



CLIMAFRI Newsletter Vol. 1



December 2019

Dear Readers,

Since the official start of the CLIMAFRI project on 1st April 2019, our international consortium of 10 partners from academia, the private sector and governmental institutions in Germany and West Africa work together towards reducing current and future flood risk in the transboundary Mono river catchment of Benin and Togo. CLIMAFRI is designed in a way that scientific data are integrated with information and knowledge from multiple stakeholders at national and local level as well as from flood-affected communities in the catchment.

During the first 9 months, the CLIMAFRI team has already engaged with more than 100 different stakeholders during two field-based activities and workshops in Benin and Togo. Our vision is to develop a river basin information system, which supports the mandated authority in planning risk reduction and adaptation measures and be prepared for future scenarios of climate change in the Lower Mono catchment.

We now would like to look back and share with you some highlights of 2019 and look forward to what the new year 2020 will bring in the CLIMAFRI project. Throughout all activities, stakeholder engagement is at the center of CLIMAFRI and we would like to say THANK YOU to all stakeholders who collaborated with us so far for their invaluable support, engagement and contribution to the project. We very much look forward to continue this collaboration and see you again in 2020.

Warm holiday greetings and best wishes for 2020!

Yvonne Walz (on behalf of the CLIMAFRI Team)

CLIMAFRI

Implementing **CLIM**ate-sensitive Adaptation strategies to reduce **Flood Risk** in the transboundary Lower Mono River catchment in Togo and Benin

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Pictures

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Retrospect 2019

CLIMAFRI kick-off week with field trip

June 2019: The CLIMAFRI kick-off was dedicated to learning: Getting to know the partners, getting to know the research area and getting to know the stakeholders and their specific roles in the context of water and risk management.

The CLIMAFRI consortium consists of 10 partner institutions – 5 African and 5 German - that operate in diverse fields such as research, policy making and the private sector. And within all of the partner institutions, several people are working on CLIMAFRI. Consequently, the CLIMAFRI team consists of many people. To make sure that the collaboration works as smoothly as possible, to make use of possible synergies and to take advantage of this diversity within the team, it is crucial that the people involved know each other and get a common understanding of the aims and objectives of CLIMAFRI.

Against this background, we spent one week in Benin and Togo for kicking-off the CLIMAFRI project. It started in Lomé with a day-long meeting of the project consortium, where all partners presented themselves, their expertise and their work packages within CLIMAFRI. Please see the box “Relevant Links and Documents” on p. 8 to find the link to the CLIMAFRI partner booklet, where everyone is introduced.



Group photo of CLIMAFRI partner meeting

The second and third day were dedicated to getting to know the research area. This is why the team went on a field trip to the Mono Basin – starting at the Nangbeto dam and then going south all the way to the mouth of the Mono river. Along the way we met with the Nangbeto dam management, local governments and flood affected people from the communities of Kossi Kope (Togo), Athiémé (Benin), and Agbanakin (Togo), which helped the team to get a good understanding of the situation on the ground and start the connections as basis for the participatory approach envisioned in CLIMAFRI. The field trip was also very helpful to get a common understanding and grow together as a team in CLIMAFRI.



Left: The Nangbeto Dam marks the beginning of the study area (Lower Mono River Basin)

Right: CLIMAFRI researchers look at a house in Agbanakin, where marks from the last flood are visible

The aim of the fourth day was to get to know CLIMAFRI stakeholders and to introduce the project to them. At this point, we aimed to start the process of co-designing and co-developing CLIMAFRI activities, which is at the center of the project. During a workshop on the WASCAL premises in Lomé, the stakeholders and the partners came together and discussed on the one hand the project outline and aims, and provided their views on existing challenges in both Benin and Togo related to flood risk and water management in the Mono basin.

