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Monthly National Integrated Multi-Hazard Early Warning Bulletin

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Issue 59

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INTERNATIONAL DAY FOR DISASTER RISK REDUCTION (IDDR) 2021

On 13th October, Uganda joined the rest of the World in commemorating the International Day for Disaster Risk Reduction under the theme "Enhancing International Cooperation to minimize multi-hazard effects" This commemoration comes in the wake of the COVID-19 pandemic that ravaged the world between 2019 and 2021 killing over 4,998,784 people and was only mitigated using global efforts to develop vaccines led by the developed countries and through international cooperation, we have seen vaccines getting to the developing countries as the world tends towards normalcy.

Moreover these were happening amidst several international/ trans boundary challenges that affect all countries to varying degrees such as Climate Change and green-house gas concentration, global warming, ozone layer depletion, atmospheric pollution, conflicts, trans boundary water course/catchment degradation, rapid and an unplanned urbanization and population growth, mostly in developing countries, regional trade disparities, to mention but a few.

A number of strategies have been highlighted and encouraged, all emphasizing the idea of international cooperation as one effective tool to strengthen, share and accelerate technology transfer and adoption within countries and across regions.

Uganda commemorated the day under three objectives;

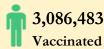
- (i) Raise awareness on the contributions of International Cooperation in reducing disaster risks and other trans boundary challenges.
- (ii) Highlight achievements and progress made by the Country towards implementing the agreements and regional cooperation mechanisms in reduction of disaster risks, damages of trans boundary nature.
- (iii) Mobilize stakeholders including private sector towards participating in sustaining achievements made under Sendai target (f)

The commemoration took the form of a virtual event involving a panel discussion organized by Makerere University School of Public Health and featured various speakers and, a news paper supplement/advertorial featuring the cooperation activities undertaken in the Country.

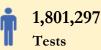
NOTE: Due to the upgrade of the GLAM System from which the NDVI/Crop monitor is generated, there was a delay in the production of this issue (59) of the UNIEWS. We shall endeavor to make all other issues as timely as possible following the completion of the upgrade!









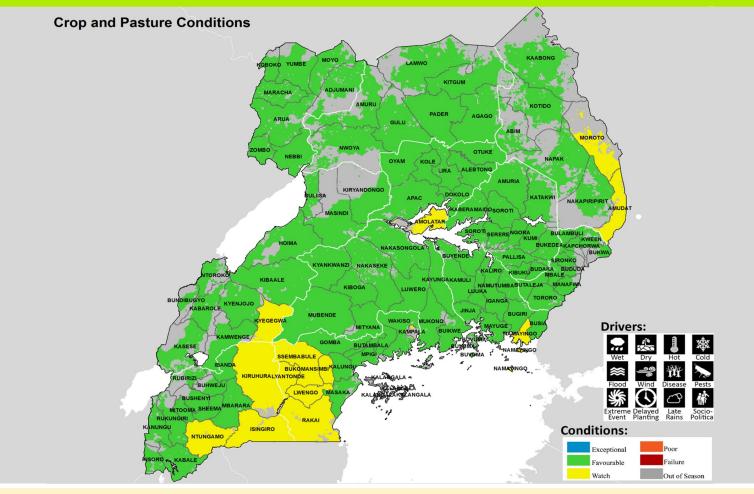


As of 29th Oct 2021



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CROP & PASTURE CONDITIONS MAP OF UGANDA (OCTOBER 2021)



Source: Crop Monitor of Uganda. This crop conditions map synthesizes information for selected crops and pasture as of 15th October 2021. Crop conditions over the second season in the Country based on a combination of national and regional crop analysts' inputs along with remote sensing and rainfall data.

Early Warning for Regions!

Central 1, and Central 2: The region remained under favorable crop condition except Sembabule, Bukomasimbi, Lyantonde, Rakai and Lwengo that sustained watch conditions for the last three months, now extending to September—October. The main food crop under observation being bananas though not significantly affected by this watch conditions, a sustained decline may however impact on quality of the banana crop harvested. The second rain season, though expected to be short-lived, will enhance pasture conditions in the watch districts. Overall, farmers are advised to prioritize water harvesting and feed management in preparation for the long dry season of December—February.

