



World Meteorological Organization

Working together in weather, climate and water

WMO Climate Information Services System

Peer Hechler

WMO



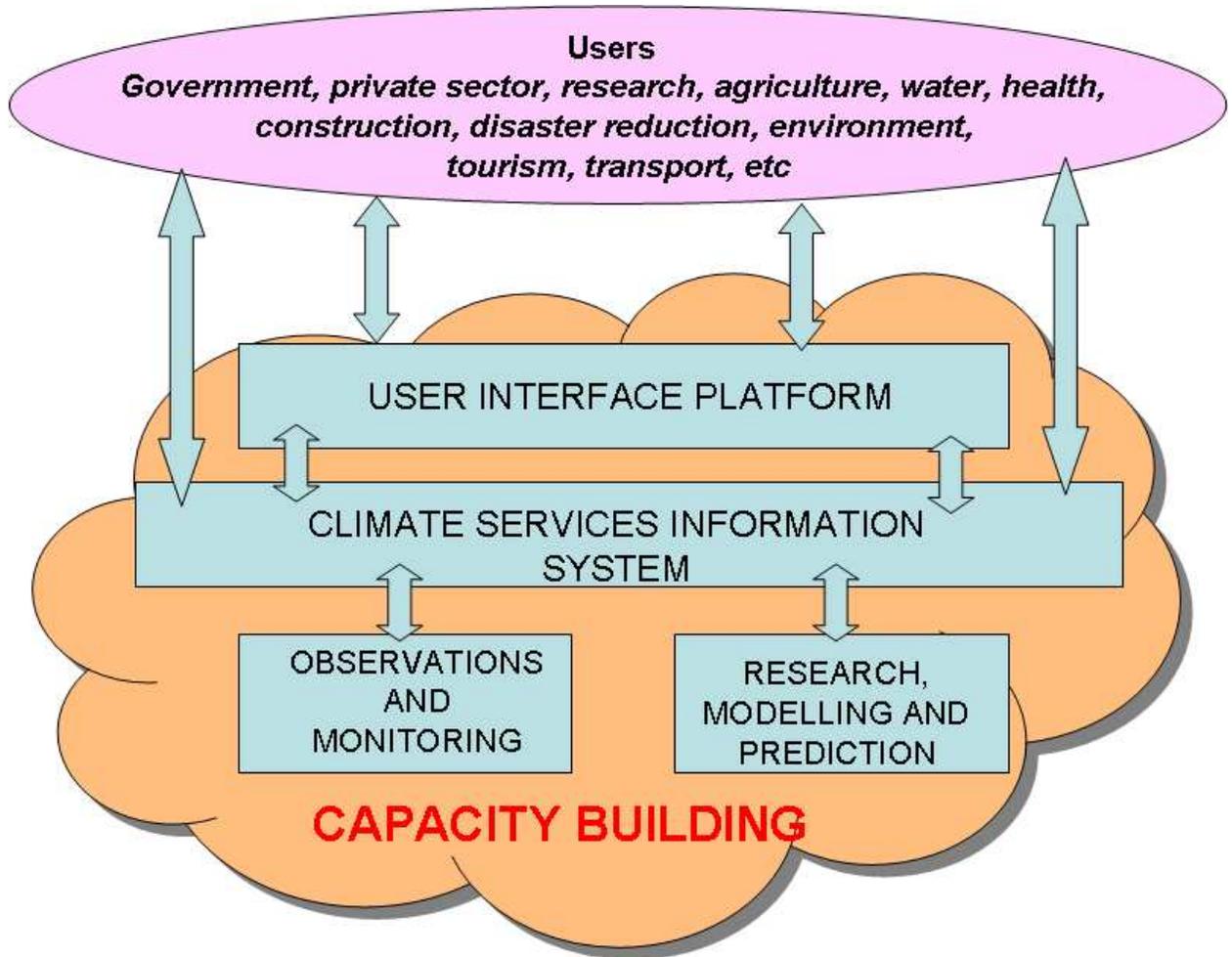
Aim of talk

To elaborate on some relevant global and regional mechanisms supportive to national Climate Watch implementation



Global Framework for Climate Services

WCC3 decided to establish a Global Framework for Climate Services (GFCS) to strengthen the production, availability, delivery and application of science-based climate prediction and services.





