

Climate Services For Risk Reduction in Africa

CS4RRA, 2023

Funders



Direction générale
de la recherche
et de l'innovation



In Cooperation with



Climate Services for Risk Reduction in Africa 2023 Webinar Forum with West Africa

- **Improvement of early warning system and adaptation measures for disaster risk reduction, Uni. Lomé, Lomé, Togo, September, 28, 2023**
- **Excessive water management, Uni. F.H.B., Abidjan, Ivory Coast, first week of November 2023**
- **Climate-smart agriculture and sustainable landscapes, Uni. K.N., Kumasi, Ghana, last week of November 2023**
- **Climate impacts and resilience under present and future scenarios, Uni. C.A.D., Dakar, Senegal, mid December 2023**

These multilateral webinars intend to:

- Strengthen climate resilience in Africa in order to raise awareness about climate knowledge, identify key services for adaptation to climate change and disaster risk reduction
- Examine potential areas for cooperation in research on climate risk management, resilience and adaptation in West Africa and thus defragment the programme landscape in favour of common goals and common impact of funding
- Describe pathways and priorities for research, innovation and capacity development in the area of Climate Services for Risk Reduction that contribute to the new Innovation Agenda between African Union and European Union
- Identify actionable and complementary steps to boost Knowledge, Innovation and Capacity via trilateral or multilateral joint calls or actions (South-South and South-North)

Partners



THE AFRICA-EU PARTNERSHIP
LE PARTENARIAT AFRIQUE-UE



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WEBINAR 2

Climate and environmental services for water excess management

Univ. Felix Houphouët Boigny, Bingerville, Côte d'Ivoire, November, 6, 2023

1. Overall concept

African countries are among the most vulnerable to climate change and are amidst those around the world facing many shared challenges which require sustainable solutions. West Africa has some of the highest urbanization rates in the world, particularly in coastal areas. Currently, one African in three lives in an urban area, and projections indicate that by 2035, one African in two will live in an urban area (source: United Nations). As a result, an increasing number of young men migrate, leaving women on the farm to face all the disadvantages and challenges of climate change. Destructive impacts of climate change like heat waves, droughts, floods and increasingly severe storms are the primary culprits behind decreased farming output and rising hunger in the continent. Rural people are facing serious long-term degradation of natural resources. Desertification, deforestation, high levels of crop and livestock diseases and pests, and unreliable and erratic rainfall make both agriculture and livestock risky enterprises. Agricultural and livestock productivity is low, leading to chronic poverty, food insecurity, and malnutrition. Added to high demographic pressure, the occurrence of high-impact meteorological events in a context of climate change and variability, will cause considerable social, economic and environmental damage. In addition, low levels of preparedness and a lack of clearly defined response measures exacerbate the negative impacts associated with extreme weather and climate events. Most of these frequent and severe natural disasters are weather-related. Of these, droughts, epidemics and floods are responsible for 99% of all fatalities. Heavy rains, floods and landslides are becoming increasingly common along the Guinean coast. The impacts are often amplified by anthropogenic pressure, with populations settling in informal, non-acidified areas, which are often low-lying areas or former rivers that have dried up and flood rapidly in the event of heavy rains. Moreover, a recent increase in extreme rainfall and ensuing fluvial flood events have caused fatalities and they are the costliest natural disasters in most West African countries. Hence, the ongoing regional climate change in the Sahel is influencing environmental processes and human well-being in a multitude of ways depending on the landscape, societal, economic, and political structure, institutional framework, environmental enabling policies, actors' knowledge, and ability to respond or adapt to changing and challenging historically grown conditions. To strengthen climate resilience in West Africa, better climate knowledge and services, including better early warning procedures, are required at regional and local levels both for Disaster Risk Reduction and Adaptation to Climate Change¹.

Following the examples of the recent European Climate Adaptation Conference and Climate Neutral Forum, it is proposed to organize:

- In 2023, a forum through a series of 4 in-depth webinars based on West-African hubs with African and European representatives on the area of Climate Services for Risk Reduction in West Africa and considering the three KIC (Knowledge, Innovation, and Capacity Development) angles.
- In 2024, a stocktaking conference based on West-African and European hubs to present results of the forum of webinars.

