REPUBLIC OF KENYA
MINISTRY OF ENVIRONMENT AND FORESTRY
STATE DEPARTMENT OF ENVIRONMENT
KENYA METEOROLOGICAL DEPARTMENT
Dagoretti Corner, Ngong Road, P. O. Box 30259, 00100 GPO, Nairobi, Kenya
Telephone: 254 (0) 20 3867880-7**, Fax:** 254 (0) 20 3876955/3877373/3867888,
e-mail: director@meteo.go.ke, info@meteo.go.ke
Website: http://www.meteo.go.ke

PRESS RELEASE

THE OUTLOOK FOR THE "LONG RAINS" (MARCH-APRIL-MAY) 2018 SEASON; REVIEW OF WEATHER DURING THE OCTOBER-DECEMBER 2017 "SHORT RAINS" SEASON AND JANUARY 2018

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1. HIGHLIGHTS

1.1 Outlook for March-April-May 2018

- *Depressed rainfall is expected over most parts of the country, especially the Eastern sector, during March-May 2018 "Long-Rains" Season. However, near-normal rainfall is expected over most parts of Western Kenya, central Rift Valley and parts of central Kenya including Nairobi.*
- *Most of the eastern sector of the country is likely to remain generally dry during the month of March.*
- *Most of the seasonal rainfall is expected during the peak month of April and in May.*
- *The seasonal rainfall onset is expected during the third to fourth week of March over most parts of western Kenya. The better part of the eastern sector, especially Northeastern Kenya is likely to experience the onset during the first to second week of April.*

1.2 Review of the rainfall conditions in October-November-December 2017 & January 2018

Most parts of the country received near normal to above normal rainfall during October-November-December 2017 "short-rains" season. However, the entire Southeastern Kenya and a few areas in western, Northeastern and the coastal strip received depressed rainfall. The seasonal rainfall was fairly good in October and November but the dry conditions in December were not favorable to the agricultural sector.

In January 2018, sunny, dry and hot weather conditions prevailed over most parts of the country. However, some areas in the Lake Victoria Basin, highlands west of the Rift Valley, Central Rift Valley and central highlands including Nairobi received significant amounts of rainfall towards the end of the month with a few stations recording heavy rainfall (20mm to 50 mm in 24hrs).

2. FORECAST FOR MARCH-APRIL-MAY (MAM) 2018 "LONG-RAINS" SEASON

March to May constitutes a major rainfall season in most parts of Kenya as well as much of equatorial Eastern Africa. ***Figure 1*** depicts the mean (average) March-April-May seasonal rainfall in Kenya. The figure shows that the highest rainfall amounts of over 300mm are recorded over Western, Central and the Coastal regions and parts of northern Kenya (Marsabit, Moyale).

The forecast for March-April-May (MAM) 2018 "Long-Rains" is based on the prevailing and the expected evolution of Sea Surface Temperature Anomalies (SSTAs) over the Pacific, Indian and Atlantic Oceans and also the Synoptic, Mesoscale and local factors that affect the climate of Kenya. These factors were assessed using various tools including ocean-atmosphere models, statistical models, satellite derived information and expert interpretation. The Indian Ocean Dipole (IOD), that is currently neutral, was also considered. The configuration in the Indian Ocean is currently not favorable for good seasonal rainfall in the country especially over the eastern sector.

The predicted Onsets, Cessation and distribution of rainfall were derived from statistical analysis of past years, which exhibited similar characteristics to the current year.