CLIMAFRI workshop series in Benin and Togo

October 2019: CLIMAFRI Team experienced a major flooding in the study area



Flooding in the lower Mono River Basin

“It is important to be here to sense the human dimension of the disaster. More than a research question or human curiosity, we have to see the human dimension of the problem” said Maxime Rushemuka, a PhD student at UNU-EHS doing his research within the CLIMAFRI project, while visiting Athiémé. In October, a team consisting of 4 researchers from German institutions, a researcher from University Lomé and one from the Red Cross Togo visited the Lower Mono river basin during the maximum peak of flooding in October 2019 (see more information below). The aim was to conduct workshops to identify key drivers of vulnerability and risk in collaboration with the local communities. Through the flooding situation taking place in that moment, their experience was enlarged by not only getting inputs from the stakeholders, but also seeing the flood firsthand. Victor Kpokpoya, PhD researcher at the University of Bayreuth said: “We could really realize the level of the damages and the impact of the flooding here in the area.”

During this week in Togo and Benin, the team also conducted a stakeholder workshop in Benin, where they worked with key actors to identify risks, exposed elements, and drivers of vulnerability to flooding. Furthermore, many bilateral meetings between the CLIMAFRI team and local partners such as the Universities of Lomé and Abomey-Calavi as well as the Ministries of Environment, the Red Cross of both Benin and Togo, the National Agency of Civil Protection of both Benin and Togo, as well as the Directorate of Water took place. These meetings resulted in fruitful discussions and are key to the success of the work of CLIMAFRI.



*Left: Stakeholder workshop on drivers for vulnerability in Batonou
Right: Flooded fields, where farmers lost their basic livelihoods*

CLIMAFRI at COP25 in Madrid

December 2019: CLIMAFRI was introduced at the side event “Water Management/Flood Risk Reduction”

“It is so essential to continue the discussions between scientists and policy makers to produce relevant science-based outputs” said Yvonne Walz when presenting CLIMAFRI at the UNFCCC Conference of the Parties 2019 in Madrid. The whole CLIMAFRI project is designed around the research-policy nexus, which was demonstrated through the presentation where both Yvonne Walz (UNU-EHS Researcher and Project Lead) and Akpamou Kokouvi Gbétey (Ministry of Environment, Togo) presented CLIMAFRI on the panel. The main output of CLIMAFRI will be a river basin information system, which is filled with scientific information, but directly usable for policy makers. Kokouvi Gbétey added: “I believe that this project is a good opportunity for the government to collect and make available important information and data for decision making in disaster management, specifically floods in lower Mono River Basin”. The CLIMAFRI presentation was within the frame of the side event “Water management / Flood Risk Reduction” at the COP 25 in Madrid.



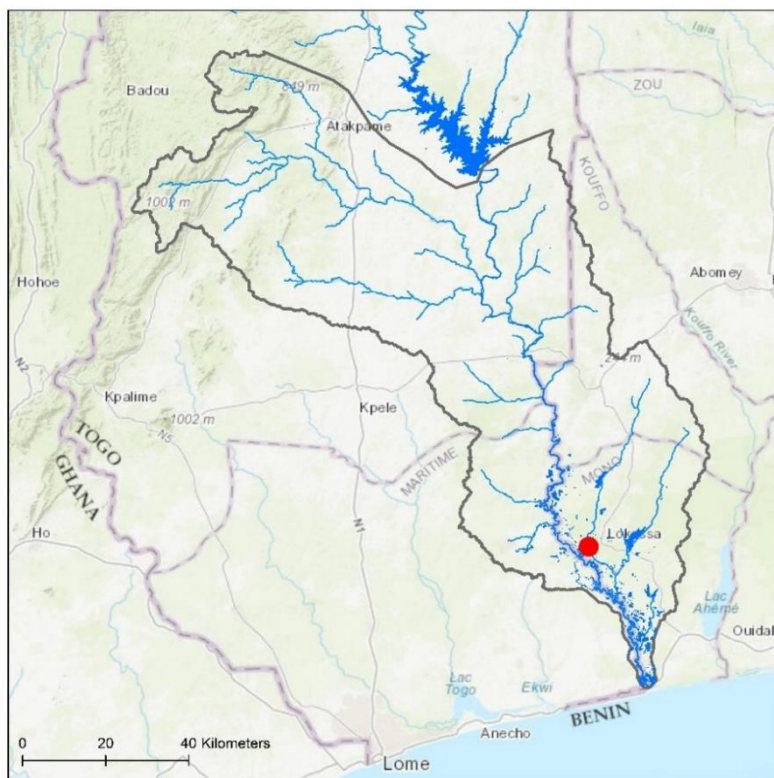
Yvonne Walz and Akpamou Kokouvi Gbétey presenting CLIMAFRI at the UNFCCC COP25 in Madrid

