

ABOUT KCEP-CRAL PROGRAMME

KCEP- CRAL is a Government partnership with EU and 3 Rome Based Agencies (IFAD; FAO; and WFP), to expand KCEP to the ASALS whose objective is to contribute to reduction of rural poverty and food insecurity of smallholder farmers in the ASALs by; developing the economic potential of target groups; Improving natural resources management capacity; and Building resilience to climate change in an increasingly fragile ecosystem.

The Programme aims to graduate farmers from subsistence to be commercially oriented through increased productivity, post-production management practices and market linkages by supporting maize, beans, sorghum and green grams value chains.

Lead implementing agency is the State Department of Agriculture, in the Ministry of Agriculture (SDA), Livestock and Fisheries (MOALF). Other implementing agencies include KMD, KALRO, NDMA, FAO, CETRAD and AGMARK.

FOR MORE INFORMATION CONTACT
County, Sub County and Wards Livestock offices
County, Sub County and Wards Agriculture offices
County Meteorology office, Embu

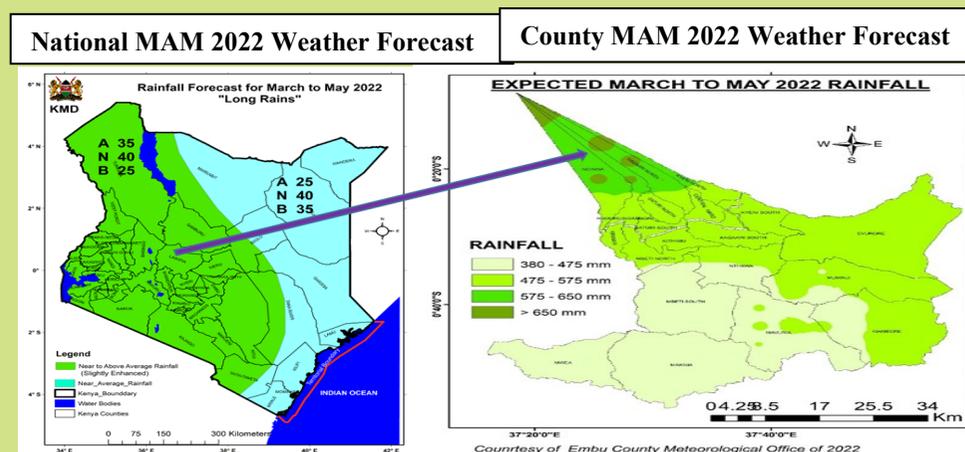
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Kenya Cereal Enhancement Programme Climate Resilient Agricultural Livelihoods Window (KCEP-CRAL) in Collaboration with County Government of Embu and County Meteorological Services, Embu

PARTICIPATORY SCENARIO PLANNING ADVISORY BULLETIN BASED ON WEATHER FORECAST FOR MARCH-APRIL-MAY (MAM) 2022 FORECAST – (“LONG” RAINS)



This weather forecast should be used with monthly and weekly forecasts and regular updates issued by Embu County Meteorological Office.

For further information, contact:
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About this advisory

This advisory was co-produced by Embu County Meteorological Office, Embu County Departments of Agriculture and Environment, Kenya Cereals Enhancement Programme-Climate Resilient Agricultural Livelihoods window (KCEP-CRAL), Upper Tana Natural Resource Management Programme (UTaNRMP), Agriculture Development Sector Development Support Programme (ASDSP) II and farmers representatives.

Weather forecast for the March-May, 2022 Season

EMBU COUNTY WEATHER FORECAST HIGHLIGHTS

The March -April-May (MAM) 2022 weather forecast for Embu County indicates that most parts of the County will experience normal with a tendency to above normal (enhanced) rainfall. The rainfall distribution will be good in the upper areas of Embu (Manyatta & Runyenjes) and fairly distributed in the lower parts (Mbeere North and Mbeere South sub counties) in both time and space.

