NDMA Drought Early Warning System

Valerian Micheni
Drought Information Manager
20th May2014

What?

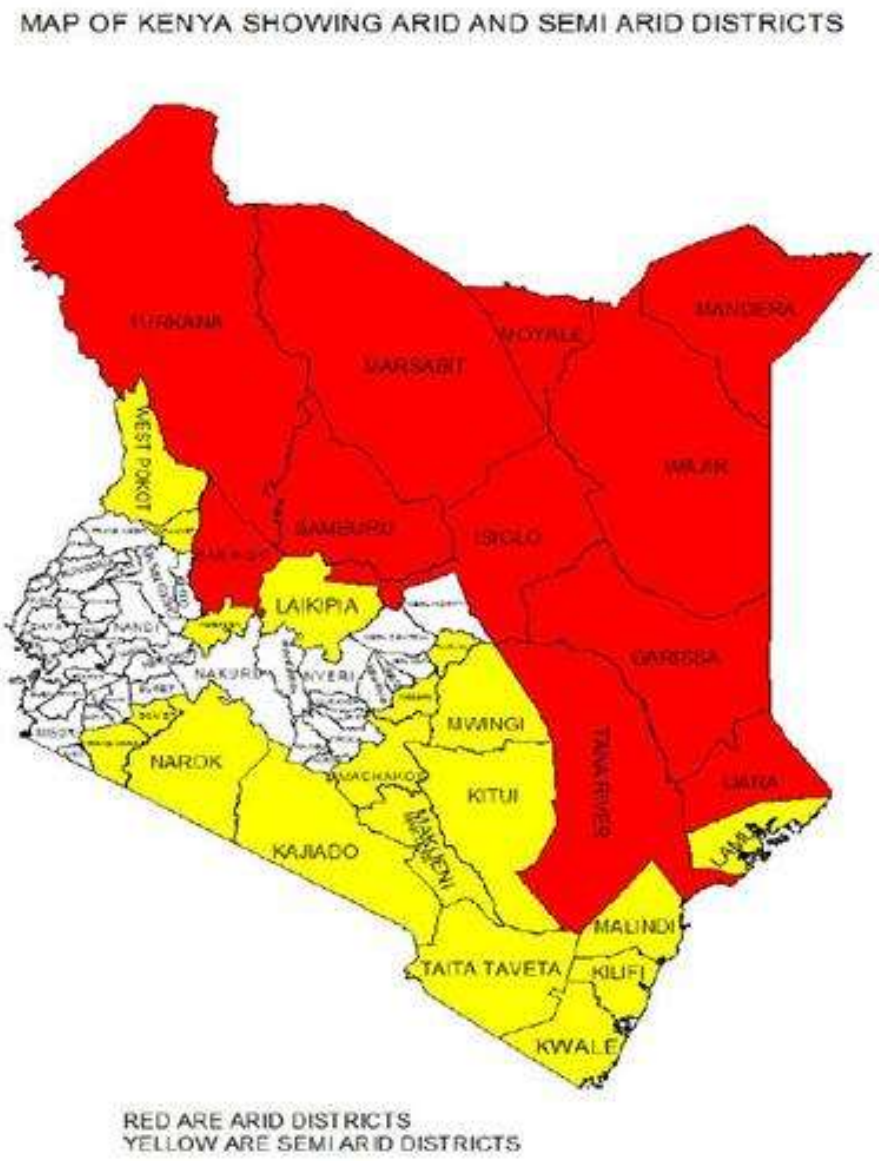
- The Early Warning System (EWS) of the National Drought Management Authority (NDMA) aims to:

1. Give information that help trigger interventions to respond to a drought event in a timely manner.
2. Give continuous monitoring of the drought hazard on livelihoods and changes
3. Offer information to the communities for early action

Current Needs to Improve Early Warning

- Technology: Internal processing of remote sensed data is low due to limited capacity and infrastructure (hardware and software)
- There is a need to have better infrastructure in terms of hardware and software for data processing
- There is urgent need to improve on technology like use of mobile phone/devices for data collection to improve on efficiency
- Funding of the EWS especially at the end of KRDP-ASAL-DM (in two years)

Where?



- The EWS covers 23 counties across Kenya.
- This covers appx. 80% of Kenya's landmass
- The area covered includes Arid and Semi Arid areas
- EWS exist in Northern Uganda (Karamoja)

Who?

- Kenya Rural Development Programme (KRDP-ASAL/DM) _ Financial Support for EWS system
- UNDP- Promoting Resilience programmes
- Kenya Met Services – Seasonal forecast and weather updates
- Regional Centre for Mapping of Resources for Development – Technical support
- UNEP CLIM-WARN community information feedback pilot Kwale

When?

- Socio economic data is collected on a monthly basis at the household and the community levels
- Selected households are monitored on a monthly basis for one full year, when there is a change in the households selection
- Monitoring has been done for over 10 years now
- The EWS looks at the short term seasonal variability, and impacts to livelihoods and food security. However data collected can be used for long term climatic analysis

How? Indicators used

- Currently data is collected in three broad categories of indicators
- **Biophysical/Environmental Indicators**- Trends on Env Stability
- **Rural Economy Indicators-** They look at the food availability and effects to food security(timeliness and stability of food production systems,
- **Human Welfare Indicators**-deal with access and utilization of food (Prices, Markets functionality, trends in food consumption, health and nutrition e.t.c)

How? – Data collection process

- Data collected across sentinel sites in 23 counties, appx 320 sentinel sites are covered in total
- 30 households(HH) interviewed per household
- Each Sentinel Site has a field monitor
- Tools: HH questionnaire and Key Informants questionnaire
- Secondary Data – Trends Building
- Use of Geo Technology (RFE, SPI,VCI) this is currently limited
- Analysis done and monthly bulletin produced

Information sharing

- County level stakeholders though the county steering groups
- Communities through community feedback meetings. Plans underway to develop simplified bulletins for the communities
- National level: National stakeholders, Kenya Food Security Steering group
- County monthly bulletins available online www.ndma.go.ke
- Input into the national food security assessments conducted biannually

Specific challenges- Need to be addressed

- Crop and rangeland modelling to improve the remote sensed data – Challenge: Lack of homogeneity across the Arid and semi Arid Areas (ASALs)
- Training of both the field monitors and the early warning officers on technology (Especially geo technology)
- Provision of more hardware and software for **data collection** and **processing**
- Availability of RS data/products
- Strengthening of the feedback mechanism to the communities

Thank You