

Lessons from ICPAC's Regional Climate outlook forums (RCOFs) in Regional Networking and Consensus Building, and User Liaison for Targeted Climate service Delivery

L.A.OGALLO

**IGAD CLIMATE AND APPLICATIONS
CENTRE (ICPAC)**

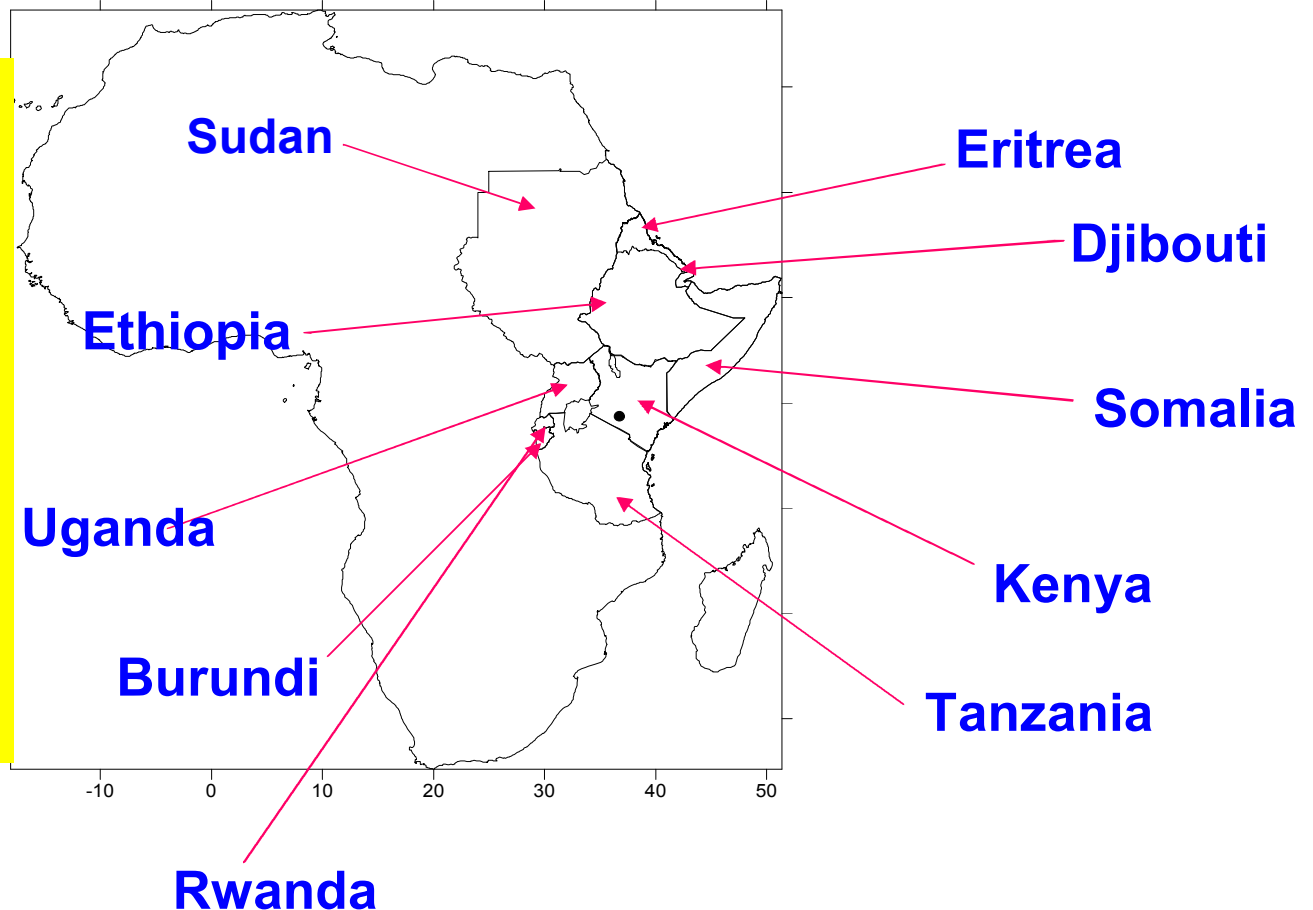
www.icpac.net

ICPAC MEMBER COUNTRIES (**SEVEN IGAD PLUS TANZANIA, RWANDA AND BURUNDI**)

Established by NMHSs, UNDP and WMO IN 1988

CLIMATE TOOLS
and
APPLICATIONS
FOR DEVELOPMENT

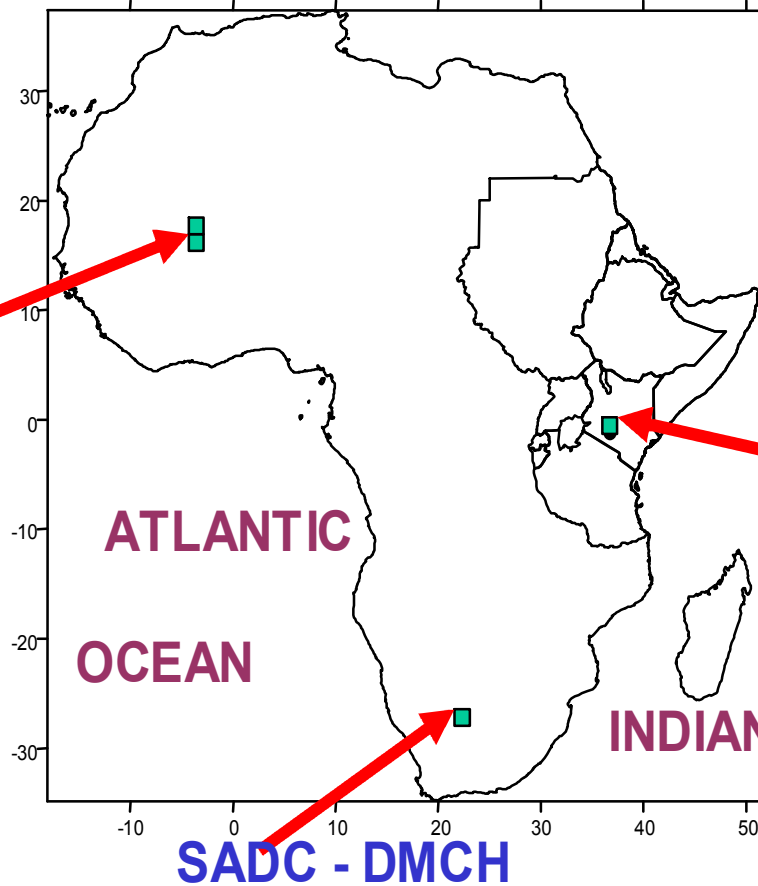
OWNER
NMHSs and
ECONOMIC
GROUPS



CURRENT 3 MAJOR AFRICAN CLIMATE CENTRES MAINSTREAM CLIMATE IN SUSTAINABLE DEVELOPMENT



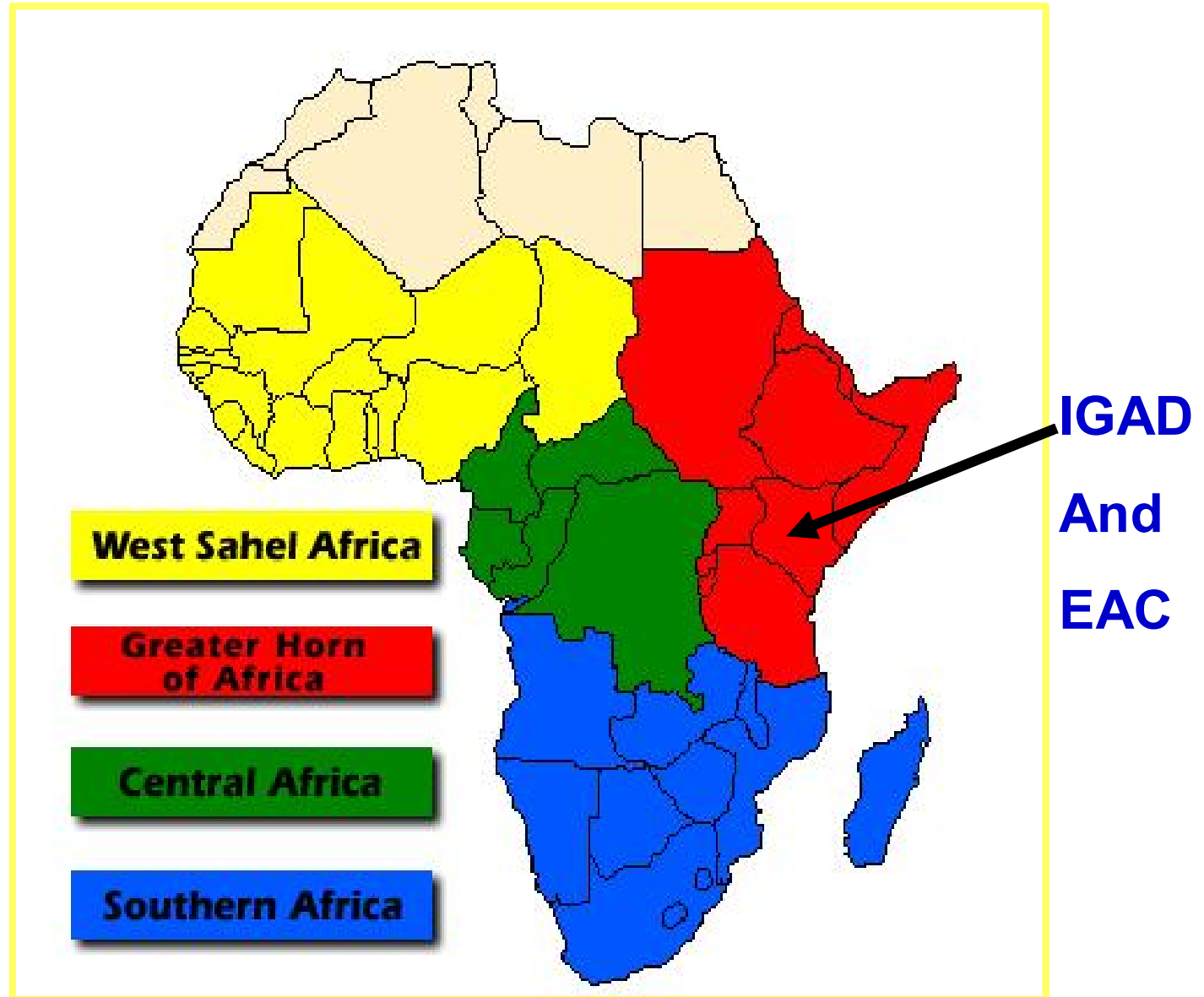
NIAMEY,
ACMAD



ICPAC, Nairobi,



SOCIO-ECONOMIC GROUPS IN AFRICA



CLIMATE SERVICES IN GREATER HORN OF AFRICA

- **WHY CLIMATE OUTLOOK FORUMS?
NMHSs??**
- **WHY REGIONAL CENTRES?**
- **Increasing climate risks from
1970s**
 - **Predictability signals from ENSO
1982/ 83 El Nino and 1984 La Nina**

CLIMATE OUTLOOK FORUMS (COFs)

