

### NAIROBI CITY COUNTY

### Nairobi City County Reverse Pitch

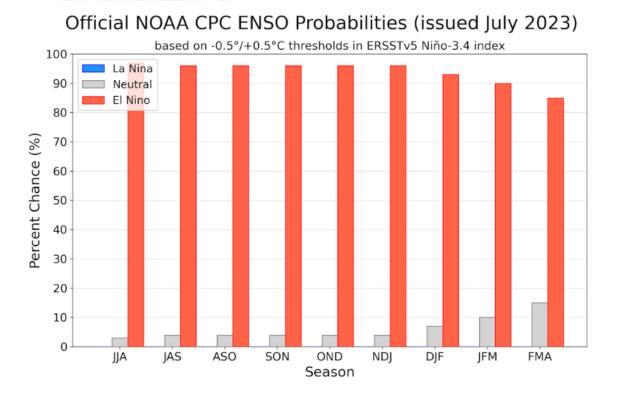
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### Issues Nairobi City County is facing: Nairobi City County is facing the issues of floods and river flooding arising from El Niño and increase in rainfall.



#### RAINFALL OUTLOOK FOR OCTOBER, NOVEMBER AND DECEMBER 2023 AND JAN, FEB AND MARCH 2024



NOAA : National Oceanic and Atmospheric Administration
 CPC : Climate Prediction Center
 ENSO : El Niño-Southern Oscillation

#### Season:

JJA: June-July\_August JAS: July-August\_September ASO: August-September\_October SON: September-October\_November OND: October-November\_December NDJ: November-December\_January DJF: December-January\_Feburary JFM: January-Feburary\_March FMA: Feburary-March April

NOAA/CPC ENSO Forecast Graphic, courtesy of NOAA/CPC

Images provided by The International Research Institute for Climate and Society, Columbia University Climate School https://iri.columbia.edu/ENSO

Issues Nairobi City County is facing: Flooding is causing various damages to the city, especially in densely populated areas













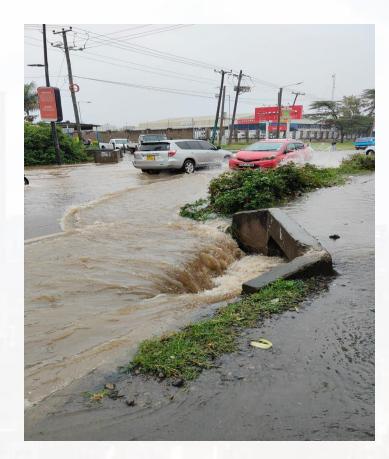
# For example, In <u>January 2024</u>, Nairobi city experienced very heavy rain fall that pounded the city...

As visualised in the videos below.

Pic 1 – bust river and pic 2 – overflowing drainages...







Pic 2

Pic1

# For example, In <u>January 2024</u>, Nairobi city experienced very heavy rain fall that pounded the city...

As visualised in the picture below.

Pic 1 – floods and pic 2 – damaged roads





Pic1



# IN <u>APRIL 2024</u> – Nairobi city experienced extremely heavy rainfall leading to flash floods...



Several lives have been lost and property damaged Pic 1 – floods and pic 2 – run off affecting roads.





Pic 2

# IN <u>APRIL 2024</u> – Nairobi city experienced extremely heavy rainfall leading to flash floods...



Several lives have been lost and property damaged. Pic 1 – floods and pic 2 – damaged properties.





### **Involved Stakeholders**

Along with Nairobi City County Government, Various stakeholders are involved to address the issue of flood and its secondary damage in Nairobi



| Pre-Disaster   | Post-Disaster   |
|--|---|
| Water Management Agency  | Crisis Management Agency  |
| <ul> <li>Water Resources Authority (WRA)</li> <li>National and Regional Flood Mapping<br/>and Impact Assessment Centres<br/>(FMIAC)</li> </ul> | <ul> <li>National Disaster Operations Centre<br/>(NDOC)</li> <li>National Disaster Management Unit<br/>(NDMU)</li> <li>National Police Service (NPS)</li> </ul>             |
| Meteorological Agency  | NGOs and Humanitarian Organizations   |
| <ul> <li>✓ Kenya Meteorological Department (KMD)</li> <li>✓ National Flood Forecasting Center<br/>and Early Earning Center (NFFEWC)</li> </ul> | <ul> <li>Kenya Humanitarian Partnership Team<br/>(KHPT)</li> <li>Kenya Red Cross</li> <li>UNICEF</li> <li>Working through Community Health<br/>Volunteers (CHVs)</li> </ul> |

### In Nairobi, we have so far taken a number of measures against floods and damage caused by them.... For instance-



- <u>Establishment of Disaster Management, Mitigation and Coordination Plan</u> developed by disaster management experts, Nairobi County Government multi agency team and climatologists. The plan is centered upon 3 phases i.e. preparation, response, and reconstruction
- The Nairobi County City Government continues to <u>work in collaboration with the National Government</u>, <u>National</u> <u>Police</u>, and the red cross have initiated an emergency response program to address and redress the situation
- Mapping of areas that are most at-risk of affected by flooding
- Hiring of 3,500 environment officer to implement the Disaster Management Plan.
- The Green Army deployed to all 17 sub-counties in Nairobi continues to unclog blocked sewers. All the necessary equipment to facilitate the unclogging sewers and cleaning drainage systems in the affected areas; backhoes, wheeloaders, flushing units and excavators
- Nairobi City Water and Sewerage Company inspected sewer lines and repaired damages, including flushing 22 Km of the sewer lines to remove debris and repairing 70 damaged manholes before rain season

#### **Expected Solutions from Japanese start-up companies**

Nairobi City County is aiming to contain damage cause by floods by flood prevention, information provision to citizens, continued medical care after floods, and early warning system



Objective

Control of damage caused by flooding through flood forecast and notification

Prevention of the healthassociated impacts of floods through the identification of epidemic prone areas

Prevention of the healthassociated impacts of floods through the establishment of support and relief systems Solution Examples

- ✓ Flood Prediction System (e.g. river monitoring system)
- ✓ Flood Alert System (e.g. smartphone realtime alert application)

 Epidemic Outbreak Risk Detection System (e.g. use of epidemiological, satellite (geospatial) data

- ✓ Identification of High-Risk Areas
- Establishment of Material Supply System (including Water Purification tablets provision) (e.g. drone supply)
- Establishment of Medical Support System (including Dignity Kits provision) (e.g. drone supply)

### Start-up Company Support Programs

In Nairobi City County, the following Support Programs are available for Japanese Start-up companies including companies from Tokyo.



Provision of Free Office
 Space and Utilities

Office Spaces (including utilities) will be provided for free of charge during Startup companies' PoC period.

Provision of Experiment
 Field and Support

Nairobi City County will coordinate and provide appropriate sites (fields) and support for startup companies to conduct PoC experiments, for example.....

A river or channel that is reported to floods or overflows with high frequency

Areas where puddles occur after a flood

Preparation of official letters for acquisition of satellite and GPS data

Organizations and facilities capable of establishing a system etc.



### NAIROBI CITY COUNTY

# Thank You!