

ALBATROSS

Advancing knowledge for Long-term Benefits and climate Adaption ThRough hOlistic climate Services and nature-based Solutions

Aim of the Project

The main objective of ALBATROSS is to strengthen climate resilience in different Sub-Saharan African (SSA) countries. This involves multiple actions supporting the implementation of climate adaptation plans and measures through advanced understanding of complex dynamics between climate-ecosystem-society and multiple vulnerability dimensions.

Project Description

ALBATROSS is built upon the recognition that climate resilience can only be achieved by adaptation and development policies and actions. The aim is to accelerate climate adaptation in Sub-Saharan Africa by co-creating, with local actors, novel Nature-based Solutions (NBS) and Climate Services as well as effective policy recommendations for several Sub-Saharan African countries. They will be grounded on reliable, user- and needs-tailored climate services combined with scenarios of socio-economic-environmental change. The aim is to accelerate climate adaptation in Sub-Saharan Africa by co-creating feasible and effective policy recommendations for adaptation together with local and national actors in five Sub-Saharan African countries: Ghana, Kenya, Tanzania, South Africa and Madagascar.

ALBATROSS is dedicated to advancing the understanding of the complex interactions between climate, ecosystems, and society, and their associated multidimensional vulnerabilities. The project aims to translate this knowledge into actionable guidelines and policy recommendations, integrate it into tailored climate services (CS) and decision-support tools, and co-design adaptation measures, with a particular focus on NBS that address the specific needs and vulnerabilities of local communities. Both the CS, designed to inform decision-making, and the NBS for accelerating climate adaptation in Sub-Saharan Africa will be developed in collaboration with local and national stakeholders. Emphasis will be placed on valuing indigenous practices and local knowledge already applied in the regions, ensuring that adaptation strategies are contextually relevant and culturally informed.

Funding and Timeframe

This project is being funded by the European Climate, Infrastructure and Environment Executive Agency.

Time frame: March 2024 to August 2027

Partners:



Location of the seven hubs of the project



(Retrieved from <https://albatross-project.eu/hubs/>, accessed on 12.03.2025)

Tree seedlings in Tamatave, Madagascar



(Picture by Genet Alem Gebregiorgis, 2025)

Flooding in Turkana, Kenia



(Picture by Genet Alem Gebregiorgis, 2024)

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Goals

The core scientific objective of ALBATROSS is to improve the understanding of the climate, ecosystem, and society nexus, and to apply this knowledge to design and implement evidence-based adaptation pathways in SSA. The research activities include:

- assessing current and future risks through integrated climate, ecosystem, and socio-economic analysis;
- co-designing locally tailored climate services and nature-based solutions;
- integrating indigenous knowledge and citizen data into models and decision-support tools;
- translating results into policy-relevant tools and guidance for multi-level adaptation planning.

The main responsibility of the Dortmund team is to coordinate Work Package (WP) 3 and lead Task 2.1 and 2.5 in WP2.

WP3 coordinates the mission definition and operationalisation of the ALBATROSS Climate Resilience Development (CRD) Network, establishing seven hubs across five Sub-Saharan African countries and structuring them as interconnected local, territorial, and transnational nodes. The CRD Network is a transnational structure based on the Living Labs concept. WP3 is devoted to assessing sectors that are highly vulnerable to climate change (e.g., energy water, food, urban development), co-creation and co-evaluation of CS, NBS and other adaptation options.

Tu Dortmund leads Task 2.1, which develops the methodological framework of ALBATROSS integrated model that captures cause-effect-feedback dynamics between climate change, human responses, and ecosystems as well as Task 2.5 that integrates the various components of the model and tests the interaction of and plausibility of different models on local climate responses and spatial analysis.

Work Packages

