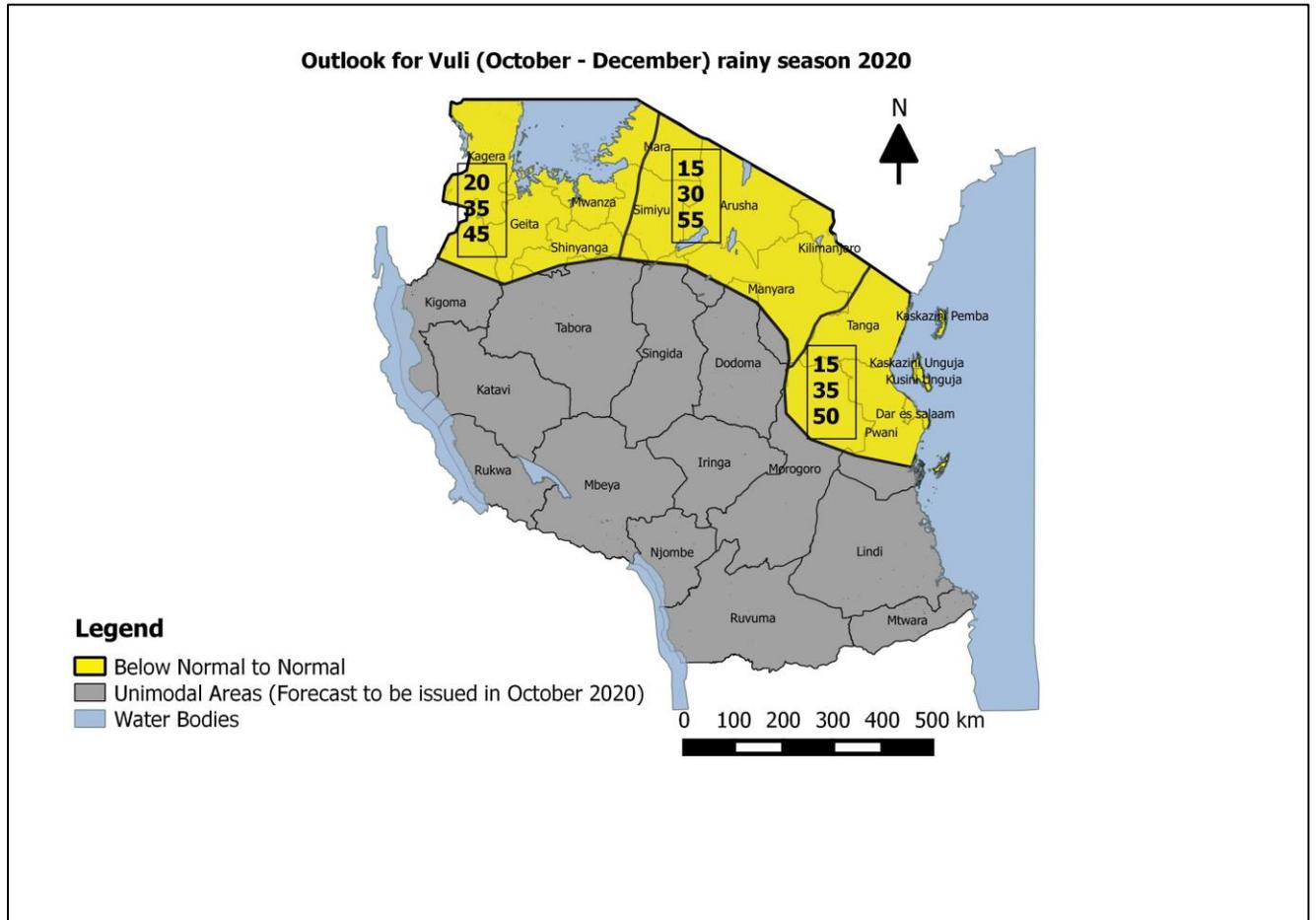


CLIMATE OUTLOOK FOR OCTOBER - DECEMBER, 2020 (VULI) RAINFALL SEASON



Highlights for October -December, 2020 (*Vuli*) rainfall season

This statement describes the evolution of the climate systems and outlook for the October to December, 2020 rainfall season, advisories and early warnings to various weather sensitive sectors including agriculture and food security, livestock and fisheries, natural resources, wildlife and tourism, energy and water, transport (land, marine and aviation), local authorities, health and disaster management. This season is more significant for the areas of the northeastern highlands, northern coast, Lake Victoria Basin and the northern parts of Kigoma region. The key message contained in the outlook indicates that:

a) The *Vuli* 2020 seasonal rains

- i. *Vuli* rains are expected to be below normal to normal and characterized by prolonged periods of dry spells.
- ii. The *Vuli* rains are expected to start late between the second and third week of November 2020 over the northeastern highlands and northern coast.

b) Expected Impacts

- i. Soil moisture deficit is expected over most areas.
- ii. Outbreak of water borne diseases is likely to occur due to periodic shortage of clean and safe water.
- iii. Inadequate pasture and water can result into conflicts between farmers and pastoralists.
- iv. Risk of forest fires is likely to be elevated, relevant authorities are advised to prepare strategies to mitigate the associated impacts.