In this context, a regular cycle of four webinars and a stocktaking meeting are foreseen at the regional level. To this aim, it is proposed to co-design such events with West African partners from three complementary angles (quoted KIC below):

- *Knowledge of the regional climate system* at relevant scales for those working in the field within different sectors;

¹ See e.g. <https://www.sciencedirect.com/science/article/pii/S2212420918309373>

- *Innovation of climate services*, meeting the actual needs of sectors exposed to current and future climate change and aligned with the AU-EU innovation agenda;
- *Capacity building*, in particular for new African generations within the public and private sectors of the countries concerned.

The overall goals are to:

- strengthen climate resilience in Africa in order to raise awareness about climate knowledge, identify key services for adaptation to climate change and disaster risk reduction;
- examine potential areas for cooperation in research on climate risk management, resilience and adaptation in West Africa and defragment and thus, defragment the program landscape in favour of common goals and common impact of funding;
- describe pathways and priorities for research, innovation and capacity development in the area of Climate Services for Risk Reduction for longer-term EU (DE-FR)-West Africa cooperation which could be addressed in a joint call;
- identify actionable and complementary steps to boost KIC via trilateral or multilateral joint actions.

2. Objectives of multilateral hybrid webinars

The objectives of these multilateral hybrid webinars are to:

- Address particularly pressing issues in the area of Climate Services for Risk Reduction in West Africa focusing on Research, Innovation & Capacity Building, on coastal, urban and rural areas
- Identify priorities for joint vision and multilateral actions (South-South & North-South Cooperation)
- Feed a Stocktaking Conference in early 2024, including short-term actionable steps
- Contribute to African Union – European Union Innovation Agenda and climate change and sustainability education CCSE Partnership

3. 2nd WEBINAR: climate and environmental services for water excess management in West Africa

This second webinar aims to focus on, **Climate and environmental services for water excess management in West Africa and will be held at ACE CCBAD (African Centre of Excellence on Climate Change, Biodiversity and Sustainable Agriculture) in the University Félix Houphouët Boigny, Bingerville, Côte d’Ivoire on November, 6th, 2023.**

According to IPCC AR6 (2021, 2022), precipitation will significantly increase in countries of the Guinea Coast of West Africa and flooding mainly over coastal areas is likely to increase. Managing excess water in both rural and urban areas is crucial to mitigate the impact of floods, erosion, and waterlogging in agricultural areas, while also ensuring an optimal and sustainable water supply. However, effective water excess management requires a multidisciplinary approach that combines climate science, hydrology, infrastructure planning, and community engagement.

This second webinar of CS4RRA aims to highlight how climate and environmental services can play a vital role in providing the necessary information and supporting solutions to mitigate the impacts of excess water events and build climate resilience.

Session 1: A full session of the webinar will be focused on climate services and tools that can support water excess management:

- Weather/flood forecasting and warning systems (follow-up of webinar 1)

- Hydrological monitoring and flood risk mapping
- Climate models and scenario planning (improvement of surface hydrology and vegetation/land cover change)
- Climate resilience assessments
- Data and information sharing platforms for Decision Support Systems (DSS) using climate and hydrological data to assist decision-makers in choosing the most effective water excess management strategies and help optimize reservoir releases, flood defenses, and evacuation plans.
- Customized climate and environmental services for specific sectors such as agriculture, urban planning, and water resource management, to address sector-specific water excess challenges.

Session 2: Acknowledging from webinar 1 that water excess management is a multifaceted challenge that requires a combination of engineering, environmental, regulatory, and community-based approaches, another session will be dedicated on tailoring solutions to specific local conditions and involving the community in planning and preparedness efforts and strategies for managing excess water:

- Floodplain zoning and land use planning
- Dikes and dams
- Retention and detention ponds
- Green infrastructure
- Channelization and river management
- Stormwater management
- Elevation and relocation
- Natural flood control measures
- Insurance and risk management

In both sessions, the 4 issues below will be discussed:

- Capacity building and training for local authorities, emergency responders, and community members to improve their understanding of water excess risks and management.
- Public awareness and education through public outreach and education campaigns to raise awareness about water excess risks and encourage preparedness among the general population.
- Research and innovation gaps and priorities to support the development of more accurate climate and environmental services and tools for water excess management.
- International cooperation to foster collaboration between neighboring countries to develop shared strategies for managing excess water and addressing transboundary water issues, and to contribute to secure funding and resources from both domestic and international sources to implement and sustain these strategies.

