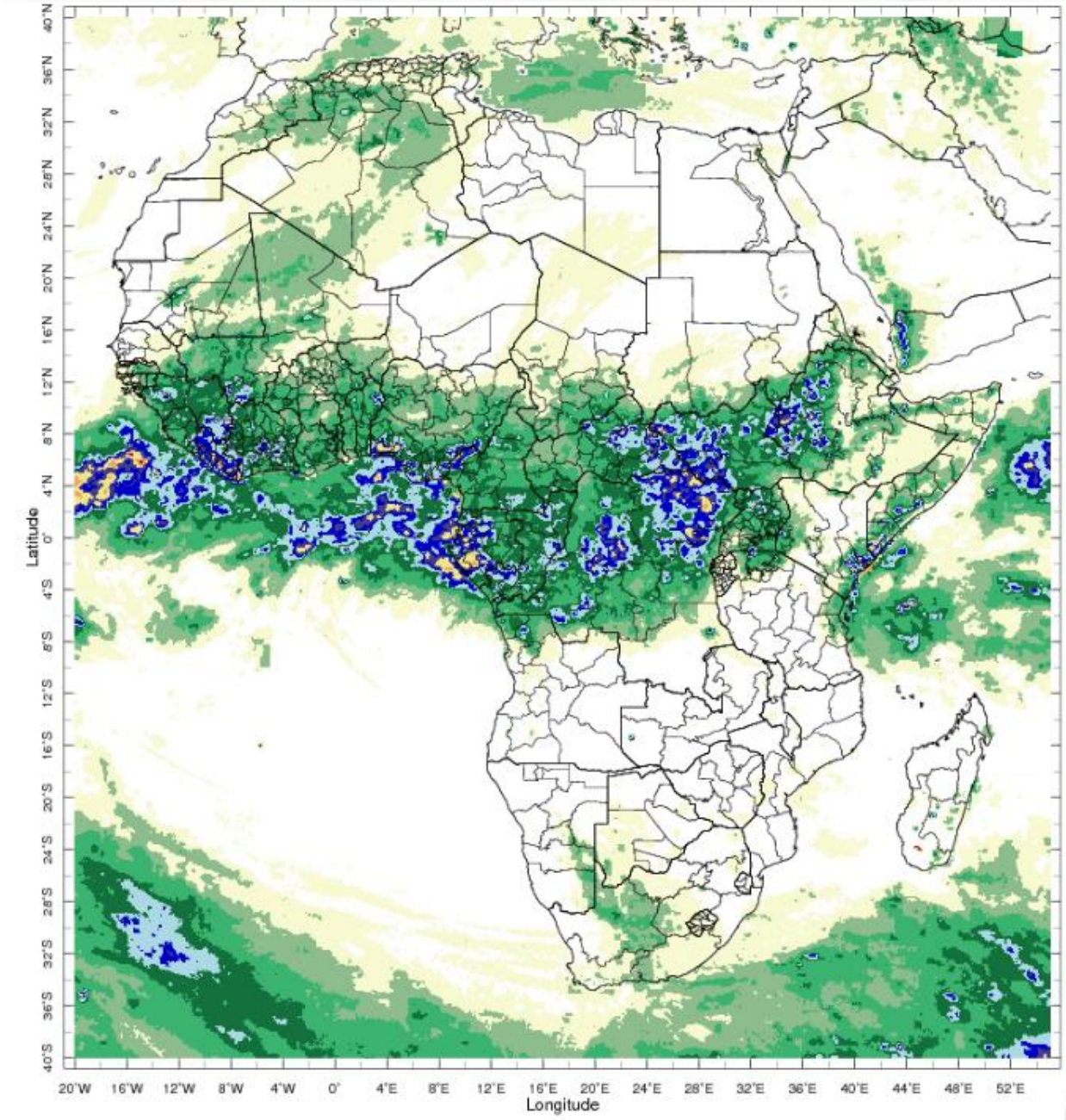
This map shows minimum land surface temperature (LST) used as a proxy for monitoring minimum air temperature.

Measures of Vegetation

This tool produces maps of estimated vegetation using data from NASA's MODIS sensor.