(I) SEASONAL RAINFALL OUTLOOK OCTOBER – DECEMBER, 2020

Based on the current and expected climate systems (As indicated in part II of this statement), *below normal to normal rains* are expected over most areas of the Lake Victoria Basin (LVB), North eastern highlands (NEH) and northern coast (NC) together with northern parts of Kigoma region (Kibondo, Kakonko and Kasulu districts).

1. October to December Seasonal rains (Vuli)

The October to December (OND) rainfall season (*Vuli*) is more significant for the bimodal areas of the north eastern highlands, northern coast including the Isles of Unguja and Pemba, Lake Victoria Basin and the northern parts of Kigoma and Morogoro regions. The *Vuli 2020* rains are expected to be below normal to normal over most of bimodal areas.

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

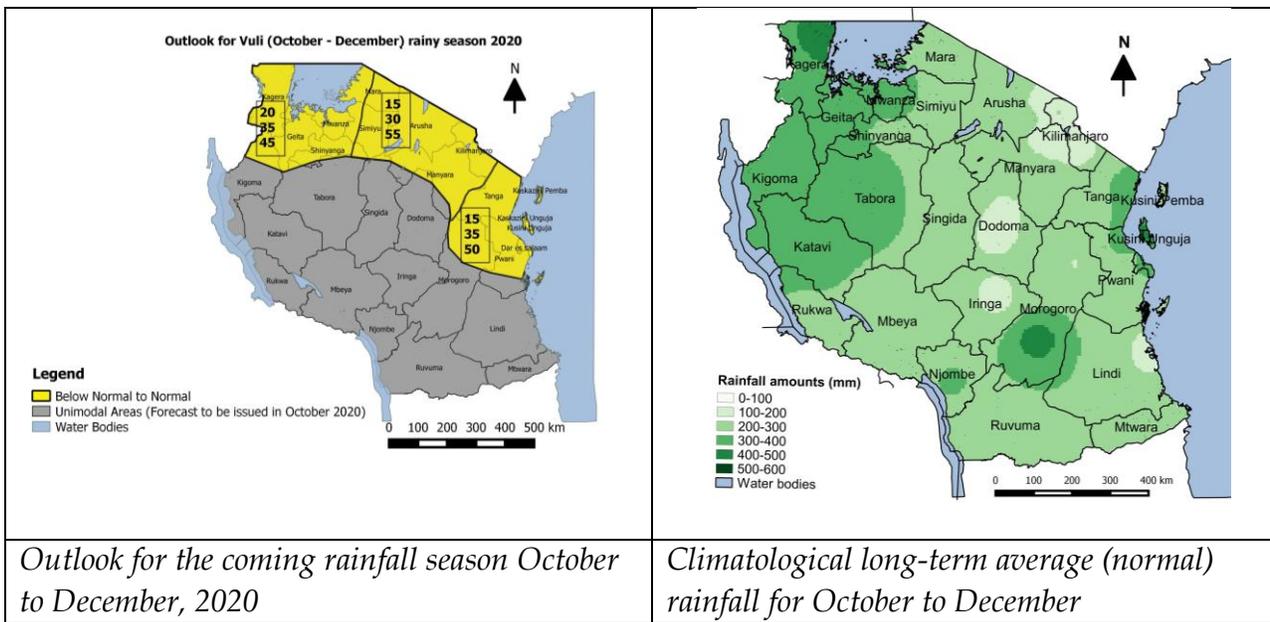
Rains are expected to be below normal to normal with elevated chances of prolonged periods of dry spells during the season. The rains are expected to start during the second week of September, 2020 over Kagera region and spread to Mwanza, Mara, Geita, Simiyu and Shinyanga regions during the third week of September, 2020. The rains are expected to cease during the month of January, 2021.

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

Below normal to normal rains with prolonged periods of dry spells are expected over most areas. Late onset of rains is expected, which is between the second and third week of November, 2020. The rains are expected to end during the fourth week of December, 2020.

1.3 North-Eastern Highlands: (Kilimanjaro, Arusha and Manyara regions):

Below normal to normal rains with prolonged periods of dry spell are expected over most areas. Rains are expected to commence late during the second and third week of November, 2020 and expected to cease during the month of January, 2021.



Outlook for the coming rainfall season October to December, 2020

Climatological long-term average (normal) rainfall for October to December

It should be noted that events of heavy and short duration rainfall might occur despite of the expected below normal rainfall conditions.