Format and activities

This hybrid webinar (in-situ and virtual) will be for one day. Attendees will be able to participate either on-site (physically) or virtual. The webinar will be divided into i) opening ceremony; ii) plenary session, iii) two parallel round table sessions (panel discussion). The plenary session will be made up of one moderator and 4 keynote speakers. Each panel session will be made up of one moderator and 5 speakers.

Speakers, moderators and reporters

Institutions	Speakers	Meeting
KIT	Andreas FINK	Keynote speaker Plenary panel discussion
USD and WACWISA	Felix ABAGALE	Keynote speaker Plenary panel discussion
Kyoto Protocol and Water Academy	Marc-Antoine MARTIN	Keynote speaker Plenary panel discussion

OECD	Juliette LASSMAN	Keynote speaker Plenary panel discussion
Technical university of Munich	Markus DISSE	Parallel session 1
IRD	Christophe BOUVIER	Parallel session 1
KIT	Harald KUNSTMANN	Parallel session 1
IRD	Guillaume FAVREAU	Parallel session 1
University of Ottawa	Ousman Seidou SANDA OR	Parallel session 1
Sahara and Sahel Observatory	Abdelkader DODO	Parallel session 1
KNUST	Sampson ODURO-KWARTENG	Parallel session 2
CEA-CCBAD and Swiss center for scientific research in Ivory Coast	Dongo KOUASSI	Parallel session 2
Ville de Dakar	Abdoulaye SYLLA	Parallel session 2
University of Liege	Aurore DEGRE	Parallel session 2
CEA-2iE	Dial NIANG	Parallel session 2
WMO	Daouda KONATE	Plenary panel discussion Moderator
CNRS/IGE	Sandrine ANQUETIN	Parallel session 1 Moderator
WASCAL	Julien ADOUNKPE	Parallel session 2 Moderator
CEA CCBAD	Mbo KACOU	Reporter 1
CEA CCBAD	Jean AMARY	Reporter 2
CEA CCBAD/LMI NEXUS	Bamba ADAMA	Reporter 3
CEA CCBAD	Vincent Junior KABLAN	Reporter 4
WASCAL	Kehinde OGUNJOBI	Plenary session Reporting & closing remarks
CEA CCBAD	Cherif MAMADOU	Plenary session Reporting & closing remarks

Targets and invitations to attend the webinar physically or online

The organizations, institutions and groups targeted specifically to attend this webinar are: researchers, WMO, Red Cross, decision-makers, NGOs, Representatives of higher and school education, WASCAL graduate schools, National Emergency management agency (NEMA), National Meteorology and Hydrological agencies, West African Health Organization, relevant ministries and departments (hydro, agriculture, health, etc.) and agencies for policy guidelines, CoC scientists, African Centre of Excellence and WASCAL GSP students, and Alumina.

4. The local Organizing Committee

The Local Organizing Committee is in charge of the organisation and operationalization of the webinar in Abidjan, Côte d'Ivoire. This committee comprises, IRD, African Centre of Excellence on Climate Change, Biodiversity and Sustainable Agriculture (CEA-CCBAD), WASCAL Côte d'Ivoire, University Félix Houphouët Boigny and Nangui Abrougoua, ONPC, SODEXAM, Red Cross Cote d'Ivoire, GIZ with the support of the Ministry of Higher Education and Scientific Research, Ministry of the environment and sustainable development, Ministry of the interior and civil security and Ministry of Water and Forest.

5. Practical informations

- **Venue:** Auditorium of African Centre of Excellence on Climate Change, Biodiversity and Sustainable Agriculture, Bingerville, University Félix Houphouët Boigny, Côte d'Ivoire
- **Date:** October, 6, 2023
- **Time:** 9:00-15:30 (UTC+0), Côte d'Ivoire time
- **Website and registrations for attendance online:** <https://events.wascal.org/event/2/>