

Summary

The Bulletin contains a brief review of the performance of September to December 2011 rainfall season, and evolution of the climate systems, and outlook for the March to May 2012 (MAM) rainfall season, and advisories on the likely impacts. *Outlook for March to May (MAM), 2012 rainfall season indicates that the Lake Victoria basin, northeastern highlands, northern coast, western (Kigoma and parts of Rukwa regions, central (much of Dodoma region) are expected to receive normal to above normal rains while Shinyanga, Tabora, Singida, Mbeya, northern Iringa central Morogoro, and much of Lindi are expected to receive mainly normal rainfall. Southern and parts of southern coast are expected to experience normal to below normal rainfall. It should be noted that heavy and short duration episodic events are common even in below normal rainfall conditions.*

RAINFALL PERFORMANCE

October to December 2011 Rainfall Season

The performance of the October to December 2011 short rains (*Vuli*) fared well over most parts of the country. However, both temporal and spatial distribution was not good in some areas. Towards the end of the season in December some areas received heavy rainfall that caused catastrophic disasters mainly over some parts of Dar es Salaam, Mara, Manyara, Mbeya, Arusha, Kilimanjaro, and Mwanza regions. Few areas over the unimodal regions (i.e. Ruvuma, southern Morogoro, Mtwara and southern Lindi) experienced poor OND, 2011 seasonal rainfall performance.

EXPECTED CLIMATE SYSTEMS AND WEATHER DURING MARCH - MAY 2012

Expected Climate Systems during March- May 2012

This outlook is based on a review of the past, current and expected state of global climate systems and its likely impacts on the upcoming March to May (MAM), 2012 rainfall season in the country. Currently, the Sea Surface Temperatures (SSTs) in the equatorial central Pacific Ocean have been anomalously cooler indicating persistence of weak La Niña conditions. However, slight warming leading to neutral Sea Surface Temperature conditions is projected towards the end of MAM, 2012 rainfall season. The observed and projected cooling over Central equatorial and Eastern Atlantic Ocean coupled with slight warming over the South-western Indian Ocean is expected to contribute and enhance westerly wind towards Tanzania leading to increased rainfall particularly over the western parts. Westerly wave associated with phases of enhanced tropical convection is expected to move across the country during the early period of the season (i.e. March) and thus influencing early rainfall onset. The current weak temperature gradient between western and eastern parts of the

Indian Ocean is projected to persist through March, 2012 leading to weak easterlies towards East African coast.

The northern subtropical systems are projected to be relatively weaker than the southern systems that suggest the possibility of fast retreat of the Inter Tropical Convergence Zone (ITCZ) from south to north. Due to projected slight warming over South-western Indian Ocean and due to the likelihood of factors favoring the development of tropical storms, the number of tropical storms is projected to increase and this may have impact on the MAM seasonal rains.

RAINFALL OUTLOOK DURING MARCH - MAY 2012

From the prevailing climate systems explained above, the March - May 2012 rainfall outlook is described below and the map is shown in Figure 1.

Long rains (*Masika*)

The long rains season in the northern sector (bimodal areas) of Tanzania is due to commence during first week of March, 2012. The details are as follows;

Lake Victoria basin: Rains are expected to start in the first week of March in Kagera and Mara regions and gradually spreading over the rest of the basin during the second week. Most parts of Lake Victoria Basin (Kagera, Mwanza and Mara) are likely to experience Normal to Above Normal rainfall, while Shinyanga region is expected to receive normal rains. **Northern coast and hinterlands** (Dar es Salaam, Tanga, Coast, northern Morogoro regions and isles of Unguja and Pemba): Rains are expected to start during the first week of March. However, some areas of this region had experienced pre-seasonal rains during the fourth week of February that was associated with tropical storm over the Indian Ocean. The seasonal rains over this region are likely to be normal to above normal. **Northeastern highlands** (Kilimanjaro, Arusha and Manyara regions): The onset of

rainfall is expected during the first week of March, 2012 and the rains are likely to be Normal to Above Normal

Seasonal Rains (Msimu): November 2011 to April 2012

Western areas (Kigoma, Tabora and Rukwa regions): The ongoing seasonal rains over these areas are expected to be Normal to Above Normal except over Tabora and eastern Rukwa regions where Normal rains are expected. These rains are expected to recede during the fourth week of April, 2012.

