TANZANIA METEOROLOGICAL AGENCY

SEASONAL WEATHER FORECAST

No. 4 Special Issue: **March – May 2011 Season** **Issued on 4th March, 2011**

Summary

The Bulletin contains a brief review of the performance of September to December 2010 rainfall season, and evolution of the climate systems, and outlook for the March to May 2011 (MAM) rainfall season, and advisories on the likely impacts. Outlook for March to May, 2011 rainfall season indicate that most parts of the bimodal areas are expected to receive below normal to near normal rainfall. Moreover, the ongoing rains over the unimodal areas are expected to be mainly normal with a likelihood of above normal over south-western highlands, southern region and some parts of southern coast. ***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 condition.***

RAINFALL PERFORMANCE

September to December 2010 Rainfall Season

During the months of September – December**,** 2010, most parts of the country received below normal to normal rainfall. The Lake Victoria Basin and central regions recorded mainly normal rains. Southwestern highlands experienced normal to above normal rainfall. Western and southern areas experienced mainly normal rainfall, while coastal areas and isles of Unguja and Pemba received below normal rains.

EXPECTED CLIMATE SYSTEMS AND WEATHER DURING MARCH- MAY 2011

Climatic systems March- May 2011

This outlook is based on a review of the past, current and expected state of global climate systems and its likely impacts on the ongoing and upcoming March to May, 2011 rainfall season in the country. The principal factors responsible for the current and predicted seasonal climate are the observed general cooling in the central equatorial Pacific Ocean (La Niña condition) and warming over eastern Atlantic Oceans (near coast of Angola) and Northern Atlantic Ocean (near Azores area). Near normal and below normal Sea Surface Temperatures (SSTs) are expected over the Western and Central Indian Ocean respectively. Currently, Sea Surface Temperatures (SSTs) in the Central Equatorial Pacific Ocean have been anomalously cool for several months and are projected to persist through May, 2011. This implies that La Niña conditions are expected to continue across much of the Central Equatorial Pacific and gradually declining during the season.

Anomalous warming is observed over south-western Indian Ocean and is projected to persist through May, 2011. However, near normal conditions are observed over Western Indian Ocean (Coast of Tanzania) and are projected to persist through May, 2011. The weakening of Mascarene High pressure cell is likely to contribute to development of weak southeasterlies to the coast of Tanzania. Low level easterly wind anomalies are projected to prevail over south-west Indian Ocean and over the coastal areas of the country during the month of April and gradually weakening towards June, 2011.

Rainfall Outlook March- May 2011

Long Rains (*Masika*)

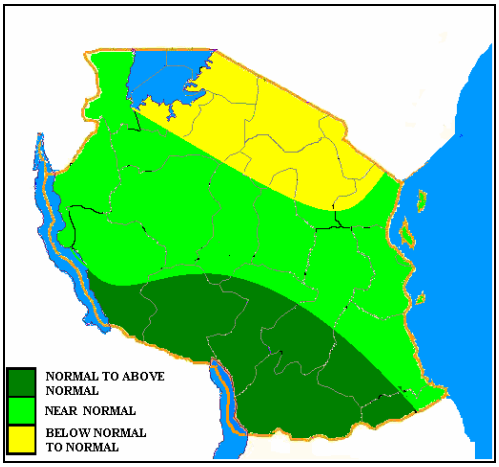
The long rains season in the northern sector (bimodal areas) of Tanzania is due to commence in the second to third week of March, 2011.

Lake Victoria basin: Rains are expected to start in the second week of March in Kagera region and gradually spreading over the rest of the basin during the third week. In most parts of Mara, eastern parts of Mwanza and Shinyanga regions the rains are expected to start during the third week of March, 2011 and are expected to be mainly below normal. Kagera region, western parts of Shinyanga and Mwanza regions are likely to experience near normal rains. **Northern coast and hinterlands (Dar es Salaam, Tanga, Coast and northern Morogoro regions, and isles of Unguja and Pemba):** Rains are expected to start during the third week of March, 2011 and are expected to be near normal. However, western parts of Tanga region are expected to feature below normal rainfall. **Northeastern highlands (Kilimanjaro, Arusha and Manyara regions):** Onset of the rain season is expected during the third week of March, 2011. Rains are expected to be below normal over much of the area.

Seasonal Rains (*Msimu*)

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 resulting into near normal rains. Most areas of southwestern highlands, southern regions and part of southern coast are expected to receive mainly normal to above normal rains

Western areas (Kigoma, and Tabora region): The ongoing rains over these areas are expected to be near normal. The rain season is expected to recede during the second week of April, 2011. **Central areas (Singida and Dodoma regions):** The ongoing rains are expected to be near normal over most areas. The rains are expected to recede during the first to second week of April, 2011. **Southern coastal areas (Mtwara and Lindi regions):** Western part of these areas are expected to get normal to above normal rainfall while eastern part are likely to receive near normal rains. Cessation of rains is expected towards the end of April, 2011. **Southern areas (Ruvuma region and Mahenge):** These areas are expected to get normal to above normal rainfall. Cessation of rains is expected during second week of April, 2011. **Southwestern highland areas (Rukwa, Mbeya and Iringa regions):** Most of these areas are expected to get normal to above normal rainfall, except extreme northern parts of Mbeya and Iringa, and northern half of Rukwa region which are likely to feature near normal rainfall. The seasonal rains are expected to end during second week of April, 2011.



Rainfall outlook for March to May 2011

IMPACTS AND ADVISORY

Agriculture and Food Security

Deficient soil moisture conditions are expected over areas which are expected to receive below normal rains. Farmers are advised to plant fast maturing crops and drought tolerant crops. Where possible, farmers should apply water harvesting techniques to capture available water. Areas which are likely to receive near normal rains, farmers are advised to go for a normal *Masika* season. Agronomic practices that conserve soil moisture such as timely weeding and thinning are emphasized.

The expected above normal rains in unimodal rainfall areas are likely to cause excessive soil moisture levels, thus causing crop damage and occurrence of pests and diseases. Farmers are strongly advised to continue with normal practice as crops get into maturity and also seek more advice from agricultural extension officers.

Pastures and Water for Livestock

Availability of water and pasture for livestock and wildlife is expected to decrease over areas with below normal *Masika* rains. Livestock keepers should be educated and encouraged on livestock harvesting practices while their animals are still in good health so as to get best market prices. However, livestock keepers in other areas are advised to adopt production and conservation of animal feeds (pasture) for future use especially during dry season.

Water and Energy

Water shortage is expected in areas that are likely to receive below normal rains. Water for irrigation activities particularly over Pangani and Central basins should be used sparingly. Over areas that are likely to receive near normal rains, availability of water is expected to improve; however water should be used sparingly while areas with above normal rains are expected to have sufficient water.

Health

Areas with below normal rains are expected to experience communicable diseases e.g. diarrhea, cholera, skin diseases due to water scarcity, trachoma due to poor hygiene, and malnutrition due to food shortage. On the other hand above normal rainfall is also likely to cause disease outbreaks such as cholera, malaria epidemics, and diarrhea. Health outreach programmes are also likely to be affected due poor infrastructure. Intervention and health education programmes should be emphasized to reduce impact.

Disaster Management and Local Authorities

Improve on national food storage and distribution in different zones and in flood prone areas, opening of water ways to allow normal drainage, increase awareness and outreach programmes.

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