



ADAPTATION FUND

Project: "Integrating flood and drought management and early warning for climate change adaptation in the Volta Basin"

(VFDM Project)

Third session of the Technical Advisory Committee of the VFDM Project, Accra on December 02, 2022



Report

Implementing Partners



TABLE OF CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS	3
INTRODUCTION	4
I. Introductory elements to the session.....	4
II. Presentation of the status of implementation of the recommendations and the level of progress of the project activities.....	5
III. The execution status of activities since the second session	5
3.1. Completed activities	5
3.2. Activities in progress (Component 1 and 2).....	6
IV. Presentation of the financial execution status of the project.....	7
V. The encountered difficulties	8
VI. Exchanges around the presentation of the level of execution of the project.....	10
VII. Presentation of the findings of the Adaptation Fund monitoring mission	11
VIII. Future stages of project implementation	11
IX. Recommendations, Votes of Thanks and Decision Making by PTAC Members.....	13
X. Date of the next session of the PTAC.....	14
Conclusion and Closing of the 3rd session of the PTAC of the VFDM Project	14
APPENDICES	15
ANNEX 1: Terms of reference for the third session	17
APPENDIX 2: List of Participants	21

LIST OF ACRONYMS AND ABBREVIATIONS

VBA	Volta Basin Authority
ANAM	National Meteorological Agency of Burkina Faso
ANPC	National Agency for Civil Protection of Benin
SUEC /DGWater	Water Use Monitoring and Control Service / General Directorate for Water
EMRC	Water Resources Management Center
ECOWAS	Economic Community of West African States
CIMA	CIMA Research Foundation
CILSS	Permanent Interstate Committee for Drought Control in the Sahel
CREWS	Community Resilience Through Early Warning
PTAC	Advisory Technical Committee
DEPH	Direction <i>evaluation and hydraulic heritage</i> .
DGPC	Directorate General of Civil Protection
DGRE	Directorate General of Water Resources
DNH	National Directorate of Hydraulics of Mali
WEF	Global Environment Facility
GCF	Green Climate Fund
GLOFAS	Global Flood Awareness System
GWP-AO	Global Water Partnership West Africa
WMO	World Meteorological Organization
NGO	Non Governmental Organization
ONPC	National Office of Civil Protection
PPR	Project progress report
EWS	Early Warning System
NMHS	National hydrological and meteorological services
SODEXAM	Airport, aeronautical and meteorological operation and development company in Cote D'Ivoire
BENIN METEO	National Meteorological Agency in Benin
SP-GIRE	Permanent Secretariat for Integrated Water Resources Management
VFDM	Volta Flood and Draft Management
WASCAL	West African Science Service Center on Climate Change and Adapted Land Use.
WRC	Water Resources Commission

INTRODUCTION

The third session of the hybrid VFDM PTAC meeting was held on December 2 in Accra. It was chaired by a meeting bureau composed of a President, a Vice-President and rapporteurs. The meeting started at 9 a.m. and ended around 2 p.m. GMT.

The general objective of the third session of the PTAC was to present and review the progress of the VFDM project, mainly the project activities carried out in collaboration with the national and regional agencies of the countries of the Volta Basin. Specifically, this involved (i) providing inputs to the results of the Adaptation Fund project monitoring mission by proposing modalities for project implementation, coordination at regional, national and local levels, and for the improvement of the Project's impacts on stakeholders and beneficiaries, (ii) analyze the effectiveness and applicability of the results of the implementation, (iii) identify the challenges encountered and the way forward.

The following sequences marked the third session:

- The opening session of the PTAC;
- Overview of the progress of the VFDM project, including challenges encountered and lessons learned. It was followed by the presentation of the MyDEWETRA VoltAlarm platform by the CIMA Research Foundation.
- Presentation of upcoming activities
- Presentation of the mission of the Adaptation Fund
- Exchanges on presentations
- Fixing of the Date of the next session.
- Recommendations, motions of thanks

I. Introductory elements to the session

Four (4) addresses and one speech were delivered at the opening of the session. These are speeches by Mr. Giacomo Terrugi of the World Meteorological Organization, Mr. Armand HOUANYE, Executive Secretary of the Global Water Partnership in West Africa, Mr. Robert Y. DESSOUSSASSI, Executive Director of the Authority of the Volta Basin and the representative of WRC.

