

## **SPECIFIC SECTOR USER FEEDBACK OF COF36&37 AND RECOMMENDATIONS ON HOW TO USE GHACOF38 CLIMATE OUTLOOK PRODUCTS AND SERVICES**

### **Background**

The objective of this exercise was to give chance to the sectors to review previous COF (COF36 and COF 37) and impacts, interpret COF 38 outlook, and explore how different sectors will use COF38 for improved performance of that season at sector level. The sectors that were present during COF38 include: Agriculture and Food Security, Livestock, Water, Media and DRM. Below are sector-specific reports on COF 36&37 and recommendations presented during COF38 that took place from 25-26 August 2014; Sheraton Hotel, Addis Ababa, Ethiopia.

### **Agriculture and Food Security Sector**

#### **Performance of COF36**

In most parts of GHA, rainfall performance was congruent with the outlook (in terms of amounts). However, distribution (in space & in time) was very poor e.g. Most of Burundi, the Karamoja and SW regions of Uganda the Rift Valley in Kenya and much of Somalia.

In other areas, there was significant deviation from the forecast e.g. Burundi. Nevertheless, most areas received sufficient rainfall which led to average crop performance e.g. parts of western Kenya, Rwanda and most of Uganda while below normal yields were realized in regions such as SW Uganda, western half of Burundi, SW Kenya, Rift Valley region of Kenya, southern Rwanda and Somalia (Gu season).

#### **Performance of COF37**

- ✚ Observed rainfall amounts from June 1 – August 10 is in agreement with the COF37 forecast
- ✚ A lot of agriculture activity has been taking place especially in the Northern sector of GHA
- ✚ Most harvests are due in October – Generally, normal yields are expected
- ✚ In most of the bi-model areas of the equatorial sector, harvesting of cereals and pulses is over
- ✚ Crop performance was good with localized exceptions

#### **Implications of GHACOF38 Forecast**

- ✚ For most of the region, the amounts predicted are very good, even without December rains
- ✚ Thus there are good prospects for agricultural performance especially for cereals in the grain basket areas of much of Burundi, Uganda, Rwanda, W Kenya, W Ethiopia, southern Somalia, Coastal and whole of Eastern Half of Kenya, Western South Sudan, etc.

- + Good agricultural performance will largely depend upon rainfall distribution (both in time and space)
- + Increased risk of flooding, landslides, soil erosion in unprotected and risk-prone areas
- + Risk of outbreaks of fungal and bacterial crop diseases especially on pulses due to increased leaf wetness duration, high humidity and favourable temperatures
- + Risk of post-harvest losses in some uni-model areas like N. Uganda, north Rift of Kenya, western Ethiopia, etc. if rains interfere with harvesting
- + Growing fear for continued food insecurity in areas predicted to receive normal to below normal rains; especially those that are already stressed or in crisis

## Recommendations

### For areas predicted to receive Normal – Above:

- + Plant high yielding cereal crop varieties
- + Increase on acreages
- + Use fertilizer and pesticides to enhance production and manage diseases, respectively
- + Put in place soil conservation structures and drainage systems
- + Maximize water harvesting for future use
- + Agroforestry including plantation agriculture – tea, sugar cane, coffee, bananas, etc

### For Farmers of Pulses, consider:

- + Staggering planting
- + Delayed planting
- + Planting varieties that are more tolerant to too much rain, e.g. Climbing beans

### For farmers in Uni-model areas, consider:

- + Harvesting, chipping and drying tubers like cassava and sweet potatoes for long term preservation
- + Ensure proper post harvesting handling and storage

### For areas predicted to receive Normal – Below:

- + Consider water harvesting and proper storage
- + Planting of short maturing pulses and cereals like pearl millet, sorghum, cowpea, green grams, etc.
- + Proper agronomy including planning for irrigation

### For all categories of farmers,

- + Consider investing in alternative income generating enterprises like Aquaculture, Agro-processing, Poultry, etc