Elgon: Favourable conditions observed through out the sub region indicating steady progress of the October November and December **(OND)** season. The major crops under observation are Maize and Rice. Farmers in the sub region are advised to ensure timely weeding and pest control.

West Nile, Acholi, Lango: Most of the districts have maintained favourable crop conditions as the region continues receiving rains. Generally, the conditions remained stable in all the districts except Amolatar that sustained watch conditions in Lango sub region. Moreover, the sme district is also facing problems of rising water levels. The impacts of the sustained watch conditions over Lango sub region need to be monitored closely by the District. The central Government should prioritize provision of relief support for Amolatar to avoid food crisis. Communities living close to the Lakeshores should also relocate to safer areas during this period to avoid continuous disruption of trade and service delivery.

Early Warning for Regions!

Teso and Karamoja

All the districts in Teso sub region are under favourable and stable conditions following the onset of of the OND that normalized conditions in Pallisa and Kibuuku. Farmers in the sub region are advised to carryout timely weeding and pest control in their fields. Where possible, water conservation should be prioritized to enable crops attain maturity. Watch conditions persisted over **Amudat** district and extended to **Moroto** in Karamoja and this might have negative implications on the pasture yields. The rest of the districts maintained favourable conditions.

Western and South Western: The sustained watch conditions in Isingiro, Kiruhura and Ntungamo have extended to Rakai, Lwengo, Bukomansimbi, Sembabule and Kyegegwa. Though onset of OND is expected to normalize these conditions to favourable levels, Farmers are advised to store water as authorities ensure close observation over the region to generate timely advisories based on seasonal performance in the coming months.

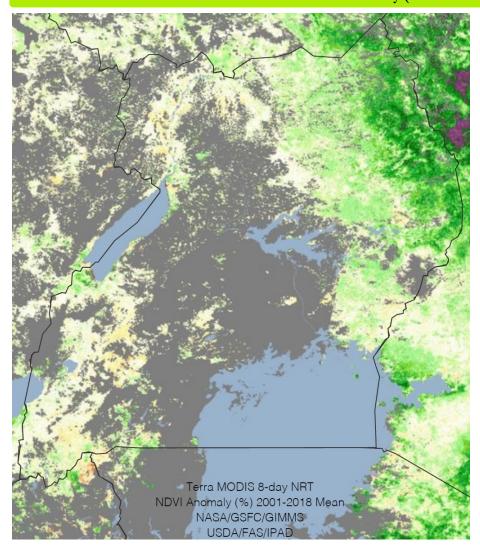
East central sub region: Most of the districts are under stable and favourable conditions though Namayingo has sustained to watch conditions for the second month. attributed to inconsistent evolution of October-November-December (OND) season. This is likely to affect productivity in a district that has already suffered recurrent effects of flooding in the past season. Authorities should closely monitor the trends in Namyingo over the coming month..

The observed and expected trends for the month of October 2021 presents a steady performance over most of the Country with isolated watch conditions as depicted by the map. Office of the Prime Minister shall closely monitor the evolution October November and December (OND) season.



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HIGHLIGHTS - NDVI Anomaly (16th - 23rd OCTOBER, 2021)



The Normalized Difference Vegetation Index (NDVI) is used to characterize the health of the vegetation for a particular timeframe compared to what is considered normal. In agricultural monitoring, negative values can be a good indicator of poor crop conditions or a slower growth rate of the crop due to a variety of environmental conditions such as drought or a significantly delayed season is commonly used as an indicator for droughts early warning which enable preventive early action to minimize their impacts.

NDVI anomaly is the difference between the average NDVI for a particular period of the year and the average NDVI for same period over a specified number of years.