On the whole, we note that the third session of the PTAC, which is taking place six months before the initial end of the project, was very important. It is an opportunity to review the execution of the project to date, assess the results and propose recommendations for the completion of activities and the management of post-project results. Some people wanted to see the duration of the project extended by at least a year to catch up with the delay caused by COVID 19 Pandemic.

II. Presentation of the status of implementation of the recommendations and the level of progress of the project activities

At this third session, the status of implementation of the recommendations resulting from the second session could not be examined.

III. The execution status of activities since the second session

A status report on activities was presented by the project team through a presentation available here [French](#) and [English](#)

The VFDM project execution state looks like this:

3.1. Completed activities

Component 1:

- ✓ The national consultation reports with the action plan are available through the 6 national workshops;
- ✓ Study for mapping local vulnerabilities, exposure and capacities in the 60 sites – completed;
- ✓ Field study reports and the Volta-atlas are available;
- ✓ Assessment of environmental and ecosystem services related to floods and drought and management and guidance document developed to improve ecosystem services;
- ✓ The impact on indicators of environmental and ecosystem services is assessed (the regional workshop has been completed and two reports are ready for finalization);
- ✓ National workshops to build capacity on nature-based solutions and to develop a concept note with recommendations for bankable project proposals (August-September 2021) – completed
- ✓ Conducting survey and consultation meetings with national stakeholders (IT experts and DB) to develop a centralized database and IT infrastructure to access the VoltAlarm. Reports developed and requirements finalized. A capacity building plan for the national structures of the early warning chain is being developed.

All the activities related documents are available here: <https://www.floodmanagement.info/volta-basin/deliverables/>

Component 2:

- ✓ Implementation of the SAP Floods and Drought at the scale of the Volta Basin <https://volta.myDewetra.world> (In progress)
- ✓ Risk and climate scenario maps have been developed and are available. Flood and drought Risk Profile has been prepared and shared with national and regional stakeholder, policy recommendations have been also developed
- ✓ National training workshops (8) for gender mainstreaming in E2E-EWS-FF and IFM (August – October 2021) 8 national workshops are organized.
- ✓ Capacity Development Course on E2E-EWS for Flood and Drought Management;
- ✓ Capacity building of actors in the Volta Basin on gender mainstreaming in flood risk management (8 national workshops – completed)
- ✓ Capacity Development of National and Regional Agencies on Flood and Drought Management Course (4 Distance learning courses completed, 1 distance learning course in progress plus regional training): e-learning courses on basic and advanced hydrology, geospatial information and drought monitoring and outlook are conducted (more than 200 people have passed and received certificates)
- ✓ Generation and dissemination of EWS information, decision support system and response to alerts
- ✓ Training of technicians for data collection and management
- ✓ The set-up and maintenance of the VoltAlarm system (ongoing until the end of the project)
- ✓ The integration of data and products from existing projects (FANFAR, Oti-basin, White Volta, CREW etc.) into VoltaAlarm
- ✓ Set-up an action plan for developing an operational impact based flood forecasting system based on Continuum model, national data and risk profiles developed by CIMA
- ✓ Conduct of six (6) national workshops and one regional training workshop on Nature-Based Solutions and development of a regional program (exchanges with the Focal Points representing the various Funds in progress).
- ✓ Implementation of community flood and drought management initiatives in six (6) pilot sites partially-complete

3.2. Activities in progress (Component 1 and 2)

- ✓ Community flood and drought management activities in the 6 local sites; they should have ended since September but on certain sites the activities continue. Several NGOs are planning capitalization and results sharing workshops. Capitalization documentations are either edited or in the process of being edited.