EXPECTED ONSET AND CESSATION DATES

The expected **onset** of the MAM rains is within the **third to fourth week of March, 2022** and **cessation** is expected to be within the **third to fourth week of May 2022**.

ADVISORIES

Agriculture and Food Security Sectors

Farmers in the county are advised to do early land preparation and plant suitable crop varieties while livestock farmers are advised to plant appropriate and high yielding pasture and fodder crops and practice fodder conservation as advised here below:-

Farmers are advised to adopt land management practices including conservation agriculture, rehabilitation of existing soil conservation structures, use of cover crops, mulching, use of organic manure and water harvesting.

7. Industry.

The industrial output is expected to improve due to increased production of crops like tea, coffee, and macadamia. horticultural produce and livestock products like milk and meat. Measures to add value to products should be enhanced.

8. Health Sector

Outbreaks of water and sanitation related diseases (malaria, typhoid, dysentery, cholera, amoebiasis, skin infection, and eye infection) are anticipated. Disease surveillance needs to be enhanced by the department of health. Health facilities to be stocked with relevant medicine. Provision of nets and training on their use should be enhanced as well as promotion of hygiene and sanitation practices. COVID 19 protocols should continue to be observed.

9. Environment

The Departments of Agriculture, Land, Water, Environment, Natural Resources in the county should encourage communities to practice soil conservation (through terracing, water retention ditches among others), water harvesting, rehabilitation of the existing water-pans and plant indigenous trees in order to increase forest cover.

10. Internal Security

Crime rate is expected to rise during the episodes of heavy down pour during the night. Police patrol, Nyumba-kumi initiatives and community policing should be intensified.

Farm Production



Pioneer Maize



Cassava



Beans



Millet

(2) Livestock Production and Health:

Weather related diseases (Foot and mouth, pneumonia, worms, tick borne diseases, mastitis, lumpy skin disease, anthrax, new castle disease, fowl typhoid and coccidiosis) are expected to increase. Farmers are therefore advised to observe routine livestock management practices (deworming, tick control, hoof trimming, clean animal environment, and vaccination). Agrovet shops are advised to stock vaccines and drugs for vaccination and treatment in case of an outbreak.

Pasture and fodder establishment, harvesting and conservation (silage and hay) is highly encouraged. Farmers are also advised to make use of crop byproducts like maize stovers, bean & cowpeas straws.

Crop and Livestock farmers are advised to insure their enterprises with service providers like CIC, APA, UAP, AMACO & Financial institutions.

3. Disaster Management Sector

Due to the enhanced rains, problems of flash floods are likely to occur, causing drowning of both human and livestock especially in the lower zones. Contingency plans should be implemented.

4. Energy Sector

Due to the enhanced rainfall, interruption of power is expected to occur as result of damage to transmission infrastructure. It is expected that the level of water in the Seven-Folk power generation dams will rise causing flooding downstream. The communities bordering the dams are advised to avoid the flooding areas.

5. Transport and Public Safety Sector

Slippery roads during the rainy season are expected to lead to poor communication and increased transportation cost of agricultural goods to the markets. The county and National government are advised to upgrade the roads to all weather roads for ease of communication.

6. Drainage systems

County Government of Embu is advised to open up drainage systems early enough to avoid water accumulation due to surface runoff and prevent water related diseases.