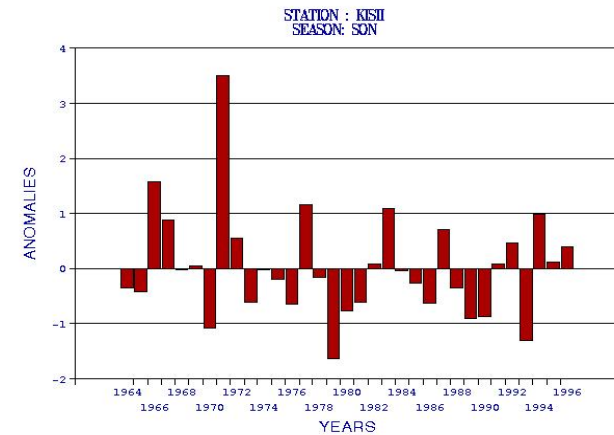
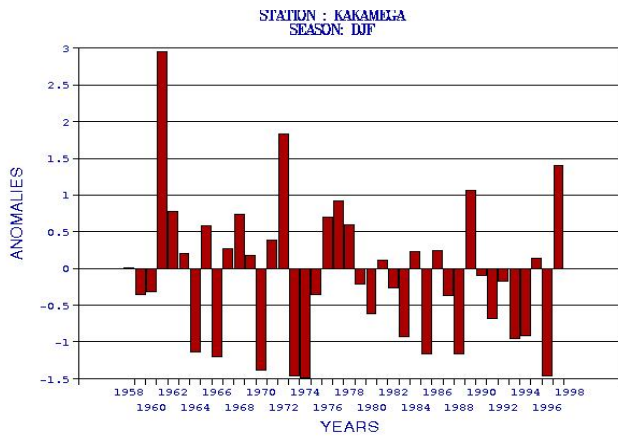
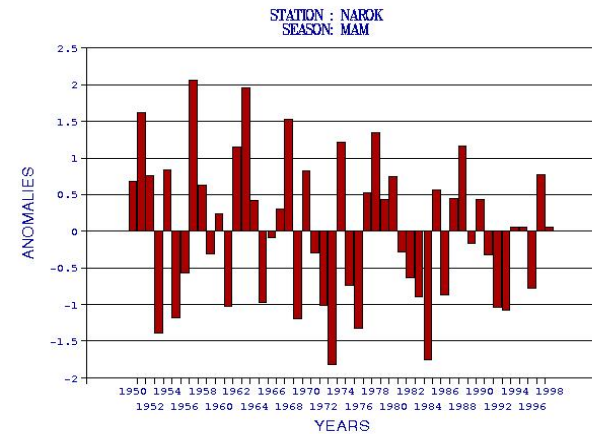
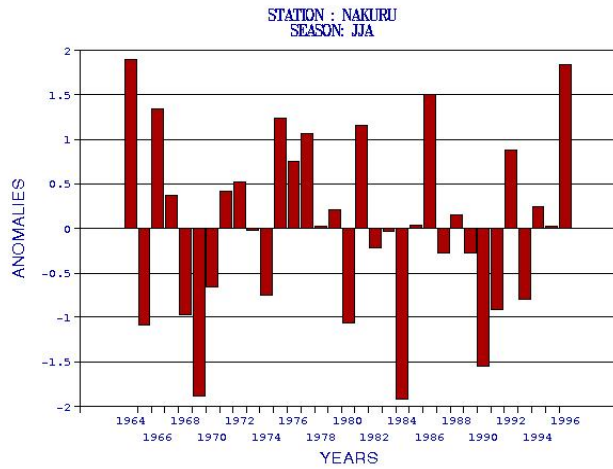
Forum for Pre-season season climate outlook

1986-88 ENSO, a lot of lessons

- **Provide a forum for standardization and verification FORUM for seasonal climate outlook- users perspectives: WMO/CLIPS; NOAA, and USAID; IRI**
- **Provide the climate scientists from NMHSs , international and regional climate centres develop and release a single best regional seasonal climate outlook products for GHA- 1997/98 EL NINO and 1999 La Nina**
- **Minimize the confusion of the users with products from the individual centers**

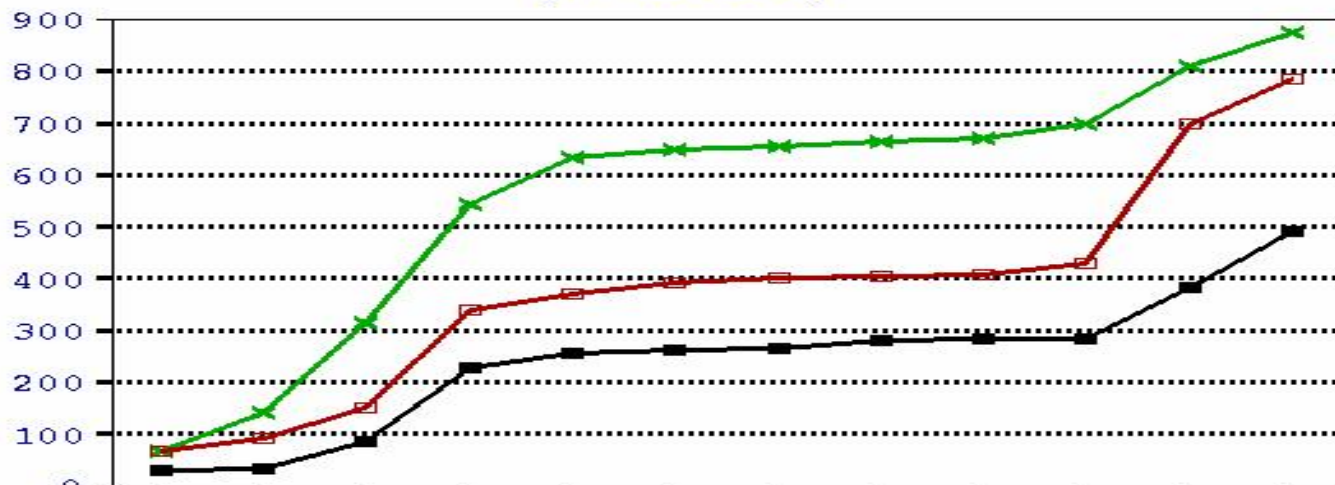
WHY REGIONAL CENTRES

Climate variability: EL NIÑO



STATION : ARUSHA
(N.E. TANZANIA)

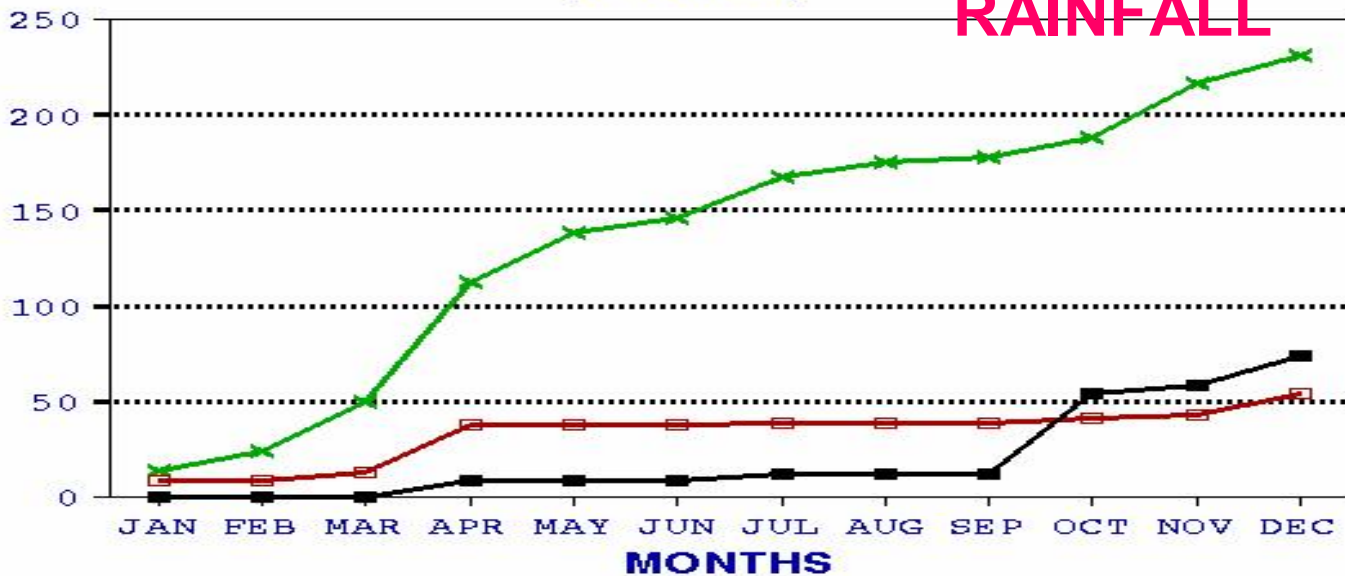
CUMULATIVE MONTHLY R/FALL (mm)



STATION : LODWAR
(N.W. KENYA)

LA NINA
RAINFALL

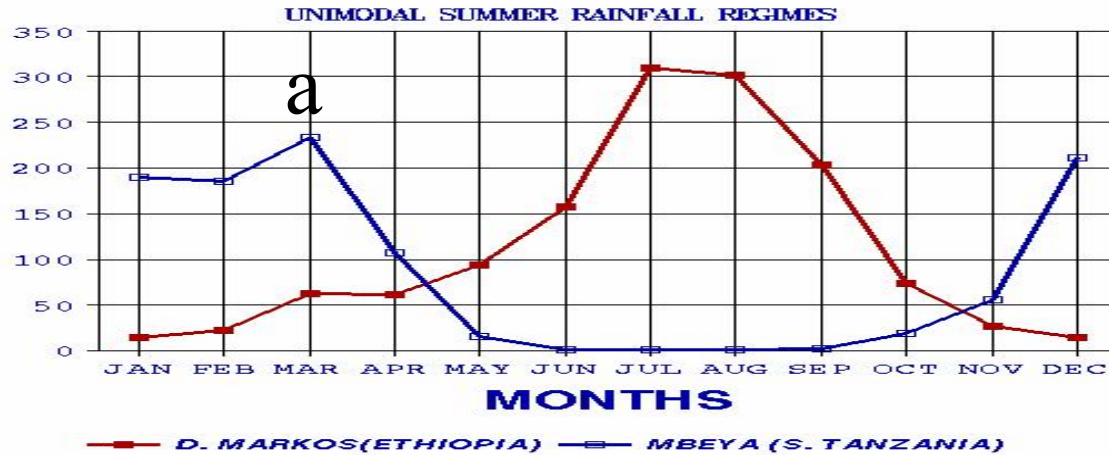
CUMULATIVE MONTHLY R/FALL (mm)



—x— MEAN —□— 1984 —■— 2000

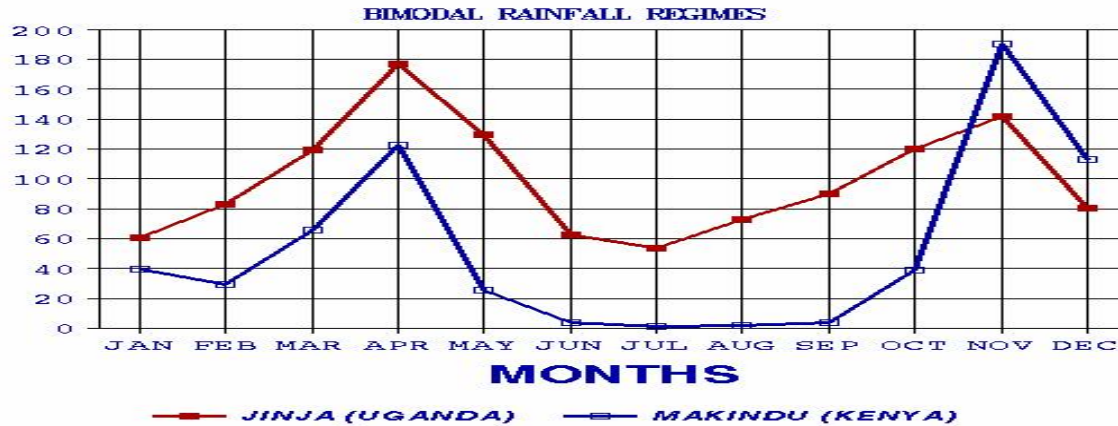
SEASONAL RAINFALL AND ENSO PHASES

MEAN MONTHLY R/FALL (mm)