- ✓ Local meteorological stations are installed in five (5) countries except in Mali. Arrangements are being made to make this station available at the pilot site to fulfill its intended functions and help communities prepare to minimize the impacts of floods and droughts on their lives and means of subsistence;
- ✓ The VoltAlarm EWS currently contains global products and information available worldwide as well as flood and drought risk maps in current and projected climate scenarios developed for different indicators for the Volta basin, hazard data for weather and hydrological monitoring and forecasting and exposure data for the region, risk data for 60 sites based on local vulnerabilities, exposure and capacity mapping <https://volta.myDewetra.world>
- ✓ A regional technical working group has been composed for the development of VoltAlarm, the WG is composed by 1 representative from met dep, 1 for hydro for each country and 2 representatives from ABV. The group will be the core team for the development and configuration of VoltAlarm and implementation of the Impact Based forecasting system based on Continuum model.
- ✓ National workshops were organized to present risk maps and collect recommendations on long-term risk prevention and management strategies;
- ✓ The VoltAlarm System is in operations and new data will be integrated;

3.3 Component 3 (on-going activities)

- ✓ Decision support and policy development for strengthening resilience at the local, national and transboundary levels of the Volta Basin- **on-going**
- ✓ Strengthened capacities of actors and decision makers at national and transboundary level on long term risk management policies, plans and strategies – **to be started**
- ✓ A local collaborative process to ensure those policies and strategies are accepted by the local organization and communities and adapted to the local context – **to be started**

IV. Presentation of the financial execution status of the project

The state of financial execution to support the realization of the various activities of the project was presented. It looks like this:

- Implementation of VFDM project activities as well as project management and execution costs (June 2019-July 2022):
- Amount received from the Adaptation Fund: 7,122,000 USD (\$)

- Amount spent so far: 3,131, 246 USD (\$)
- Amount with obligations: approximately USD 1,000,000 (to be paid to project implementing partners and external technical partners)
- Unspent amount: : **2,990, 754 USD (\$)** *

*To be spent on activities that have not been launched due to the COVID-19 pandemic situation and delays encountered in the implementation of Year Two activities as well as Year Three activities.

V. The encountered difficulties

The implementation of the project encountered a number of difficulties, the main ones being as follows:

- The start of the Covid 19 pandemic with travel restrictions for project partners;
- Unstable security situations in Burkina Faso and Mali.
- Real-time data sharing between national agencies and regional authorities.
- Joint support and commitment of various agencies/partners at national, local and regional level (negotiation of sometimes tight agendas).
- Liaison and connection of the various activities/sub-activities with other ongoing projects or initiatives in the Volta Basin countries.

Situation of the COVID-19 pandemic:

- Travel restrictions imposed by countries and globally (restarted)
- Many activities were carried out virtually
- Regional and national technicians and experts provided support after the trainings of external partners.
- Application for a free one-year extension to the Adaptation Fund

Implementation at national level:

- Focal points from WMO, VBA and GWP-WA support the implementation of activities at national and local level
- Many workshops are organized in parallel and/or back-to-back ensuring cost effectiveness
- Global data and information should be used but will not help develop specific products

Mitigation measures used

In relation to the situation of the COVID-19 pandemic, many activities took place virtually; regional and national technicians and experts provide support after the training of external partners.

Compared to implementation at the national level:

Focal points from WMO, VBA and GWP-WA support the implementation of activities at national and local level; many workshops were organized in parallel and/or face to face; data and information at the global level have been used to compensate for the difficult access to national data but will not allow the development of precise products.