## Health

## Introduction

- ✚ Climate sensitive diseases to watch in the region
  - Communicable diseases – Malaria, RVF, Dengue, Meningitis, Filariasis, acute watery diarrhea e.g. Cholera
  - Environmental and weather related health challenges e.g. Respiratory illnesses - due to physical and biological agents and contaminants, heat stress etc.
- ✚ Most of the climate sensitive diseases are transmitted by vectors (mainly arthropods)
- ✚ Key features to watch in from the forecast :-
  - Areas with anomalies - Above normal and below normal rain
  - Areas likely to experience flooding (Major flood basins)
  - Areas likely to experience food & water scarcity
- ✚ Areas of conflicts –Political and civil disorder

### SON 2014 Health Implications

THE SON 2014 Regional outlook	Health Outlook: SON-2014
Zone I & V: The area is usually dry during September to November 2014 season	<ul style="list-style-type: none"> <li>• No variation in Malaria transmission</li> <li>• There is need to monitor occurrence of diseases related to water scarcity particularly in low social economic settlements e.g. scabies, trachoma, water and food contaminants</li> </ul>
Zone II: likelihood near normal to below normal rainfall	<ul style="list-style-type: none"> <li>• The area is usually dry during September to November 2014 season</li> </ul>
Zone III & IV: Increased likelihood of near normal to above normal rainfall (ATL Impact stronger than IND)	<ul style="list-style-type: none"> <li>• Malaria transmission likely to increase and outbreaks may occur in epidemic prone highlands of western Kenya, North Eastern Kenya, Eastern &amp; Western Uganda, Much of Burundi and Rwanda and some parts of southern south Sudan and Highland areas in Tanzanian</li> <li>• There will be increased malaria transmission in the Coastal areas of Kenya and Somalia but no epidemics are expected</li> <li>• Other areas around Zone III &amp; IV may experience flooding which may lead to escalation of water and vector-borne infections</li> <li>• There may be occurrence of Dengue fever in parts of Somalia, North Eastern and Coastal parts of Kenya</li> <li>• Likelihood of RVF parts of NE Kenya and parts of Somalia and neighboring areas</li> <li>• Incidences of watery diarrhea may be experienced in areas which may have floods particularly in North Eastern Kenya, South West of Burundi and major low lying flood basins</li> </ul>