b

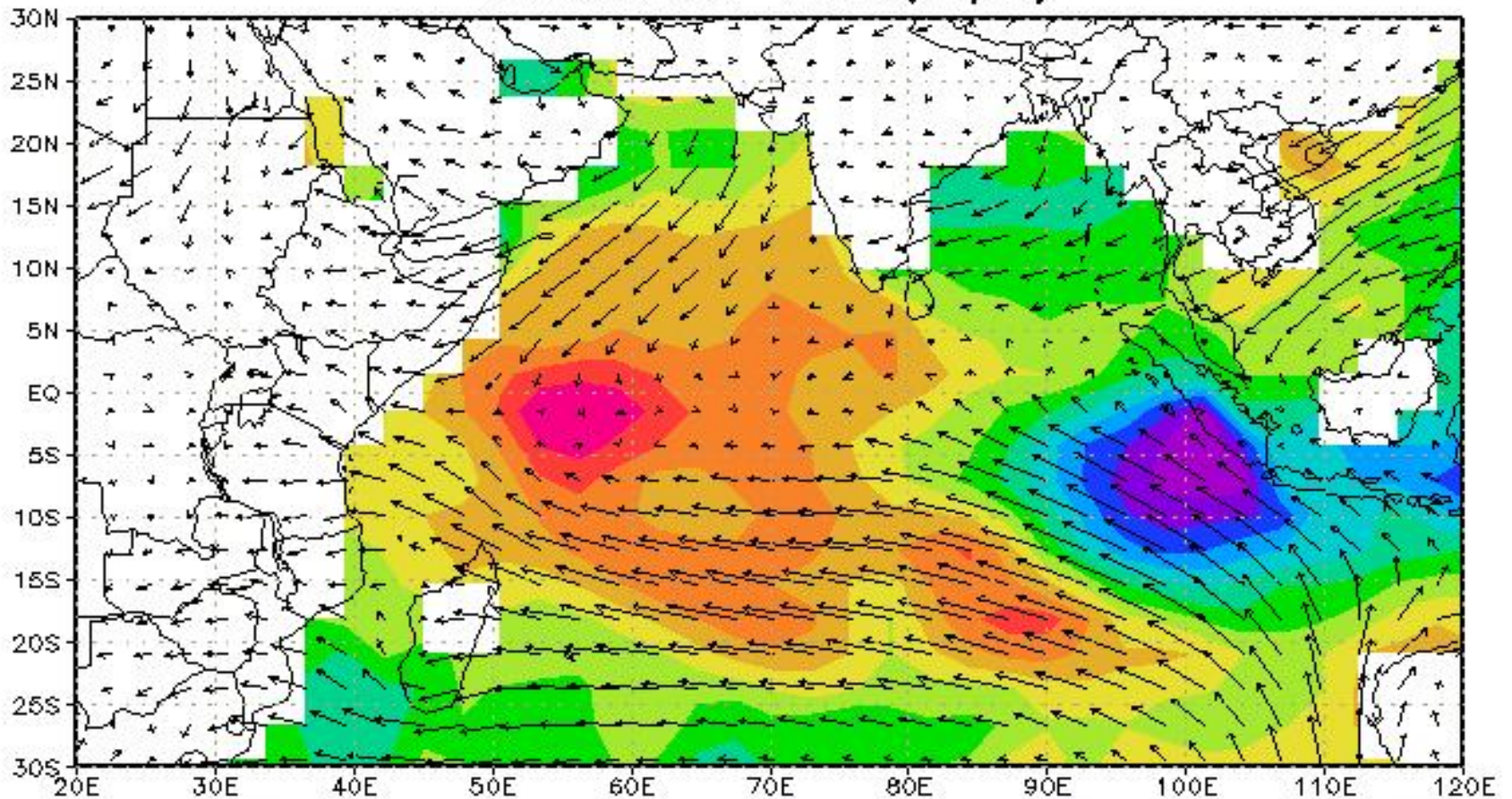
MEAN MONTHLY R/FALL (mm)



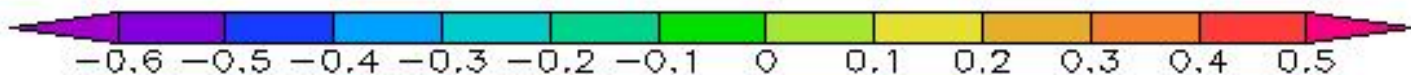
1986-1988 ENSO: RESEARCH AND CAPACITY BUILDING ACTIVITY with local Universities



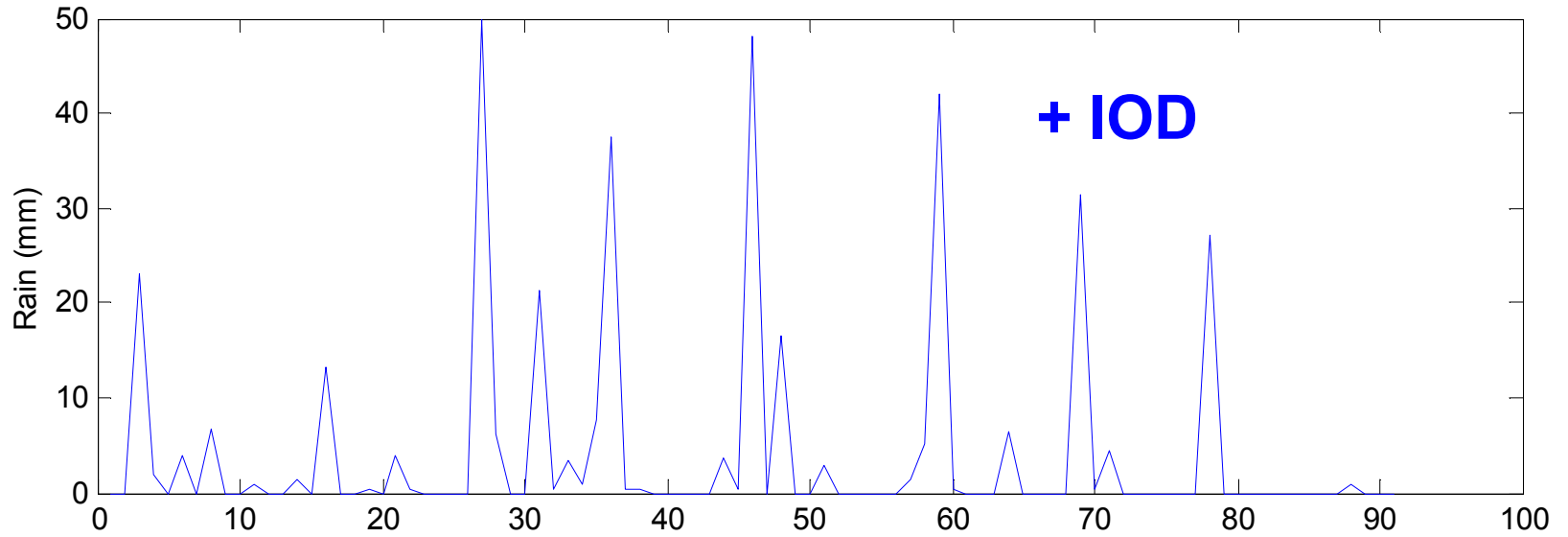
MEAN POSITIVE IOD SON SSTA(deg.C)
OBSERVED WIND(m/s)



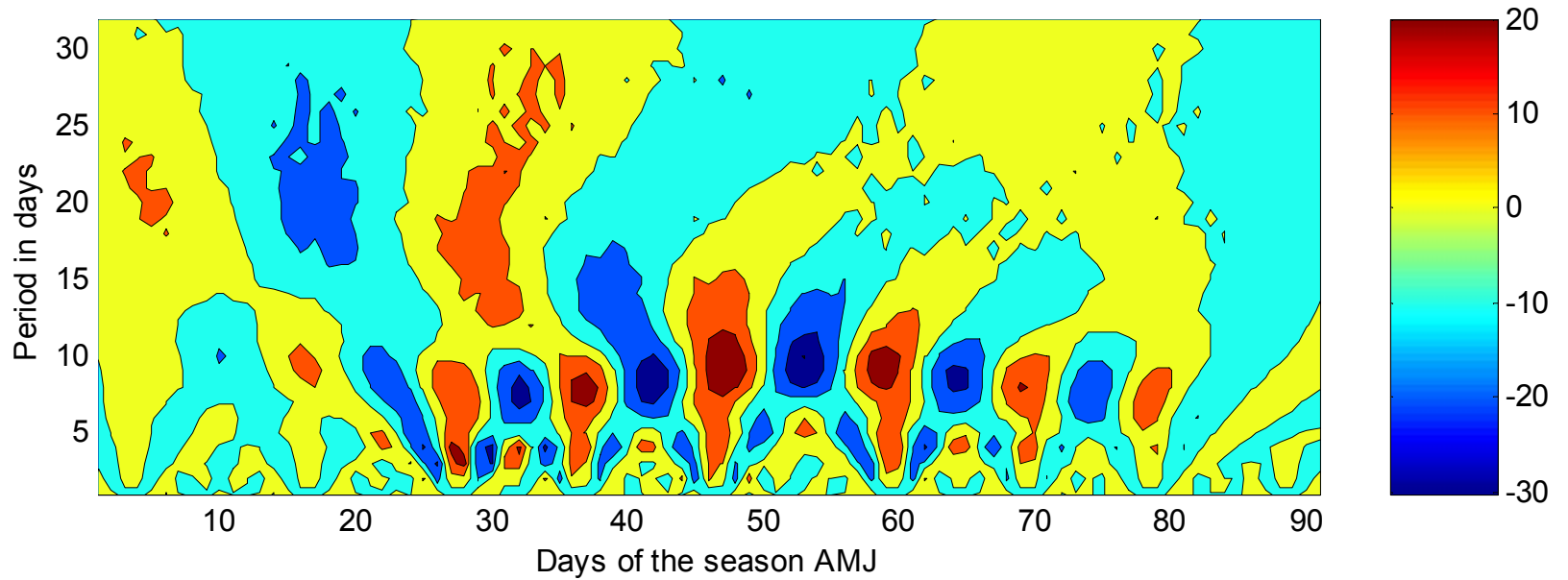
Composite of surface circulation patterns IOD event years
for the SON season.



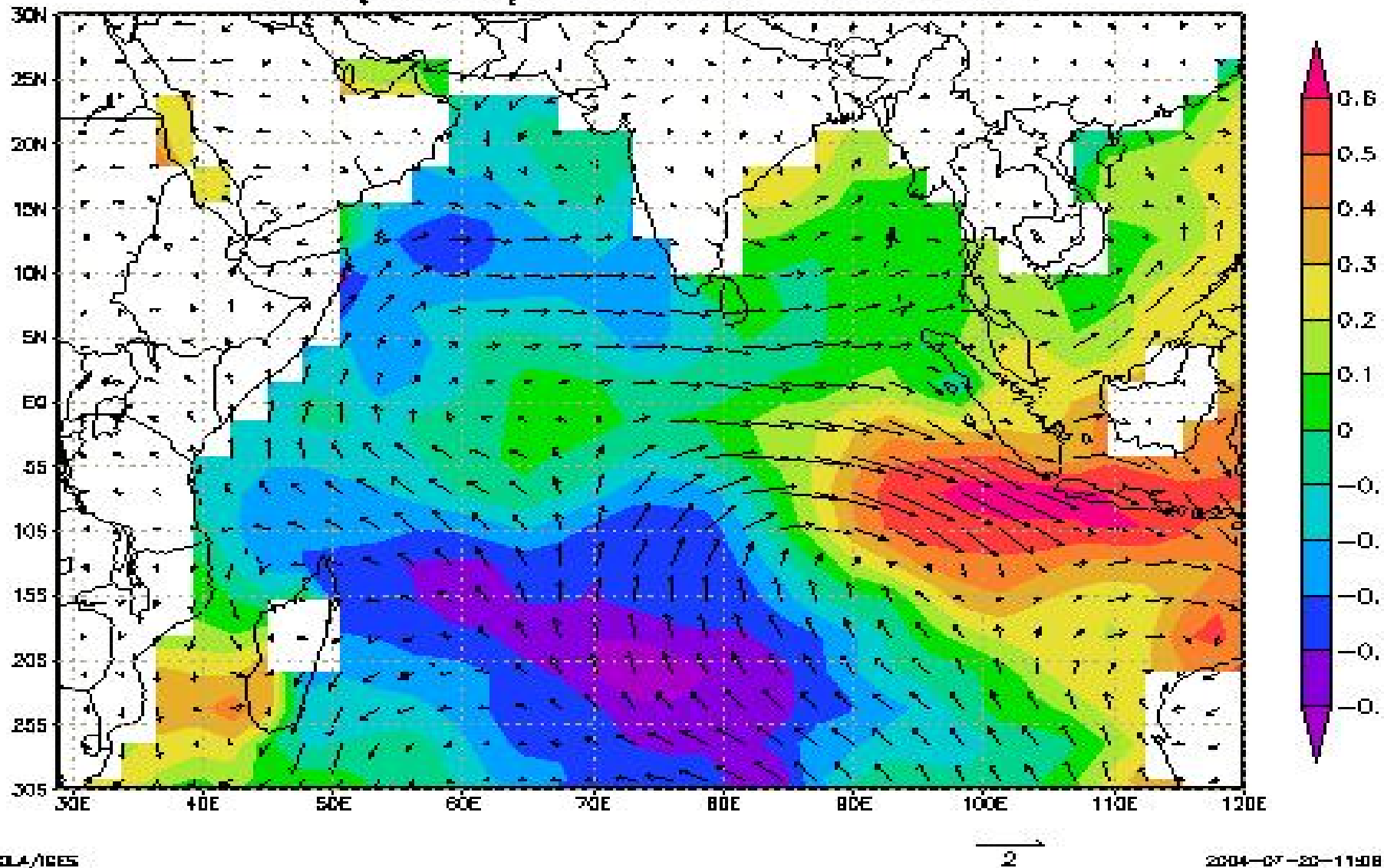
Original daily rainfall time series



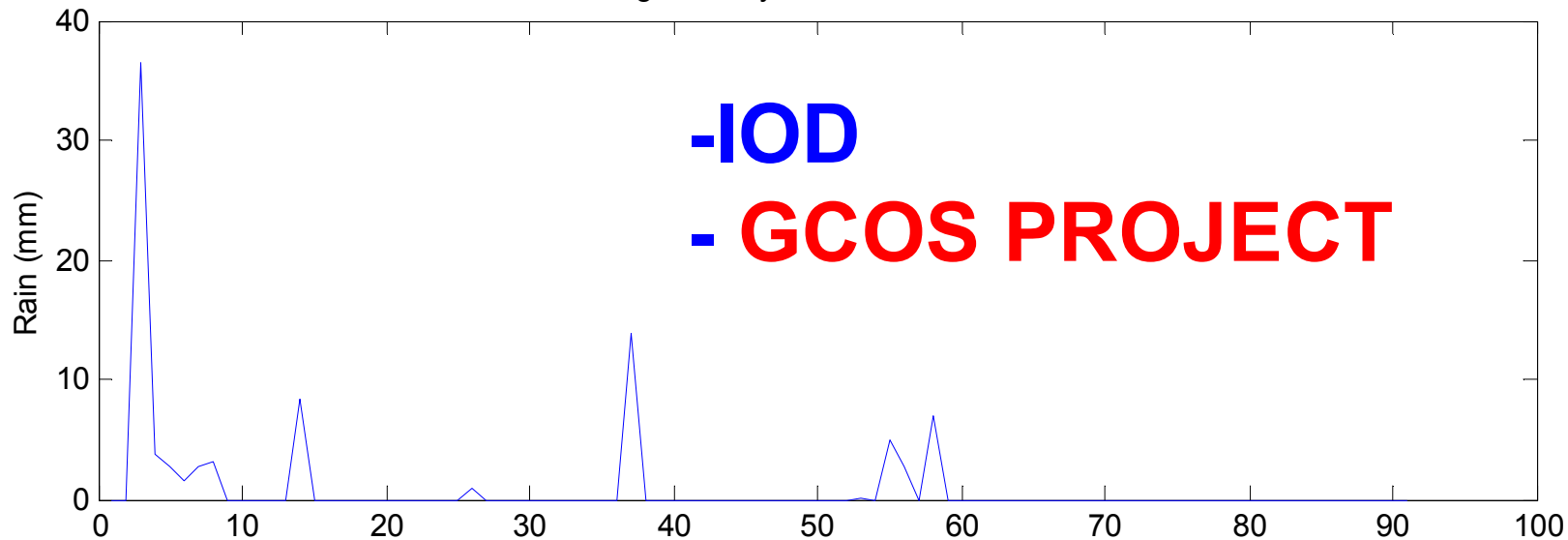
Morlet Wavelet for AMJ 2005 over Masindi



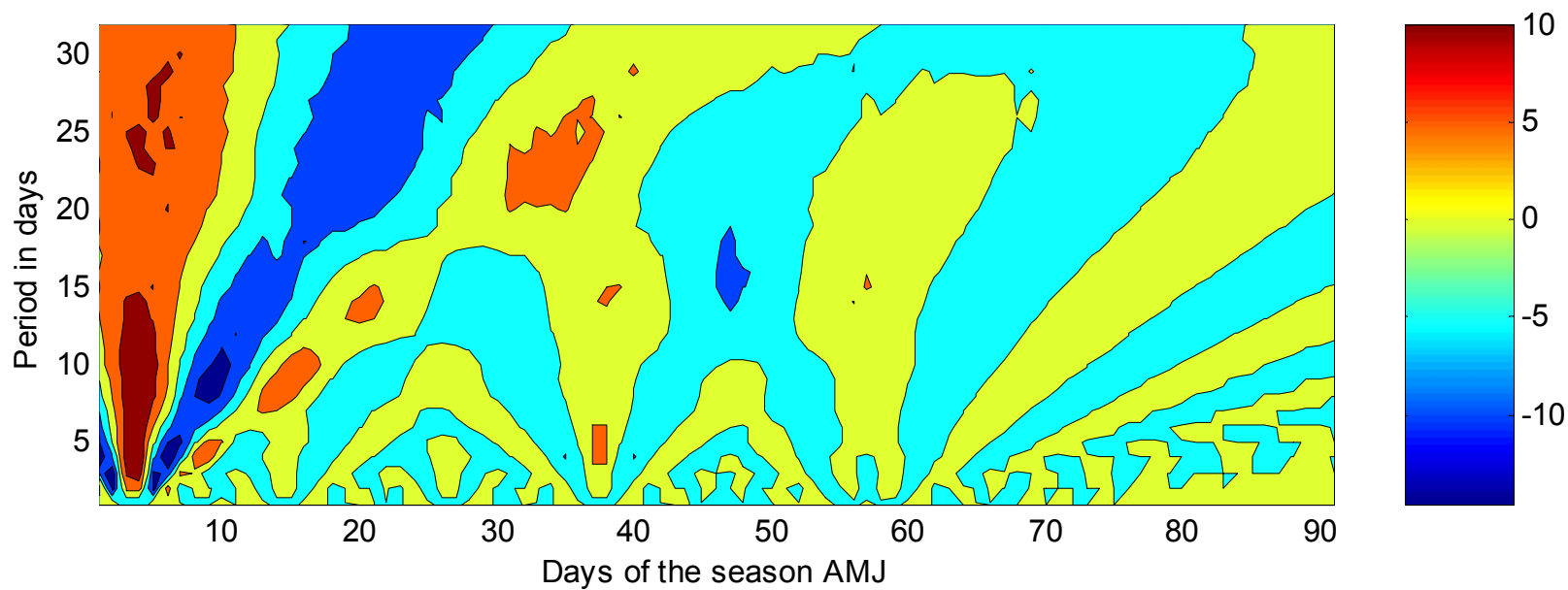
COMPOSITE FOR SON SST(COLOUR) WIND(VECTOR) ANOMALIES - NEGATIVE IOQ



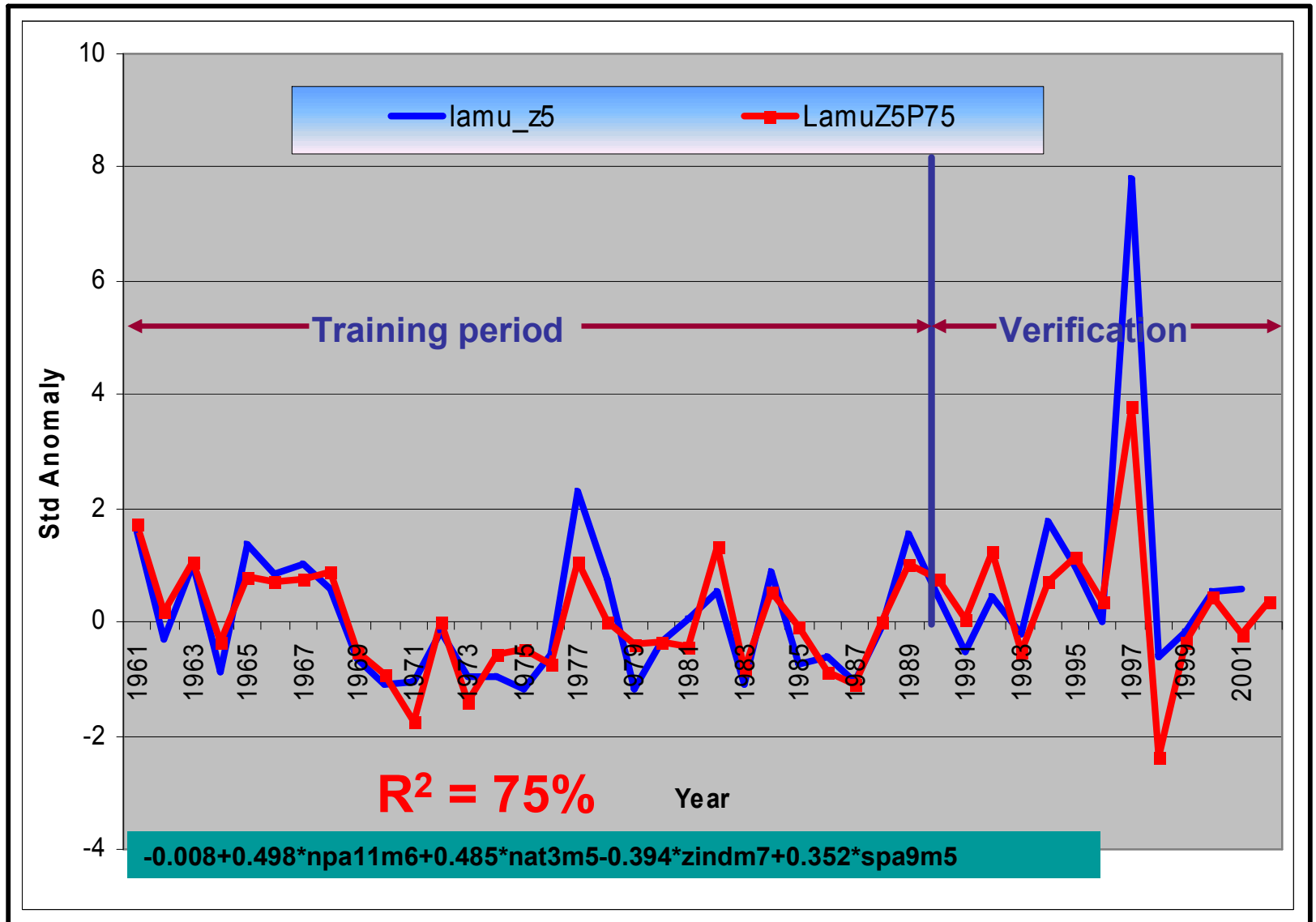
Original daily rainfall time series



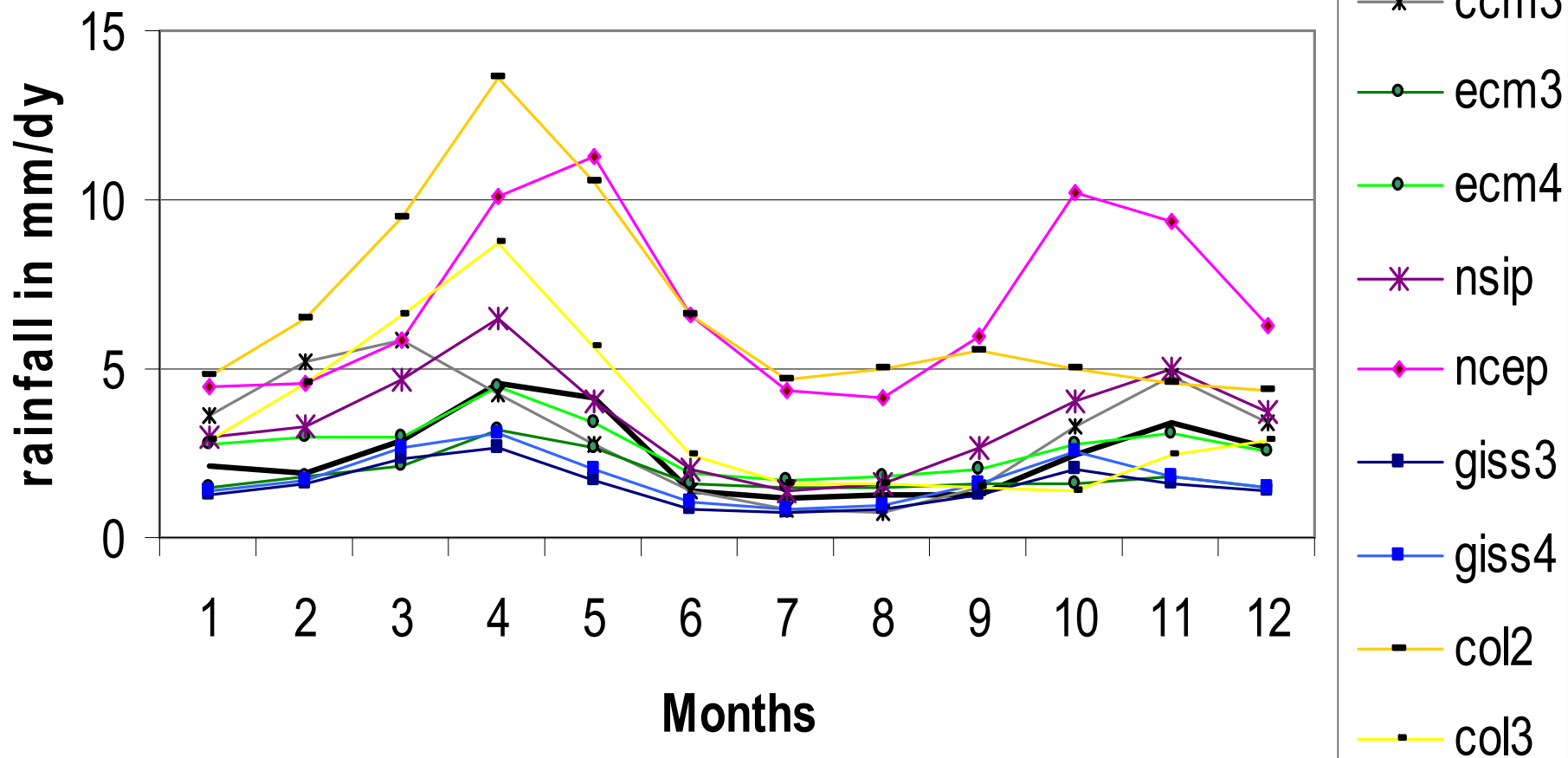
Morlet Wavelet for AMJ 2005 over Voi



Empirical model



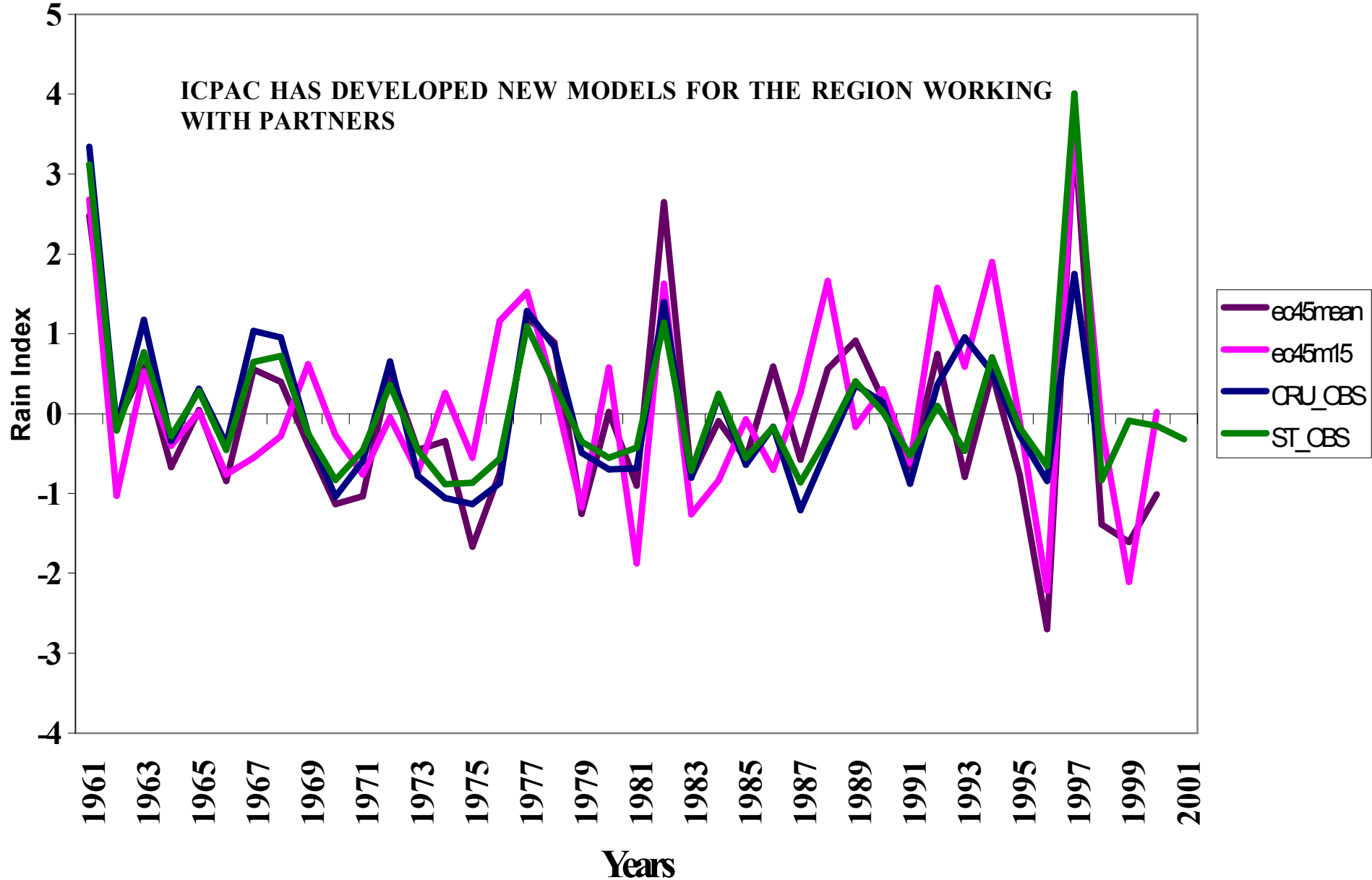
Annual cycle during 1979-1999



REGIONAL AND INTERNATIONAL COOPERATION
VERIFICATION AND EVALUATION Collaboration with IRI

PREDICTION AND EARLY WARNING

ICPAC HAS DEVELOPED NEW MODELS FOR THE REGION WORKING WITH PARTNERS



WITHIN SEASON UP DATES

- **EVERY 10 DAYS: 8,18,28th one day embargo ; Monthly and 3 monthly:**
- **key target nomads , illiterate rural farmers**
- **Education and awareness**
- **Booklets, Translation: NMHSs; ISDR**
- **RANET**

KAJIADO SOUTH - MAASAI COMMUNITY

WESTERN KENYA - LUHYA COMMUNITY



Water stress due to poor rainfall performance



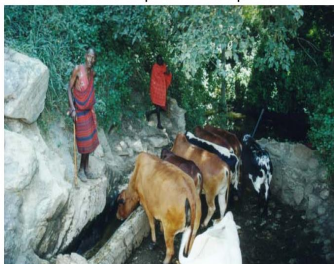
A lady herding her animals



Local Community taking climate experts through the use of indigenous method of forecast



Introduction to varieties of indigenous trees



Wells used as watering points during dry periods



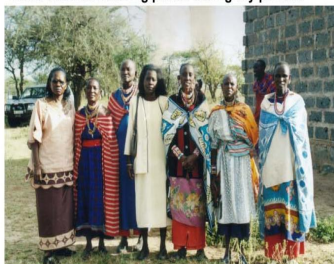
Pupils go through interpreted vernacular forecast



Interaction between local community and Stakeholders



Forecast interpretation to the local community



Sensitization of women on use of forecasts



Community and stakeholders after interpretation of seasonal forecast



Community being taken through the forecast



Climate experts, stakeholders and the Nganyi community after seasonal forecast interpretations

REPUBLIC OF KENYA
MINISTRY OF TRANSPORT
KENYA METEOROLOGICAL DEPARTMENT
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 E-mail: met@met.go.ke; Web: www.met.go.ke

UKULELE CANTHART OF THE CONGLAMINS MAIN

POTENTIAL IMPACTS
 Mosquito Management
 Although the 'Moring' Rainy Season in December of 2018, and the ongoing long rains (Improved Energy and water for food, energy, and health, performance related to water and potential capacity to drain the water into the ground and also in the soil of the season. There is also potential for Mosquito (Aedes albopictus) to spread over the season and also in the soil. Mosquitoes are a major health risk to humans and animals, and their control is essential for the health and safety of the community. There are also emerging concerns and the need for the community to be aware of the risks and take necessary measures to prevent the spread of disease.

Water Resources Management Sector
 Water resources for drinking water and for the water points of the community should be well managed in case of drought. This should be done in the regional area in order to ensure that the water points are well managed and that the water is available for the community. The water points should be well managed and the water should be available for the community. The water points should be well managed and the water should be available for the community.

Health
 Droughts associated with water scarcity and water sanitation may result in an increase in the risk of water-borne diseases, such as cholera, typhoid, and hepatitis. The community should be aware of the risks and take necessary measures to prevent the spread of disease.

Conclusion
 The Ministry of Health is dependent on water for the national disease outbreak and take the necessary measures to ensure that the water is available for the community.

Annexure
 There is a need to be in a good relationship with the community and to work with the community in order to ensure that the water is available for the community.

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Forecast as given in English

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Forecast translated into local Maasai language

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Forecast translated into local Luhya language

DISSEM
To rural
Comm
ISDR SU

Participants

- **Climate scientists from NMHSs; Universities, the region and international centers**
- **Media experts, policy-makers,**
- **EXPERTS FROM VARIOUS SECTORS**
agriculture, food security, water resources, health, and the general user community.
- **Gender and youth**
- **Local community ELDERS INDIGENOUS KNOWLEDGE INTERGRATION**

- **Themes** are chosen to sensitive climate services
- The workshop is normally **opened by a senior government minister,**
- **Guest speakers** senior policy makers in the government, lead activists, head on UN agencies, chief executives of private sectors, politicians, among others
- **Rotated within he member countries**

- **Several Pre forum workshops for users**
- **Pilot Application projects: NOAA and WMO**
- **Indigenous Knowledge (IK)**
- **Partnerships WITH climate community, USERS and institutions, universities**

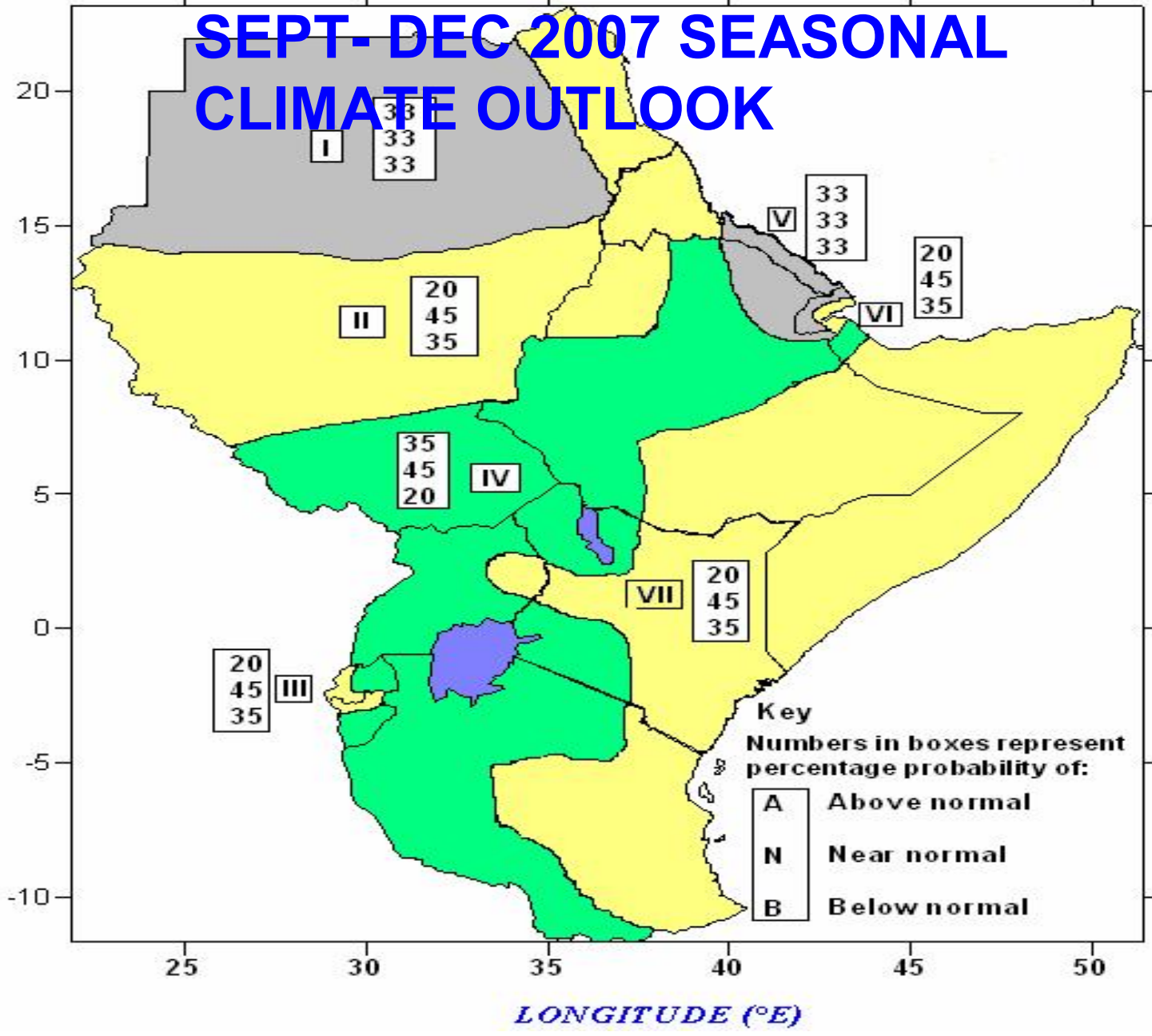
COF18: INTERFACE : INTERACTIONS WITH THE USERS FROM INTERNATIONAL TO LOCAL LEVELS



