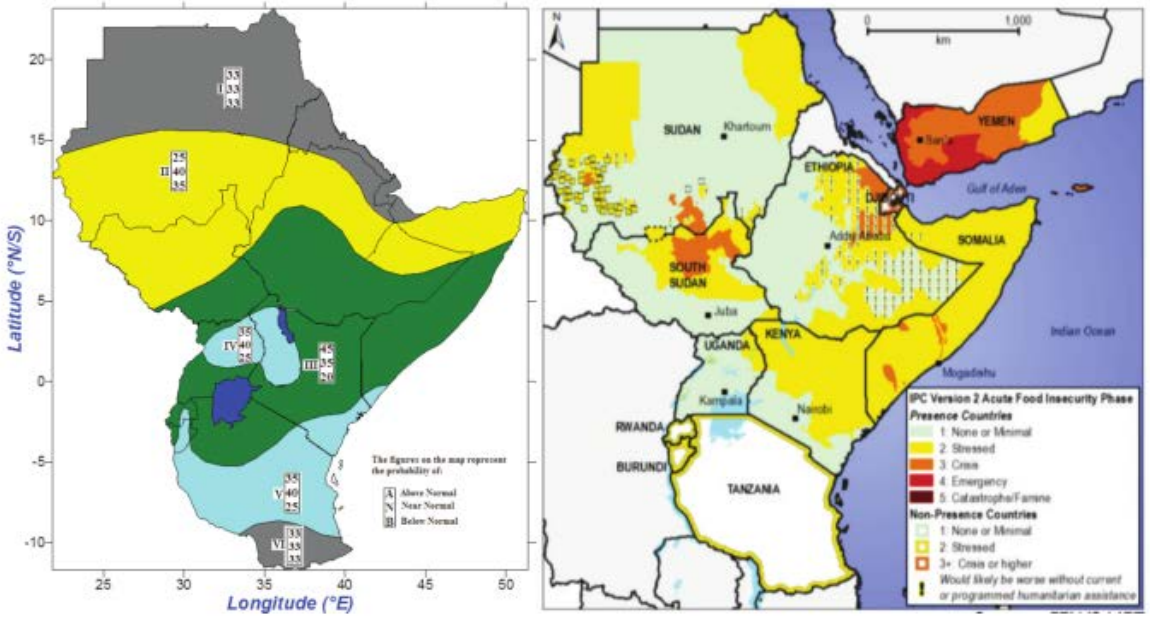
RCOF OPERATIONAL PRACTICES

DEVELOPMENT OF CONSENSUS BASED OUTLOOK INCLUDING DATA AND FORECAST INPUTS



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Forecast preparation (1/2)

- Review past and present state of the global oceans sea surface temperature anomalies with emphasis on ENSO;
- Review existing knowledge and documentation on teleconnections and impacts of seas surface temperature anomalies over the target region;
- Analyze atmospheric and oceanic patterns;
- From the above and expert knowledge of global/regional climate variability, summarize the current state of sea surface temperature anomalies, estimate its expected evolution during the target season and related impacts on seasonal temperature and precipitation of the target region;

Forecast preparation (2/2)

- Use national statistical models developed and validated during the RCOF training phase to provide a second estimate of expected seasonal temperature and precipitation patterns over each country of the region;
- Use downscaling tools to prepare local seasonal forecasts;
- From the single model ensemble seasonal forecasts from each Global Producing Centre for seasonal for Long Range Forecasting, provide a third estimate of the expected climate outlook using consistent patterns between models and the single model with the highest historical performance when consistency is low between models outputs.

Problems in the forecast preparation (GRCOF 2008)

- Little effort has been devoted to skill analysis in addition to consistency checks between models outputs used in RCOFs operations. More importantly, when a set of models lacks consistency, the most skillful model should be considered.
- Despite the availability of some verification products giving information on historical performance of statistical and dynamical models for seasonal forecasting, interpretation of models outputs in some regions consider only consistency signals between models.

Forecast discussions (GRCOF 2008)

The consensus discussion is held in different ways in regions. The combination of large scale, regional and national information is sometimes quite subjective and questionable. This leads to problems in interpreting national products, intercomparing and consolidating RCOFs products from different regions.

Problems and opportunities (1/2) (GRCOF 2008)

Forecast presentation, impact assessments, communication

- Users from all sensitive sectors are usually not represented in the forums.
- Knowledge base on the impacts of past climate conditions and actions, decisions or policy options available for adaptation is usually missing.
- All RCOFs provide the climate outlooks; some add impacts outlooks (eg. Food security, malaria) and very few provide actions or decision options for end users.
- These elements are fragmented and can be integrated to make RCOFs more useful with an easy transformation of expected climate conditions to impacts and coping actions or decisions.
- The most likely category is usually considered as the expected condition by many users. The level of correctness of such interpretation is not always known and should be assessed with the verification community to prepare well informed messages on uncertainties.

Problems and opportunities (2/2)

- Current use of dynamical forecasts in developing seasonal climate outlooks at RCOFs is mainly subjective. These consensus-based approaches pose challenges for the usability of forecasts, particularly at the national level, as well as for evaluation of forecast skill.

- Further progress on operational seasonal forecasting, and associated tailored products for decision support, will entail more widespread adoption of objective seasonal forecasting schemes that readily facilitate the tailoring of forecast products to support specific end uses.

- Since the last RCOF Review, there have been considerable developments and scientific advances in sub-seasonal to seasonal forecasting methodologies, downscaling techniques, impact based forecasts, and communicating tailored climate information to users.

- CCl experts have developed a number of guidance documents, such as the Guidance on Verification of Seasonal Climate Forecasts, Guidelines on Good Practices for Climate Services User Engagement, Guidelines on Climate Risk Management. It is important to find ways to integrate these approaches into RCOF process.

WEATHER CLIMATE WATER
TEMPS CLIMAT EAU

Muchas gracias
Thank you
Merci

WMO OMM

World Meteorological Organization
Organisation météorologique mondiale