Mono River Flood 2019



Comparison of flood levels in Athiémé (see red dot on map) in June 2019 (left) and October 2019 (right). The water level of Mono was more than 5 m higher in October 2019 compared to June 2019.

In October 2019 one of the biggest floods from the recent years occurred in the lower Mono River Basin. We learnt that the return period of floods has reduced in recent years as stated by several members of the communities we visited. It used to be about five years, but now they experience flooding nearly every year. The community of Athiémé (Benin) for example said, that the flood took them by surprise this year, as they had expected it in July, which is according to the climate diagram also the peak of the rainy season in this region. This shift of the peak of flooding, an increasing severity and frequency of flooding is perceived largely by the local population and authorities. And increases the current and future risk for people to lose all their basic livelihoods. The map below shows the extent of the 2019 October flood, which affected more than 50.000 people according to the Africa News.



October 2019 Flood

- Flood Extent
- Lower Mono River Catchment
- Mono River and Tributaries
- Athiémé

Data Sources:

Background image: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), ©OpenStreetMap contributors, and the GIS User Community
 Flood Layer: Cumulative Flood Layer for the time frame 1st October until 17th November 2019,
 © German Aerospace Center, DLR 2019

CLIMAFRI PhD Students

Several young and highly motivated researchers, mainly from Africa, are conducting their PhD studies within the CLIMAFRI project. Capacity building is essential to ensure sustainability of the CLIMAFRI project and capacity is there to uptake outputs of the project in the region. The following PhD students are already on board and will extensively work in and with the region, however, more will follow as CLIMAFRI will integrate further PhD students from the WASCAL PhD program in Lomé and Abomey-Calavi, which has just started in October 2019 (see more information below):

Rholan Houngue – University of Bonn



PhD Topic: Impacts of Climate and Land Use Change in the Management of a Transboundary Basin - Case of the Mono River Catchment

Unlike other catchments in Western Africa, few research studies were carried out in the Mono River catchment, in spite of substantial loss and damages recorded at the downstream due to flooding. Therefore, I would like to contribute to flood risk reduction and management in the Lower Mono River catchment by assessing flood hazards under climate and land use change scenarios, while accounting for the transboundary nature of the catchment. My PhD research will provide insight based on hydrologic and hydrodynamic modeling, and it will seek effective cooperative management approaches for a sustainable management of the catchment by the riparian countries.

Victor Kpokpoya - University of Bayreuth

PhD Topic: Social innovation research and sustainable engagement of local actors in climate change process: Investigating innovative communication strategies for the implementation of climate-sensitive adaptation strategies to reduce flood risk in the transboundary Lower Mono River catchment in Togo and Benin

As a native of the target research zone that is studying abroad, I am very glad to conduct my PhD research in the framework of the CLIMAFRI-Project in the Mono River catchment. My wish and my aim is to contribute to the strengthening of the important role of the local actors in the process of climate change adaptation measures. A main focus is the participation of local actors to the flood risk management regardless of their language, religion, socio-economic status or educational level, as their position has been more or less neglected up to now.



Maxime Rushemuka – UNU EHS



PhD Topic: Assessing the role of ecosystem-based approaches in disaster risk reduction: the case of flood risk management in the transboundary lower catchment of Mono River.

In this finishing decade, the Mono River catchment has experienced severe flood events and there is high probability that the trend continues in the next one. It is an interesting endeavor to explore the possibility of nature-based solutions in reducing the risk of flooding for the riparian population.