For the period of 16th - 23rd, September, the NDVI anomaly image shows in green color in the areas where conditions are "above normal." The light green color represents areas where conditions are better than "normal". The yellowish-brown areas represent areas where the vegetation conditions are below normal which could be associated with early cessation of rains over those areas. Due to cloud cover, anomalies cannot be assessed in the grey areas.

The evolution of October November December (OND) rainfall over most parts of the Country explains the continuous increase in the NDVI values during the month of October. Though actual values are characterized by regional spatial variations as shown by the map, on average, much of the Country show improving conditions tending to above the long term average from early October. This trend is expected to prevail over western, central and west nile sub regions due to expected enhanced rainfall. The south western cattle corridor has persistently witnessed watch /stress conditions over the past four months which calls for close monitoring of the evolution of the season. Karamoja and the rest of the Country are showing above normal to normal trends except for a few isolated areas.

Below is a graphical representation of the current vegetation conditions. The red line represents the average conditions for three months until September 2021 as it exceeds the average conditions (black line) for the same period (2001- 2018). While the yellow line represents the 2020 conditions during the same period. The grey area shows how values tend to spread from the mean (min/max). Current conditions are aligned with the long-term maximum deviation from the above-average.

It is observed that in September—October, 2021 the NDVI values continued to increase steadily as the October, November and December (OND) evolved with spatial and regional variations confirmed by UNMA's rainfall outlook for October 2021 and the regional, spatial variations as per the outlook



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OCTOBER 2021 RAINFALL OUTLOOK OVER UGANDA

LAKE VICTORIA BASIN AND CENTRAL REGION

Western parts of Central (Nakasongola, Luwero, Kyankwanzi, Nakaseke, Kiboga, Mubende, Kasanda, Sembabule, Lwengo, Lyantonde, Kyotera, and Rakai) districts. Overall, near normal to below normal rainfall conditions are expected to prevail over this region.

Eastern parts of Central (Mukono, Buikwe, Kayunga, Buvuma) districts. Overall, near normal to below normal rainfall conditions are expected to prevail over this region.

Central and Western Lake Victoria Basin (Kalangala, Kampala, Wakiso, Masaka, Mpigi, Butambala, Gomba, Kalungu, Bukomansimbi, and Mityana) districts. Overall, near normal (average) with a slight tendency to below normal rainfall is expected to prevail over this region.

Eastern Lake Victoria Basin: (Jinja, Bugiri, Busia, Mayuge, Namayingo and Tororo) districts. Overall, near normal (average) rainfall with a tendency to average is expected.

WESTERN REGION

South Western (Kabale, Kisoro, Rubanda, Rukungiri, Rukiga, ,Kanungu, Ntungamo, Rvvampara, Kazo, Mbarara, Kiruhura, Isingiro, Ibanda, Bushenyi, Buhweju, Mitooma, Sheema, Rubirizi, Kitagwenda and Kasese) districts. Overall, near normal (average) rainfall is expected.

Central Western (Bundibugyo, Ntoroko, Kabarole, Bunyangabu, Kyenjojo, Kyegegwa, Kamwenge, Masindi, Buliisa, Hoima, Kakumiro, Kagadi, Kikube and Kibaale) districts . Overall, near normal (average) rainfall conditions are likely to prevail over this region.

EASTERN REGION

South Eastern: (Kamuli,lganga,Bugweri , Luuka, Namutumba, Buyende, Kaliro, and Butaleja) districts. Overall, near normal (average) to below normal rainfall conditions.

Eastern Central: (Pallisa, Budaka, Butebo, Kibuku, Mbale, Sironko, Manafwa, Bududa, Bulambuli, Namisindwa, Kapchorwa, Kween, Bukwo, Bukedea, Kumi, Kalaki, Serere and Soroti) districts. Overall, near normal (average) rainfall conditions are expected to prevail over this region.

