TANZANIA METEOROLOGICAL AGENCY

SEASONAL WEATHER FORECAST

No. 3 Special Issue: **September – December 2010 Season** **Issued on 8th September, 2010**

Summary

The Bulletin contains a brief review of the performance of November 2009 to April 2010 and March to May 2010 rainfall seasons, and evolution of the climate systems and outlook for the September to December 2010 (SOND) rainfall season. The SOND rains are expected to be above normal over Lake Victoria basin (Kagera, Mwanza, Mara, and Shinyanga regions), northern Kigoma, western Arusha, and northern Tabora. Below normal rains are expected over northeastern highlands (eastern parts of Arusha, Kilimanjaro and Manyara regions), northern coast (Dar es Salaam, Tanga, much of Morogoro, and Islands of Zanzibar and Pemba), central (Dodoma and Singida), western (much of Kigoma and Tabora, and Rukwa regions), southern coast (Lindi region), much of Iringa and Mbeya regions. The southern and southern coast (Ruvuma and Mtwara regions), southern parts of Mbeya, Iringa and Morogoro regions are expected to receive normal to above normal rains. ***This Outlook is relevant only for seasonal time scales and over relatively large areas and month-to-month variations may occur. It should be noted that heavy and short duration episodic events are common even in below normal rainfall conditions.***

RAINFALL PERFORMANCE

November 2009 to April 2010 Rainfall Season

The performance of *Seasonal rains* from November 2009 to April 2010 over the unimodal areas (central, west, southern, Regions, Southwestern highland and southern cost) was good over most areas. Mainly above normal rainfall was observed during the months of November and December 2009 extending to early January 2010. El Niño conditions continued over the Equatorial Pacific Ocean thus enhancing rainfall at various times. However, the western areas received poor rainfall distribution followed by early cessation over some areas.

March to May 2010 Rainfall Season

The Long rains *(Masika)* which started earlier in March 2010 and ceased towards the end of May 2010 faired well over most areas. However, the rains over the northern coast during the month of March 2010 were poorly distributed.

EXPECTED CLIMATE SYSTEMS AND WEATHER DURING SEPTEMBER- DECEMBER 2010

Sea Surface Temperatures (SSTs) in the central equatorial Pacific Ocean have been anomalously cool for the past two months and show a trend towards enhanced cooling which implies that La Niña condition is present across the equatorial Pacific and is projected to persist through March 2011. The current cooling over the western Indian Ocean (coast of East Africa) coupled with increased gradual warming over Indonesia is expected to weaken the low level easterly winds towards the country. Enhanced westerly wind flow during September will influence rainfall activities over Lake Victoria Basin, western parts of Northeastern Highlands and western regions (northern parts of Kigoma and Tabora). However, during November-December 2010 weakening of westerly winds due to warming over northern Atlantic Ocean is likely to reduce rainfall over the Lake Victoria Basin and western parts of the country. Slight warming over the northern Madagascar during late November and December is likely to enhance rainfall activities over southern coast, southern region and part of southwestern highlands.

Seasonal Outlook

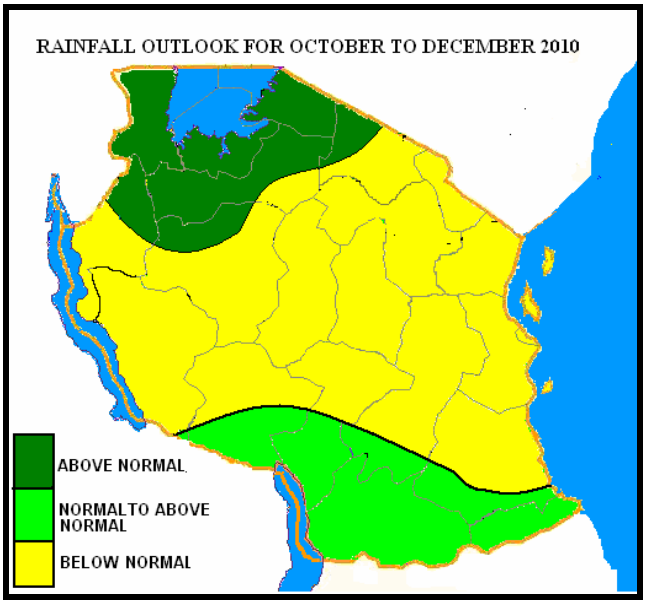
Short Rains (*Vuli*)

The October to December rainfall season (*Vuli*) is more significant for the north-eastern highlands, northern coast areas and the Lake Victoria basin. The rains are expected to be above normal over Lake Victoria Basin and western part of Arusha region. Below normal rainfall is expected over the northeastern highlands, northern coast and its hinterlands. The short rain season in the northern Tanzania (bimodal areas) is due to commence from third to fourth week of September over the Lake Victoria Basin and later to the northern coast and northeastern highlands towards mid October, 2010. The start dates of the short rain season over bimodal areas are likely to delay, resulting into shorter season.