WMO Global Producing Centres

Function of WMO GPCs: Provision of global-scale long-range (seasonal) prediction information to Regional Climate Centres, Regional Climate Outlook Forums and National Meteorological and Hydrological Services

Note: Other centres produce equivalent products (e.g. IRI, APCC)

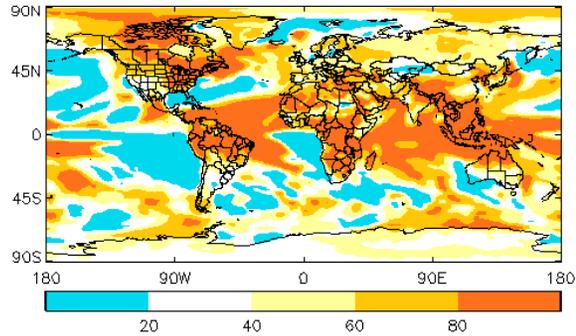
Variables:	2m temp, precip and SST
Format:	probabilities for tercile categories
Temporal resolution:	1 month or longer (seasons)
Spatial resolution:	2.5°x2.5°
Coverage:	global
Lead time:	between 0 and 4 months;
Issue frequency:	monthly or at least quarterly

Many GPCs provide additional variables (e.g. pmsl, T 850hPa); products (e.g. ensemble mean anomaly); and longer range products.

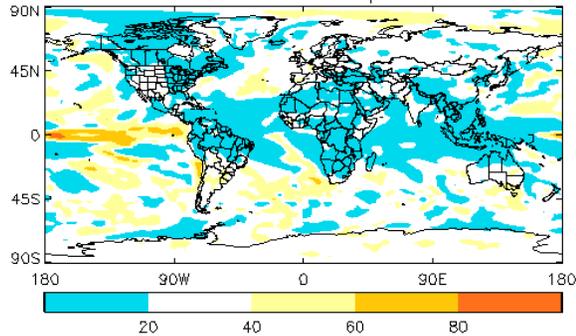


WMO Global Producing Centres

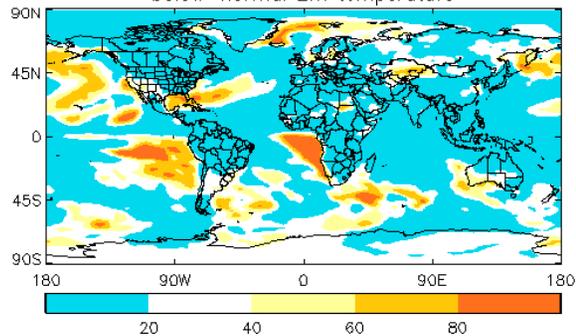
Probability of tercile categories Apr/May/June Issued Mar 2010
above-normal 2m temperature



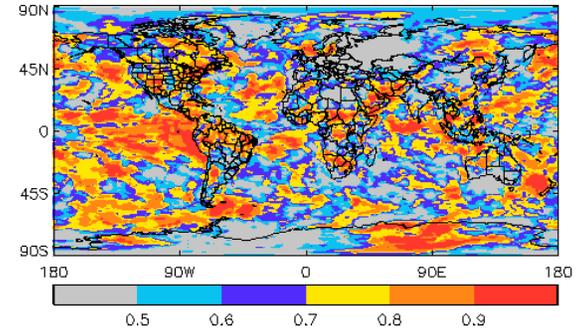
near-normal 2m temperature



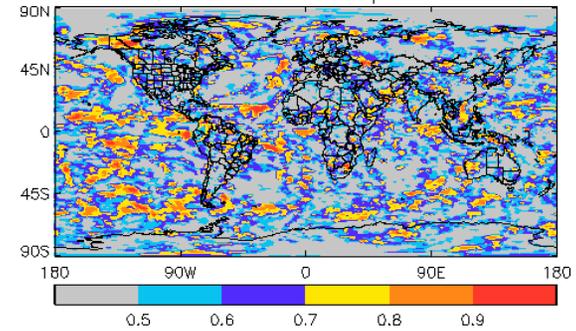
below-normal 2m temperature



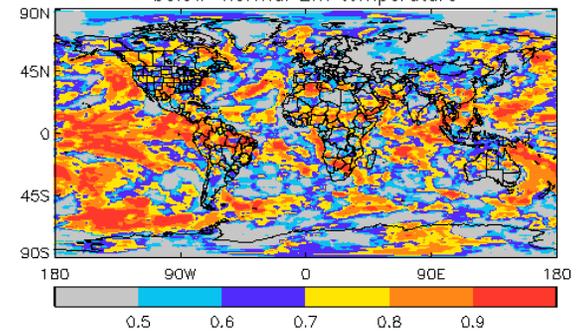
ROC scores for tercile categories Apr/May/June/: Issued March
above-normal 2m temperature