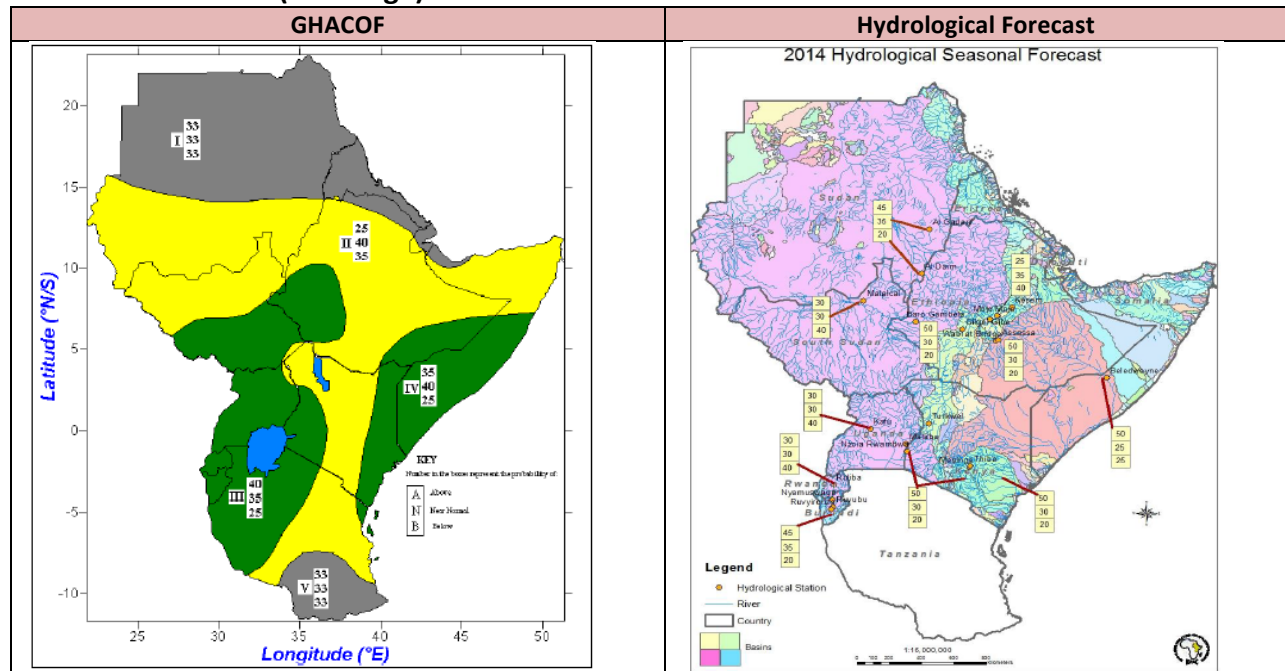
### Recommended Measures

- ✚ Strengthen integrated inter-sector planning, implementation and coordination of mitigation and response actions between key sectors – health, agriculture, livestock, environment, water resources, climate services etc.
- ✚ Institution of a robust surveillance of climate sensitive diseases to monitor trends
- ✚ Rapid mapping of health risks (diseases/factors) by type and locality
- ✚ Prepositioning of health supplies and medicines to areas of heightened risk including water purification chemicals

- ✚ Undertaking risk communication to the populations exposed and health workers particularly in areas of increasing risk using appropriate channels and media e.g. mass media, action groups etc.
- ✚ Monitor the updates on El Niño and modify responses appropriately
- ✚ Advocating for greater integration of climate change and variability concepts in routine health planning and programming

## Water Resources:

### Seasonal forecasts (discharge) for main East African basins



### Comparing with regional climate Outlook for SON 2014

- ✚ Except the western part of GHA the prediction given by the climate concur with the discharge prediction.
  - The distribution of the discharge gauging stations are very sparse.
  - Water forecast is based on runoff stations possibly leading to basins discharge forecast. The zones defined in climate forecasts do not coincide with the basins.

### Recommendations and Way Forward Output

- ✚ CPT tools provide good result for seasonal discharge forecast :
  - Goodness index up to 0.5
  - Consensus among participants

### Way forward

There is a need to put emphasis on:

- ✚ Installation of the regional water database in GHA.

- ✚ Learning the tools and methodologies for discharge forecast modeling.
- ✚ Enhancing the institutional link between ICPAC and AGRHYMET for capacity building.
- ✚ Identify and equip a set of key stations for important basin discharge monitoring and prediction by countries with the help of ICPAC.
- ✚ Agree on coherent data format within the region to keep consistency in the data sets.
- ✚ Encourage the development of Regional data sharing protocol for continuous seasonal discharge prediction at ICPAC.
- ✚ ICPAC should arrange for experience and knowledge sharing system between IGAD countries to spread good practices in the region.
- ✚ ICPAC should continue its effort toward training of trainers on long-term attachment basis.
- ✚ ICPAC should continue developing capacity of the Great Horn of Africa in climate smart water resource management.
- ✚ There is a need to reflect on the communication of that product to end user in integrative ways including disaster manager, water manager, agricultural sector and media.

## Media

### A Different Future

- ✚ Multi-sectoral reports that are relevant to the various audiences
- ✚ Enrich the traditional agriculture and food security and health stories to innovate with wider climate sector impact stories
- ✚ Developing a real time training program with a curriculum to enable Trainer of Trainers to program ensure a transformation of the reporting style and details out of the comfort zone

## Training

- ✚ The UK Met representative in attendance promised to look into the possibility of special training programs for media capacity building through consistent training that would be sustainable to address the media capacity enhancement challenges.

