DROUGHT MONITORING ACTIVITIES: CASE STUDIES

Extract from WMO publication, 'Drought Monitoring and Early Warning: concepts, progress and future challenges', (WMO-No. 1006).

http://www.wamis.org/agm/pubs/brochures/WMO1006e.pdf

IGAD CLIMATE PREDICTION AND APPLICATIONS CENTRE (ICPAC) (Greater Horn of Africa)

IGAD Climate Prediction and Applications Centre (ICPAC)

The Greater Horn of Africa, like many parts of the tropics, is prone to extreme climate events such as droughts and floods. In an effort to minimize the negative impacts of extreme climate events, WMO and the United Nations Development Programme established the regional Drought Monitoring Centre (DMC) in Nairobi and a sub-centre in Harare in 1989 covering 24 countries in the eastern and southern African subregion. In 2003, DMC Nairobi became a specialized institution of the Intergovernmental Authority on Development (IGAD) and was renamed the IGAD Climate Prediction and Applications Centre (ICPAC). The participating countries of ICPAC are Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Uganda and United Republic of Tanzania. The Centre is responsible for climate monitoring, prediction, early warning and applications for the reduction of climate-related risks in the Greater Horn of Africa.

ICPAC's main objective is to contribute to climate monitoring and prediction services for early warning and mitigation of the adverse impacts of extreme climate events on various socio-economic sectors in the region, such as agricultural production and food security, water resources, energy and health. The early warning products enable users to put mechanisms in place for coping with extreme climate- and weather-related risks in the Greater Horn of Africa. The Centre also promotes capacity-building for both climate scientists and users.

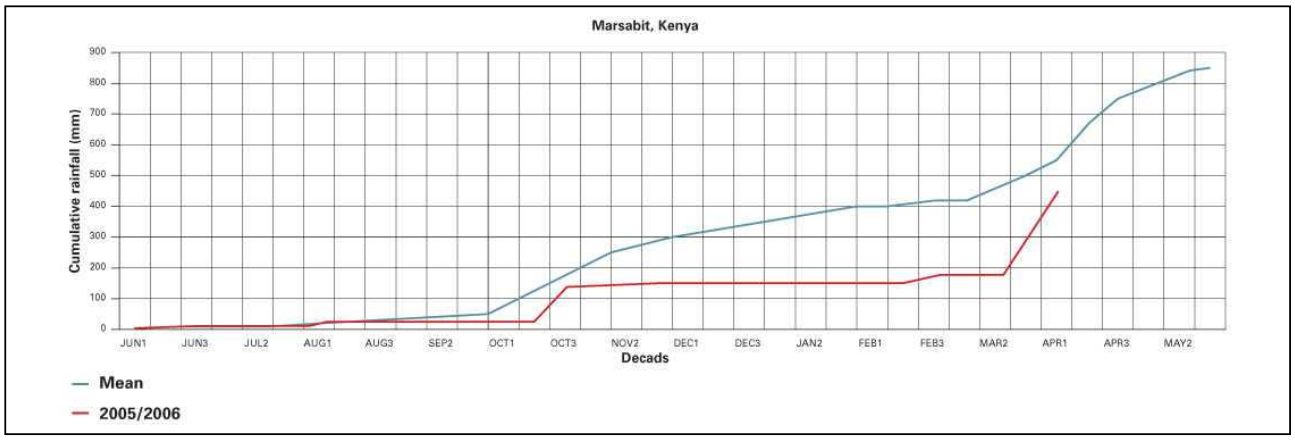

Figure 12.Examples of cumulative decadal rainfall over parts of Kenya from June 2005 to early April 2006. Source: CPAC)

ICPAC provides regular regional climate advisories, including 10-day, monthly and seasonal climate bulletins as well as timely early warning information on evolving climate extremes and associated impacts. Regional Climate

Outlook Forums are also being held before the onset of the major rainfall seasons to provide consensus climate outlooks and to develop mitigation strategies. Below are some of the activities undertaken by ICPAC:

- Development and archiving of regional and national quality-controlled climate databanks;
- Data processing, including development of basic climatological statistics;
- Timely acquisition of near real-time climate and remotely sensed data;
- Monitoring space-time evolutions of weather and climate extremes over the region;
- Generation of climate prediction and early warning products;
- Delineation of risk zones of extreme climate-related events;
- Timely dissemination of early warning products;
- Conducting capacity-building activities in the generation and application of climate products;
- Organization of climate outlook forums for the countries in the Greater Horn of Africa;
- Enhancement of interactions with users through user workshops and pilot application projects;
- Climate change monitoring, detection and attribution.

Figures 12 to 14 illustrate a range of climate- and drought-related products produced by ICPAC (http://www.icpac.net). The products depict cumulative rainfall deviations from the mean for Marsabit, Kenya; a regional climate outlook map; and a map illustrating the food security outlook for the countries in the Greater Horn of Africa, respectively.

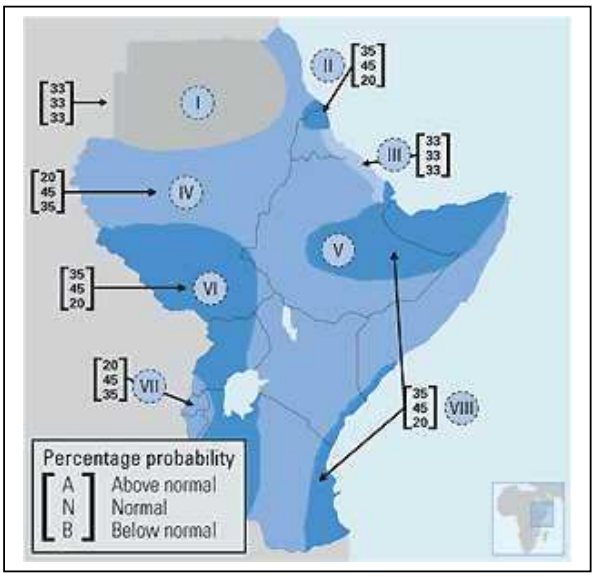

Figure 13. limate outlook for the Greater Horn of Africa, March to May 2006. Source: CPAC)

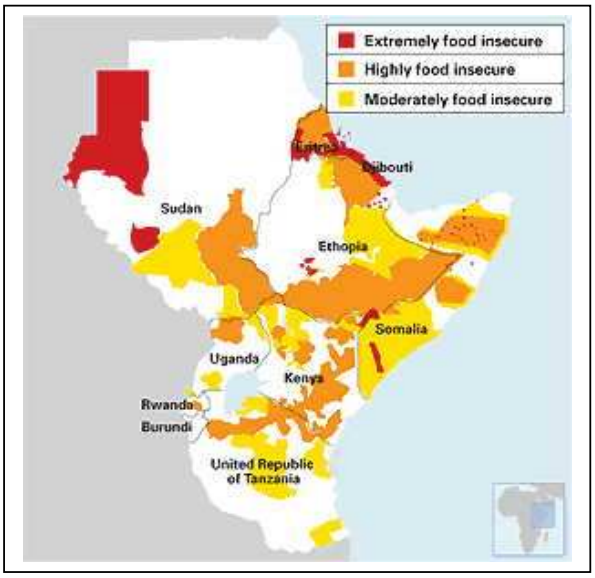

Figure 14. ood security outlook for the Greater Horn of Africa, September to December 2005. ICPAC)