near-normal 2m temperature



below-normal 2m temperature



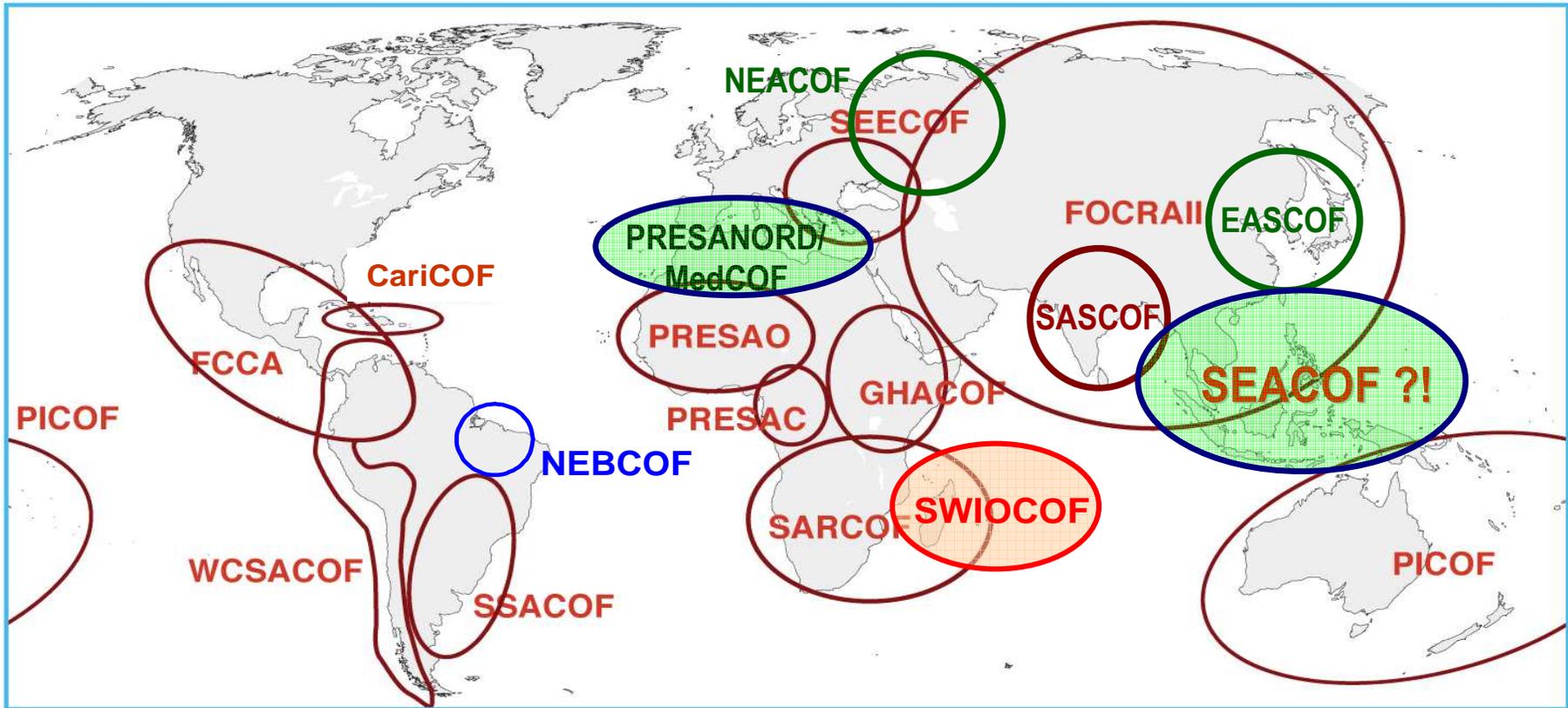


Regional Climate Outlook Forums

RCOFs bring together national, regional and international climate experts, on a regular basis, to produce regional climate outlooks based on input from global and regional producers of climate information as well as from NMHSs of the region concerned by:

- > addressing regions of common climate characteristics
- > ensuring consistency in access to, and interpretation of, climate information
- > facilitating close user interaction to jointly assess the likely implications of the outlooks
- > providing training on long-range forecasting, communication etc.