## Communication Strategy

- ✚ Meeting started with a detailed contribution to the new communication strategy being developed by Professor James Kiwanuka Tondo
- ✚ Concluded that there should be further consultation to capture all relevant issues to ensure a comprehensive communication strategy document for impact communication

## Previous COF37

- ✚ Well reported and the COF product was well received. However, after the rains started there were interruptions in the rain patterns especially in Kenya and parts of Uganda.
- ✚ In general, updates were required to explain the rains distribution. These updates were given.

- ✚ In general, the rains were more than expected in what would have been a dry season in regions such as the Lake Victoria basin.

### **Challenges Hindering Better Performance**

- ✚ South Sudan: Reports indicate that climate news is not of importance in the country. The priority is on political, conflict and business. The infant media industry in South Sudan requires urgent capacity building
- ✚ Meteorologists and journalists need training to improve media performance in the country.

### **Tanzania**

- ✚ Stories from Tanzania are extremely positive with a number of editorials recognizing the Tanzania Meteorological Agency services climate services
- ✚ The editorial write-ups challenged the policy makers and decision makers to take advantage of the available climate services. An indication of the positive attitude of the climate reporting.

### **Kenya**

- ✚ Meteorological services working closely with the media in building climate communication and dissemination strategies
- ✚ Include training of climate scientists and local administration officials at regional levels. Capacity building for scientists, media to ensure effective dissemination

### **Djibouti & Burundi**

- ✚ Urgent need to make climate reporting a priority in Djibouti
- ✚ Journalists and the meteorological department are not working hard enough to put the climate story on top of the agenda
- ✚ Burundi reports continued improvement in reporting since the meteorological agency started regular capacity building meetings

### **Ethiopia**

- ✚ Improved training of communicators beyond media to include community radio operators
- ✚ Dissemination materials developed by the Ethiopia Meteorological Agency in local languages need to be widely distributed in various parts of the country

### **Rwanda**

- ✚ There is an urgent necessity to build capacity of the media in the country. Not doing well enough

### **Uganda**

- ✚ Continued with new innovations to help improve dissemination and communication of climate seasonal forecasts

- ✚ Working with media houses, journalists and sector experts to enrich the story for better decision making at all levels

### Special Features

- ✚ Schools feeding program in Uganda
- ✚ Local language intensification in Uganda, Ethiopia, Tanzania and Kenya. Recommended widening to Rwanda and Burundi
- ✚ Climate information needs assessment should be started and included in the communication planning strategy

### Recommendations

- ✚ The group recommended to ICPAC to adopt several earlier recommendations that have been submitted to ICPAC for inclusion in the new communication strategy
- ✚ Link the communication program to intensified capacity building across the board to include media, climate scientists and sector experts to facilitate effective communication

### Disaster Management

#### GHACOF 38 Interpretation

- ✚ The Meteorologists have done the EW and DRM need to take Early Actions
- ✚ DRM appreciates the importance of the information given in the outlook.
- ✚ COF is a predication not an 'exact science' so we should plan based on the probability thus take the 'no regrets' invest approach.
- ✚ Need to develop contingency plans for the two scenarios - best and worst case scenarios.
- ✚ Need for downscaling the product to national specific outlook.

#### Recommendations and opportunities

- ✚ National MET offices should involve DRM and other key stakeholder in downscaling the outlook – Develop CP for different scenarios.
- ✚ DRM need to communicate the predicted uncertainty in the language end user will understand.
- ✚ DRM need to overlay the outlook on the hazard maps – taking into consideration of the hotspots
- ✚ Carry out CVA
- ✚ Need for continuous monitoring of the situation on the ground.
- ✚ Need for creating a mechanism for dissemination of the scientific concepts from the maps to the end user.
- ✚ Work with media in developing common message for community
- ✚ Identification of key stakeholder to work with when developing the CPs
- ✚ Need to improve/develop trans-boundary coordination mechanism
- ✚ Development partners need to be flexible for the use of the funds - response activities

- ✚ CPs should be sensitive to the plight of the elderly persons in line with IDDR – who are vulnerable and has role to play

## Multi-sector Contingency Plan

### 1. Livelihood Protection

- ✚ Promote environmental conservation programmes
- ✚ Mainstream gender in livelihood interventions
- ✚ Create awareness on vulnerability and suitable livelihood options
- ✚ Livelihood diversification.