VI. Exchanges around the presentation of the level of execution of the project

The presentation of the execution to date gave rise to comments and questions which could be grouped around the following areas of interest:

- 1) What is the technical and financial execution rate of the project?
- 2) What is the level of acquisition of IT hardware equipment for establishment of the centralized database and capacity building of national structures in charge of data and information collection in the six (6) countries?
- 3) What is done for the appropriation of the MyDEWETRA Voltalarm platform and the level of involvement of the actors concerned (ABV, Country, etc.)
- 4) Sharing of VFDM project and outputs at West African or African levels so as to improve visibility and develop synergies with other on-going initiatives
- 5) Support to the Hydro-meteorological station maintenance in the Six countries for improved observational data for the EWS
- 6) How are the pilot sites selected and when the pilot testing will commence?

Satisfactory response have been provided to all these questions, such as:

- 1) The implementation rate of project activities is estimated between 50 to 60%. It represents about two (02) years of implementation out of four (04) taking into account the delays recorded in the effective start and caused by the disruptions due to COVID 19 and recurrent socio-political crises. The execution rate mainly concerns the implementation of the first two components. Much of the third component (i.e. governance) is planned for the last period of the project duration as it will incorporate the lesson learned, experiences from the first two components.
- 2) WMO as part of donor agreement has followed and completed the procurement process for acquiring hardware to establish the centralized database in the Six countries. The delivery is expected to be completed before end of January 2023
- 3) VFDM project team and partners have involved the national focal points working in the forecasting and early warning system ensuring the developed products are tailored to the needs of the Country and regional EWS. Countries have agreed to share with WMO and CIMA all relevant meteorological and hydrological data for the calibration of the hydrological model for Volta basin. The Met service of Ghana has also offered their WRF model as input data for the hydrological forecasting system; the team confirmed that Continuum can integrate WRF output and the integration will be explored further (WRF must runs in operational mode).
- 4) VFDM project team has agreed and requested National agencies to disseminate project activities, outputs at various conferences, workshops, meetings to improve the visibility

- 5) VFDM project is more on developing concrete adaptation strategies and not on supporting installation or maintenance of the meteorological and hydrological station. It is requested that the national agencies are supporting the maintenance and installation of stations through the funding available from their regular budgets or from other financial institutions.
- 6) The 10 pilot sites were selected during the project development based on the consultation of regional institutions (VBA, GWP-WA) and national agencies. Following the inception workshop, the sites were agreed upon by the national stakeholders. It is expected to start the pilot testing of EWS by August 2023 once the hydrological modelling and impact based forecasting system is developed and operational for the Volta Basin.

VII. Presentation of the findings of the Adaptation Fund monitoring mission

As a reminder, the Adaptation Fund follow-up mission took place between 21 November 2022 and 02 December 2022 in three countries (Benin, Cote d'Ivoire and Ghana).

Several meetings with the implementing partners, together with the national Focal Structures as well as with certain political authorities of the countries visited including community visits in Benin and Ghana.

At the end of their mission, Adaptation fund informed everyone about their satisfaction with the results they saw at the national level as well as in the field particularly on the two sites of Tabota in Benin and Kunkua in Ghana. On the two sites, they were able to appreciate a certain appropriation, social mobilization and awareness of the actors in taking charge of the management of the risks of floods and drought in their daily activities. This would allow them to avoid, if not minimize, the material losses and sometimes human lives losses caused by these two extreme phenomena.

They also had to measure the expectations of the communities with regard to supporting them in the implementation of investment actions such as opening up, the creation of water collection and management works, the development of spaces agriculture and forestry, etc.

VIII. Future stages of project implementation

They relate to the continuation of the activities of the project for the remaining of the duration of the project. The main ones are:

- Installation of centralized national databases in the six Volta Basin countries – ongoing
- Run and maintain the VoltAlarm system and develop the VOLTALARM operational manual including a proposal of procedures and responsibilities