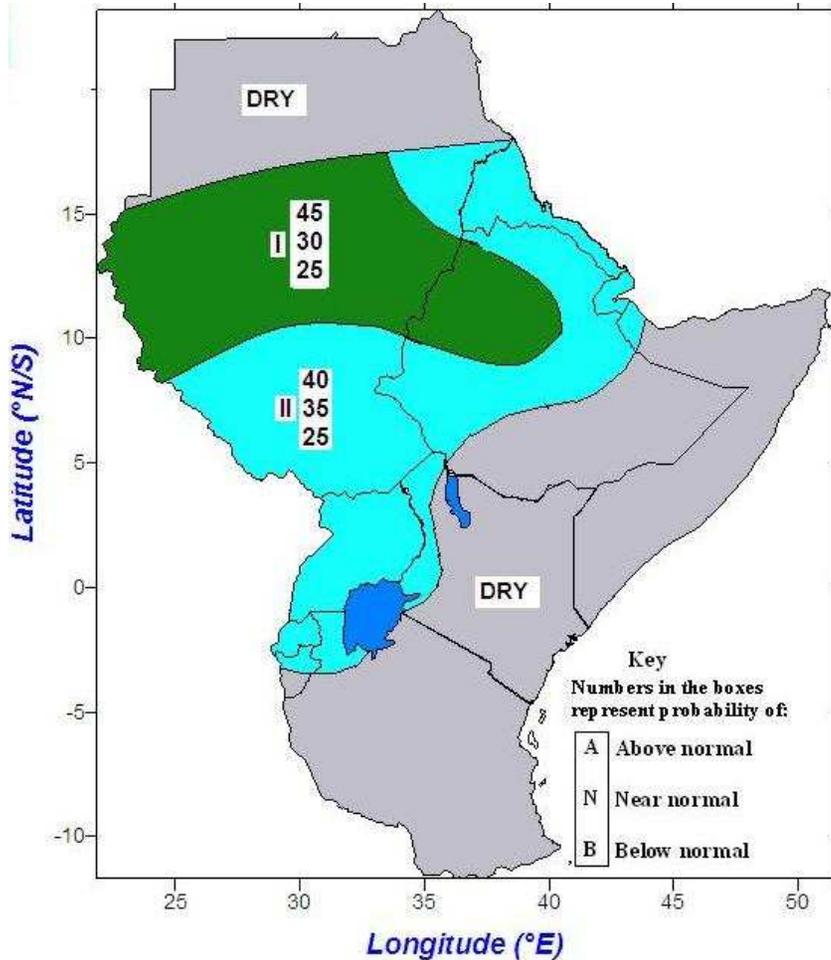
Regional Climate Outlook Forums





Regional Climate Outlook Forums

IGAD Pilot RCC: Greater Horn of Africa Consensus Climate Outlook for July to September 2011



July to September constitutes a major rainfall season over much of the northern sector as well as the western parts of the equatorial sector of the GHA .

- Zone I:** Increased likelihood of above normal rainfall over Central Sudan and western Ethiopia.
- Zone II:** Increased likelihood of above to near normal rainfall over Eritrea; Djibouti; Uganda; Rwanda; northern Burundi; north-western Tanzania; Western Kenya; extreme north-western Somalia; south-western, central and north-eastern as well as southern and parts of north-eastern Sudan.
- Ethiopia** The rest of the GHA region is likely to remain generally dry.



WMO Regional Climate Centres

- RCCs are Centres of Excellence, which perform mandatory operational regional-scale climate functions in the domains of **long-range forecasting**, **climate monitoring**, **data services** and **training**
- Highly recommended functions comprise the domains of **climate projections**, **co-ordination**, **capacity building** and **R&D**
- RCCs are complementary to and supportive of NMHSs, which deliver all warnings and national-scale products

Mandatory product list (examples):

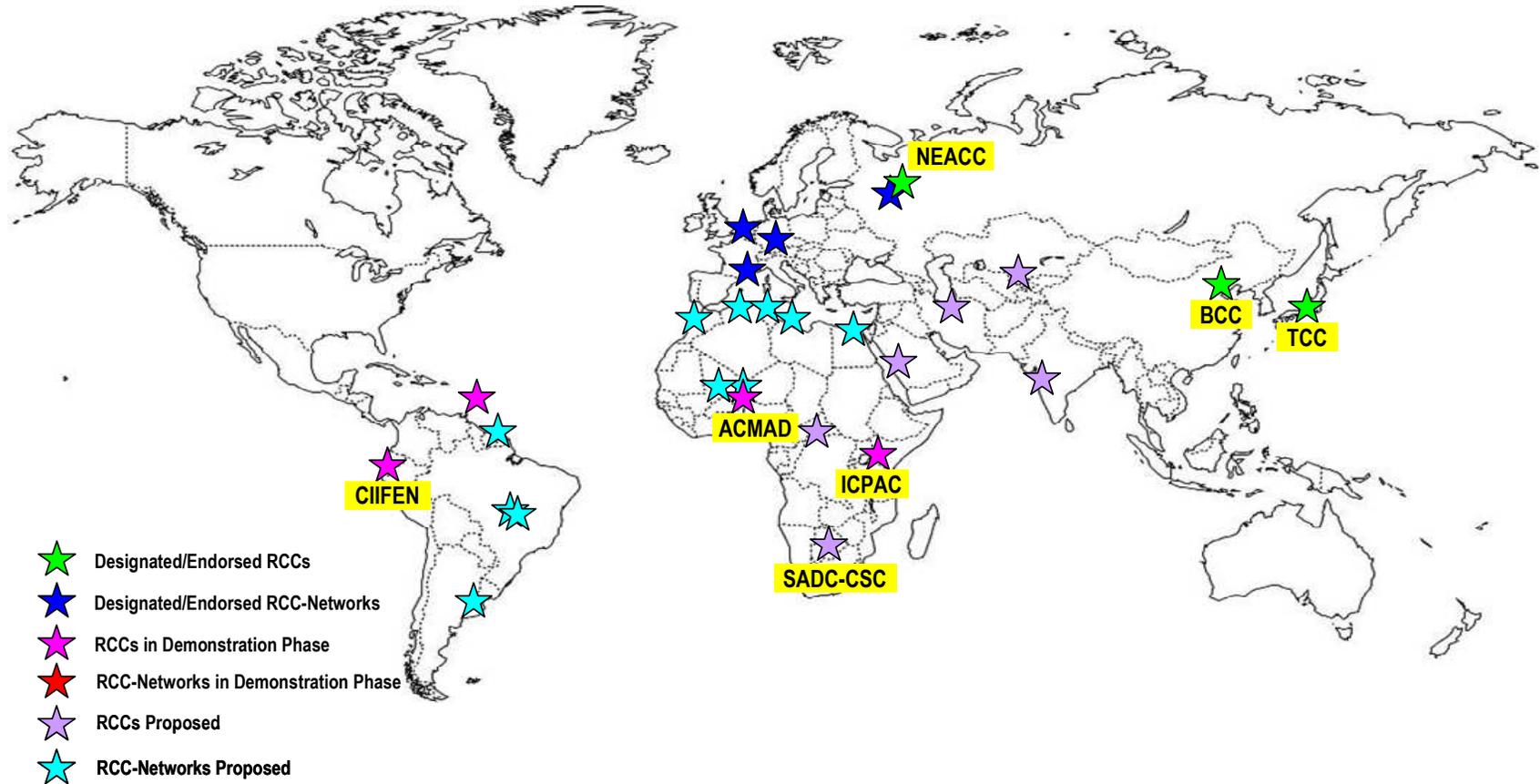
Assessment of LRF products from GPCs
Regional/sub-regional seasonal outlooks
Consensus outlook statements (e.g. RCOFs)
Verification datasets
Climate diagnostic bulletins
Reference climatologies

