



**GMES  
AND AFRICA**

# Global Monitoring of Environment and Security in Africa



## Monitoring Natural Resources and Food Security in the Eastern Africa Region

### PROJECT CONSORTIUM

#### PROJECT COORDINATOR



IGAD Climate Prediction & Applications Centre (ICPAC), Kenya

#### PARTNERS



Wildlife Research and Training institute, (WRTI) Kenya

Tanzania Forest Service Agency, (TFS) Tanzania

Makerere University, Uganda

Ministry of Land, Water and Environment, Eritrea

Ministry of Livestock, Forestry and Range Somalia

Uganda Wildlife Authority (UWA)

#### LOCATION



Eastern Africa

#### PERIOD



Mar 2022 – Oct 2025

#### TOTAL BUDGET



EUR 1,488,360

#### EU FUNDING



EUR 1,200,000

#### PROJECT CONTACT



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### CHALLENGES

- The Eastern Africa region is largely arid and semi-arid with highly variable inter-annual rainfall with most people of the region dependant for their livelihoods on rain-fed agriculture.
- The frequency and magnitude of the climatic extremes in EA region have increased in recent years and impact negatively not only the regional food security; but also health, wildlife, tourism, infrastructure, conflicts and security among many others.
- The region is endowed with a considerable range of natural resources, with a huge potential for a variety wealth creation and progress (tourism, provision of goods and services, GDP contribution ...). These resources are under increasing threat emanating largely from: habitat loss and degradation; deforestation, alien invasive species; and legal and institutional weaknesses

### FOCUS

GMES & Africa aims at promoting the development of local capacities, institutional, human and technical resources for access to and exploitation of EO-based services on an operational basis for sustainable development in Africa.

During the second phase of GMES & Africa, in-line with Africa Union Agenda 2063 and Space Agenda the consortia will advance access and utilization of Earth Observation data and technologies for sustainable development in the area of Natural Resource and Food Security Management in the East Africa region.

### RATIONALE

The Eastern Africa region remains one of the most vulnerable with persistent food and nutritional insecurity, widespread economic hardships, resources and political conflicts, irregular and illegal migration and social hardships. With severe climatic changes and environmental degradation and heavily dependent on agriculture and livestock, the region is very prone to persistent extremes of severe droughts and flooding.

Mitigating the effects of drought and environmental degradation, boosting agricultural production, and sustainable management of natural resources and protecting the environment should be the priority of the region. This is to ensure resilient livelihoods and to sustain the economic growth of the region.

Some environmental and economic policies and strategies at regional and national levels have been formulated to tackle these challenges including ratification of the international conventions and sustainable development goals. In the last decade, there has been tremendous increase in investment in Space exploration and utilization.

Space products and services offer unprecedented opportunities to routinely monitor, assess and provide early warning information for effective managing of natural resources and food security and building resilience of the continent to impacts of climate change and variability.



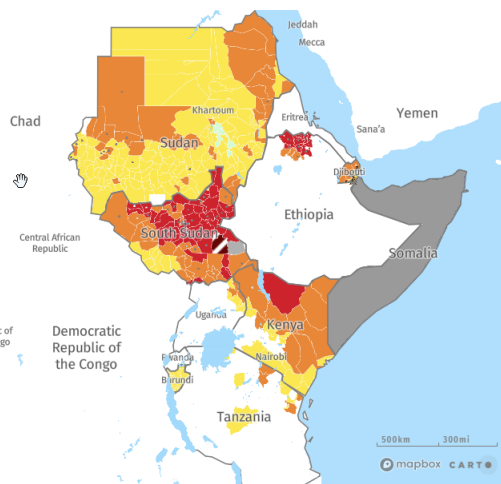
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# IGAD Climate Prediction and Applications Centre (ICPAC)



ICPAC



Map from East African Hazards Watch showing acute food insecurity in the region as of 12th April 2022

## METHOD

Natural resources and environmental degradation exacerbating climate change and natural disasters pose enormous challenges to society.

There is an urgent need to enhance the capacities to provide actionable and timely information in support of Natural resources management and adaptation capacities, and to mitigate the impacts of natural resources and environmental degradation as well as climate change and disasters on the socio-economic livelihoods.

This action will be centered on capacitating and engaging ICPAC consortium and stakeholders with appropriate monitoring and analytical skills, delivery and communication mechanisms, user centered, natural resources services to sensitize stakeholders, users, decision and policy makers that are trained and engaged to act on decision-ready products and services.

## EXPECTED RESULTS

### Impacts

Contribute to a more sustainable management of resources based on Earth Observation applications.

### Outcomes

Eastern African organizations, policymakers and practitioners make more effective use of Earth Observation data to develop relevant operational information services at national, regional, and continental levels.

### Output

- Improved policy and institutional framework for sustainable management of natural resources and Climate change based on Space Science and Technology applications.
- Improved access to Earth Observation data and information products on natural resources, environment, and climate change in relevant African institutions.
- Availability of information services for policy makers, private sector and end users for management and monitoring of Water and Natural Resources
- Capacities of African public institutions, users of GMES services and private sector to take advantage of EO-based information for Water & Natural Resources applications are enhanced at regional and national level
- Knowledge management, including cross fertilization, is improved
- Outreach, uptake and dissemination is enhanced

## PROGRAMME PRIORITIES

Earth Observation data access, Earth observation services provision, Capacity building, Communication, and outreach

### SECTORS

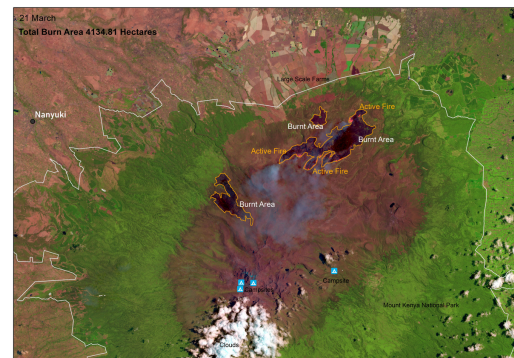
Natural habitats, rangelands and forests

### KEYWORDS

East Africa, earth observation, climate, food security, rangelands, natural habitats, forests and monitoring.



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Satellite image showing Mt. Kenya fires as of 22nd March 2022



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Eritrea



Ministry of Livestock, Forestry and Range  
Somalia