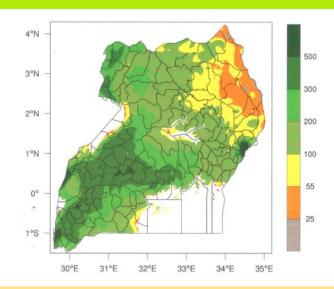
North Eastern: (Amuria, Kapelebyong, Katakwi, Nabilatuk, Moroto, Kotido, Nakapiripirit, Abim, Napak, Amudat, Karenga and Kaabong) districts .Overall, near normal (average) to below normal rainfall conditions are expected to prevail over this region.

NORTHERN REGION

North Western (Zombo, Nebbi, Pakwach, Madi-Okolo, Arua, Maracha, Terego, Koboko, Yumbe, Moyo, Obongi, and Adjumani) districts. Overall, near normal (average) to below normal rainfall conditions are expected over this region.

Eastern Northern Parts: (Lira, Alebtong, Amolatar, Kitgum, Lamwo, Agago , Otuke, Pader, Kole, and Dokolo and Kaberamaido) districts. Overall, near normal (average) rainfall conditions are expected to prevail over this region.

Central Northern Parts: (Gulu, Omoro, Apac, Kwania, Nwoya, Amuru, Oyam and Kiryandongo) districts Overall, near normal (average) to below normal rainfall conditions are expected to prevail over this region.



RAINFALL OUTLOOK

The rainfall outlook for October indicates that most areas of western, central and parts of West Nile are likely to receive enhanced rainfall while the rest of the country is likely to receive moderate rainfall conditions.

Potential Impacts

The expected continuation of rainfall in the month of October is likely to result into the following impacts;

In the agricultural sector, the expected rainfall is likely to provide sufficient moisture to sustain agricultural production therefore farmers are advised to continue wedding their crops.

In pastrol areas especially in the cattle corridor, the moderate rains will lead to further improvement in foliage and pasture for livestock

There are high chances of experiencing lightning, violent winds and hailstorms during the forecast period

Chances of flooding are likely to continue in low lying areas including urban centres with poor drainage system

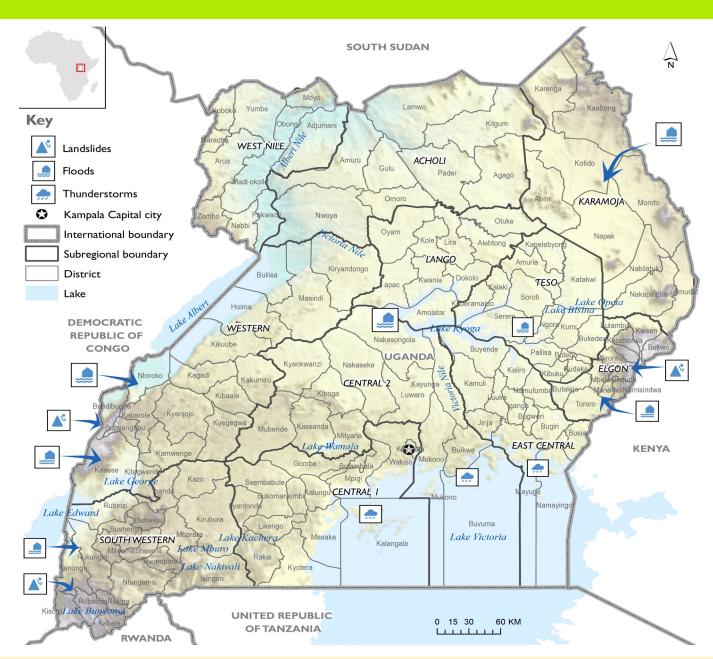
The continuation of rainfall especially in the mountainous areas of Elgon is likely to result into landslides

There are high chances of outbreak of water borne related diseases.



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MULTI HAZARD EARLY WARNING PROBABILITY MAP – 15TH OCTOBER –15TH NOVEMBER



BIOLOGICAL HAZARDS

Communicable disease outbreaks, epidemics and health emergencies

The rainfall outlook for October indicates that several parts of Western, South-Western & Central are likely to experience normal to above normal rainfall. However, the Northwestern and central northern areas are expected to experience near normal with a slight tendency to above normal rainfall. The associated risk of disease outbreak is at hand, especially in areas that will receive enhanced rainfall as well as those that will experience reduced rains. Dwellings with inadequate management of surface water run-off may be affected. Areas close to the shorelines and banks of water basins are advised to keep their surroundings clean and in proper hygiene to avoid disease outbreaks.

