ICPAC

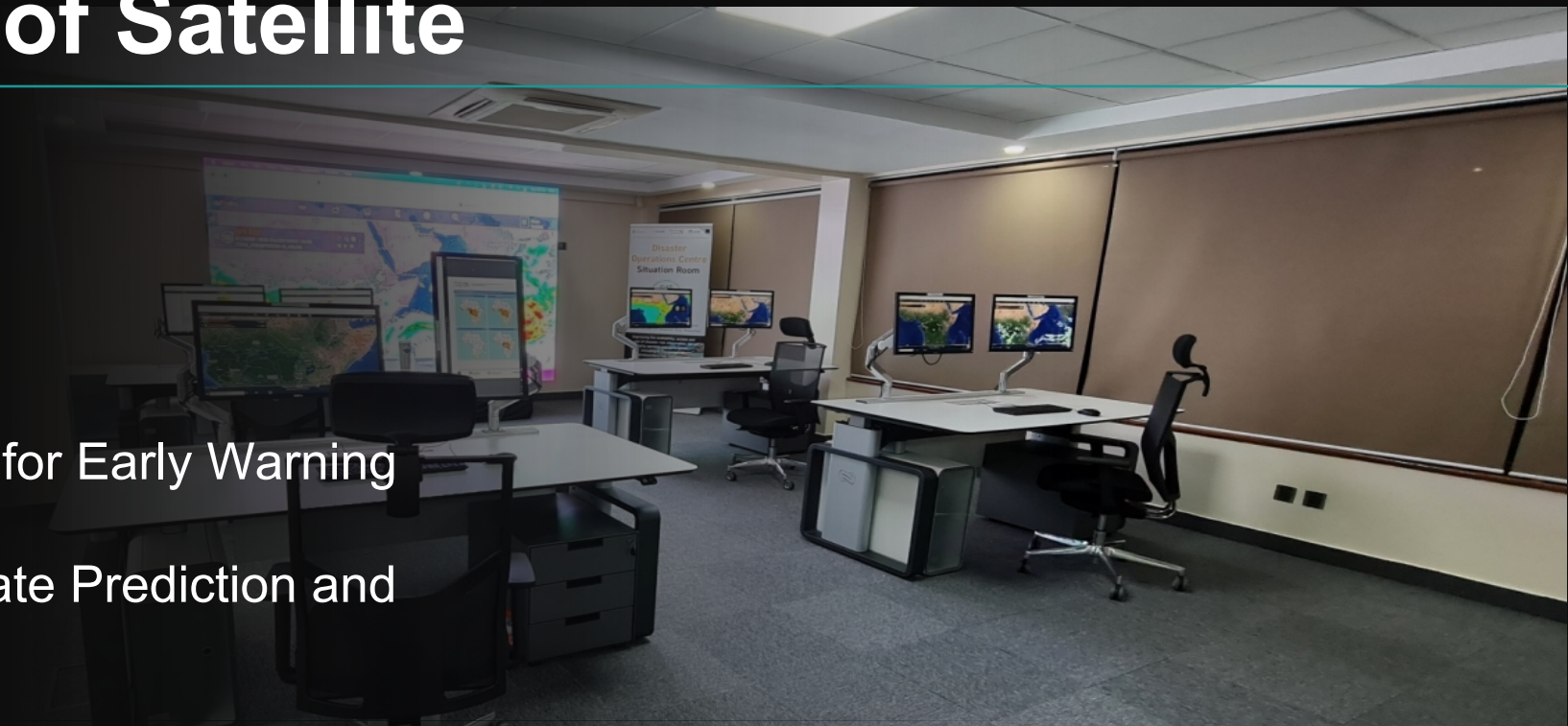
DISASTER OPERATIONS CENTER

Situation Room

Access and Utility of Satellite Data

Copernicus 10 Years Special Event

17th June 2022



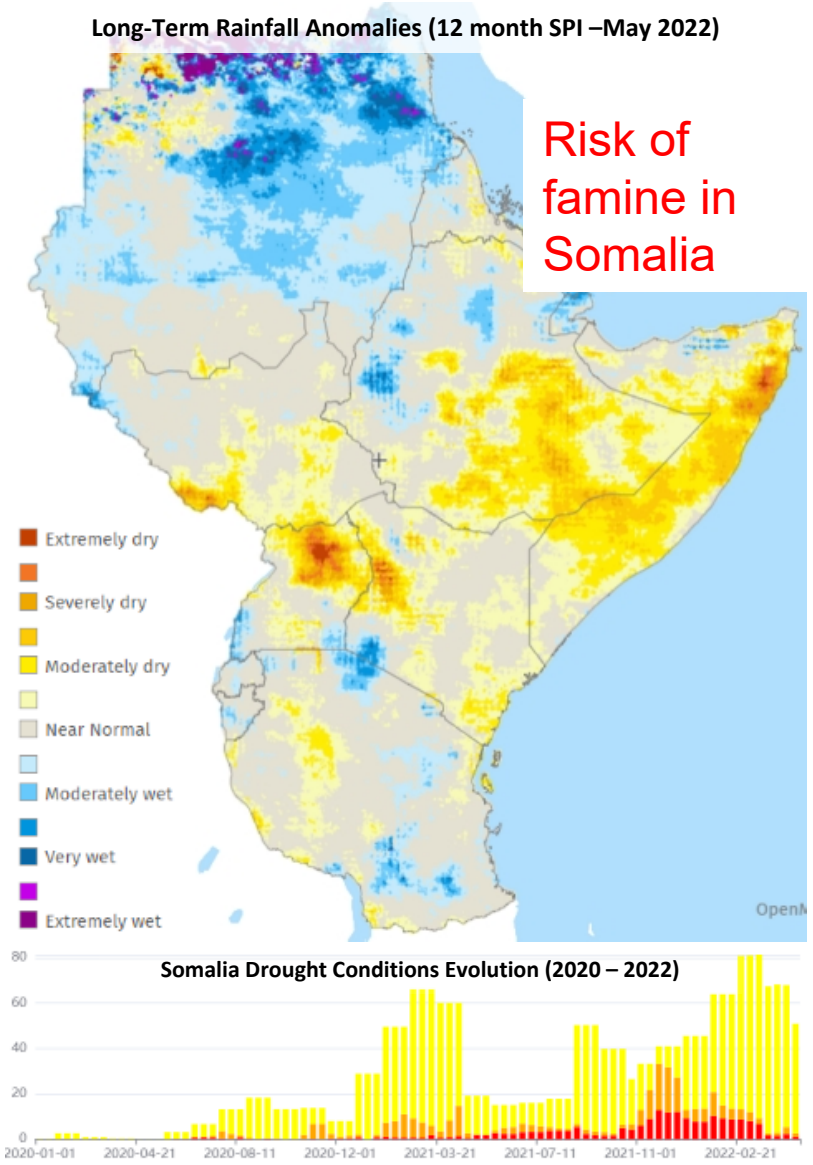
By: Viola Otieno

Position: Earth Observation Expert for Early Warning Systems

Organisation: ICPAC - IGAD Climate Prediction and Applications Centre

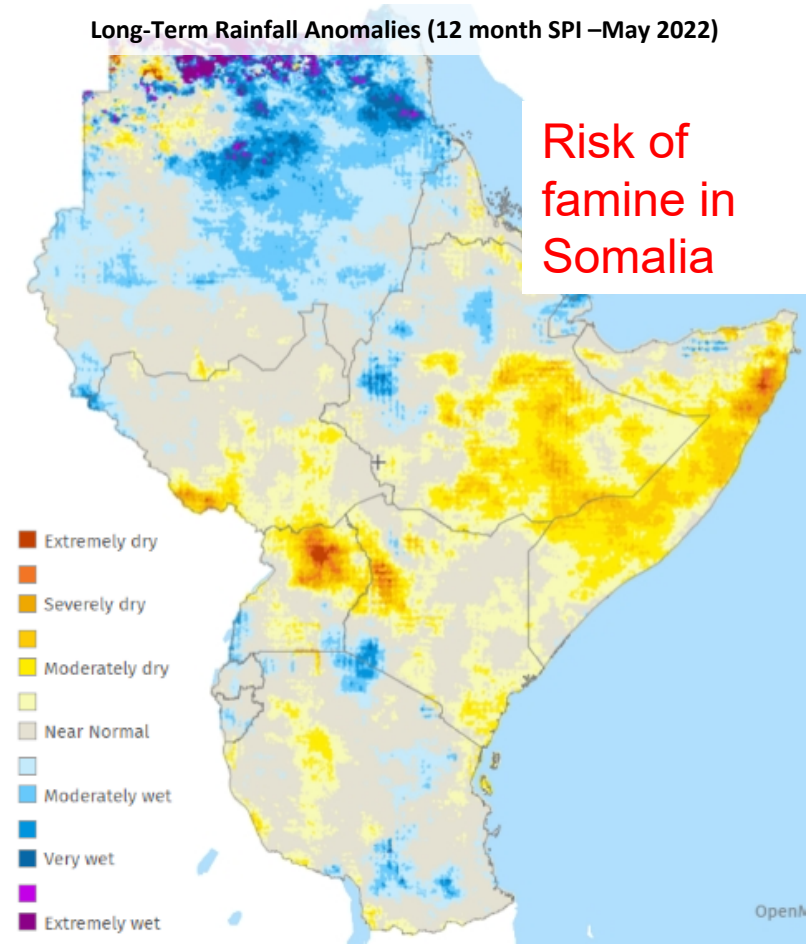
Overview

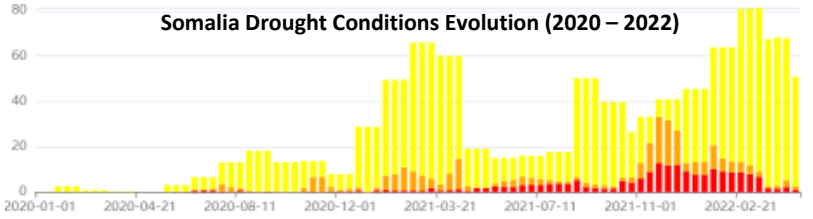
- Weather and climate are important components in protecting lives and livelihoods
- In the last 50 years, 35% of deaths resulting from hydromet disasters were recorded in Africa
- Currently the Eastern Africa region is experiencing drought. 2020-2022 drought is considered one of the worst drought in 40 years
- Projections indicate increased frequency and intensity of climate extreme events
- The latest IPCC report indicates most of Africa is expected to receive heavy rainfall
  - How do we prepare for this? What will be the role of satellite observations



Benefits of Coordinated Satellite Observations

- Abstracting the inherent complexities of satellite data from users allowing for **seamless** access and utilization of highly varying data from different providers.
- Key-enabler of the proliferation of satellite-based services and products. It has also facilitated the growth of space-based start-ups and private companies including in Africa.
  - Democratization of satellite data
- It is the backbone of integrated systems whether integrated monitoring or early warning system (multi-hazard early warning systems)
  - Everyone covered by EWS in 5 years - WMO
- ICPAC is developing digital ecosystems towards multi-hazard early warning systems for 11 countries in