Vectorial Capacity

This map shows a Vectorial Capacity (VCAP) model that defines precipitation and temperature as the limiting factors of malaria incidence. VCAP is the daily rate at which future malaria inoculations could arise from a currently infected case.


40°N
36°N
32°N
28°N
24°N
20°N
16°N
12°N
8°N
4°N
0°
4°S
8°S
12°S
16°S
20°S
24°S
28°S
32°S
36°S
40°S
Latitude
20°W
16°W
12°W
8°W
4°W
0°
4°E
8°E
12°E
16°E
20°E
24°E
28°E
32°E
36°E
40°E
44°E
48°E
52°E
Longitude

1-20 May 2014

User requirements for data:

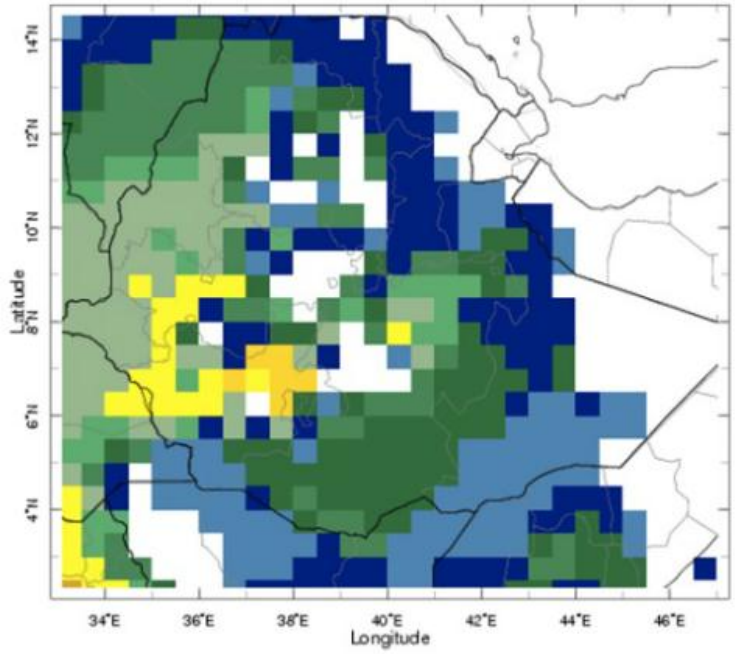
Access

Visualise

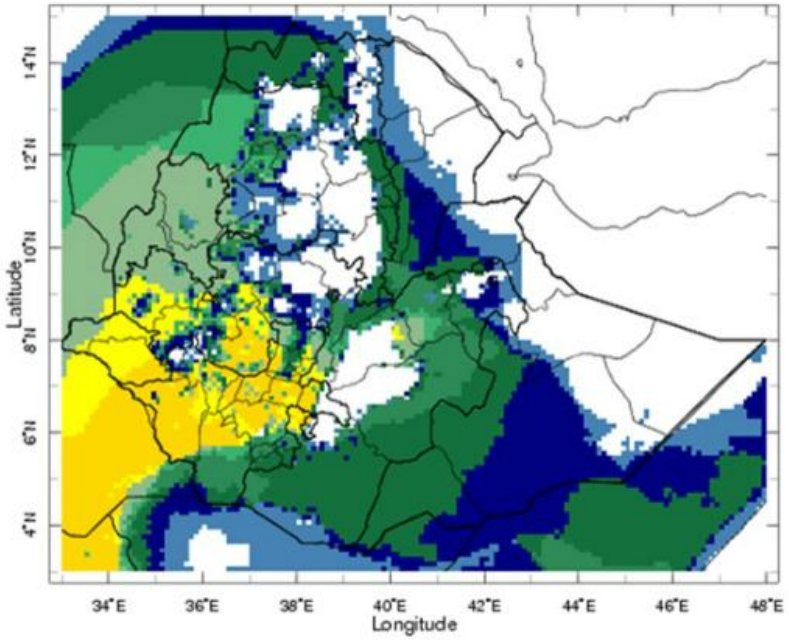
Analyse

Download

Climate suitability for malaria transmission (CSMT) at higher spatial resolution



Created using interpolated station data (UEA Gridded Data, 0.5 deg lat/lon res)



