

Project Update #12

Welcome to our twelfth **CENTAUR** Project Update!

In this issue, we focus on the upcoming World Day to Combat Desertification and Drought, how CENTAUR is addressing drought-related challenges, and the projects we are collaborating with.

World Day to Combat Desertification and Drought: How CENTAUR is Contributing

According to the World Health Organization, an estimated <u>55 million people worldwide</u> <u>are affected by droughts every year</u>. Droughts have far-reaching consequences, including threatening food and water security, forcing people to migrate, and increasing the risk of conflict.

On 17 June is World Day to Combat Desertification and Drought. This year's theme is 'Restore the Land. Unlock Opportunities" and highlights the importance of restoring degraded land in order to strengthen food security, support climate action, and build economic resilience. For example, the United Nations Convention to Combat Desertification (UNCCD) estimated that restoring 150 million hectares of degraded land could improve the food security of up to 200 million people.

CENTAUR is contributing to this effort and has developed several innovative indicators and indexes which address food and water security. Among these is the Drought Conflict Prediction Index, which uses a combination of drought data, fragility and resilience metrics, and conflict data to forecast risks more accurately. This enables users to predict where and when impacts are likely to occur. Additionally, the new ECMWF ERA5-Drought dataset, a global dataset for long-term drought monitoring from 1940 to the present, has been used to understand the state of droughts in our use

cases countries: Somalia, Mali, and Mozambique. For instance, the SPEI-12 index, which provides long-term anomalies in precipitation and potential evapotranspiration, helps monitor the evolution of droughts.

Ongoing Collaborations

To further address these challenges, CENTAUR and other projects are developing solutions to support more effective responses to climate-related risks, with a focus on strengthening food and water security and improving early warning systems.

CENTAUR & SEED-FD: Strengthening Resilience to Climate Extremes

We are pleased to be collaborating with SEED-FD, a Horizon Europe project, to address the growing risks linked to climate extremes. Both projects are developing products to strengthen Copernicus Emergency Management Service's product portfolio.

On 21 May 2025, researchers from both projects held their second technical exchange, focusing on drought-related challenges. These discussions demonstrate our shared commitment to improving early warning systems and resilience planning in common use case regions, such as Somalia.

Read more about our collaboration here: https://centaur-horizon.eu/news/centaurseed-fd-strengthening-resilience-to-climate-extremes/

CENTAUR collaborates with SEED-FD









CENTAUR & ThinkingEarth: Improving Our Understanding of Food Insecurity

We have been teaming up with ThinkingEarth, another Horizon Europe project which leverages the use of Artificial Intelligence (AI) to address climate-related challenges.

Both projects are demonstrating how Copernicus Earth Observation data can support stakeholders in monitoring and managing food insecurity. This is a key pillar of our

project and also a central theme of ThinkingEarth's <u>Use Case 3</u>, which focuses specifically on the Horn of Africa.

- Read more about ThinkingEarth's activities related to food security here:
 <u>ThinkingEarth's role in the Causal Impact of Humanitarian Aid on Food Security ThinkingEarth</u>
- Read more about CENTAUR's participation to the webinar on "Copernicus for Land Degradation, Agriculture, and Food Security" here: https://centaur-horizon.eu/news/centaur-showcased-at-regional-event-by-rcmrd/

Coming Up!

CENTAUR will take part in the European Space Agency's Living Planet Symposium 2025, held from 23–27 June in Vienna, Austria. Our representatives will present CENTAUR's latest work through presentations and poster sessions. We look forward to connecting with other experts in the field and sharing insights from the project. Stay tuned for more information!

Suggested Readings

1

2

3

Droughts over large parts of Europe raises concern

2025 global report on food crises

2025 global report on internal displacement

Read More

Read More

Read More

Facts & Figures

83.4

million people were internally displaced worldwide at the end of 2024

294

million people in 53
countries were affected
by acute food
insecurity at the end of
2024

~40%

of land is degraded worldwide, harming livelihoods, biodiversity, & climate































CENTAUR

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