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THE “CLIMATE OUTLOOK FOR (OCTOBER-NOVEMBER-DECEMBER) 2024 SHORT RAINS SEASON” AND REVIEW OF JUNE-JULY-AUGUST 2024 SEASONS.

1. HIGHLIGHTS

1.1 Outlook for OCTOBER-NOVEMBER-DECEMBER 2024
<i>Near to below Longterm average rainfall is expected over the highlands upper and middle altitude zones i.e Ndunyu Njeru, Geta, North and South Kinangop, Njabini, Shamata, Wanjohi. In the lower zones of the west side of the county namely; Olkalou, Oljoroorok, Leshau, Mairo Inya, and Ndaragwa rainfall is expected to be Near to slightly Above average. The Western areas are expected to receive rainfall with some breaks (dry spells) during the season.</i>
<ul style="list-style-type: none"><i>The seasonal rainfall is expected to have poor to fair distribution both in time and space.</i>
1.2 SEPTEMBER 2024 Weather Outlook
<ul style="list-style-type: none"><i>There are chances to experience occasional rainfall during the month with some breaks. The rainfall is likely to be near to or above the September Long term mean.</i>
1. Review of the rainfall in June-July-August (JJA) 2024
<ul style="list-style-type: none"><i>Significant rainfall was received over the county. The rainfall received was near to above average. Intermittent cool and cloudy conditions was experienced in most parts of the county</i>

2. FORECAST FOR OCTOBER-NOVEMBER-DECEMBER (OND) 2024 “SHORT-RAINS” SEASON

The “Short rains” October to December (OND) season constitutes an important rainfall season in the entire Nyandarua County. This will be driven by weak La Niña conditions, characterized by cooler-than-average Sea Surface Temperatures (SSTs) over the Central and Eastern Equatorial Pacific Ocean, which are likely to develop during the September to November period and persist into early 2025, along with a neutral Indian Ocean Dipole. During OND 2024, Near to below Longterm average rainfall is expected in the highlands upper and middle altitude zones i.e Ndunyu Njeru, Geta, North and South Kinangop, Njabini, Shamata, Wanjohi. In the lower zones

4. EXPECTED SEASONAL RAINFALL DISTRIBUTION

The OND 2024 rainfall is expected to be poor to fair in distribution both in time and space throughout the season.

The analogue (similar) year chosen was 2020. The rainfall outcomes for this analogue year are for reference only and should not be interpreted as part of the forecast. Rather, they provide a sense of the rainfall outcomes that can occur given broadly similar global climate conditions. This season will be marked by prolonged dry spells and occasional isolated storms.

5. POTENTIAL IMPACTS

In view of the forecasted seasonal rainfall, many sectors are likely to be impacted in various ways. With adequate preparations, the county can avoid some of the likely negative impacts while taking full advantage of the positive ones. The most likely impacts are highlighted.

5.1 Agriculture, Food Security and Livestock Sectors

Positive Impacts

- Pasture rejuvenation will increase the productivity of livestock.

Negative impacts

- Excess moisture may lead to pre and post harvesting losses and contamination.
- Increased weed proliferation which may increase the cost of farm management.
- Damage to agricultural infrastructure and roads. This may impede farm operations and development.

Advisories

- Promote good agricultural practices such as soil and water conservation as well as sustainable land management.
- Promotion of essential infrastructure for both pre and post-harvest processes, including efficient drying, cooling, and storage facilities to reduce losses and contamination.
- Prevention and control of diseases and pests for both crops and livestock through vaccination and vector control.

5.2 Transport and Public Safety

Flash floods during occasional rainstorms may lead to destruction of transport systems, especially infrastructure in high and low-lying areas. County Ministry of Roads & Public Works should open the drainage path ways and have the necessary resources ready for any eventuality. Slippery roads and poor visibility during rainstorms may also pose dangers to motorists and pedestrians. Everyone should, therefore, take utmost care during the rainy period to minimize accidents that would result from such weather conditions.

5.3 Water Resources Management Sector

In the water sector, the implications and proposed key response measures are as follows:

Positive Impacts:

- Enhance sustainability of surface and underground water resources.
- Availability of water for domestic and livestock use.

Negative Impacts:

- Increased siltation and sedimentation in some rivers and colonial dams.
- Pollution and contamination of surface and groundwater.
- Occasional floods including river channel overflows, urban and flash floods.

Advisory

- Encourage rain water harvesting and storage to boost water availability.
- Desilting of dams for maximum water retention.
- Monitoring and improving waste water and solid waste management
- Distribution of water treatment chemicals.

5.4 Health Sector

Positive Impacts

- The rainfall is likely to improve food availability which will in turn reduce nutrition related diseases.

Negative Impacts

- Water borne diseases, such as cholera, may occur as a result of contamination of drinking water sources by occasional floods.
- There may be issues of vector-borne diseases.
- Occasional floods may destroy infrastructure such as roads, bridges making it difficult to access health care especially among the most vulnerable in the community.

Advisories

- Provide water treatment chemicals to communities that draw water from open water sources and promote education on Water and Sanitation Hygiene (WASH) practices.
- Enhance disease surveillance and early detection systems for diseases.

5.5 Environment and Natural Resources Sectors

Positive impacts

- The rainfall will provide soil moisture for widespread afforestation and reforestation by all citizens and partners to increase the country's tree and forest cover.
- Availability of pasture and browse will reduce grazing in the forests.
- Increased forest biodiversity.
- Enhance carbon sequestration.
- Enhance business opportunities for establishment of tree nurseries to raise stock for tree growing.
- Increased job creation through tree growing.

Negative Impacts

- Incidences of landslides and mudslides may lead to land degradation.
- Wind snap and wind throws are likely to damage trees and forests.
- Damage of tree seeds and seedlings.
- Prevalence of moisture related pests and diseases.

Advisories

- Enhance awareness on tree growing.
- Promote good agricultural practices such as soil conservation measures.
- Select diverse tree species and proper planting sites.
- Increase reforestation efforts for regeneration and biodiversity.
- Engage communities in education for sustainable practices.
- Establish early warning systems for environmental challenges.
- Monitor and report on forest health.
- Build capacity through training programs.

NB: This outlook should be used with 24 hour, 5-day, 7-day, monthly, special forecasts and regular updates/advisories issued by the Kenya Meteorological Department as well as Weekly and Monthly County forecasts developed and availed by Nyandarua County Meteorological Office



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