Local variations might occur as month progresses. For example episodic flash floods and landslides might be experienced in some areas leading to loss of lives and destruction of property. The rainfall maybe associated with lightning and hailstorms, therefore communities are advised to install lightning arrestors on their structures ,put on rubber shoes and avoid contact with metallic objects while its raining

***TECNOLOGICAL HAZARDS

Road Accidents: . To prevent traffic accidents, drivers are advised to drive carefully, avoid driving after consuming alcohol, respect road signs and road conditions, and follow the guidelines of the Uganda National Roads Authority (UNRA).



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DISASTER EARLY WARNINGS AND OUTLOOK - 15th OCOTOBER - 15th NOVEMBER 2021

BIOLOGICAL HAZARDS

Disease outbreak

There is high expectation for enhanced rainfall overs most areas of western, central and parts of West Nile during the month of October. However, Karamoja region and neighboring districts are expected to experience on & off rainfall characterized with some dry spells during the forecast period. This will most likely lead to;

- High risk of diarrheal diseases such as cholera, dysentery ,typhoid fever and infections such as trachoma in some parts of the country.
 Communities are advised to draw water from safe water sources. Village Health teams are urged to sensitize the communities to maintain good sanitation and hygiene so as to avoid exposing themselves to preventable health risks.
- Clearing bushes ,opening of drainages , use of mosquito nets, fumigating in & around homesteads is encouraged as a precautionary control measure against malaria.

To minimize public health risks during the projected rainy period. There is need to conduct community awareness about the potential outbreak of the diseases and improve surveillance.

Alert Level:

Moderate

High

HYDRO-METEREOLOGICAL HAZARD

WATER LOGGING/ FLASH FLOODS

The rainfall outlook for October that most areas of Western region, Central region and parts of West Nile are likely to receive enhanced rainfall while the rest of the country is likely to receive moderate rainfall conditions.

Communities living in low lying areas and in close proximity to the water bodies are advised to undertake flood mitigation measures.

- Open up and de-silt drainage channels in the urban areas.
- Create buffer zones for water sources to avoid contamination.
- Dig trenches around the houses to avoid water from pooling around the housing structures.
- Avoid crossing flooded sections of the roads

 Alert 1

Alert Level:

Moderate



High

LANDSLIDE/MUDSLIDES

Considering rainfall of over 300mm is expected for the month of October in the mountain areas of Elgon and Kigezi, the risk of landslides in these areas is high..

- All people living or undertaking economic activities on steep slopes across the mountainous areas especially in the Elgon sub-region are advised to move to safer area and/or to avoid visiting or spending time on dangerous locations.
- Community based early warning systems should be activated for this period. Local leaders and communities should monitor early signs of landslides like cracks, saturated soils, leaning trees, and create channels for reporting hazard signs to responsible authorities; self-evacuate or follow other protective behaviours.

 Alert Level:

 Moderate

 High

LIGHTNING

There is increasing likelihood of lightning strikes in the areas prone to the hazard especially on lakes Albert and Victoria during storms. Communities should

- Avoid taking shelter under trees. Lightning will always strike the tallest object in the surrounding most of which are trees in our rural communities.
- Ensure that trees are planted around homesteads to protect building structures in case of the strike.
- Ensure all public buildings (administration centres, schools, health centres, churches, mosques, business places etc) are fitted with lightning arresters to reduce lightning risks to the population.

 Alert Level:

 Moderate

 High

TRANSPORT TECHNOLOGICAL HAZARDS

Transport Accidents: Any Location

Fire: Any Location Alert Level: High Moderate



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DISASTER STATISTICS – SEPTEMBER

TRANSPORT/ TECHNOLOGICAL EVENTS

Motor and Aero Accidents

Reported in | Accross the country.