(II) CLIMATE SYSTEMS OUTLOOK

Currently, there is cooler than average sea surface temperature over the Central Equatorial Pacific Ocean (CEPO) which is expected to persist throughout the October - December 2020 period. This condition is expected to weaken rainfall-making mechanism over most parts of bimodal areas within the country. The western part of the Indian Ocean (WIO) is expected to have near normal sea surface temperatures while the eastern part (EIO) is expected to experience warmer than average sea surface temperatures. This is expected to suppress the humid easterly winds from the Indian Ocean towards the coastal areas and the north-eastern highlands. This situation is likely to weaken precipitation-making mechanisms over those areas. On the other hand, there is normal to slightly warmer sea surface temperature over the southeast Atlantic Ocean (off Angola Coast). The slightly warmer temperature is expected to persist throughout the OND 2020 season and suppress moisture rich westerly winds from the Congo Basin towards most areas of the country.

(III) LIKELY IMPACTS AND ADVISORY

The impacts and advisories of the outlook were jointly developed with experts from respective sectors during the stakeholders meeting held on 03rd September, 2020.

(a) Agriculture and Food Security

Soil moisture deficit, crop pest and diseases are expected to occur and resulting to poor crop growth and productivity. Farmers are advised to use drought tolerant crops and apply sustainable farming practices. Farmers are advised to seek guidance from extension officers in their areas. Responsible authorities are advised to prepare emergency plans, promote food reserve at community and national level as well as raise awareness to farmers on the suitable farming practices based on the expected suppressed rains.

(b) Livestock and Fishery

Decline of diseases in livestock, fish and seaweeds are expected. Poor rainfall and runoff are expected to lead into shortage of pasture, water availability and fish feeds. This situation is expected to lower production of fishery and livestock products, and may cause conflicts between farmers and pastoralists. Fisherfolks and livestock keepers are advised to use the weather forecast and adhere to advice from extension officers in their respective areas.

(c) Tourism and Wildlife

Shortage of water and pasture due to prolonged dry spells is likely to create conflicts between the community surrounding the wildlife habitats and the wildlife in search of water and pasture. Furthermore, outbreak of wildlife diseases is expected to occur due to insufficient water and pasture. Diseases transmission from wild to domestic animals is also expected following the exposure and mixing of these animals as they search for water and pasture. The responsible authorities are highly advised to raise awareness to the community at risk and take other necessary and appropriate measures. Meanwhile, the community at risk is encouraged to provide information to the responsible authorities on any noticeable invasion of wild animals into their areas.

(d) Transport Section

Based on the forecast issued, transport sector is expected to benefit especially air and land transport. Relevant authorities are advised to take advantage of the expected weather condition in execution of transport infrastructure construction especially in flood prone areas.

(e) Energy, Water and Mineral

In respect of the forecast issued, the water levels on hydroelectric dams is likely to decrease slightly reducing the risk of water overflow in hydroelectric power generation dams. However, the use of alternative sources of power are recommended. Likewise, water shortage for domestic and industrial use are likely to occur due to shortage of rains. In view of that, sustainable use of water resources is highly recommended especially for minerals processing, irrigation, domestic use and power generation.

(f) Local Authorities

Local authorities are advised to prepare maintenance plan to improve water supply infrastructures and drainage systems. Proper preparation will ensure water supply and drainage systems are working properly.

(g) Health sector

Outbreak of water borne diseases is likely to occur due to periodic shortage of clean and safe water. Therefore, responsible authorities and communities are advised to take appropriate health measures needed to minimize the expected negative impacts on community health. Cleaning of environment and destroying breeding ground for mosquitoes is highly encouraged. Communities are advised to consult health professionals so as to ensure protection from diseases.

(h) Disaster Management

Due to potential risk of forest fires, relevant authorities are advised to prepare strategies to mitigate the associated impacts. In addition, appropriate actions and preparedness measures for addressing negative effects of rainfall shortage should be put in place.

(i) Media

The media is encouraged to frequently follow-up on weather and climate information updates issued by Tanzania Meteorological Authority (TMA) and disseminate to the communities. Journalists and media houses are advised to seek and use expert information from relevant sectors during preparation and delivery of multi-sector weather related issues.

The Tanzania Meteorological Authority (TMA) advises all users of this climate outlook including farmers, livestock keepers, wildlife conservation authorities, hydrological and health sectors to continue seeking and utilizing experts' advice on their respective sectors.

NB: 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 Authority.

Tanzania Meteorological Authority (TMA) will continue to monitor developments of the weather systems and issue updates whenever appropriate. Users are encouraged to consult TMA for specialized outlooks on relevant sectors so as to suit their specific needs.

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By Tanzania Meteorological Authority: