THE OUTLOOK FOR MAY 2020 AND WEATHER REVIEW FOR APRIL 2020

1. HIGHLIGHTS

The Forecast for May 2020

May marks the cessation of the “Long Rains” season over several parts of the country except for the Coastal region and Western Kenya. The outlook for May 2020 indicates that several parts of the Lake Victoria Basin region and Western Kenya; Central & Southern Rift Valley; Central Kenya including Nairobi and North Western Kenya are likely to experience slightly enhanced rainfall. Counties in the Coastal region; counties in the South-eastern, Northern and North-eastern are likely to receive near average with tendency to below average rainfall.

Weather Review for April 2020

The first two weeks of month of April 2020 were mainly characterized by dry weather conditions over most parts of the country except over the Lake Victoria Basin and highlands west and east of Rift Valley as well as the Coastal strip where isolated rainfall was experienced. However, from mid-April, most parts of the country were characterized by moderate to heavy rainfall. During the same period, heavy rainfall was experienced over the highlands west of Rift Valley, highlands east of Rift Valley and Nairobi area. More than half of the meteorological stations attained and surpassed their Long-Term Means (LTM) for April. Analysis of rainfall during the months of March and April 2020 indicates that the seasonal rainfall was slightly enhanced over most parts of the country for the period.

2. MAY 2020 FORECAST

The rainfall forecast for May 2020 is based on regression of sea surface temperatures (SSTs), SST gradients and the expected evolution of global SST patterns as well as upper air circulations patterns. The forecast indicates that several parts of the Lake Victoria Basin region, Western and Central Kenya including Nairobi; some Counties in North Western Kenya; Southern and Central Rift Valley are likely to experience near average rainfall with a slight tendency to above Normal rainfall (slightly enhanced rainfall). Counties in the Coastal region; some counties in the Eastern Region; South-eastern and Northeastern are likely to receive near average with a tendency to below normal rainfall as shown in Figure 1 below.
2.1. SPECIFIC OUTLOOK

2.1.1. The Lake Victoria Basin; Highlands West of the Rift Valley; and Central and South Rift Valley (Siaya, Kisumu, Homa Bay, Migori, Kisii, Nyamira, Trans Nzoia, Baringo, Uasin Gishu, Elgeyo Marakwet, Nandi, Laikipia, Nakuru, Narok, Kericho, Bomet, Kakamega, Vihiga, Bungoma and Busia): Rainfall is expected to continue during the month of May 2020. However, the rainfall amounts are expected to be above average during the first week of the month and near average during the second half of the month. The rains will continue into the month of June.

2.1.2. North-western Region (Turkana, West Pokot and Samburu): The beginning of the month is likely to be characterized with above average rainfall. Occasional rainfall is likely to occur during the second half of the month. The expected total rainfall amounts are likely to be slightly above the long-term average for the region.

2.1.3. Highlands East of the Rift Valley and Central Kenya (Nairobi, Nyandarua, Nyeri, Kirinyaga, Murang’a, Kiambu, Meru, Embu, and Tharaka Nithi): Above average rainfall is expected during the beginning of the month. However occasional breaks are likely
especially during the second half of the forecast period. The rainfall amounts are likely to be above the long-term average for the region.

2.1.4. **North-eastern Region** (Mandera, Marsabit, Wajir, Garissa and Isiolo): Occasional rainfall is expected at the beginning of the month. The rainfall is however likely to reduce in the third to fourth week as the season comes to cessation. The expected rainfall amounts are likely to be slightly below the long-term average for the region.

2.1.5. **South-eastern Lowlands** (Kajiado, Kitui, Makueni, Machakos and Taita Taveta): Occasional rainfall is expected during the first week of the month. It is however expected to reduce in the third to fourth week as the season comes to cessation. The rainfall amounts are likely to be slightly below the long-term average for the month of May.

2.1.6. **The Coastal Strip** (Mombasa, Tana River, Kilifi, Lamu and Kwale): is expected to receive occasional rainfall in May. The expected rainfall amounts are likely to be near the long-term average. May marks the peak of the Long rains season in the Coastal Strip.

2.2. **POTENTIAL IMPACTS**

- The expected rainfall is likely to be conducive for agricultural production especially in the high-potential counties of Trans Nzoia, Uasin-Gishu, Kakamega, Kericho, Kisii and Nandi where near-average to above-average rainfall is forecasted and also expected to continue into the June-July-August period.
- Most of the pastoral areas of Northeastern and Northwestern Kenya are expected to experience average tending to above average rainfall. Pastures and water for livestock are therefore expected to be maintained in the counties within the regions.
- The availability of moisture may provide conducive breeding ground for Locusts in the Northern parts of Kenya.
- Landslides/mudslides are very likely over prone areas in the slopes of the Aberdare ranges, Mt. Kenya and other hilly areas over the western region. Contingency measures should therefore be put in place to avoid any loss of lives and property.
- Cases of flooding are likely to continue being experienced in low lying areas and flood plains especially over the Western parts of Kenya where enhanced rainfall is expected.
- Cases of lightning strikes are still probable in Western Kenya. Contingency measures should be put in place to avoid loss of lives and destruction of property.
- The water levels in the Seven-Forks and Turkwel hydro-electric power generation dams are expected to remain high during the forecast period.