Below-average and erratic seasonal rainfall from June to August resulted in significant rainfall deficits (55-85 percent of normal). However, by mid-September, moderate to locally heavy rains have eased the abnormally dry conditions, triggering pasture regeneration, and recharging water sources; spurring land preparation and planting in bimodal areas. Conversely, localized heavy rainfall has resulted in severe floods and water logging, most severe in Napak district, while landslides in parts of eastern Uganda and hailstorms coupled with destructive heavy winds have destroyed crops and houses in various districts. September-December rainfall is most likely to lead to a timely start of season, while cumulative rainfall is likely to be below average in the southern half of the country and near average in the northwestern half of the country. A second consecutive season of below-normal crop production is likely in some areas, especially in northern Uganda.

BRIEF ON FOOD SECURITY SITUATION

In Karamoja, significantly delayed and below-normal main season crop harvests are not expected to improve household food availability and access to typical levels. This follows below average and erratic cumulative rainfall since April in which water logging and an unusually long dry spell negatively impacted crop growth. Additional flooding and water logging in September concentrated in Napak district displaced hundreds of people and destroyed sorghum fields. While the closure of weekly livestock markets was lifted, increased levels of insecurity associated with livestock raids likely to limit livestock movements and potential incomes. Nonetheless, pasture and water resources in Karamoja region are below average to average, supporting near-normal livestock body conditions and productivity.

Motor Accidents

CATTLE RUSTLING | Karamoja Sub-Region 00 Reported

Affected: 00 | Deaths: 00 | Injured: 00

LIGHTNING | 01 Reported

Affected: 05 Deaths 05 Injured 00

Building Collapse | 02 Reported Deaths: 06 Injured: 07

Source: NECOC/OPM, and Partners – September Summary

FIRE

Fire incidents across the country.

Reported: 11 Affected: 06 Injured: 04 Deaths: 02

Source: NECOC/OPM, Uganda Police Force, September 2021

SECTOR ANALYSIS IN KARAMOJA SUB REGION

Sectors	Sectoral levels	Comments and Recommendations
Livestock	Watch	Bacterial Tick-borne diseases have been reported in two thirds of the region in the months of July, August and September. Amudat was an exception since it wass in "Alarm" due to absence of water and pasture with animal movement toward Nakapiripirit. Other notable diseases such as East Coast Fever, mange, Brucellosis, CBPP and Foot and Mouth Disease. Livestock were reportedly in quarantine in Kaabong while there was a vaccination campaign Napak. Insecurity due to raids and livestock theft has increased in all the 9 districts. Recommendations. Communities advised to keep kraals hygiene, always respond to the livestock vaccination programm and report any identified animal diseases
Socio- economic	Watch	Indicators like average cost of labour, daily wages, terms of trade, prices of food stuffs, and livestock have shown unusual fluctuations outside expected seasonal ranges, but these fluctuations are still minimum. More than 70% households reported depending on causal labour, brewing, sale of firewood and charcoal to get money to access food items from markets. Recommendations. • Communities were advised to use available food stocks sparing
Crops	Watch	Fall Army Worm (FAW) has been reported in all the 9 districts, affecting mainly sorghum and maize. There was prolonged dry spell, destruction of crops by wildlife and hailstorms in Abim. The entire region requested for crop assessment to ascertain the level of food insecurity. Wilting of crops due to drought has been reported in all the 9 districts with some farmers in Amudat reporting wilting of crops beyond recovery Recommendations. Need for promotion of production of fast-maturing crops in second growing/rainy season
Water	Normal	Most households use boreholes and rivers for water sources which are within a walkable distance. Water sources have been reported as safe in all the 9 districts. Dams and valley tanks still have water in them for livestock use Recommendations. Emphasis being put on water harvesting technologies in all the 9 districts Communities are advised to desist from using stagnant and dirty water for HHs use.
Livelihoods	Watch	Food prices are still above normal ranges in all 9 districts, e.g., a bag of sorghum costs ≈UGX 120,000 against normal UGX 70,000-100,000 though there has been a reduction from UGX 150,000 in July. Household food stock have remained lower than normal in all the 9 districts though harvesting has began. Labor wages are still significantly below the normal ranges in all the 9 districts ≈ UGX 3,500 (< US\$ 1 Recommendations Communities are advised to plant short maturing crops especially vegetables to reduce the food shortages. Farmers are advised to sell a few of their animals to purchase food.