Implementation of Climate Watches

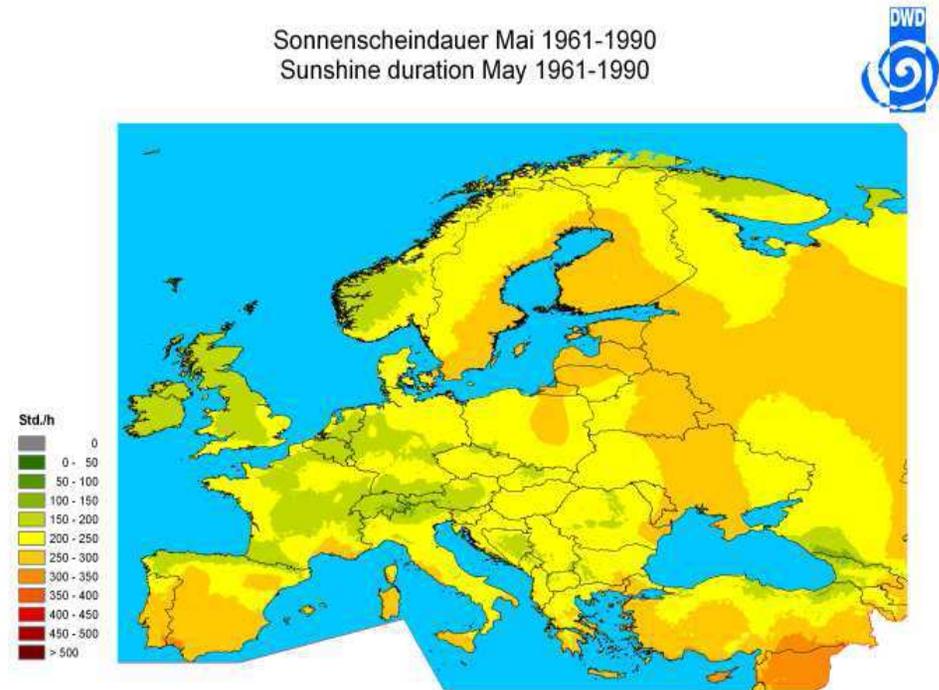
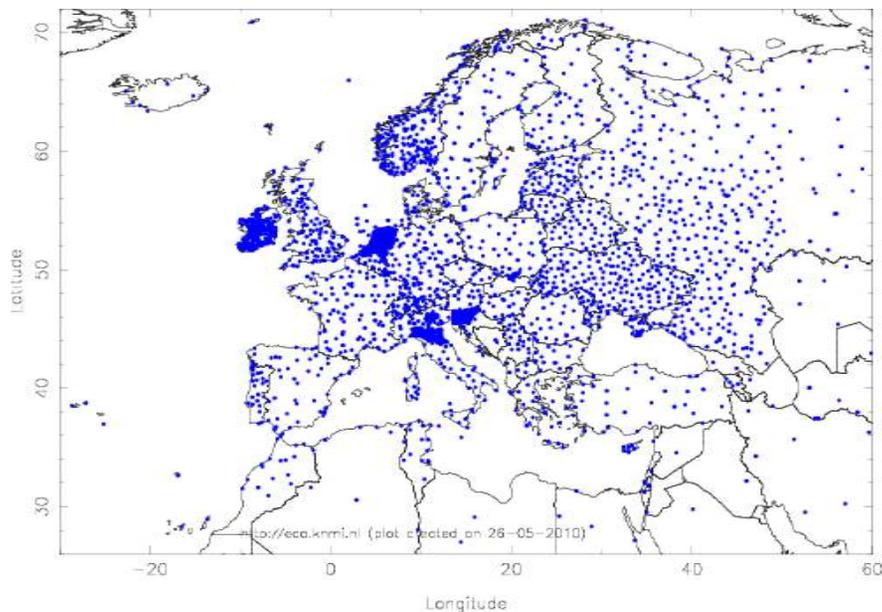
Regional climate datasets
Training, feedback mechanisms, information portals