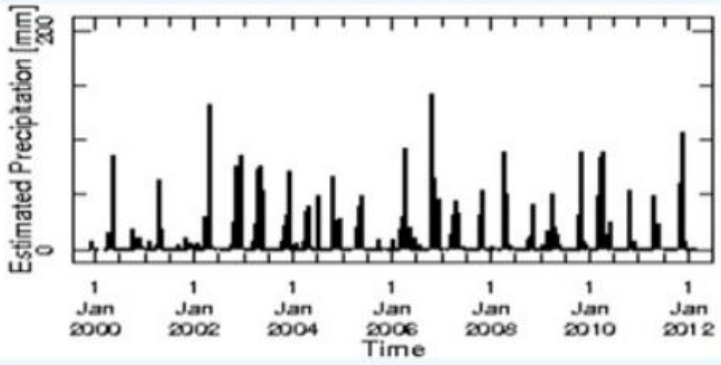
Created using blended national station data and satellite data (10 km res)

Observations for:
Garbahaaray, Gado, Somalia

district | 42.3E | 3.5N

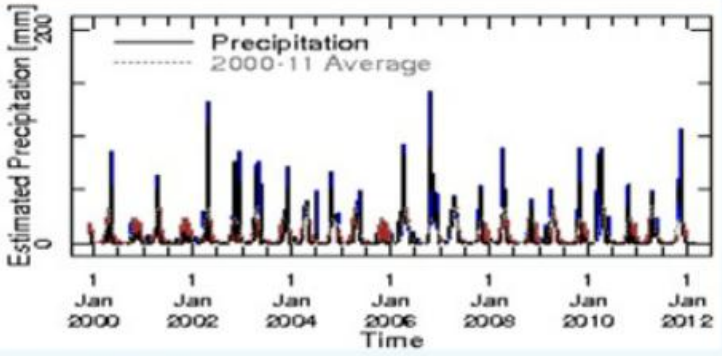
Generate new time series

a)



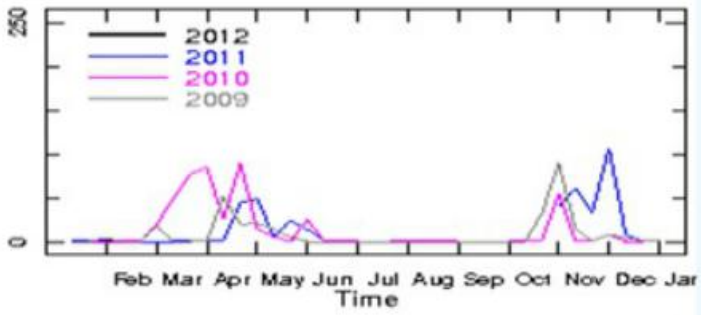
Data in this graph

b)