3. **EXPECTED CESSATION OF THE 2020 “LONG RAINS” SEASON**

- The Western parts of Kenya, parts of central Rift Valley (Nakuru, Laikipia, Baringo) and the Coastal strip are expected to continue receiving rainfall into June.
- The southern parts of Central Rift Valley (Narok and western part of Kajiado) and the Central highlands including Nairobi are likely to experience cessation of the “Long Rains” during the third to fourth week of May.
- In the Northwestern, Northeastern and Southeastern parts of the country, the cessation is also likely to occur during the third to fourth week of May.
4. REVIEW OF THE WEATHER DURING APRIL 2020

During the month of April, 2020, equatorial SSTs over the western Pacific were neutral tending to warmer than average conditions while neutral to below average SSTs dominated the eastern Pacific Ocean. Neutral to warmer than average SSTs dominated the Western, Central and Eastern Indian Ocean. This pattern presented a neutral phase of the Indian Ocean Dipole (IOD). These temperature patterns were conducive for rainfall over the Eastern sector of the country. The zonal arm of the rain-bearing Inter-Tropical Convergence Zone (ITCZ) was mainly diffuse over the region. The rainfall received from mid-April was mainly influenced by the 2nd phase of the Madden-Julian Oscillation (MJO). This situation led to generally improved rainfall over most parts of Kenya.

4.1. REVIEW OF RAINFALL PERFORMANCE DURING APRIL 2020

April marks the peak of the Long Rains (March-April-May) season. The month began with dry weather conditions over most parts of the country with light rainfall being recorded in very few areas in Western, Central and Southern regions. From mid-April, most Meteorological stations across the country started to experience light to moderate rainfall with isolated heavy rainfall between 18th and 25th April 2020. For example, Marsabit and Embu stations recorded 82.4mm and 62.1mm of rainfall respectively on 19th April. The most enhanced rainfall of 349.6mm (117.2% of the Long-Term Mean (LTM)) was recorded at Mandera station while Garissa station recorded 146.8mm (190.9% of the LTM). Other stations that recorded enhanced rainfall include Machakos, Eldoret, Dagoretti, Nakuru, Lodwar, Kisumu, Nyahururu, Voi and JKIA. Embu Meteorological station recorded the highest monthly rainfall total amount of 349.6mm (117.2%) as compared to its LTM rainfall of 298.3mm. Dagoretti, Kisumu, Meru and Machakos stations recorded 324.3mm (148.8%), 304.4mm (141.7%), 279.9mm (112.2%) and 257.6mm (184.9%) respectively. Kericho, Eldoret, Moi Air-Base, Kakamega, Moyale and Nyeri stations also recorded above 200mm while the rest of the stations recorded less than 200mm.

Figure 2 shows the total amount of rainfall recorded in April 2020 (the green bars) as compared to the LTMs - the orange bars) while Figure 3 depicts the spatial distribution.
4.2. MARCH-MAY SEASONAL RAINFALL PERFORMANCE UP TO APRIL 2020

Analysis of March-April-May 2020 seasonal rainfall indicates that several meteorological stations in the country have had already received near average to above average rainfall by the end of April against their March-April-May long term means. Machakos, Lodwar and Garissa stations recorded 151.6%, 141.3% and 135.0% of their MAM seasonal LTM respectively as depicted in Figure 4 below.
EXPERIENCED IMPACTS

- Landslides and mudslides were reported in West Pokot, Kericho and Murang’a counties. These led to loss of lives and destruction of property;
- Some rivers including the Mara, Tana, Nzoia, Athi, Ewaso Ngiro Rivers and several streams across the country had increased water flow due to enhanced rainfall experienced in the catchment areas.
- Flooding also affected other areas of western Kenya, including Migori, Homa Bay, Busia, Kisumu and Siaya counties, blocking roads, damaging homes and causing displacements;
- In the pastoral areas of Rift Valley, pasture for livestock continued to improve significantly as a result of the favorable rains experienced in these regions;
- Locusts continued to thrive and spread to more counties causing destruction to crops;
- Heavy rains and flooding wreaked havoc in Tana River, Garissa, Narok, Kitui, Nakuru, Uasin Gishu, Kajiado and Nairobi counties; 700 homes were submerged in water as River Tana overflowed;
- Lake Victoria rose, leaving more than 1000 villagers homeless.
- There was paralysis of transport in Suswa along the Narok-Mai Mahiu road; traffic snarl-up in Nairobi following heavy rains and flooding.

NB: This outlook should be used with the 24-hour, 5-day, 7-day, special forecasts and regular updates/advisories issued by this Department. Weekly County forecasts are available from County Meteorological Offices.

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