Have provided opportunities for the experts from the regions to share experiences regarding some successes, failures and impediments in national / regional disaster risk reduction

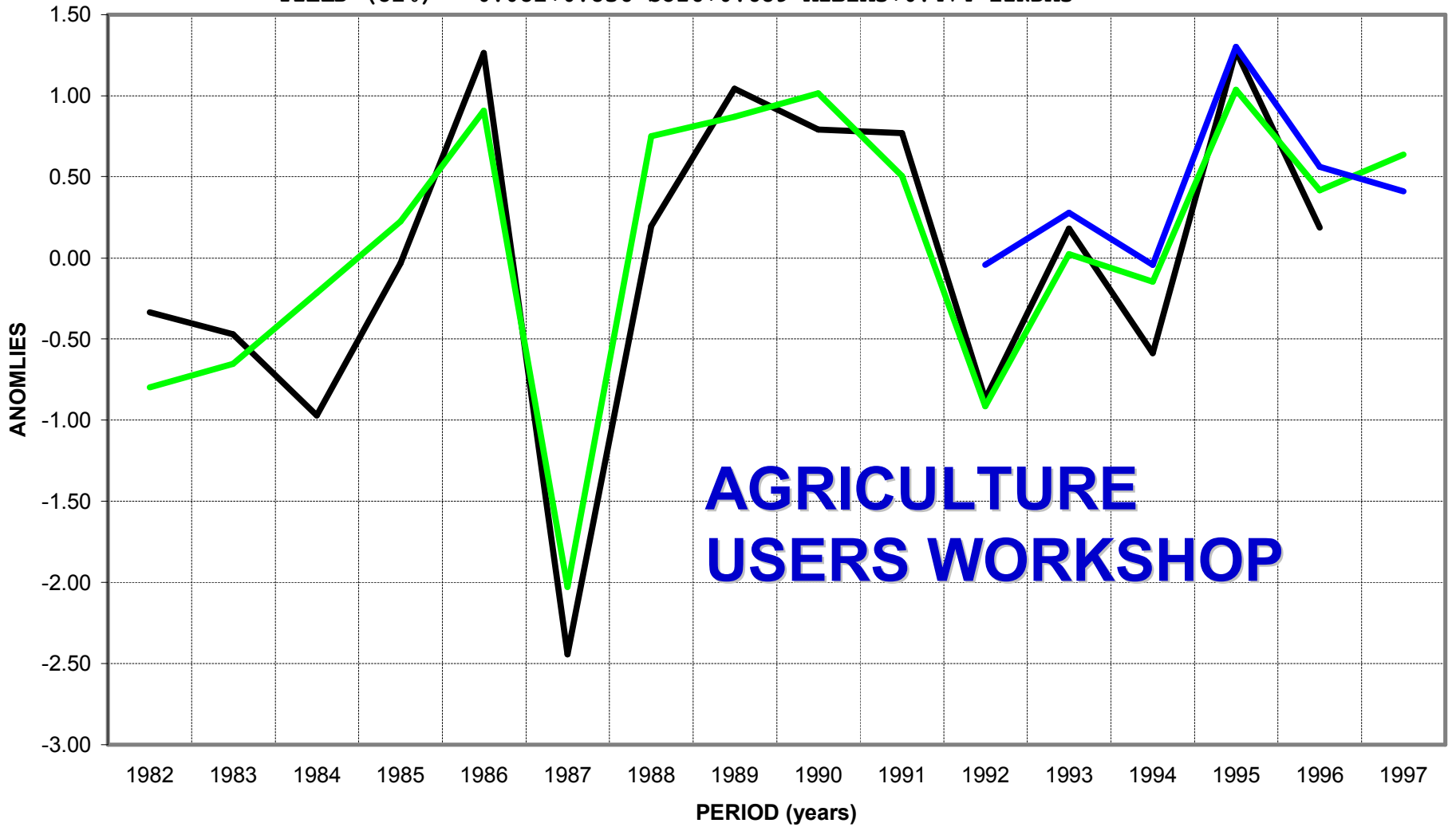
SEPT-DEC 2007 SEASONAL CLIMATE OUTLOOK

LATITUDE (°N/S)



ARUMERU YIELD MODEL

$$\text{YIELD (82\%)} = -0.082 + 0.836 * \text{SOI6} + 0.689 * \text{MIB2M3} + 0.474 * \text{ZINDM3}$$



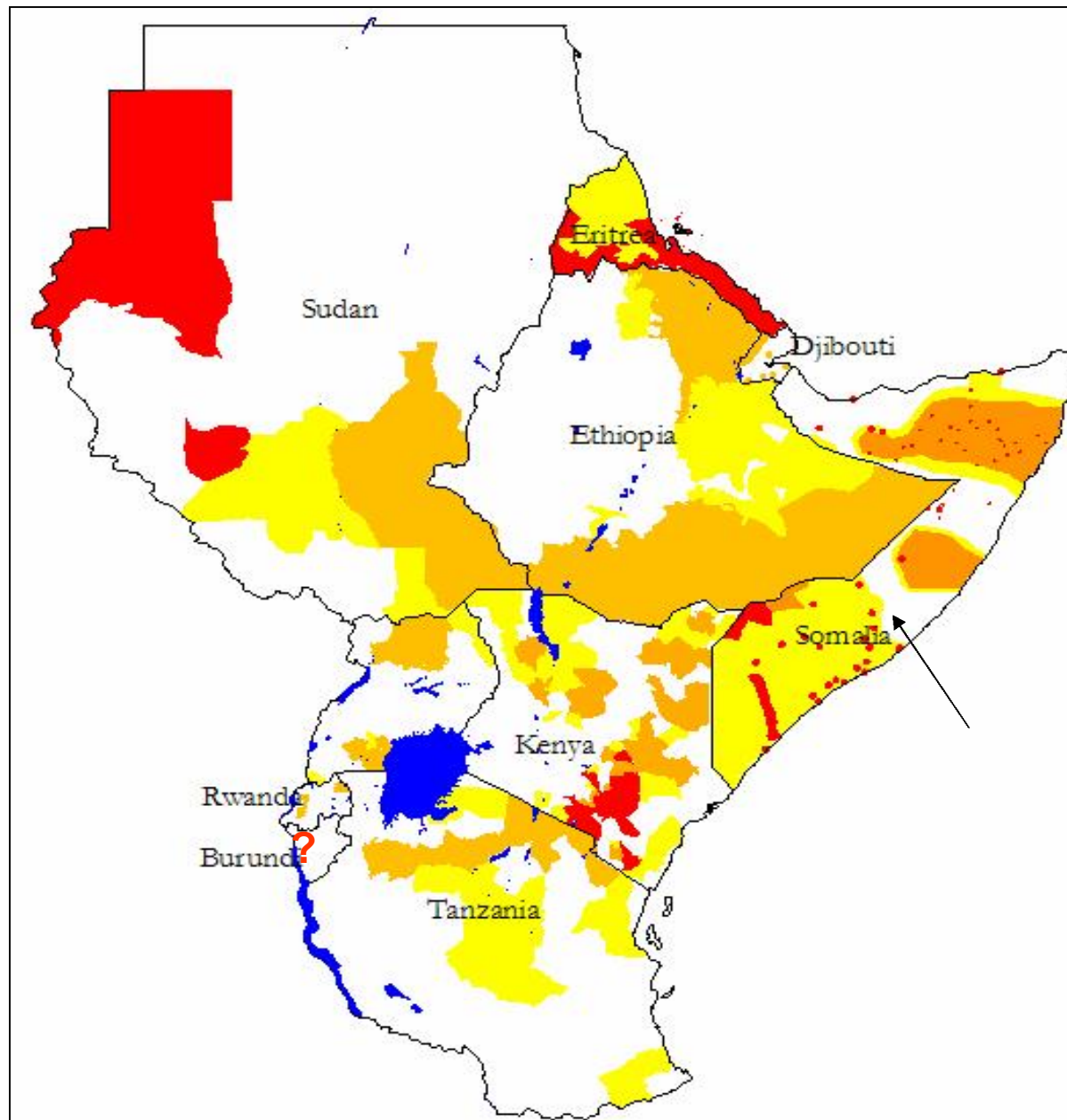
**AGRICULTURE
USERS WORKSHOP**

— YIELD

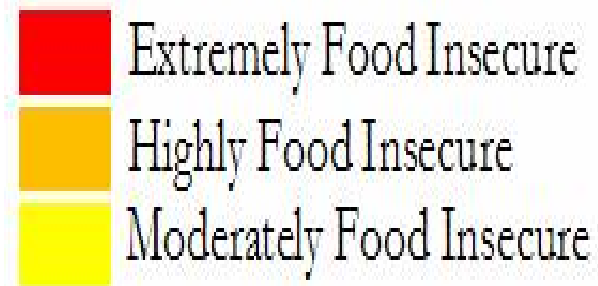
— FORECASTED YIELD

— % GDP AGRICULTURE

FOOD SECURITY OUTLOOK PRODUCTS

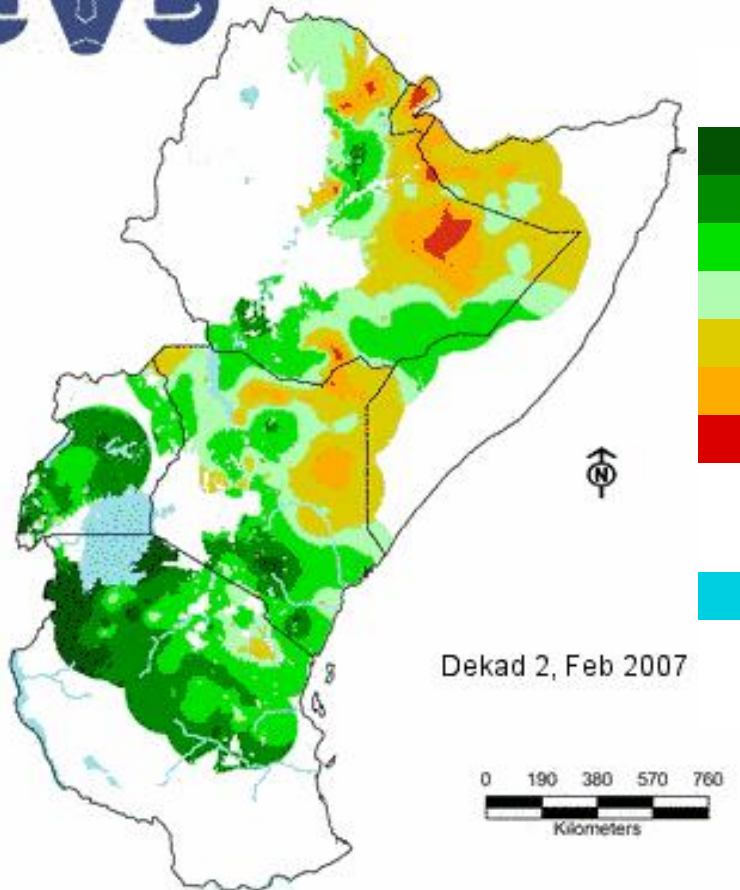


WITH
FEWS/NET



Forage Available: Status (February 2007) and Forecast for May 2007

Forage Available (kg/ha) in GHA Region



Dekad 2, Feb 2007

LEWS / GL_CRSP

Total Forage Available (kg/ha)