WMO Regional Climate Centres



WMO Regional Climate Centres

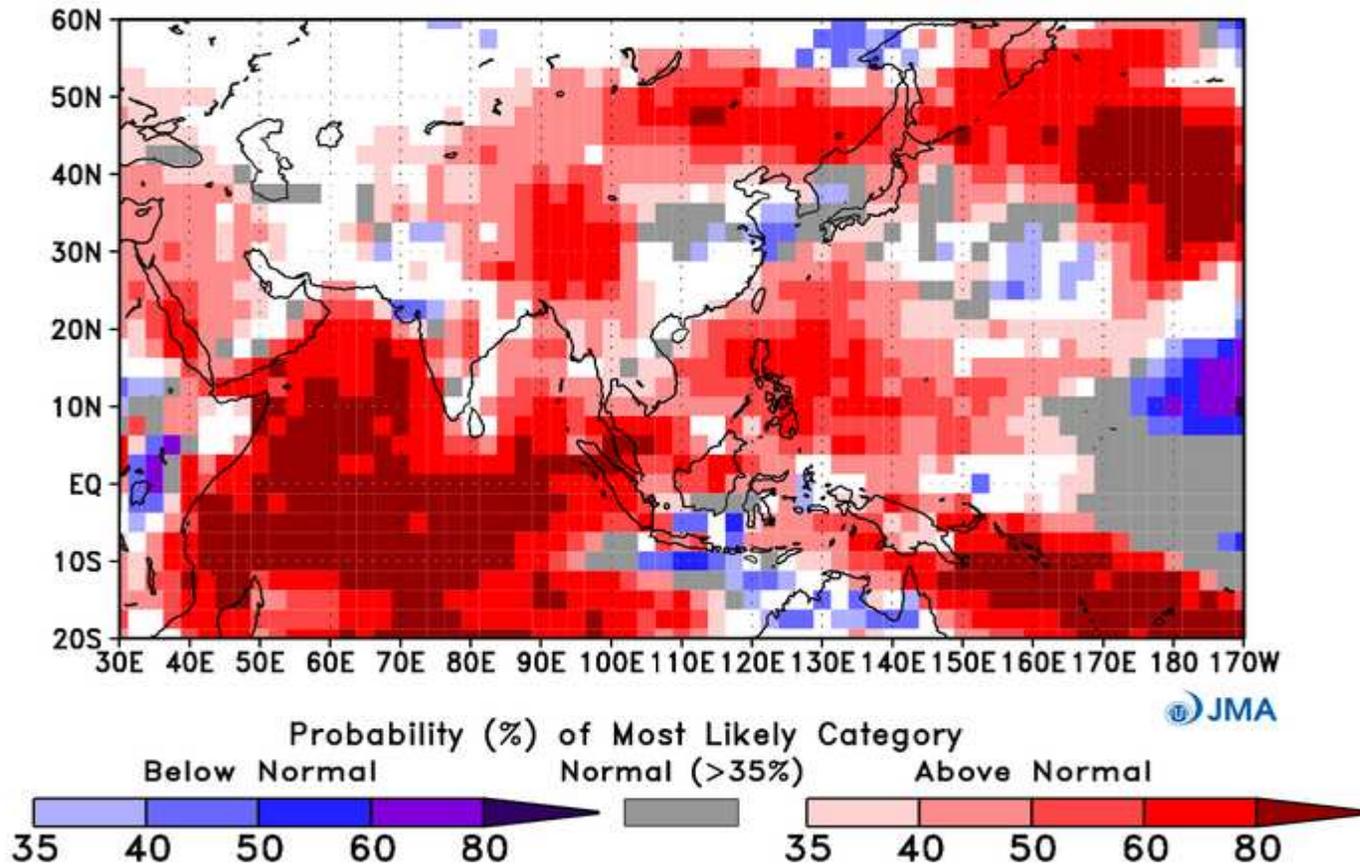


RA VI Pilot RCC-Network: Station density of regional climate dataset (left) and reference climatology (May, 1961-90) for sunshine duration (right)



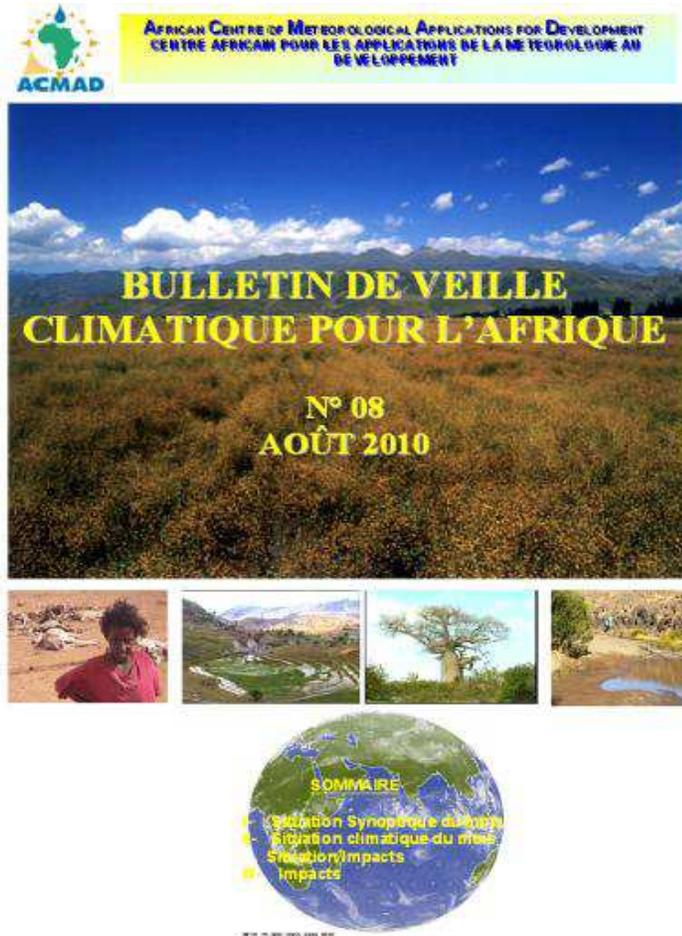
WMO Regional Climate Centres

JMA Seasonal Forecast (Forecast initial date is 14 08 2011)
Most likely category of Surface Temperature for SON 2011

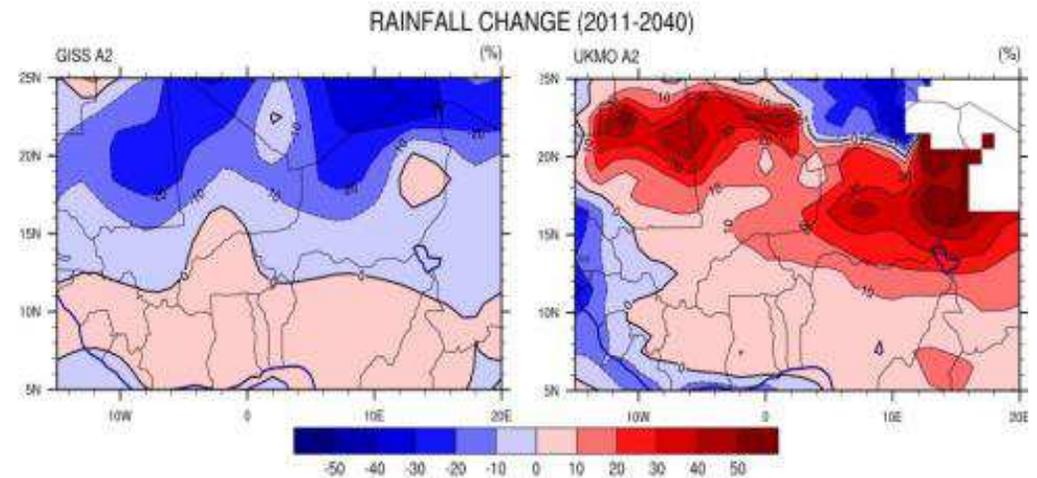


RCC
Tokyo:
Seasonal
forecast
product

WMO Regional Climate Centres



African Pilot RCC: Monthly climate bulletin (left) and climate change scenario (below)





WMO Climate Watch Systems

WMO Climate Watch systems...

**... enable delivery of national climate advisories
on occurring and expected climate anomalies to users as a climate service**

... are part of the mandatory RCC functions
and will receive guidance information from
regional entities and mechanisms, such as
RCCs and RCOFs,

... might be fed by global guidance products, such as
WMO's El Niño/La Niña Update and the upcoming
GSCU



WMO Regional Climate Centres

IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE (ICPAC)

**CLIMATE WATCH FOR THE PERIOD MARCH-MAY 2011 (including outlook for MAY-AUGUST 2011)
(REF: ICPAC/CW/NO.24, MAY 2011)**

SUMMARY

This climate watch provides a review of the observed climate conditions during March to May 2011 period and the associated impacts over the Greater Horn of Africa. It further gives the climate outlook for the month of June 2011. Severe drought has persisted over most parts of the eastern sector of equatorial GHA since the last quarter of 2010 with far reaching socio-economic implications that include lack of water, pasture, energy and food; famine; loss of livestock, life and property; mass migration and environmental refugees, among others. The persistence of drought over some of these areas has been associated with La Niña conditions.

