

SDGs-EYES User Uptake Webinar Report

**Tracking Climate Security in the Sahel Region: Advancing SDGs
Indicators Monitoring, Reporting, and Accounting**

29 April 2025





User Uptake Online Webinar

29 April 2025 | 14:00 - 16:00 CEST

**Tracking Climate Security Impacts in the Sahel
Region: Advancing on SDGs indicators monitoring,
reporting and accounting**



On Tuesday, 29 April, [EARSC](#) held the fourth webinar of the user uptake series within the [SDGsEYES](#) project, to engage stakeholders, foster collaboration, and promote Copernicus-based services across five pilot areas. This webinar focused on [Tracking Climate Security in the Sahel Region: Advancing SDGs Indicators Monitoring, Reporting, and Accounting](#). SDGsEYES aims to enhance Europe's capacity to monitor SDGs using Copernicus data, aligning with the EU Green Deal. By integrating data from six core services, the project develops accurate SDG indicators and decision-making tools. Continuous user engagement is key, ensuring codesign, adaptability, and successful service uptake adoption throughout the project's duration.

The webinar was attended by 35 online participants from across Europe and beyond, representing a diverse range of user communities from both European and African networks. It introduced a Copernicus-based service, developed through a [Pilot](#) aimed at monitoring the impact of natural disasters - such as flooding events - on the urban environment and communities in the Sahel region, a critical climate security hotspot.

The SDGsEYES service was introduced by **Michele Lazzarini** from the [European Union Satellite Centre \(SatCen\)](#). It uses Earth Observation data to support the estimation of SDG indicator 13.1.1¹ in the Sahel, with a focus on Niger. By combining satellite imagery, ground-truth data, and machine learning, the pilot estimates populations and buildings affected by floods, offering near real-time assessments in data-scarce contexts. The tool supports climate-security analysis and early response, with a user-friendly interface. While initially focused on flooding, the methodology is being extended to drought events, with potential for adaptation and replication in other regions.

The session also featured a moderated panel discussion and targeted breakout sessions, offering a space for **productive expert dialogue to refine the service, identify synergies with existing initiatives, and explore opportunities for wider adoption beyond the Sahel Region. The panel discussion, moderated by Mynica Miguel-Lago from EARSC, brought together a broad range of experts in the climate security nexus:**

- **Dr. Sirio Modugno** from the [United Nations World Food Programme](#) shared an operational view on the use of Earth Observation (EO) in humanitarian settings, illustrating how EO data informs emergency scenarios and supports timely field responses.
- **Maria Tamame** from [Copernicus Service on Support to EU External and Security Actions \(Copernicus SESA\)](#) explained how the Copernicus SESA, while traditionally focused on security, is

¹ indicator 13.1.1 is defined as the "number of deaths, missing people and directly affected persons attributed to disasters per 100,000 population".

increasingly engaging with the climate-security nexus and exploring ways to leverage EO for humanitarian and emergency contexts.

- **Iria Touzon Calle** from the [United Nations Office for Disaster Risk Reduction \(UNDRR\)](#), offered insights from the perspective of the custodian agency for SDG indicator 13.1.1, emphasising how EO can fill reporting gaps, enhance disaster loss data, and support national efforts to meet both Sendai Framework and SDG targets.
- **Joseph Tuyishimire** from [Digital Earth Africa](#) discussed strategies for improving EO data accessibility and usability, particularly to empower decision-makers across the African continent.
- **Dr. Mansour Barkawi** from [GeoMinds Africa](#), presented examples from his work at the intersection of geospatial technology, AI, and climate resilience, including practical tools like the Agricultural Drought Condition Index.
- **Dr. Felix Buba** from the [African Regional Centre for Space Science and Technology Education \(ARCSSTE-E\)](#), highlighted efforts to integrate EO data with participatory approaches in support of disaster risk reduction and climate adaptation.
- **Mustapha Mimouni** from the [Sahara Sahel Observatory](#) had to leave early; he left us with an important takeaway: connect the dots regionally and always think multi-risk - a message that echoed throughout the session.