The forecast indicates that much of the country and especially most of the eastern sector is likely to experience generally depressed rainfall. However, several parts of Northwestern and Western Kenya, central Rift Valley, parts of central Kenya including Nairobi and a few areas in Southeastern Kenya are likely to experience near-normal rainfall with a tendency to above-normal (i.e. enhanced rainfall). The specific outlook for March to May 2018 "Long-Rains" Season (depicted in **Figure 3)** is as follows:

i. ***Western Counties*** **(**Busia, Vihiga, Kakamega, Bungoma); ***Nyanza Counties*** ***(****K*isumu, Siaya, Migori, Kisii, Nyamira, Homa Bay, etc**);** ***Counties in Northern Rift Valley*** (Trans Nzoia, Uasin Gishu, Kericho, Baringo, Nandi, Elgeyo Marakwet, Turkana, West Pokot, etc), ***Counties in central and Southern Rift Valley*** (Laikipia, Nakuru, Narok, Bomet, Kajiado, etc); ***Some counties in central Kenya*** **(**Nyandarua, Nyeri, Kiambu, Murang'a, Kirinyaga**),** ***Nairobi County*** **(**Westlands, Embakasi, Kasarani, Dagoretti) and some parts of Marsabit, Machakos and Makueni Counties are likely to

receive near-normal rainfall with a tendency to above-normal(enhanced rainfall).

ii. ***Counties in Eastern Region*** (Most of Embu, Tharaka-Nithi, Meru, Isiolo, Eastern parts of Marsabit County); ***Northeastern Region*** (Mandera, Garissa, Wajir), Samburu County, ***Some Counties in Southeastern Kenya*** (Kitui) and ***Counties in Coastal Region*** (Mombasa, Kwale, Kilifi, Lamu, Tana River, Taita/Taveta); are likely to receive near normal rainfall with a tendency to below normal (i.e. generally depressed rainfall).

3. EXPECTED SEASONAL RAINFALL DISTRIBUTION

The distribution of March to May 2018 seasonal rainfall, both in time and space, is expected to be generally poor over most parts of the country. This will be more so over the eastern sector and in particular the Arid and Semi-Arid Lands (ASALs).

- Depressed rainfall is expected over most parts of the country during the month of March 2018. Sunny and dry weather conditions are likely to persist over Northeastern, the Coastal region and some parts of Southeastern and central Kenya during the month.
- In April, near-normal to above-normal rainfall is expected over Northwestern, western, central Rift Valley, Northern Kenya (Marsabit area), central and Southeastern Kenya. The rest of the country, especially the Northeastern and the Coastal strip are expected to receive depressed rainfall that will be poorly distributed in time and space.
- Most parts of Northwestern, western, coastal strip, central Rift Valley and central Kenya are likely to experience slightly enhanced rainfall in May while the entire eastern sector of the country is expected to experience depressed rainfall.

4. EXPECTED ONSET AND CESSATION DATES

	Region	**Onset Dates**	**Cessation Dates**
1	Counties in the Lake Basin and in Highlands West of the Rift Valley	3rd to 4th week of March 2018	Rainfall will continue into June 2018
2	Southern parts of the Rift Valley (Narok, Kajiado etc); Central highlands including Nairobi area	4th week of March to 1st week of April 2018	3rd to 4th week of May 2018.
3	Central Rift Valley (Nakuru, Nyahururu etc)	4th week of March to 1st week of April 2018	Rainfall will continue into June 2018
4	South eastern Counties	4th week of March 2018	1st to 2nd week of May 2018.
5	Southern Coastal Strip	4th week of March	Continues into June

		to 1st week of April 2018	2018
6	Northern Coastal Strip	1st to 2nd week of April 2018	Continues into June 2018
7	North-western Counties	1st to 2nd week of April 2018	3rd to 4th week of May 2018
8	Northern and North-eastern Counties (Wajir, Garissa, Mandera, Marsabit)	1st to 2nd week April 2018. To remain generally dry in March	2nd to 3rd week May 2018.

5. POTENTIAL IMPACTS

5.1 *Agriculture, Food Security and Livestock Sectors*

In the agricultural counties of Western Kenya, Nyanza, central Rift Valley, central Kenya and parts of Southeastern Kenya where near normal to above normal rainfall performance is expected, the farming communities should take advantage of the expected rains and maximize crop yield through appropriate land-use management. Farmers are advised to liaise with the State Department of Agriculture for advice on the appropriate seeds to be used. The expected late onset in some agricultural areas is, however, likely to impact negatively resulting in delayed planting and germination.