3500

2500 to 3500

1500 to 2500

1000 to 1500

600 to 1000

300 to 600

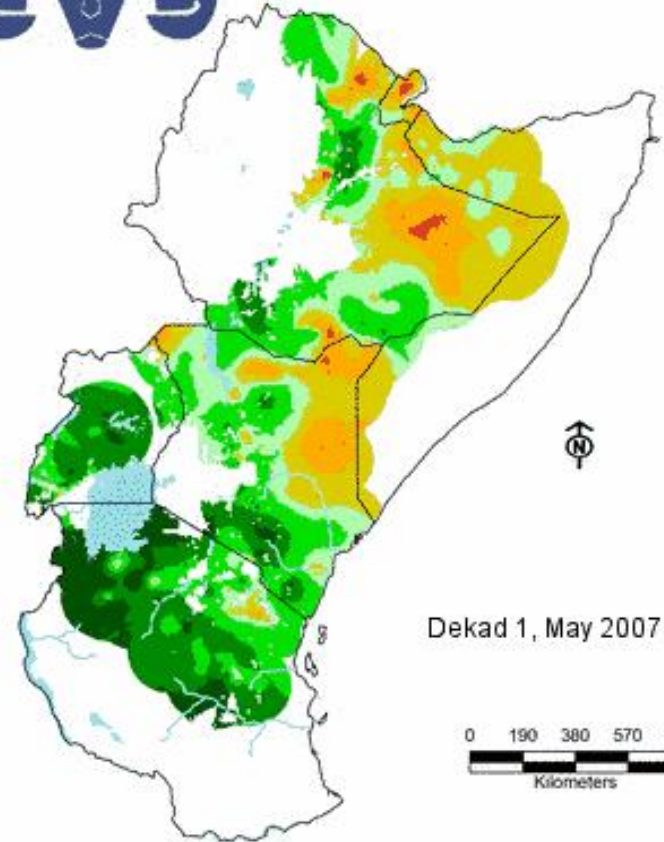
< 300

Not monitored

Wetlands

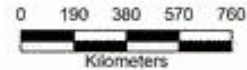


Forage Available (kg/ha) in GHA Region



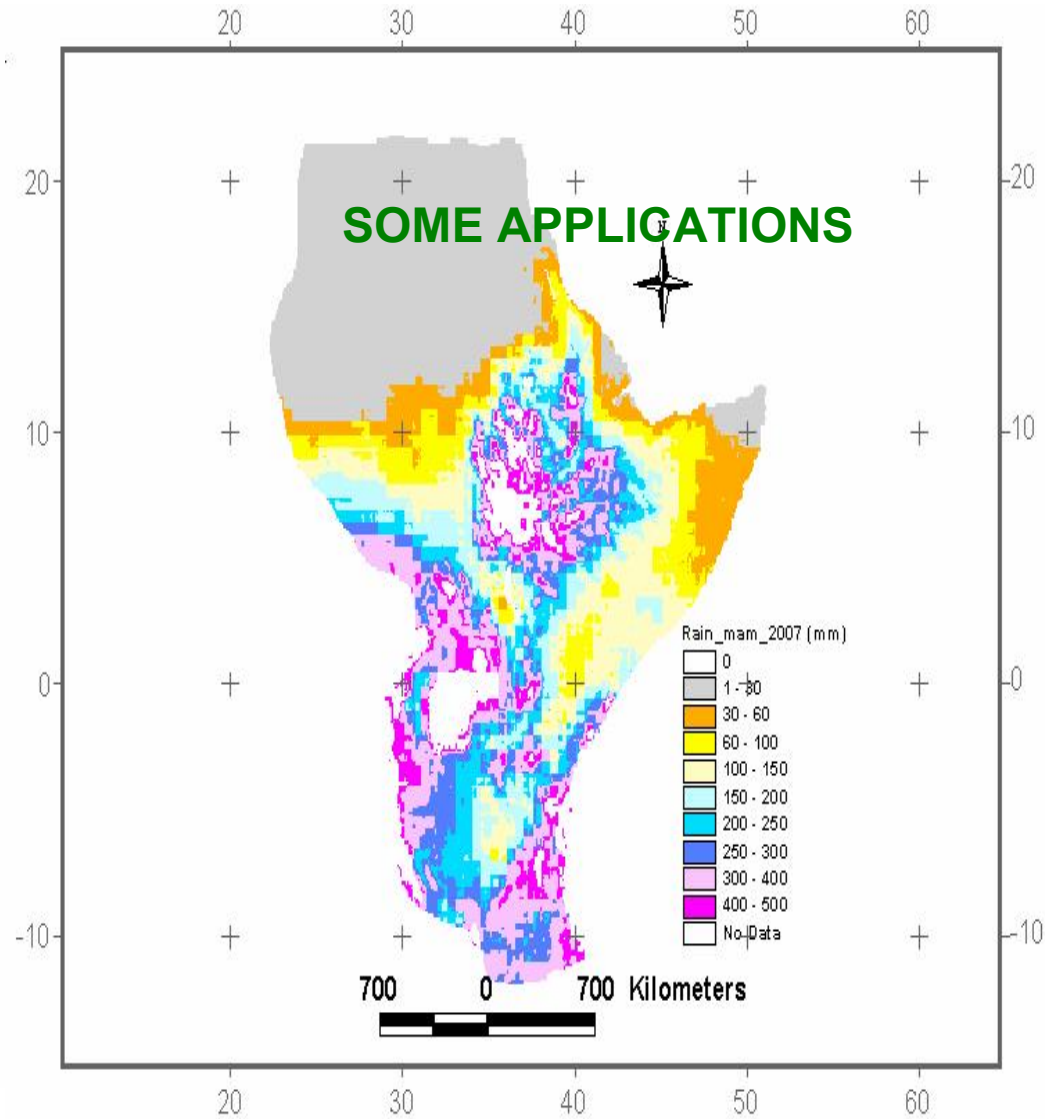
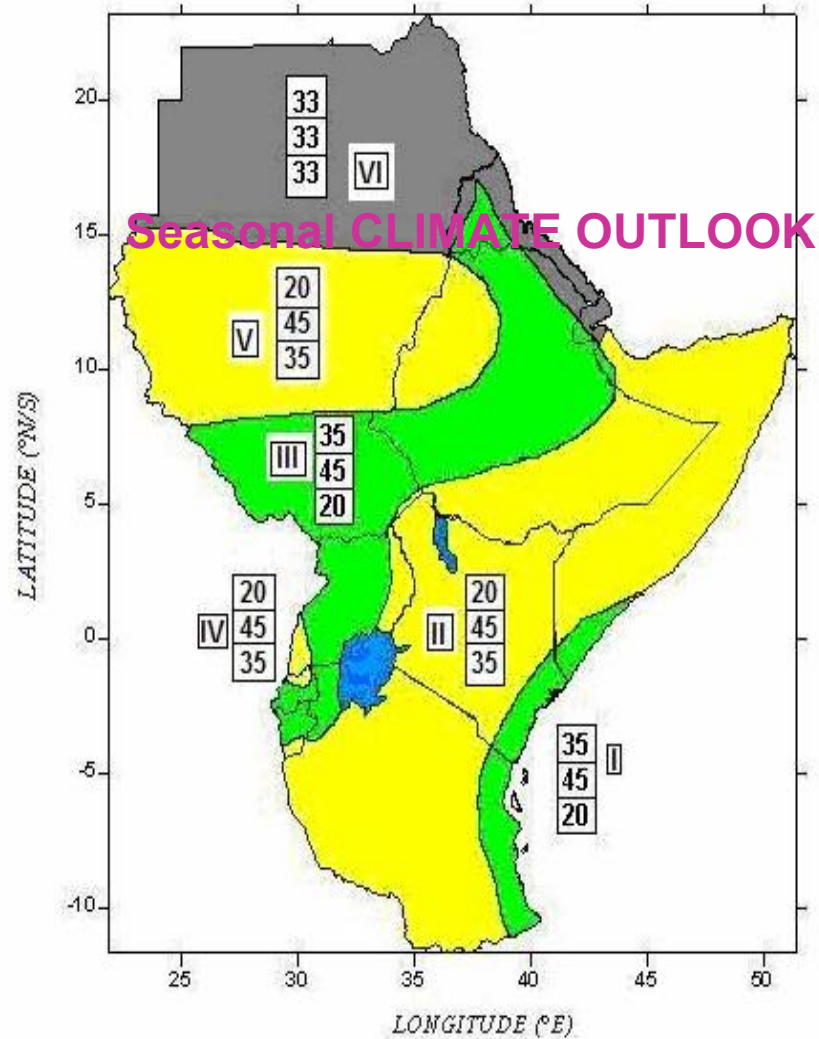
Dekad 1, May 2007

LEWS / GL_CRSP



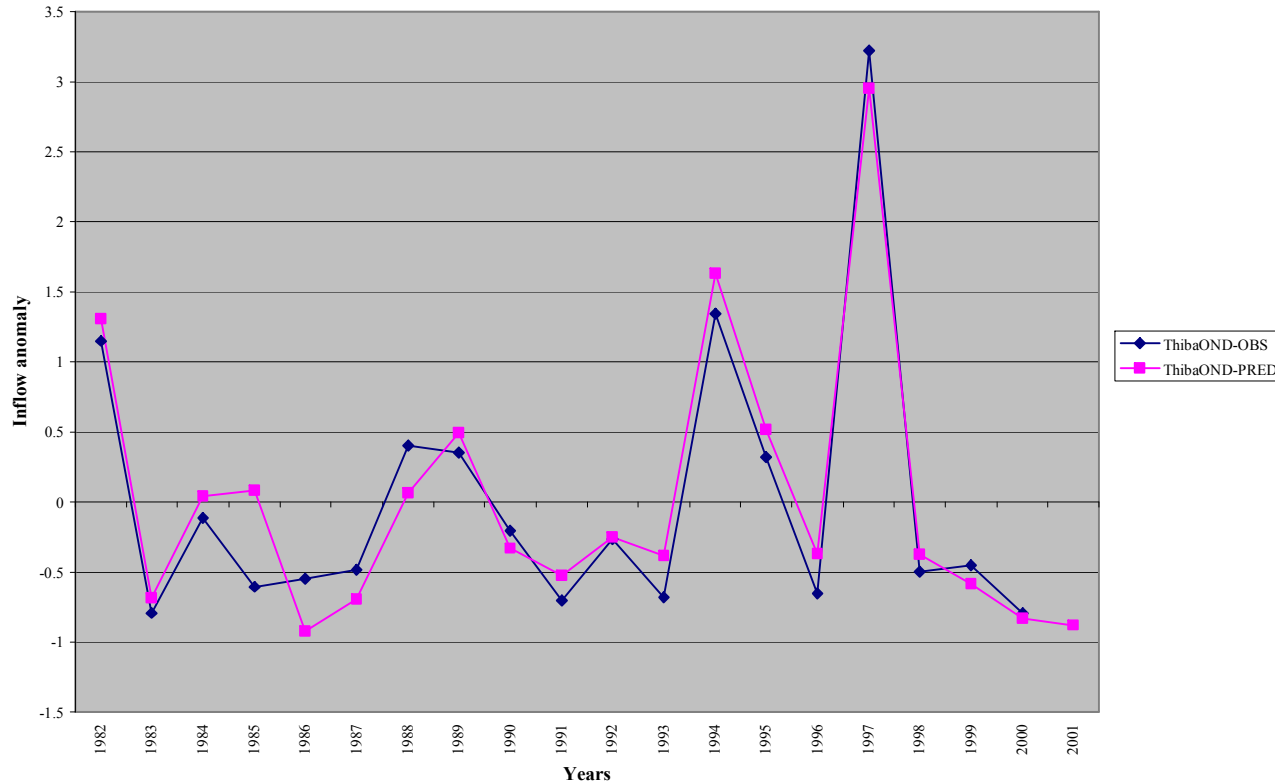
WATER RESOURCES APPLICATIONS USGS / FEWS NET