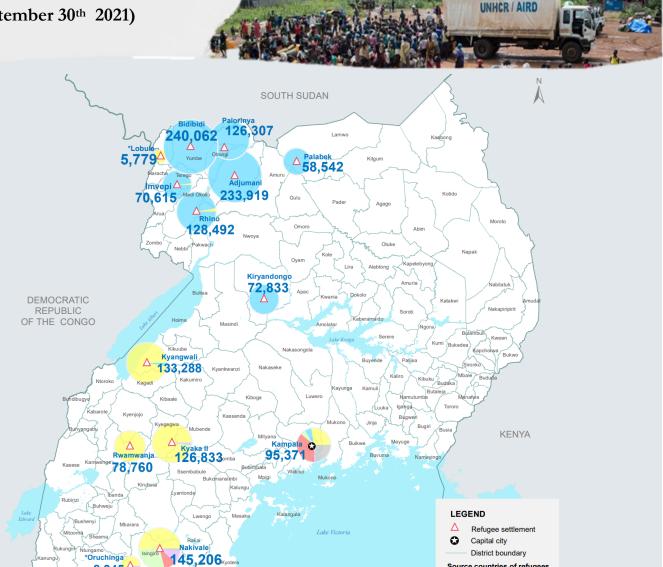
Source: Karamoja Drought Bulletin September 2021 | Strengthening Shock Responsive Systems in Karamoja

LOS

U - NIEWS

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REFUGEE STATUS OF UGANDA (as of September 30th 2021)



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nation

UNITED

TANZANIA

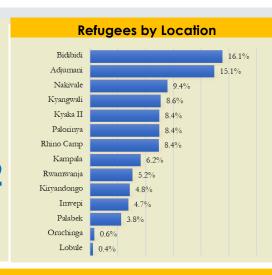
RWANDA

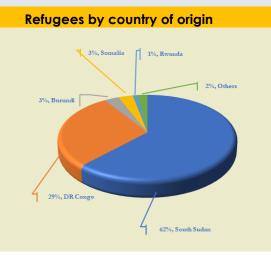
8,345

Population data: proGres (OPM) Author: UNHCR Representation in Uganda Feedback: ugakaimug@unhcr.org For more info, please visit: www.ugandarefugees.org

Total refugees and asylum-seekers**

1,524,352





Source countries of refugees

South Sudan

Other nationalities

DR Congo

Burundi

^{*}Oruchinga and Lobule symbols not to scale



National Emergency Coordination and Operations Centre (NECOC)

The Office of the Prime Minister's Department for Disaster Preparedness and Management established the National Emergency Coordination and Operations Centre (NECOC) in October 2014, with the support of United Nations Development Programme (UNDP). Uganda's National Emergency Coordination and Operations Centre (NECOC) is a 24 hour, 7- days a week central facility for early warning dissemination and coordination of emergency and crisis response and recovery action. The NECOC is established under the National Policy for Disaster Preparedness and Management of Uganda (NPDPM) with the purpose of contributing towards the functionality and characteristics that make creation of an integrated and multi-sectoral system approach to planning, preparedness and management of disasters that is fundamental to sustained productivity and socio-economic growth of the country.

Important Note!

UPCOMING EVENTS:

Preparedness dialogue (17 - 18th Nov) @ Speke Resort Munyonyo

Capacity strengthening plans for district local governments in Karamoja sub region

Office of the Prime Minister (OPM)

National Emergency Coordination and Operations Centre (NECOC)

5th Floor, Postel Building, Clement Hill Road P.O Box 341, Kampala Uganda. Tel No. <u>0414 342 104</u>

