Monitoring the Locust impact for preparedness and response planning

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THE CRISIS IN NUMBERS

20.2 million people in severe acute food insecurity in the region

153 million USD requested for FAO’s rapid response and anticipatory action in 10 countries

1 km² swarm can eat the same food as 35,000 people in one day

400 times increase in locust numbers by June if crisis left unchecked

Source: FAO
Potential use of seasonal forecast and atmospheric models for LEWS

- Combination of long and short-term forecasting can help the government in forecasting the movement and behavior of locust accurately;
- Operational weather and climate variables can guide authorities to prepare response mechanism to deal with the crisis;
What datasets are useful in monitoring and early warning?

- Rainfall
- Soil Moisture
- Wind Speed
- Greenness cover

Implemented in Google Earth Engine and Arc GIS
Key message

• All these technologies have contributed to better early warning and timely decision making process

• Satellite-based rainfall estimates and greenness cover have probably had the greatest impact on monitoring locust populations in Africa and Asia.

• Technology alone will not prevent locust plagues but integrated with field station and national locust preventive program aided with sufficient resources can contribute to improving early warning as a means of reducing the frequency of locust plagues.
References


https://locust-hub-hqfao.hub.arcgis.com/