Central areas (Singida and Dodoma regions): The ongoing seasonal rains are expected to be Normal to Above Normal over much of Dodoma, while Singida region is expected to feature Normal rains. These rains are expected to recede during the second week of April 2012.

Southern coastal areas (Mtwara and Lindi regions): The ongoing seasonal rains in most of these areas are expected to be Normal to Below Normal rainfall. Cessation of rains is expected towards the end of the third week of April, 2012.

Southern areas (Ruvuma, Mtwara, and Lindi regions): The ongoing seasonal rains in these areas are expected to be Normal to Below Normal. Cessation of the rains is expected during the third week of April, 2012. **Southwestern highland areas** (Mbeya, Iringa and southern Morogoro regions): The ongoing seasonal rains in most of these areas are expected to be Normal. However Southern Iringa and Morogoro are likely to feature Normal to Below Normal rainfall. These rains are expected to end during the third and fourth week of April, 2012.

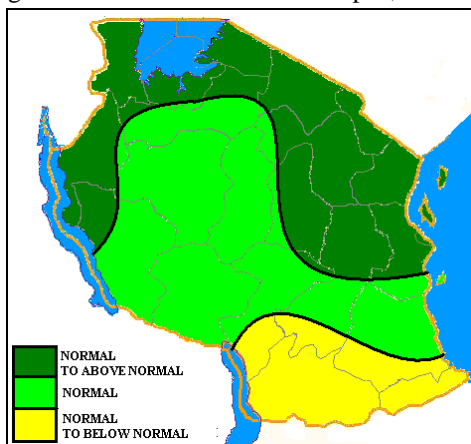


Fig. 1: Rainfall outlook for March to May 2012

IMPACTS AND ADVISORY

Agriculture and Food Security

Sufficient soil moisture condition is likely over much of the country, except for a few areas of southern regions where earlier decline of soil moisture is anticipated during April 2012. The expected above normal rains in bimodal rainfall

areas are likely to cause excessive soil moisture levels particularly over low ground areas, thus causing water log of crops. Over northern coast, north eastern highlands, Lake Victoria basin and western (Kigoma), farmers are advised to go for normal *Masika* cropping season. Over western (Tabora and Rukwa), central, south-western highlands and southern region farmers are advised to continue with normal practice as crops get into maturity. Over unimodal areas crops like sweet potatoes, legumes, cassava and other short term and drought resistance crops may benefit from the remaining rains in the season. **However, farmers are strongly advised to seek more advice from agricultural extension officers.**

Pastures and Water for Livestock

Pasture and water availability for livestock and wildlife over most parts of the country is likely to be good. Pastoralists and agro-pastoralists are advised to harvest and conserve pasture for use during dry periods. **However, pastoralists and agro-pastoralists are strongly advised to seek more advice from livestock extension officers.**

Water and Energy

Water levels over the lakes, dams and rivers are expected to improve over areas where normal to above normal rains are expected. Otherwise, an area where normal to below normal rainfall is likely, no significant improvement on water levels is expected.

Health

Areas which are expected to receive normal to above normal rains, there is a likelihood of water born diseases such as malaria epidemic and cholera outbreaks, thus necessary precautions should be taken.

Disaster Management and Local Authorities

The disaster management authorities and other stakeholders are advised to take necessary measures that would ensure preparedness, response, and mitigation of any negative impacts resulting from expected weather conditions. Government Local Authorities over areas where above normal rains are expected are advised to open up and clear drainage systems to avoid water accumulation due to surface runoff so as to reduce the impacts of heavy rains that may result from floods.

Note: It should be noted that heavy rainfall events are common even in below normal rainfall conditions and periods of longer dry spells may occur even in areas with above normal rainfall. Tanzania Meteorological Agency will continue to monitor developments of weather systems including tropical cyclones over the southwestern Indian Ocean, which could influence the rainfall, patterns in the country and issue updates as necessary.

Prepared by
TANZANIA METEOROLOGICAL AGENCY
 3rd, 4th & 10th Floors - Ubungu 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) agromet@meteo.go.tz
 Dar es Salaam UNITED REPUBLIC OF TANZANIA