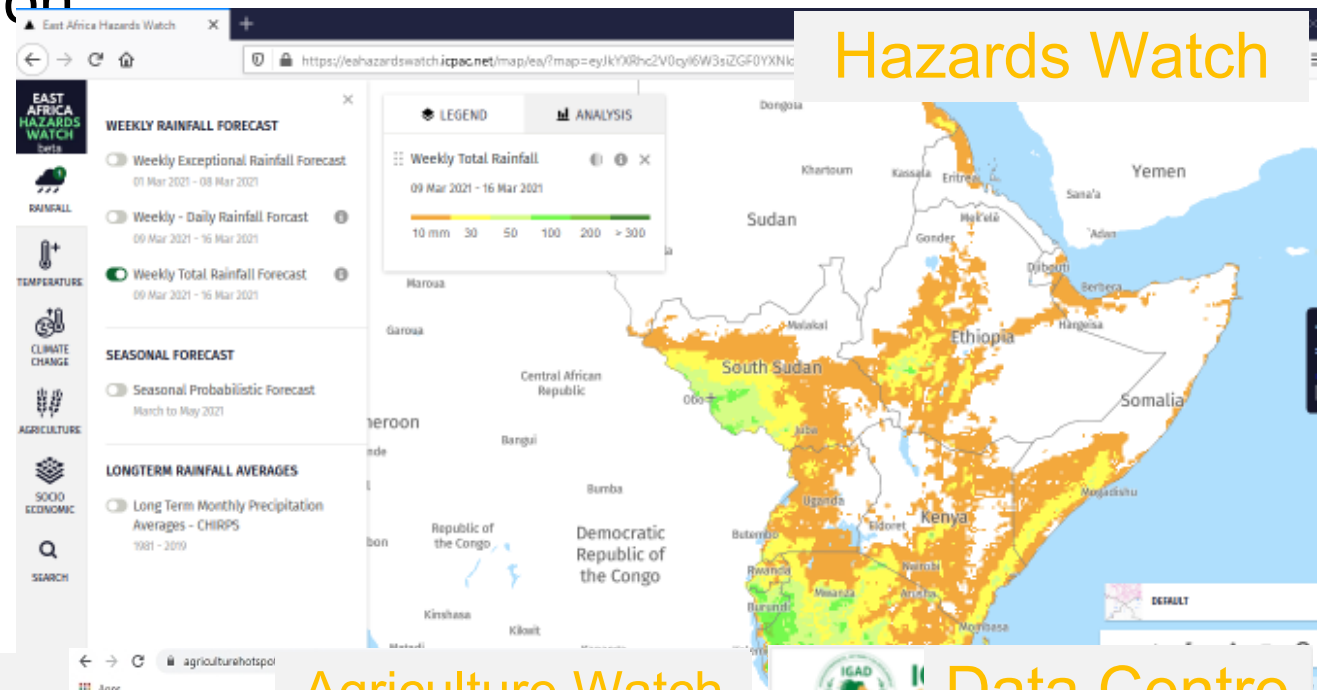


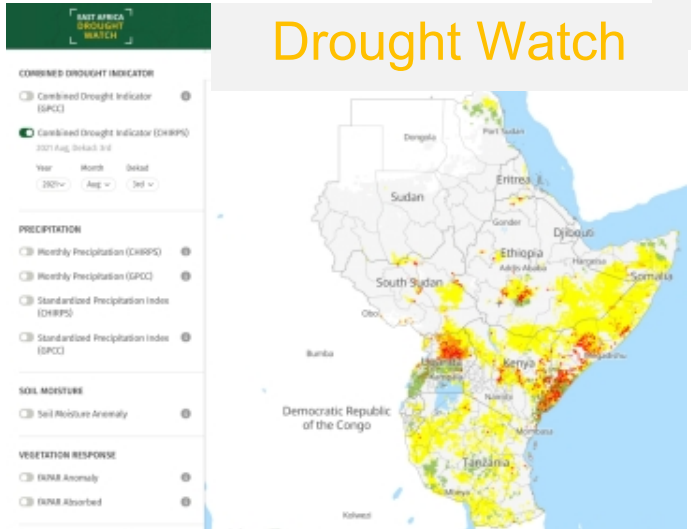


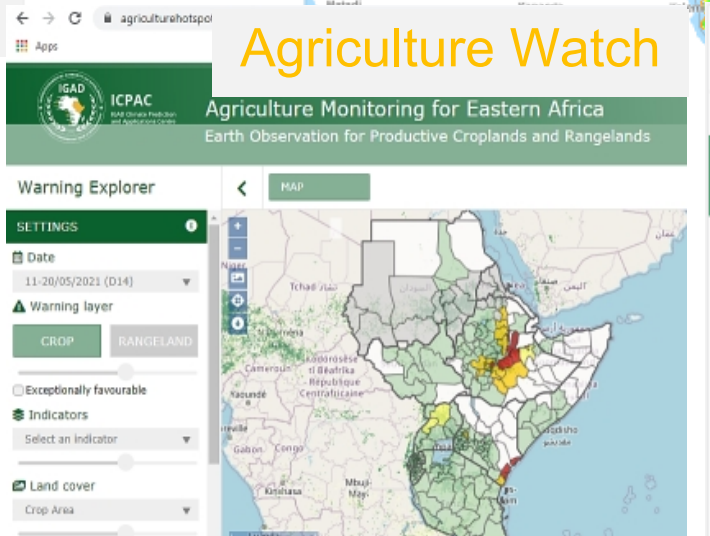
From Data to Insights!

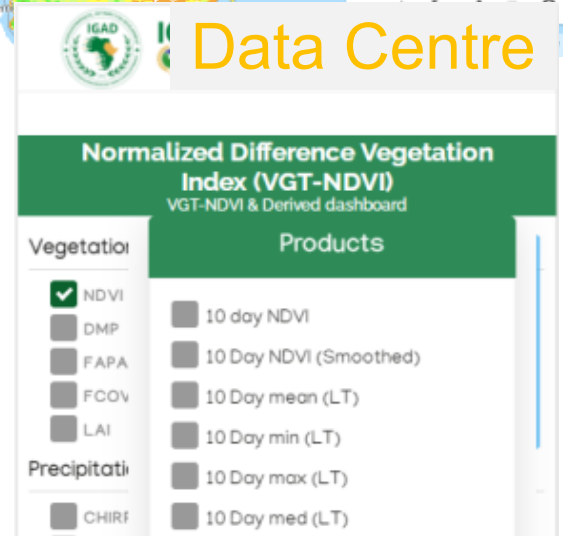
Towards integrated Multi-hazards Early Warning Systems

