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## European Space Agency and Adaptation Fund Collaborate to Strengthen Global Climate Adaptation Projects through Satellite Earth Observation Technology

Washington, D.C. (December 9, 2024) - The European Space Agency (ESA) in collaboration with the Adaptation Fund (AF), hosted an insightful webinar to explore how satellite Earth Observation (EO) analytical services and tools can enhance climate adaptation efforts.

The event brought together a diverse audience of accredited Implementing Entities (IEs) of the AF from around the globe, offering an interactive platform to learn, exchange ideas, and identify practical solutions for enhancing climate adaptation projects worldwide with space-born EO technology.

The session showcased ESA's cutting-edge EO applications, emphasising their ability to help address challenges in key adaptation sectors such as agriculture, water management, disaster risk reduction, and urban resilience. The webinar covered a variety of topics presented by experts from ESA's Directorate of Earth Observation Programmes, with each segment tailored to provide practical insights and empower IEs to integrate EO into their adaptation projects.

Opening remarks were provided by Mikko Ollikainen, Head of the AF, who highlighted the collaboration between the Fund and ESA. He underscored the value of integrating EO solutions into climate adaptation initiatives, emphasising the transformative potential of these technologies in strengthening project outcomes.

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“The growing partnership with ESA is a great example of the Adaptation Fund’s leadership in innovation in adaptation.”

– Mikko Ollikainen, Head of the AF

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Anika Ruess, ESA expert working on ESA’s Global Development Assistance (GDA) programme, started the session and provided an overview of [Copernicus](#), Europe’s flagship EO programme. She detailed the extensive range of satellite data available through the programme, including free and open data for monitoring critical climate variables such as temperature, precipitation, and vegetation. She showcased how this data has been successfully applied to climate adaptation projects, illustrating its utility with concrete examples of Copernicus-supported decision-making.

Alex ChUNET, responsible within the ESA GDA team for expanding partnership efforts including with Financial Intermediary Funds (FIFs) like the AF, delivered a comprehensive presentation on real-world examples demonstrating the diverse applications of EO, including in urban resilience, disaster risk management, and sustainable agriculture. He showed how ESA’s customised EO solutions and capacity-building initiatives have enhanced climate adaptation projects and elaborated on practical opportunities for the Fund’s IEs to collaborate with ESA going forward.

## Key Highlights from the Webinar

The webinar included an introduction to [ESA’s GDA programme](#), highlighting its pivotal role in leveraging EO for sustainable development and facilitating integration in development finance. Participants were informed about additional resources provided by the programme to strengthen capacity building and skills transfer. These include:

- The ESA GDA Knowledge Hub: A comprehensive platform offering access to technical insights, tools, and case studies as well as a capacity development support facility designed to empower stakeholders with actionable EO knowledge;
- And the ESA GDA Analytics & Processing Platform (APP): A cutting-edge virtual environment enabling users to process and analyse EO data with greater efficiency and without requiring technical EO knowledge, providing a practical foundation for integrating EO into climate adaptation projects.

Both the ESA GDA Knowledge Hub and the APP are set to launch in the first quarter of 2025, marking a significant milestone in advancing EO accessibility and fostering technical capacity within the global development community.

One of the webinar's key highlights was the presentation of two AF-funded projects that have already successfully integrated EO technologies, showcasing the transformative potential of satellite data in climate adaptation efforts. These include a project by Uganda's Ministry of Water and Environment (MWE) using flood mapping software and SLAMDAM technology for [flood management](#); and a project by Peru's Trust Fund for National Parks and Protected Areas (PROFONANPE) to reduce [coastal community vulnerability to climate change](#). The latter uses modern environmental monitoring and prediction systems, including participatory climate and oceanographic monitoring. These real-world examples provided a platform to explore not only the tangible benefits of EO but also the practical challenges of adopting the technology, such as data integration, access to infrastructure, and capacity-building needs.

The webinar included interactive discussions to explore key topics with participants, such as integrating EO data with national datasets, overcoming capacity-building challenges, and scaling EO solutions for greater impact.

## Charting a Collaborative Path Forward

The strong engagement and positive feedback in the webinar reaffirmed the value of EO in advancing countries' climate adaptation goals. ESA and the Adaptation Fund are committed to fostering and advancing this collaboration, with a follow-up meeting scheduled for January 2025. This session will review the outcomes of the webinar, identify specific areas of interest for AF IEs, and shape future joint initiatives.

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“This new cooperation between ESA and the Adaptation Fund represents a significant step toward leveraging the power of space and development finance in an integrative manner and empowering global communities with innovative tools and knowledge to tackle the pressing challenges of climate change.”

– Christoph Aubrecht, ESA GDA Programme Coordinator

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The webinar is one in a series of AF climate finance readiness events where the Fund is exploring ways to support its IEs through information sharing, connecting with platforms, expert exchange, and communicating external opportunities for support in capacity building and project preparation.

The AF hopes to harness emerging innovations such as EO and other practices of potential interest to IEs and support the Fund's country-driven proposal development processes and informed decision-making on the ground.

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“The Fund has a long history of innovating and pioneering effective adaptation projects and programmes since its inception. It has taken innovation a step further over the last several years by establishing an [Innovation Facility](#) and several innovation in adaptation grant funding windows that have opened adaptation finance to a wide range of stakeholders.”

– Mikko Ollikainen, Head of the AF

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These stakeholders include the Fund's IEs, CSOs, local governments, community groups, young entrepreneurs and others. The Innovation Facility is aimed at accelerating the response to vulnerable countries' rising adaptation needs by creating a wider base of proven locally led innovative and scalable adaptation solutions on the ground. Innovation has further been one of the Fund's three strategic pillars since 2018, alongside Action, and Learning and Sharing.

The [Adaptation Fund](#) has committed over US\$ 1.2 billion for climate change adaptation and resilience projects and programmes since 2010, including over 180 concrete, localised projects in the most vulnerable communities of developing countries around the world with over 46 million total beneficiaries. About half of its projects are in Least Developed Countries or Small Island Developing States.

ESA's GDA Programme is a global partnership implemented with key International Financial Institutions (IFIs), such as the World Bank (WB) and Asian Development Bank (ADB), as well as the International Fund for Agricultural Development (IFAD) and Inter-American Bank for Development (IDB). ESA's GDA goal is to mainstream the use of EO into development operations. For more information, please visit ESA's GDA website: <https://gda.esa.int>