Background

This note provides an update on the expected weather conditions for the Horn of Africa during the next growing season which will start from mid September and last till mid January. It is based on seasonal forecasts which predict three month rainfall totals and three month average temperature up to four months in advance.

The forecasts used in this note were released in mid August and predict the rainfall and temperature for September to November (3 month total rainfall and average temperature, predicted 1 month ahead), October to December (predicted 2 months ahead), November to January (predicted 3 months ahead) and December to February (predicted 4 months ahead). The first two are the most relevant to assess likely scenarios for the recently drought affected regions of Somalia and Kenya.

These forecasts are issued every month and the next update will provide predictions for the same time span (October 2011 to January 2012) but made closer to the actual season and hence expected to be more accurate.

ECMWF Seasonal Forecast. Issued 15/08/2011
Probability of Rainfall above the median

![Rainfall Probability Map](image)

Fig 1 – ECMWF forecasts for rainfall in October-December (left) and November-January (right). Blue shades indicate increasing probabilities of wetter than usual conditions, while yellows to reds indicate decreasing probabilities.

Note average and above average conditions across the region (left) with a change to moderately below average conditions in southern Somalia and northeastern Kenya (right) later in the season (right).

Source : European Centre for Medium Range Weather Forecasts (ECMWF)
**Highlights**

Current forecasts for the Horn predict average rainfall and moderately hotter than average temperatures during the first part of the season over most of Somalia, northeast Kenya and southeast Ethiopia. For the second half of the season, forecasts point to less favourable conditions, i.e. moderately below average rainfall and increasingly hotter than average temperatures (see Fig 1 and 2).

Hotter than average temperatures in November-January can lead to unfavourable growing conditions during crop development as higher temperatures impose higher water requirements, a situation which is exacerbated if rainfall is below average.

However, this scenario is now considered somewhat less likely than it was in the previous issue as these latest forecasts (plus those from other sources, see Fig 3) indicate closer to average rainfall and less extreme temperatures, relative to the forecasts previously issued in mid July.

On balance, although perspectives have improved, there remains a moderate cause for concern and a need for close monitoring, given that the areas in question are also those worst affected by the recent drought and any impact on the next harvest could have serious consequences for an already fragile population.

Elsewhere across the region (Uganda, western Kenya and south-eastern Sudan), forecasts point to average or above average rainfall, together with average or moderately cooler than average temperatures until early 2010 (fig 1 and 2), indicating favourable conditions for crop and pasture development throughout this period.

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**ECMWF Seasonal Forecast. Issued 15/08/2011**

**Probability of Temperature above the median**

**October 2011 - December 2011**

**November 2011 - January 2012**

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**Fig 2 – ECMWF forecasts for temperature in October-December (left) and November-January (right). Yellows to reds indicate increasing probabilities of hotter than usual conditions while blue shades show decreasing probabilities. The likelihood of hotter than usual conditions (high probabilities of temperature being above the median) over most of the Horn of Africa during this period is evident. See Fig 3b for temperature forecasts from a different source with a consistent pattern.**

**Source:** European Centre for Medium Range Weather Forecasts (ECMWF)

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**Data Sources**

Seasonal forecasts for rainfall and temperature used in this note are available from:

IRI (International Research Institute for Climate and Society, USA)

http://iri.columbia.edu/climate/forecast/net_asmt/

ECMWF (European Centre for Medium-range Weather Forecasts, based in UK)

http://www.ecmwf.int/products/forecasts/d/charts/seasonal/forecast/seasonal_range_forecast/group_public/seasonal_charts_public_2tm%20temperature%1%20month%1Africa%202011%20tercile%20summary/
These forecasts are long range forecasts and hence carry a relatively high degree of uncertainty. They provide preliminary indications and tendencies for three month periods and fairly wide areas and should not be interpreted as facts. Forecasts from different sources use different methodologies and may differ in their results – in fact, consistency among forecasts from different sources may give the user greater confidence in their results.

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