- One-stop for multi-hazard risk information
  https://eahazardswatch.icpac.net/
- Drought monitoring and forecasting
  https://droughtwatch.icpac.net/
- Agriculture hotspots monitoring
  https://agriculturehotspots.icpac.net/
- EO data access
  http://gmes.icpac.net/data-center



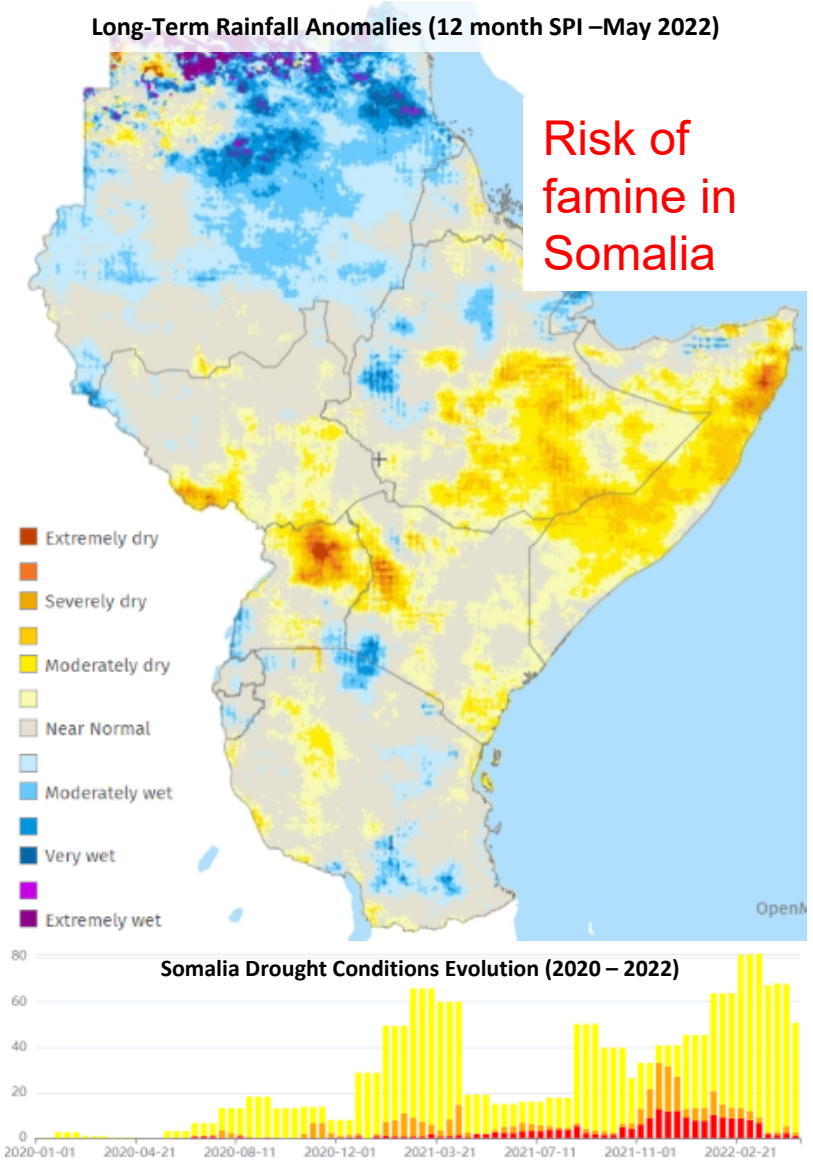






The Future of Satellite Observations

- A focus on application and services development as the volume of data continues to grow tremendously
  - Continued abstraction
  - Data access, open access, open science
  - Horizontal and (vs) vertical platforms
- Continued and enhanced coordination and collaboration across board between data providers, users and the intermediaries such as private sector and researchers
- Demand driven:
  - Improved accuracy of satellite products
  - Improved data processing
  - New products based on growing user needs e.g. lightning
- Investment in science and research to improve
  - Lead time for weather/climate forecasting products
  - Improved impact forecasting



Thank You

ICPAC