In other agricultural counties like the better part Southeastern Kenya where the rainfall is expected to be depressed, farmers are also advised to liaise with the State Department of Agriculture to get advice on appropriate crops that are drought resistant in order to make the best use of the anticipated poorly distributed and depressed rainfall.

Food security is expected to deteriorate over most parts of the country and more so the Arid and Semi-Arid Lands (ASALs) of Kenya. The poor rainfall performance expected in these areas will also impact negatively on the livestock sector.

5.2 *Disaster Management Sector*

In the ASALs, problems related to water scarcity and poor regeneration of pastures and limited water availability for livestock is expected to increase due to the expected depressed rainfall during MAM 2018. Human-wildlife and inter-community conflicts over the limited resources are likely to be on the increase in these areas. Contingency plans and strategies should therefore be put in place to avert such incidences.

Lightning strikes are highly likely to occur in western Kenya especially within Kisii and Kakamega counties. Cases of flooding in places like Budalang'i and Kano areas as well as landslides/mudslides in prone areas of Western, central and Rift Valley are also highly probable. The National Disaster Operations Centre is, therefore, advised to be on standby in order to ensure mitigation of any negative impacts that may arise.

5.3 *Energy Sector*

The Seven Forks, Turkwel and Sondu Miriu catchment areas are expected to experience near-normal to above-normal rainfall during the coming season (March-May). It is, therefore, expected that the level of water in the hydroelectric power generation dams will gradually improve.

5.4 *Transport and Public Safety*

Flash floods are very likely to occur in Western Kenya, Central Rift Valley and Central Highlands due to the expected enhanced rainfall in these areas. This may lead to transport problems, especially in areas where the roads become impassable when it rains. Slippery roads and poor visibility during rainstorms may also pose dangers to motorists and pedestrians, especially along the Kikuyu-Kinungi stretch on the Nakuru—Nairobi Highway. Everyone should, therefore, take utmost care during the rainy period to minimize accidents that would result from such weather conditions.

5.5 *Water Resources Management Sector*

Water resources available for drinking, sanitation and industrial use are expected to continue diminishing over most of the eastern sector of the country due to the expected depressed rainfall. This will be more so in Northeastern and Southeastern Kenya. The currently available water should therefore be well managed to cater for the animal and human population needs. Rain water harvesting any time it rains should also be encouraged to boost water availability in homes.

5.6 *Health Sector*

Diseases like cholera may emerge in areas expected to receive depressed rainfall. Problem of malnutrition may be on increase in the same areas. In areas expected to receive enhanced rainfall, water-borne diseases such as malaria are also likely emerge. Health authorities should, therefore, equip hospitals with necessary drugs to be able to deal with such situations as they arise.

5.7 *Environment*

In areas expected to have good rainfall performance, the Ministry of Environment and Forestry should encourage residents to put in

place soil conservation measures to minimize environmental degradation caused by soil erosion. People should also be encouraged to plant more indigenous trees in order to increase forest cover and conserve the environment.

6. WEATHER REVIEW

6.1 OCTOBER-NOVEMBER-DECEMBER (OND) 2017 "SHORT RAINS" SEASON

Rainfall Performance Classification

Rainfall as % of LTM / Range	Description
< 75%	Below Normal (Depressed) rainfall
75% and 125%	Near normal rainfall
> 125%	Above Normal (Enhanced) rainfall