### 2. Relief

- ✚ Early situation and needs assessments to inform timely interventions
- ✚ Stockpiling and prepositioning of relief supplies.

### 3. Water and Sanitation

- ✚ Clean and de-silt drainage systems to allow water flow during flooding / heavy rains
- ✚ Preposition water treatment kits in potential flooding spots
- ✚ Regular monitoring of water resources and water quality to detect early outbreaks
- ✚ Educate the people about proper hygiene

### 4. Health

- ✚ Create awareness on water borne diseases
- ✚ Stockpiling drugs, mosquito nets, vaccination for livestock, health personnel, etc

### 5. Risk Management

- ✚ Communicate the forecast to relevant DRM institutions
- ✚ Disseminate to all stakeholders national and local
- ✚ Evaluate response for what did not work in the previous forecast
- ✚ Timely activation national response plans
- ✚ Emphasize community participation in planning and implementation.
- ✚ Trigger mechanisms for local response (people take lead in preparedness and response to their risks)
- ✚ Implement mitigation actions to lessen impact
- ✚ Enhance community coping strategies

### 6. Early Recovery

- ✚ Rehabilitation of damaged infrastructure
- ✚ Livelihoods support
- ✚ Initiate community projects
- ✚ Strengthen local structures for preparedness and response

### 7. Linking relief with development



- ✚ Provide food / cash / seed for work programmes
- ✚ Provide training in DRM
- ✚ Incorporate DRR in relief / humanitarian operations

## The livestock and Pastoralist sector

### Early warning for early action

- ✚ Ethiopia is putting emphasis on strengthening the livestock sector as a result of studies that showed the importance of the sector
- ✚ DRM and Food Security Sector (DRMFSS)
  - Early warning and response; disseminates monthly early warning information in English and Amharic
  - Safety net system
- ✚ Multi-sectoral and multi-agency approaches already are being implemented in Afar region
- ✚ The linkage between NGO's and the government is commendable. Detailed information is shared among the stakeholders at both federal and regional levels

### On-going work

- ✚ DRMFSS and WFP/WB have a Livelihood Early Assessment and protection system (LEAP) software (government owned and operated since 2008)
- ✚ Uses among others, satellite information and agro-meteorology data.
- ✚ Data is at Woreda level
- ✚ Presence of a livestock officer at the DRMFSS plays a major role in inclusion of livestock related issues in the directorate DRMFSS

### Feedback on past forecasts Sudan

- ✚ The season was good

### Kenya

- ✚ **Turkana** area; the rains were poor, as well as in Samburu and the north eastern province.
- ✚ **The coast region;** rainfall performance was good

### Djibouti

- ✚ In Obock, northwestern and southern eastern zones of Dikhill are in crisis IPC phase 3

### Implication of COF 38 Forecast Ethiopia

- ✚ There is concern in already stressed Borana and the Afar region because of the failure of the two previous seasons and the upcoming normal (dry season)
- ✚ For Somali region, the normal to above normal forecast may help a lot in pasture regeneration
- ✚ Attention should be given for livestock assistance



### Uganda/S. Sudan Karamoja cluster

- ✚ Normal to below normal rainfall
- ✚ Kenyan side of the cluster already in the Red and hence needs urgent attention

### Kenya

- ✚ Turkana county is of concern; Samburu and Kajiado areas

### South Sudan

- ✚ Effects of war and the displacement may be worsened by the forecasted normal to above normal rainfall in the southern states due to flooding