Simon Wagner – UNU EHS

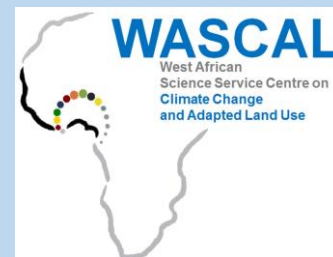
PhD Topic: Assessing the potential role of insurance mechanisms in adaptation strategies - Reducing residual flood risk in the transboundary Lower Mono River catchment in Togo and Benin.

I am highly motivated to research the possibility of a socially accepted insurance mechanism, which helps to alleviate the adverse financial impacts of flood events in an integrated manner with other adaptation activities. Therefore, the needs, demand, and acceptance for such a mechanism will be investigated in my research project. By researching the setting of the Lower Mono River basin, it will be highly interesting also to assess if such mechanisms could be feasible in a transboundary context and which forms they could take on.



Collaboration with WASCAL PhDs

WASCAL Togo hosts a doctoral program on climate change and disaster risk management and WASCAL Benin a doctoral program on climate change and water resources. In October 2019, a new cohort of PhD students from all over West Africa started to pursue their PhD in one of these programs. We are looking forward to welcome selected candidates after the PhD course program in July 2020 to become part of the CLIMAFRI team and write their PhD on a CLIMAFRI related topic with supervision and guidance from experts of the African-German CLIMAFRI team. The call for interest is closed and the selection process of WASCAL CLIMAFRI PhDs is ongoing at the moment.



Outlook 2020



April and May 2020

Fieldwork

A CLIMAFRI team will travel to the Lower Mono river basin to conduct household surveys, measure cross sections of the river bed, and interview local and national stakeholders.

Stakeholder Workshops

... will take place in Benin and Togo to verify preliminary results of the flood risk assessment and start planning potential adaptation scenarios.

May 2020



Data analysis and information system prototype

In 2020, the scientific data and information from participatory approach will be analyzed and integrated into a first prototype of the river basin information system.

Stakeholder Workshops

... are planned in 2020 to derive scenarios of land use change and adaptation.

Relevant Links & Documents

- › Transboundary governance collaboration for environmental measures at Adjarala Dam:
<https://www.eia.nl/en/projects/099-i>
- › Benin is upscaling preparations for climate change:
<https://reliefweb.int/report/benin/benin-scales-preparations-climate-change-advancing-its-national-adaptation-plan>
- › CLIMAFRI site on the project overviews of BMBF Client II funded projects (English and German only):
<https://www.bmbf-client.de/en/projects/climafri>
- › CLIMAFRI Video on Youtube:
<https://www.youtube.com/watch?v=7k6zJCdaMC4>
- › CLIMAFRI Partners introduction booklet:
<https://uni-bonn.sciebo.de/s/XX57eZlgf21ttfH>

Project Overview

CLIMAFRI Project Summary

The overall objective of the CLIMAFRI project is to co-develop and co-implement adaptation strategies for sustainable management of flood risk and natural resources in the transboundary Lower Mono River catchment. The specific scientific and technical objective of the consortium is to collaboratively establish a river basin information system through the integration of science-based data with information and knowledge from local stakeholders and communities. To achieve the sustainable implementation of the river basin information system, it is a key objective of CLIMAFRI to train professional staff on multiple scientific and technical aspects during the process of establishing the information system and to embed the information system within the responsible authority(ies) in the (transboundary) region.

Project Partners

Germany:

- › Björnson Consulting Engineers GmbH,
- › Center for Development Research,
- › United Nations University – EHS,
- › University of Bayreuth,
- › University of Bonn,

West Africa

- › Ministry of Environment, Sustainable Development and Nature Protection (Togo),
- › Ministry of Living Environment and Sustainable Development (Benin),
- › Université d'Abomey Calavi (Benin),
- › Université de Lomé (Benin),
- › WASCAL (Ghana, Burkina Faso)

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<https://www.bmbf-client.de/en/projects/climafri>

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