March –May 2007



DEMONSTRATED APPLICATION OF THE CLIMATE OUTLOOK SYSTEMS

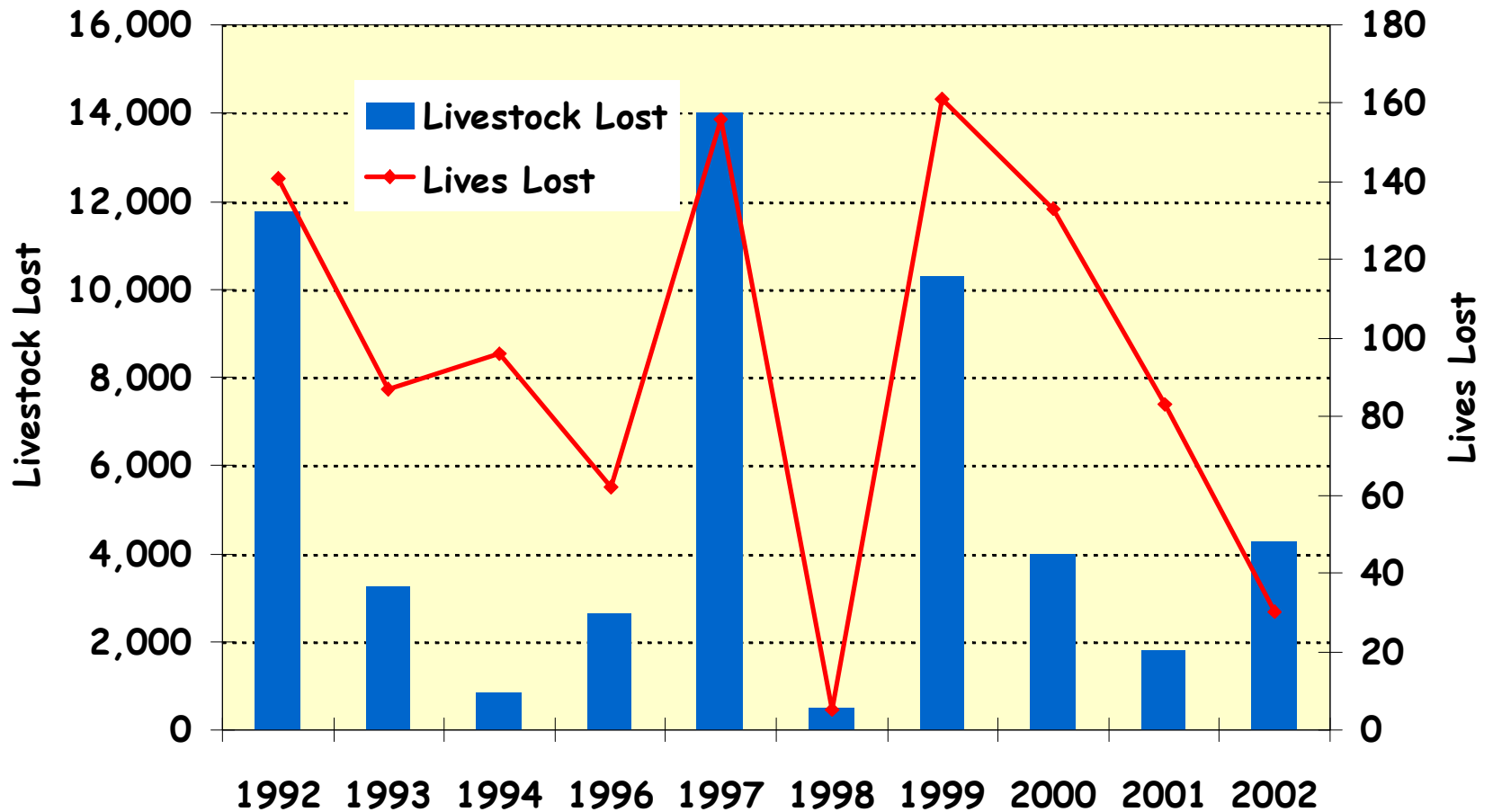
Comparison between Observed and Predicted Thiba OND Inflow anomaly between 1982 - 2001



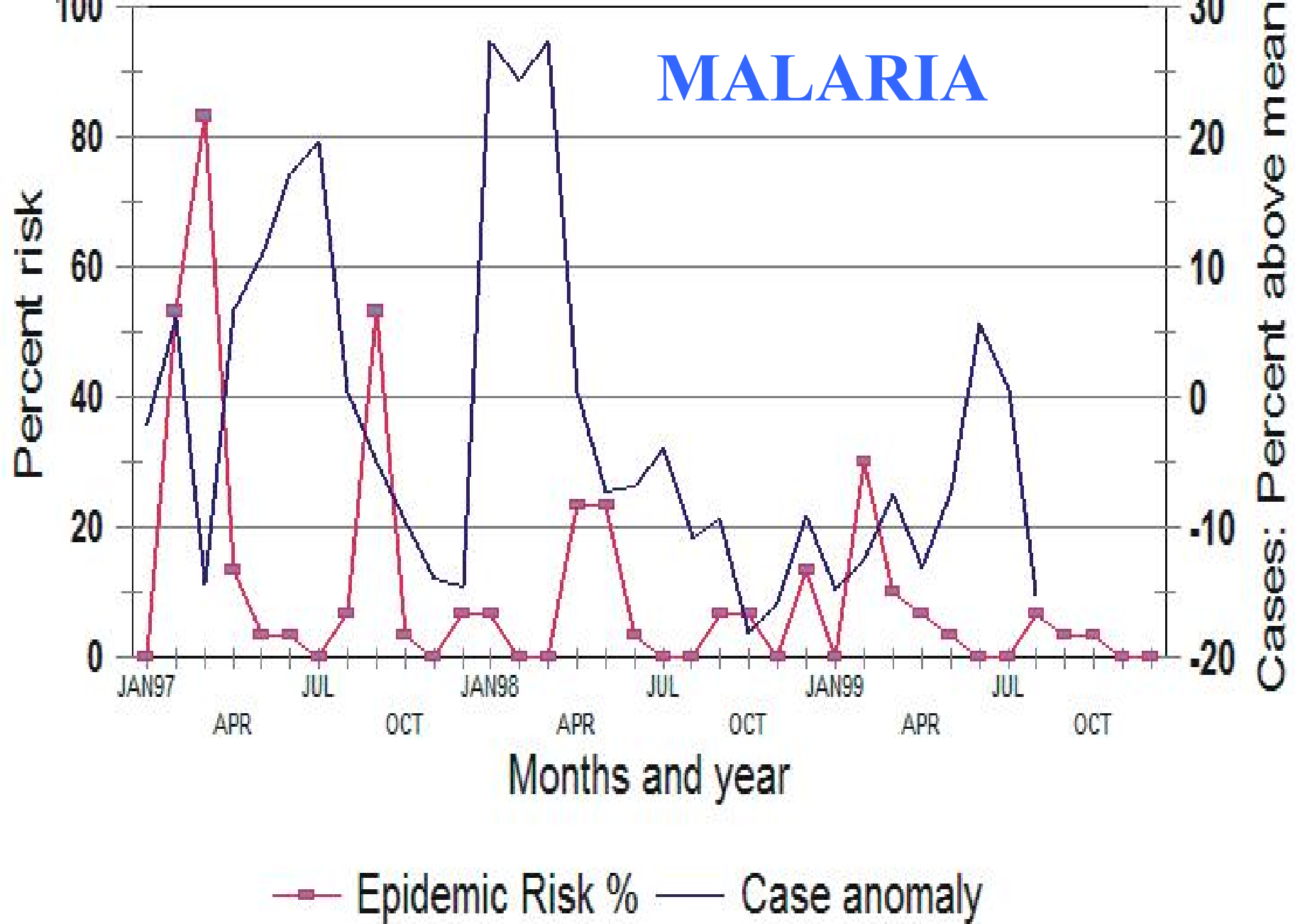
Comparison between Observed and Predicted OND Thiba Inflow anomaly into Kamburu Dam between 1982 – 2001-Kenya

Conflict Trends 1992-June 2002

Impacts of Livestock Raids: 1992-2002



MALARIA



Role of Indigenous Knowledge www.icpac.net

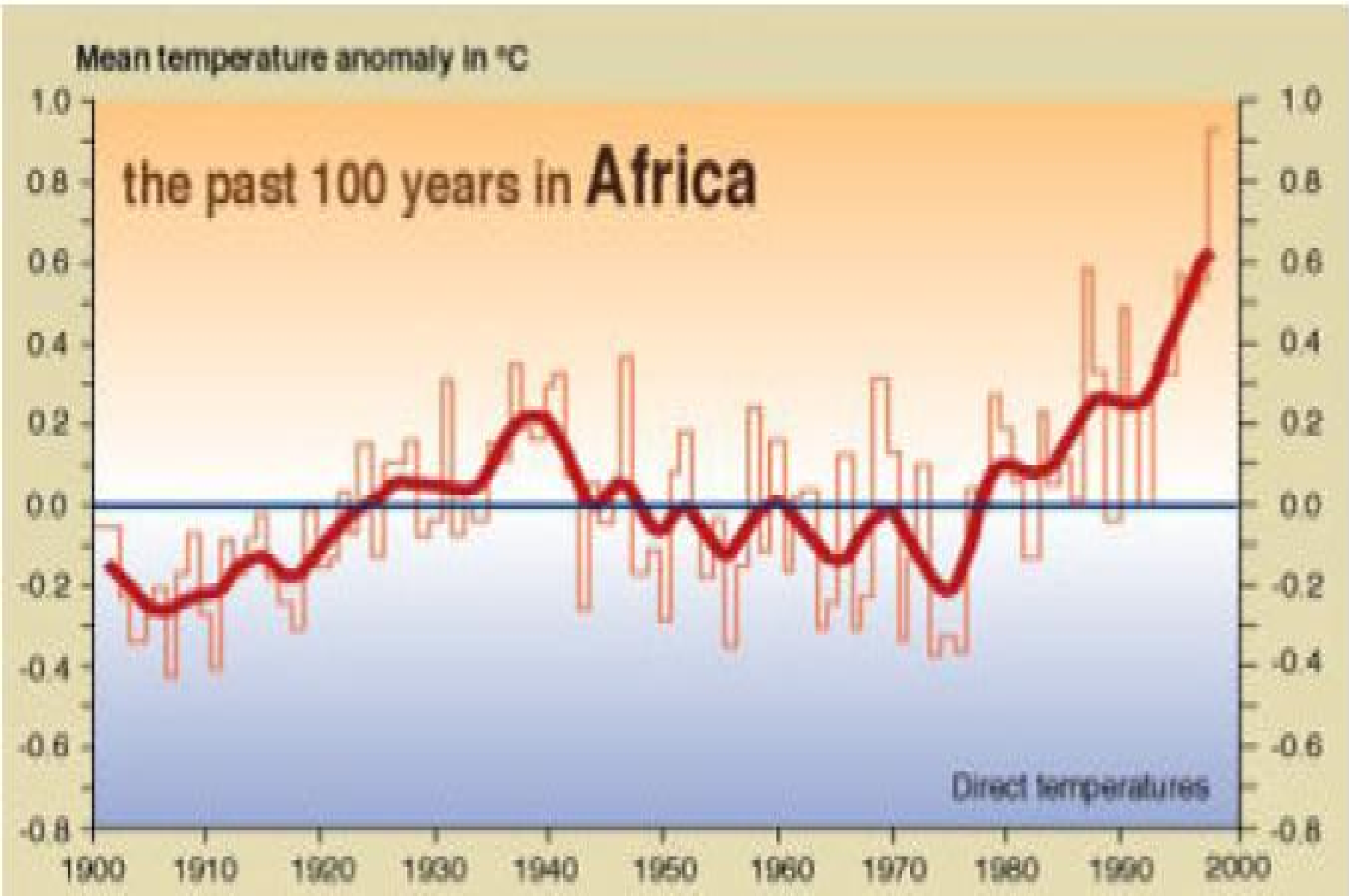


THANKS TO THE MEDIA IN THE REGION



REGIONAL CLIMATE CHANGE

Gigantic floods/droughts can't we take advantage?



KEY CHALLENGES

- **Increased Awareness level regarding the socio-economic benefits**
- **Level of application still very low**
- **lack of integrated policies for mainstreaming climate in all**
- **The media in the region has played pivotal roles in dissemination of climate services**
- **But Large Communities cannot read ; believe in IK**
- **Language very difficult to use the probability based products from climate scientists**

KEY CHALLENGES

- **The capacity of the region is also still very weak.**
- **Data is also limited in the region for the development of some special products**
- **Recurrent of some new the gigantic floods, droughts, more frequent ENSO events, etc seem to be increasing regional interest and demands of climate services.**
- **Linkages between climate and Development: UNFCCC, ISDR, MDGs, AND OTHER FORUMs.**
- **COFs have also influenced the establishment of powerful partnerships and collaboration**
- **WMO/CLIPS, NMHSs, NOAA, USAID, Users, universities, IRI, etc**

- **COF Important dissemination tool**
- **Exporting COFs out of Africa**
- **celebration of Decade years anniversary**

WITHIN SEASON UP DATES

- **EVERY 10 DAYS: 8,18,28th one day embargo ; Monthly and 3 monthly**
- **Education and awareness**
- **Over ten years of experience**
- **Now world wide forums**
- **Celebrating decade of experience next year**