October-December 2017 seasonal rainfall analysis indicates that the performance was generally poor over southeastern parts of the country as well as south Nyanza, parts of central Rift valley and Garissa County. Several stations in the country, however, recorded above-normal rainfall (more than 125% of their seasonal LTMs). These include Lodwar (192%), Wajir (162%), Eldoret-Kapsoya (159%), Eldoret Airport (137%), Dagoreti Corner (131%) and Mtwapa (127%). Thika, Laikipia Airbase, Mandera, Moi Airbase (Eastleigh), Malindi, Msabaha, Mombasa and Marsabit stations recorded between 100 and 125 percent. The rest of the stations recorded less than 100% of their seasonal LTMs. Stations that recorded depressed rainfall (below 75 percent) include Kisumu (74%), Machakos (71%), Narok (66%), Kakamega (66%), Makindu (58%), Voi (39%), Lamu (36%) and Garissa (24%). ***Figure 1,*** depicts the rainfall amounts recorded during the season **(red bars)** compared to the seasonal LTMs **(blue bars)**.

6.2 EXPERIENCED IMPACTS DURING OND 2017 SEASON

The depressed rainfall during the OND 2017 season resulted into various negative impacts in various parts of the country. These impacts include:

- Poor crop performance over various parts of the country due to the early cessation of seasonal rainfall as well as depressed rainfall in areas such as southeastern Kenya.
- Deteriorating forage and pasture for livestock especially in the pastoral areas of Southeastern Kenya and several parts of the Central Rift Valley.
- Slight increase in water levels in the Seven Folks Hydro-electric power generation dams.
- Reduced water resource for domestic use, drinking and sanitation in various parts of the country including counties in

Northeastern and Southeastern parts of the Country.

- Increased potential of food insecurity in various parts of the country.
- Limited of forage and pasture for the livestock in the pastoral areas of Northwestern and Northeastern Kenya. As a result, some animals have died due to lack of water and limited pastures.

6.3 OBSERVED CONDITIONS DURING JANUARY 2018

During the month the rain bearing Inter-Tropical Convergence Zone (ITCZ) was mainly situated in Tanzania rendering most parts of Kenya to be under sunny and dry weather conditions. However, some areas in the Lake Victoria Basin, highlands west of the Rift Valley, Central Rift Valley and central highlands including Nairobi received significant amounts of rainfall over a short spell towards the end of the month. A few stations recorded heavy rainfall (20mm to 50 mm in 24hrs) especially towards the end of the month.

By the end of the month, Narok Meteorological Stations recorded the highest monthly rainfall total of 137.1mm compared to its January Long Term Mean (LTM) rainfall of 37.3mm. Other stations that recorded more than 50mm include Eldoret (76.6mm), Kericho (67.3mm), Kakamega (61.7mm), Kisii (61.6mm) and Kisumu (57.1mm). The rest of the stations recorded less than 50mm of rainfall.

NB: This outlook should be used with 24 hour, 5-day, 7-day and monthly forecasts and regular updates issued by this Department.