Moderated panel discussion



Dr. Sirio Modugno, UN
World Food Programme



Maria Tamame,
Copernicus SESA
(EU SatCen)



Dr. Mansour Barkawi, GeoMinds
Africa & African Network
of Geomatics Professionals



Joseph Tuyishimire,
Digital Earth Africa



Iria Touzon Calle,
UN Office for Disaster
Risk Reduction



Dr. Felix N. Buba, African Regional
Centre for Space Science &
Technology Education



Mustapha Mimouni,
Sahara Sahel
Observatory



Mónica Miguel-Lago
EARSC (*Moderator*)



Key Highlights

Prioritising accessible and timely EO data for crisis response. While Earth Observation (EO) data availability is improving, significant barriers remain in terms of accessibility and usability—particularly in crisis contexts. In the first 72 hours following a disaster, temporal resolution was highlighted as more critical than spatial resolution for enabling timely humanitarian response, such as food assistance and logistics. Ultimately, blending EO data with on-the-ground insights is key to effective decision-making.

Strengthening local ownership through co-design and capacity-building. There was a strong call to move beyond top-down approaches and ensure EO tools are developed in close collaboration with local and national institutions. Co-design - particularly in the creation of local vulnerability maps - was highlighted as an effective way to ensure tools are relevant, trusted, and actionable. Panellists emphasised the importance of incorporating user feedback, updating training curricula to reflect advances in AI and geospatial technology, and investing in regional centres to support knowledge transfer.

Overcoming governance barriers to EO adoption. Fragmented mandates and data silos within governments continue to hinder the effective use of EO across Africa. Participants noted that while data is often collected and reported, it does not automatically lead to action or policy change, leading to fatigue among both local authorities and international partners. Improved data governance, cross-sector collaboration, and political commitment are essential to align EO tools with national strategies, particularly for early warning and conflict-sensitive applications.

Designing EO tools for non-technical and local end-users. Many local stakeholders, including decision-makers and frontline planners, lack the technical background to engage directly with complex geospatial datasets. Panellists agreed that EO tools must be designed with usability in mind - providing clear, actionable insights in accessible formats such as dashboards, mobile applications, or decision-support tools - so that they can truly inform local responses to climate and security challenges

Following the panel discussion, participants attended two breakout rooms, “Hands-on Technical Demo” and “End-Users’ Insights,” exploring the practical use of EO-based climate security monitoring tools:

- In the **technical demo**, **Miguel Belenguer (SatCen)** provided a hands-on demonstration of the pilot EO service, focusing on its integration into GIS platforms and options for downloading outputs in compatible formats. The discussion addressed current technical limitations, including partial product availability and time execution of the platform. Participants raised questions about the geographical scope - specifically whether the platform is limited to the Sahel - and discussed the potential for scaling to other regions.
- The **end-users insights** session, involving **Michele Lazzarini (SatCen)**, focused on operational challenges related to data access, particularly in conflict-affected areas. Participants highlighted the value of EO open data in addressing these limitations, as it enables monitoring without requiring physical presence. The conversation also highlighted the need for data standardisation while acknowledging that local characteristics must be considered to ensure relevance and usability across diverse contexts.

Key Takeaways and Next Steps

The panel highlighted the critical role of EO tools in addressing climate risks across the Sahel. From drought indices to flood monitoring, integrating EO data with local knowledge and AI supports early warning, land use planning, and sustainable resource management in vulnerable regions.

Improving data accessibility and usability was a core theme. While platforms like Digital Earth Africa offer valuable datasets, many local authorities lack the tools and skills to use them effectively. Simplifying outputs and designing for non-expert users is essential for local uptake. Additionally, **co-design and capacity building** were seen as essential for long-term impact. Partnerships with governments and training centres are helping align EO tools with national priorities and SDG reporting. Local engagement also strengthens trust and ensures solutions fit real needs.

Looking ahead, the project will prioritise user engagement and further uptake of the pilot's service, with several participants already showing interest in applying the methodology within their own monitoring frameworks. Continued feedback and collaboration will be essential to refining and integrating these tools into broader environmental monitoring efforts.

If you missed the live session, you can review the webinar recording [here](#).

Save the date for the fifth SDGs-EYES User Uptake Webinar on 28 May 2025, from 14:00 to 16:00 CEST, titled *"Forest cover change and soil erosion: Advancing SDG Indicators Monitoring, Reporting, and Accounting."* This webinar will offer an in-depth look at innovative Earth Observation-based tools developed to monitor forest dynamics and support sustainable land management in Romania, while also exploring their potential for replication in other European countries.

To learn more about the SDGs-EYES pilots and future webinars, visit www.sdgs-eyes.eu



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