### Probability of floods and associated effects

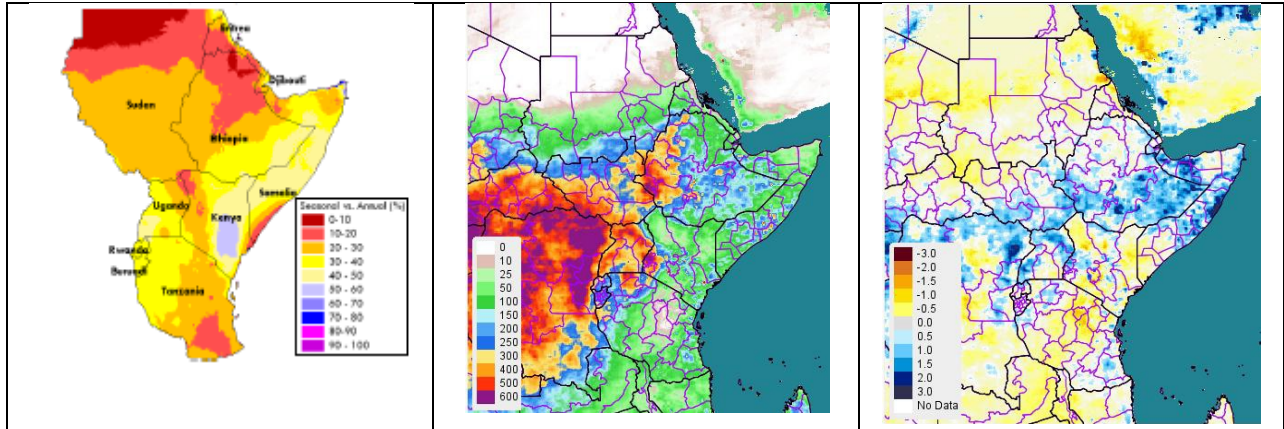
- ✚ High possibility of flooding in the low lying areas of Somalia, coastal areas and N.E Kenya
- ✚ Possibility of increase in incidence of vector-borne diseases like the RVF
- ✚ Updates on the El-Niño progression will be critical in these areas

### Food Security outlook for selected countries in East Africa: FEWSNET

#### Background

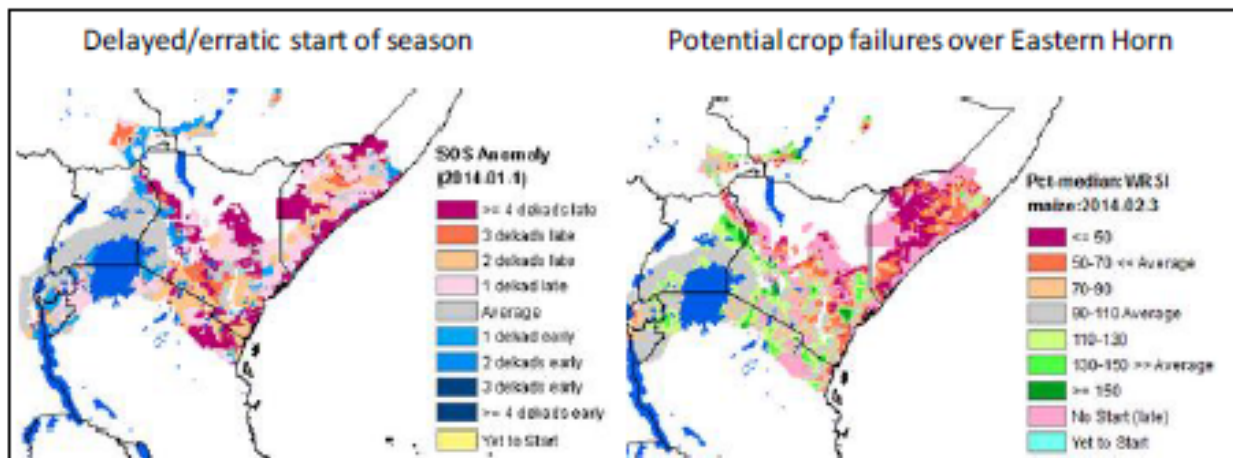
- ✚ Agro-climatology plays a crucial role in determining the FS situation in the region;
  - importance of forecast increased with FEWSNET and decision makers – Scenario development
- ✚ The slides to follow shows only preliminary impacts of the current forecast
  - but country level thorough analysis will follow after the updated forecast version and the respective national met service forecast plus sectoral reports presented
- ✚ The split of seasons in the following pages are based on our traditional reporting –
  - Incorporates September as part of the current season and December as part of our forecasting period