Mr. Peter G. Ambenje
DIRECTOR OF METEOROLOGICAL SERVICES & PERMANENT REPRESENTATIVE OF KENYA WITH WMO

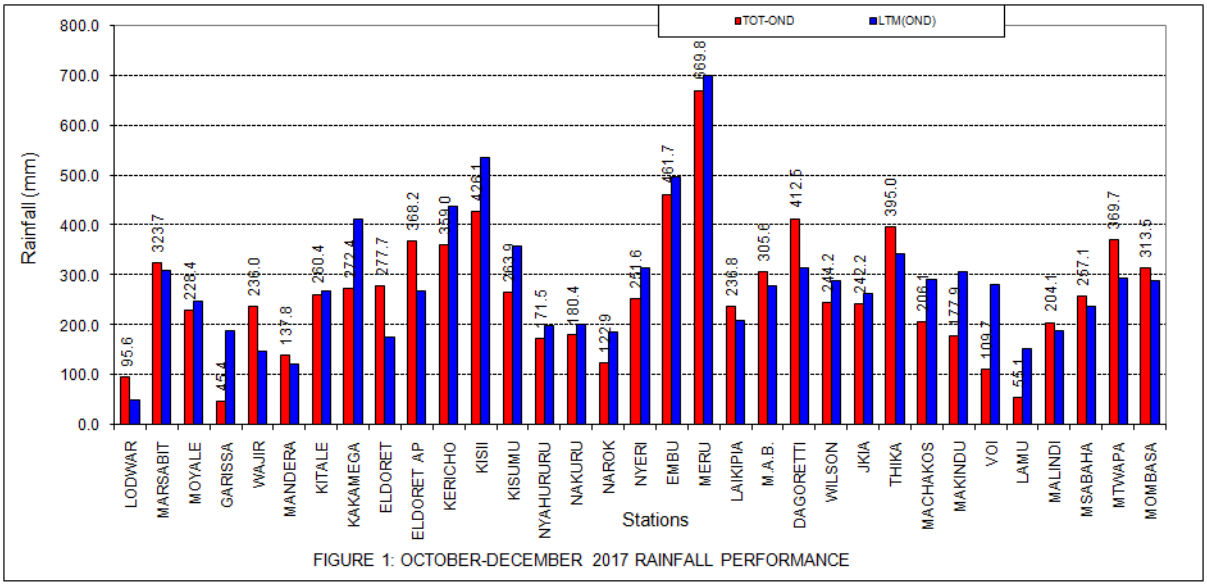

FIGURE 1: OCTOBER-DECEMBER 2017 RAINFALL PERFORMANCE

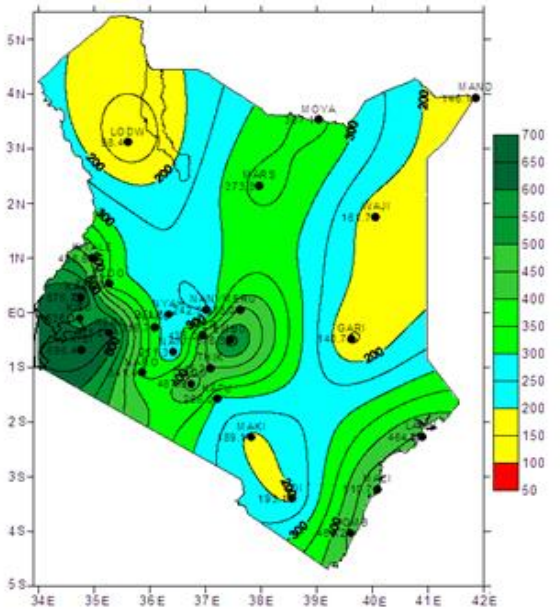

FIG. 2 MEAN MARCH-MAY SEASONAL RAINFALL

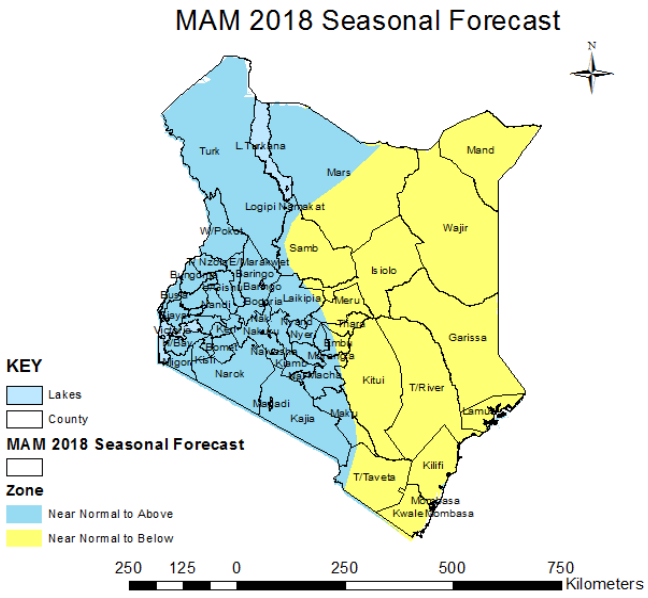

FIGURE3: MARCH-MAY 2018 SEASONAL FORECAST