	Recommended actions	Responsible
Hazards and Risks	Drought, and flash floods	County Meteorological Services
Opportunities	-Off farm activities -Trade in food and pastures/fodder -Promotion of drought tolerant crops -Water harvesting structures -Fish Farming	-Farmer -Extension Agencies -Public Health -County Government -WRUAs
Advisories for Maize	-Maize (Hybrid-5 series, Pannar, Pioneer), -Early planting during 1 st and 2 nd week of March, 2022 -Proper management of Pest and disease control should be practiced and this includes timely -Weed control with minimum tillage.	-Farmers -Extension Agencies -Agrovet-dealers -Government
advisories for Beans	Farmers are advised to plant beans (mwende, mwitemania, gachango, KATB1 KAT B9, KAT X69 and KAT X 56).	-Farmers -Extension Agencies -Agrovet-dealers -Government
Advisories for Sorghum	Sorghum- gadam, millet (PM 1, 2,&3) are highly recommended	
Advisories for Green Grams	Farmers should also grow green grams (N26, KS 20), pigeon peas, Cow peas, Roots/Tubers (cassava-ndolo, Mucericeri, Sweet potato- KSP 004), vegetables (cow peas, amaranthus, black night shade-managu).	-Farmers -Extension Agencies Agrovet-dealers
Other advisories (add rows for each if necessary)	Prepare land early Harvest water by following methods: making water pans and earth dams. Farmers are advised to do water harvesting through runoff and roof harvesting etc. Practice the following conservation agriculture methods: mulching, minimum tillage etc use of organic manure	-Farmer -Extension Agencies -Public Health -County Government -WRUAs



Indigenous tree nursery



In the **Upper Zone (Tea and Dairy)**, farmers are advised to plant suitable crop varieties e.g.:-Maize (Hybrid- 6 series, Pannar, Pioneer, beans-rosecoco, nyota), and to do proper management of tea, coffee and banana crops. Fodder crops/trees: - Napier (Bana grass & kakamega varieties), Bracharia, Rhodes grass, Calliandra, Desmodium, Mulberry.

In the **Middle Zone (Coffee and Maize)**, farmers are advised to plant the following varieties: -maize (Hybrid 5 series, Duma 43, DK 8031, Pioneer, Simba 61, WS403), Beans (mwende, gachangu, *KATB1 KAT B9, KAT X69, KAT X56*). To plant and manage banana, mangoes, yellow passion crops, plant vegetables (cowpeas, amaranthus, and black nightshade), cassava varieties (Ndolo, Mucericeri), and sweet potato varieties (KSP 004, KEMB 10 and Bungoma).

Fodder Crops; Plant Napier - Kakamega 1&2, Bana grass under Tumbukiza method, Bracharia, Rhodes grass, Desmodium, Tithonia. Roots / tubers: Sweet potato vines (Musinya, X-Mukurweini), Beetroots, Cassavas.

Fodder and Fruit trees; to plant Calliandra, Leucaena, Mulberry, manage mangoes, oranges, Macadamia. Livestock farmers are advised to conserve excess fodder.

In the **Lower Zone** (Mbeere sub counties), farmers are advised to plant early maturing and drought tolerant varieties e.g crops like; maize (DH02, DH04, Duma41, KDV4, KDV6, Sungura, Haraka), Sorghum- gadam, millet (PM 1, 2,&3), beans (gachangu, Kat B1, mwitemania, mwezi moja, Kat X56 & Kat B9), cow peas (M66 & KVU 27-1), green grams (N26, KS 20), pigeon peas, cow peas, roots/tubers (cassava-ndolo, Mucericeri, sweet potato- KSP 004), vegetables (cow peas, amaranthus, black night shade-managu). Fodder crop/trees: - boma Rhodes (lowlands variety), *Cenchrus cerialis*, *Eragrostis superba*, Sudan grass, fodder sorghum, and manage existing fodder trees like mulberry and leuceana. Fruits tress like mango, pawpaw and oranges should also be managed.

Farmers are advised to do terraces and other insitu water harvesting structures like Zai pits, Negarims, tied ridges, tumbukiza method (Napier) and apply manure to maintain soil fertility, minimize pre-harvest and post-harvest losses by aggregating the produce (groups and cooperatives) and having proper storage facilities as well as use of proper drying technologies to avoid aflatoxins in cereals.

Additionally, farmers are advised to do soil water conservation (e.g. mulching, minimum tillage) and water harvesting through runoff and roof harvesting.



Fodder conservation (Silage making)



Polythene lined water harvesting /fishpond