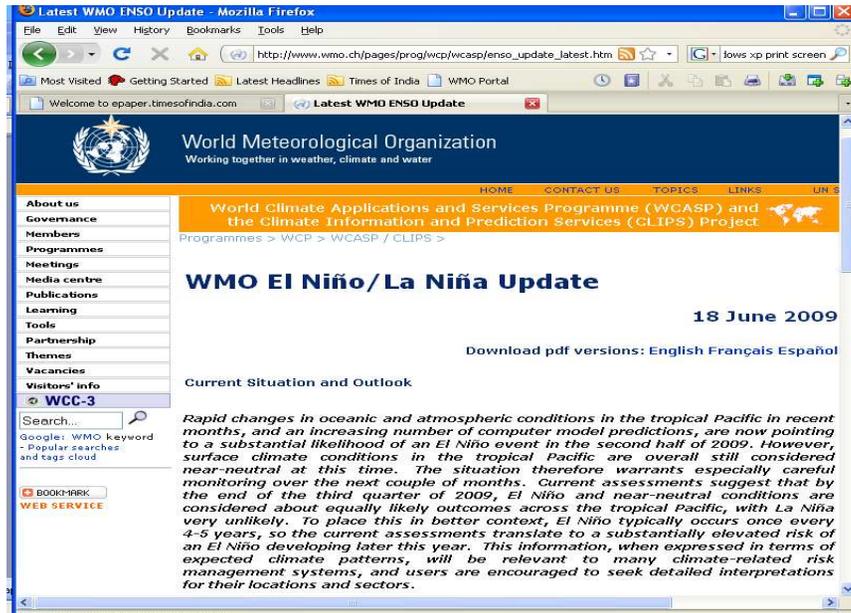
...

IGAD Pilot RCC: Climate Watch



WMO El Niño/La Niña Updates and GSCU

WMO has been issuing consensus based **El Niño/La Niña Updates** on a quasi-regular basis over the past more than a decade, providing useful information on these events of significant importance to regional climate impacts.



A trial phase for a **Global Seasonal Climate Updates (GSCU)** is under way, expanding the idea of El Niño/La Niña Updates to a quarterly publication on the observed status and potential evolution of the global climate (ENSO, SST, TT, RR, significant events).

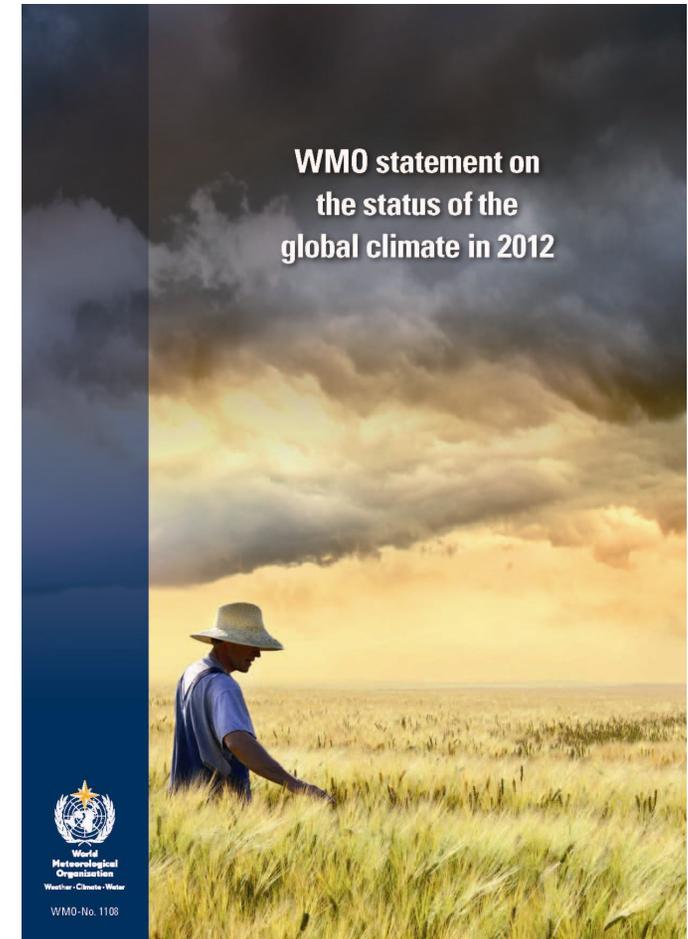


Annual WMO Statement

Each year WMO produces its Statement on the Status of the Global Climate

The activity consists of a press release mid December and the publication of a 12-page brochure in March of the following year

The brochure provides information mainly about global temperature, regional temperature and precipitation patterns, hazards, droughts and floods, tropical cyclones, ENSO, Arctic Sea Ice. A feature article informs on a subject of interest attached to the content of the brochure.





Thank you

Merci

Спасибо

Gracias

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