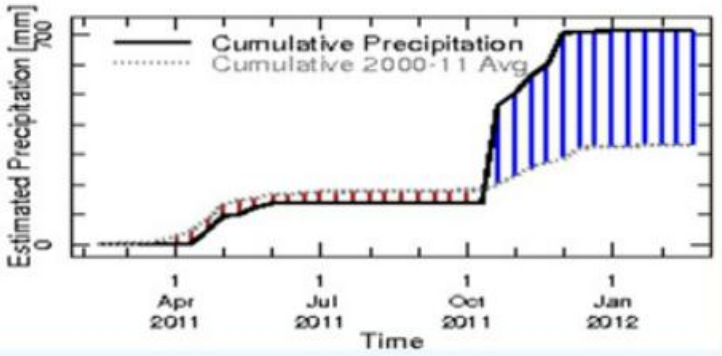


Data in this graph

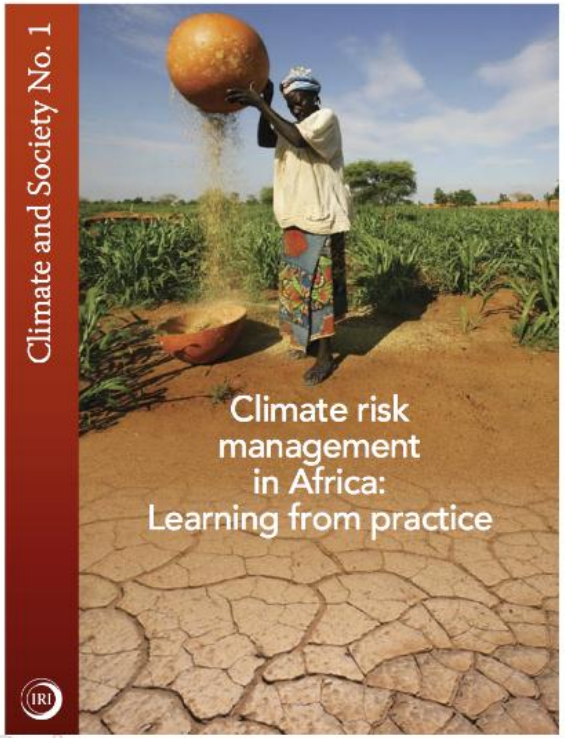
c)

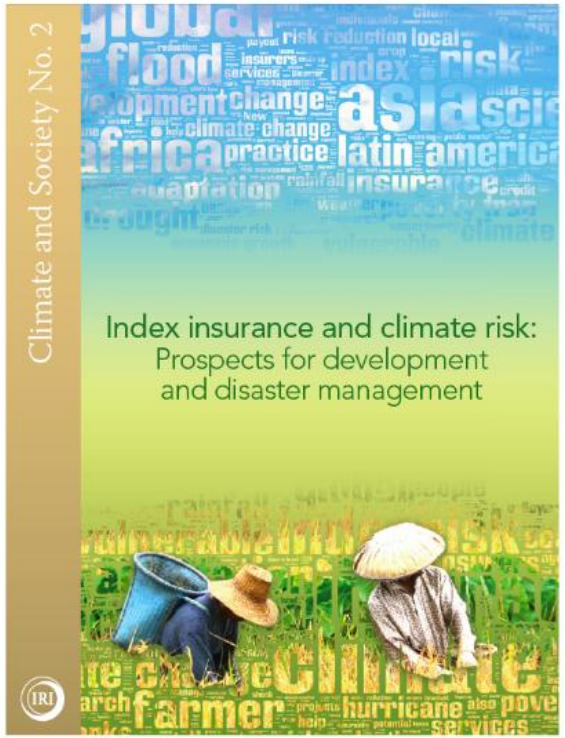


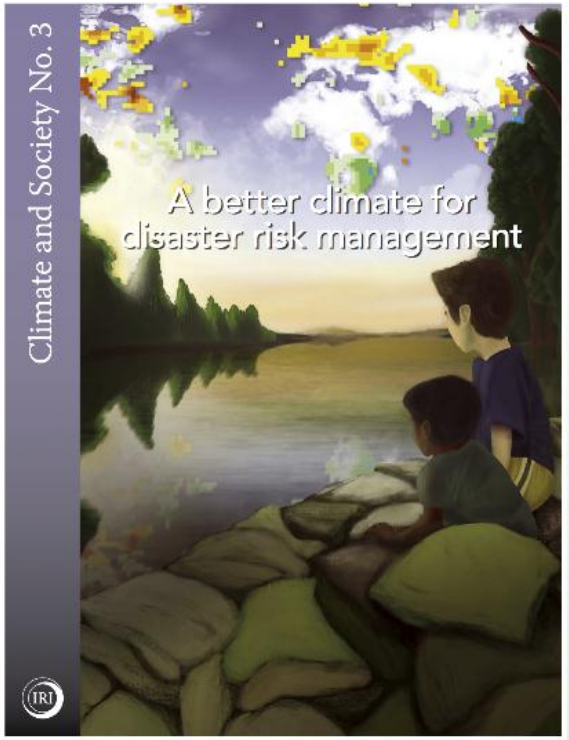
d)



Climate & Society Publication and Capacity Building Activities





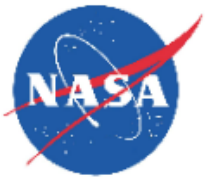


Partners…

- National agencies, ministries
- NGOs
- Universities
- Villages, districts

Partners...

Swiss Re



World Health Organization

Enabling poor rural people
to overcome poverty

International Federation
of Red Cross and Red Crescent Societies

Why do this?

Monitoring Desert Locust in 23 countries and
U.N. Food and Agriculture Organization


Prezi