No. 20 Special Issue: October to December (Vuli), 2018 Rain Season

Forecast issued on 6 September, 2018

#### **Summary**

- The October to December (OND) rainfall season (Vuli) is more significant for the bimodal rainfall regime areas..
- *Vuli* season is expected to commence in mid-September and early October over the Lake Victoria basin and northern coast and cease in the third week of December.
- The 'Vuli' 2018 Seasonal rains are likely to be mainly normal over most areas with elevated chance of above normal rains over Tanga, Dar es Salaam, Pwani and Morogoro regions together with the isles of Unguja and Pemba.
- Sufficient soil moisture levels are likely to favor cropping season over most areas of Kagera, Mara, Mwanza, Geita, Simiyu, Shinyanga, Kilimanjaro, Arusha, Manyara, Dar es Salaam, Tanga, Pwani regions; Islands of Unguja and Pemba and northern sector of Morogoro region.
- Heavy rains and excessive surface runoff are anticipated thus elevating flood risks during the season even in the areas, which are expected
  to feature normal to below normal rains

## CLIMATE SYSTEMS OUTLOOK DURING OND, 2018

The observed warming over Central Equatorial Pacific Ocean is likely to persist through October to December, 2018. Warm Sea Surface Temperatures are expected over much of Western Indian Ocean with neutral Sea Surface Temperatures over the Eastern Indian Ocean. The warming over Western Indian Ocean coupled with neutral Sea surface temperatures over the eastern Indian Ocean during the months of October to November is likely to favor enhanced easterly wind flow and moisture over the coastal belt. Furthermore, likelihood of deep low-pressure systems including tropical cyclones over southwestern Indian Ocean is expected to trigger westerly wind pattern across the country. Cooling over Southeast Atlantic Ocean near Angola coast is likely to enhance westerly wind flow from Congo Basin resulting into moisture influx into the country thus contributing to periods of enhanced rainfall activities. However, Sea Surface Temperatures over the Eastern Indian Ocean are likely to become slightly warm towards the end of the season thus weakening the equatorial Pacific coupling mode.

## SEASONAL RAINFALL OUTLOOK DURING OND, 2018

The October to December (OND) rain season (Vuli) is of more importance over bimodal rainfall areas (Lake Victoria Basin, Northeastern highlands, Northern coast, and Kibondo district). Onset of Vuli 2018 is expected earlier in mid-September and October over most of the bimodal areas. The rains are expected to be normal to below normal over Kagera, Geita and northern parts of Kigoma region (Kibondo District); while normal to above normal rains are likely over the Northeastern highlands, Eastern and Southern areas of Lake Victoria Basin. Above normal rains are likely over most areas of the northern coast.

## Lake Victoria Basin: (Kagera, Mara, Mwanza, Geita, Simiyu and Shinyanga regions):

Rains in these regions are expected to start earlier during the second and third week of September, 2018 over Mara region then spreading to Simiyu, Shinyanga, Mwanza, Geita and Kagera regions during the third week of October, 2018. The rains are likely to be normal to above normal over Mwanza, Mara, Shinyanga and Simiyu regions and mainly normal with pockets of below normal over Kagera and Geita regions. The October to December, 2018 rains are expected to cease during the fourth week of December for Mara and Simiyu regions while the rest parts of the lake the cessation is expected to be during the first and second week of January, 2019.

Northern Coast areas and its Hinterlands: (Dar es Salaam, Tanga, and Pwani regions, Islands of Unguja and Pemba and northern sector of Morogoro region):

Rains are expected to commence early during the fourth week of September, 2018. The rains are expected to be above normal to normal over much of these areas. The season is expected to feature enhanced periods of rainfall especially during the months of October and November 2018. Cessation of the rains is expected to be during the third week of December, 2018.

# Northeastern Highlands: (Kilimanjaro, Arusha and Manyara regions):

Rains are expected to start during the second week of October, 2018 and are expected to be normal to above normal over most areas. These rains are expected to cease during the second week of December, 2018.

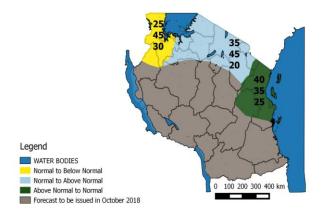


Figure 1: Rainfall outlook for coming rainfall season October to December, 2018

EXPECTED IMPACTS AND ADVISORY DURING OND, 2018

### Agriculture, Fishing Industry, Livestock and Wildlife Production

During the Vuli (October to November) 2018 rainfall season, soil moisture and availability of food for fish are expected to improve, especially over most areas of the northeastern highlands and northern coast.

However, excess soil moisture may ruin crops that do not require much water. On the other hand, the expected above normal rains might cause animal diseases and loss of fish due to destruction of fish farming infrastructure.

Deficiency in soil moisture and water is expected in areas where normal to below normal rains are expected. In these areas, farmers are advised to plant early maturing and drought tolerant crops.

The regions where above normal and normal rains are expected, sufficient pasture and water for livestock and wildlife are expected. However, shortage of water for livestock, wildlife and fish farming, shortage of fish in dams due to shortage of food is likely over few areas of the Lake Victoria basin. Livestock keepers are advised to practice good animal husbandry and harvest rainwater and pasture for immediate and future use. Users are advised to seek more information including advice from the extension officers.

#### **Disaster Management**

It is advised to step up preparedness and mitigation mechanisms such as close monitoring as the season progresses for timely early warning information communication, preparedness and contingency planning for floods and hazards triggered by floods, resource mobilization and strengthen response for response, preposition preparedness and response items for effective response. It is also advised to strengthen communication and advocacy campaign and communication mechanisms at all levels.

NOTE: The current status of seasonal forecasting allows for prediction of spatial and temporal averages over larger areas and may not fully account for all physical and dynamical factors that influence short-term climate variability. Users of this outlook are, therefore urged to make good use of daily, ten day and monthly updates issued by the Tanzania Meteorological Agency.