Lake Victoria Basin: (Kagera, Northern Kigoma, Mara, Mwanza and Shinyanga regions): Rains are expected to start during the third week of September 2010 over Kagera region and gradually spreading to other areas (Mwanza, Shinyanga , northern Kigoma (Kibondo) and Mara regions) during the second week of October, 2010. The rains are expected to be mainly above normal over most areas. However, eastern parts of Shinyanga are likely to experience below normal rainfall.

Northern coastal areas and hinterland: (Dar es Salaam, Tanga, Coast, and northern Morogoro regions and isles of Unguja and Pemba): The rains are expected to commence during the second week of October 2010. These rains are expected to be below normal over most areas and poorly distributed during the season.

Northeastern highlands: (Kilimanjaro, Arusha and Manyara regions): The onset is expected during the second and third week of October 2010. These areas are expected to receive below normal rainfall.



Rainfall outlook for October to December 2010

Seasonal Rains

The November to April rainfall (*Seasonal rains*) is more significant for the Western, Central, Southwestern highlands, Southern regions and Southern coast. The rains are likely to be suppressed over western and central regions of the country. Most areas of Southwestern highlands, Southern regions and part of Southern coast are expected to receive mainly normal rains

Western areas: (Tabora, Rukwa, southern Kigoma, and parts of eastern Shinyanga regions): The rains are likely to start during the first to second week of November, 2010 and are expected to be below normal. However, northern parts of Tabora and Kigoma are expected to experience normal rains.
Central (Singida and Dodoma regions): Onset of the seasonal rains over these areas is expected in the first week of December 2010, with a likelihood of being below normal.

Southwestern highlands: (Mbeya, Iringa and Morogoro regions): Onset of the seasonal rains over these areas is expected in second and third week of November 2010, with a likelihood of being normal. Northern parts of these regions are expected to receive below normal rainfall.

Southern region and Southern Coast: (Ruvuma, Mtwara and Lindi regions): Onset of the seasonal rains over these areas is expected in the fourth week of November 2010, with a likelihood of receiving normal rainfall. However greater part of Lindi region is expected to receive below normal rainfall.

Advisory

Agriculture

Over northern coast, northern Lindi, northern Morogoro, Iringa and Mbeya, Central, greater parts of northeastern highlands and western parts, farmers are advised to plant fast maturing crops. Over Lake Victoria basin, northern part of Tabora, western Shinyanga and northern Kigoma, farmers are advised to continue with normal cropping season. However, periods of excessive soil moisture levels are likely to negatively affect some crops especially beans and maize thereby reducing yields. For better soil moisture management and suitable crops to be grown in their farms, farmers are advised to seek guidance from Extension Officers for appropriate agronomic practices.

Pastures and Water for Livestock

Pastures and water availability for livestock and wildlife are expected to improve over much of the Lake Victoria Basin and southern regions due to expected normal and above normal rains in those areas.

Water Levels in dams and Lakes

Water levels in Lakes and dams are expected to rise and rivers discharges are expected to increase in most where rains are expected to be normal or above normal. However, a greater part of the country is expected to face water deficit, thus, we advice available water to be well managed and whenever possible rain water harvesting should be practiced.

*It should be noted that this year rainfall is likely to be influenced by La Nina and is expected to be associated with dry spells. Indian Ocean is expected to respond in a **typical** La Niña fashion coupled with a negative Indian Ocean Dipole associated with warming over Indonesia and cooling over western Indian Ocean thus triggering dynamics for rainfall suppression over some parts of the country.*

Prepared by
TANZANIA METEOROLOGICAL AGENCY
3rd, 4th & 10 th Floors - Ubungo Plaza – Morogoro Road.
P.O. Box 3056 Tel. 255 -(0) 22 – 2460706-8 ; Fax: 255 - (0) 22 – 2460718 E-mail: (1) met@meteo.go.tz (2) agromet1_tz@meteo.go.tz
Dar-es-Salaam UNITED REPUBLIC OF TANZANIA