Seasonal Rainfall Contribution to Annual Totals (%) – Sept to Dec GHACOF Forecast – Sept Oct Nov	
Avr (1968 & 2013 Analogue Yrs)	Rainfall Amounts and Intensities over GHA

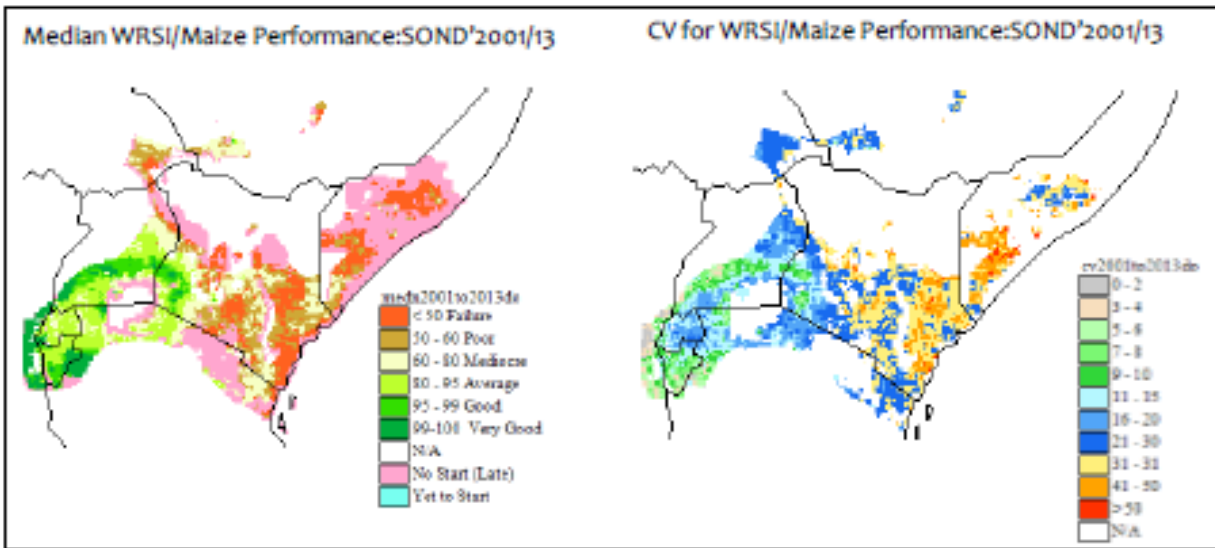


- ✚ Forecasts depicts some flood risks over parts of E. Ethiopia and C. Somalia (SPI > +1.5) and mild/moderate drought (< -.1.0) like conditions for parts of E. Kenya and N. Tanzania.
- ✚ Rainfall amounts of >200mm will be insufficient for maize crop over SE Kenya and South Somalia

### Expected Crop Performance (SOND'2013 – Analogue year) – SOS and Distribution



- ✚ Increased likelihood for below average to crop failure over agro-pastoral regions of eastern and S. Eastern Kenya, S. Somalia and parts of N. eastern Tanzania.
- ✚ Failure of the 2014 short-rains over these areas could mean almost 8 successive below average cropping seasons since the moderate El-Nino of 2006.



### General Conclusions

- ✚ El-Nino probabilities dropped from 85% to 65% in the past month, as its development progressed much slower than expected
- ✚ IOD is weakly negative to neutral
- ✚ GHACOF38 forecast interpretation shows near-normal conditions across the region, with some indications of localized flooding

***For further information, please contact, The Director, ICPAC***