- Development of Volta Drought monitoring and Flood forecasting impact-based system, based on Continuum and Risk Profiles
- Drafting of flood risk management strategy report prepared and shared with countries (discussion at national workshops – on-going)
- Capacity building on new monitoring and forecasting products, bulletins and VOLTALARM through regional workshops (first one scheduled for the end of January 2023) with the Regional actors and National Technical Points (Hydrology, Meteorology, Disaster Management, including one Regional Workshop with National Agencies forecasters (with alert mandate) tentatively scheduled for July 2023 <https://volta.myDewetra.world>)
- Develop the centralized database (via procurement) and create links with existing databases for information collected on VCER
- Maintain the cloud based VOLTALARM system -**In progress**
- Decision support and policy development for building resilience at the local, national and transboundary levels of the Volta Basin-**In progress**
- Capacity building of actors and decision-makers at national and cross-border levels on long-term risk management policies, plans and strategies –**to be started**
- A process of local collaboration to ensure that these policies and strategies are accepted by the organization and local communities and adapted to the local context -**to be started**
- The VFDM project is constantly building synergies and complementarities with several other projects (Flood and Drought Management Tool (FDMT), **Oti Basin and White Volta FEWS and CREW in Ghana, Hydro-met project in Burkina Faso**) or ongoing projects and initiatives (CREWS Togo and West Africa component) both at national and regional level.

IX. Recommendations, Motions of Thanks and Decision Making by CLC Members

Recommendations and motions of thanks were recorded

The recommendations include the following:

- 1) At WMO, in collaboration with VBA and GWP-WA, to accelerate the acquisition of IT hardware and other equipment for the strengthening and improvement of the functioning of centralized national databases;
- 2) Negotiate a project extension period in order to be able to use the remaining budget and meet unfinished needs given the delay;
- 3) Promote synergy of action between the different programs and projects;
- 4) Focus on face-to-face training;
- 5) Take stock of training opportunities by the end of the project
- 6) Reorient certain activities if possible. For example, increase investments in pilot sites;
- 7) Promote the value chain of governance for sustainability;
- 8) At WMO, with VBA and GWP-AO, prepare the project work plan until June 2024;
- 9) To the Implementing/Executing Agency (WMO), in collaboration with other regional and national implementing agencies to accelerate the pace of implementation of project activities and report on actions taken with progress made at the next PTAC meeting;
- 10) At the VBA, with the support of WMO and GWP-WA within the framework of the implementation of the project and in collaboration with the partners concerned to take the necessary measures to develop and finalize the Regional Adaptation Strategy and resilience to floods and drought impacts in the Volta Basin by June 2023 for submission to the VBA Ministerial Council;
- 11) To VBA, in collaboration with WMO and GWP-WA, with relevant partners to prepare the next phase of the project by the end of 2023 and mobilize funding for its implementation;
- 12) To the WMO, in collaboration with the partners involved, to ensure that the demonstration stage of the EWS VoltAlarm is finalized to prepare the full-scale test during the following rainy season;
- 13) At WMO, in collaboration with VBA and GWP-WA, to ensure that the VoltAlarm early warning system is in operation with the modality agreed in the Regional Workshop in Lomé July 2022 and presented by CIMA. Furthermore, VoltaAlarm integrate the appropriate facilities of national and regional agencies for enabling data sharing as well as for developing synergies and partnerships with partners in the implementation of relevant initiatives.

To national agencies

- Many activities will be implemented in parallel at the national level
- The support of national agencies is very necessary
- Local and national country data and information will help develop quality and accurate products and it is very important to share at early stage before the calibration of flood and drought system is completed
- Using and testing VOLTALARM EWS will help develop products that will build ownership and long-term sustainability
- Ask National Agencies to report on any other projects or initiatives underway or planned for the future in order to create synergies and complementarities.

Regarding the motions of thanks, they were addressed:

- To the Government and people of the Republic of Ghana, Benin and Côte d'Ivoire for welcoming and supporting the mission of the Adaptation Fund, and particularly Ghana for holding the 3rd meeting of the PTAC;
- To the government of the six Member States of the Volta Basin for their great support in the implementation of the project activities
- To the Adaptation Fund for financing the implementation of project activities and for its availability to support a second phase of the project;
- To the regional and national institutions (CILSS, WASCAL, ECOWAS,) for the much appreciated collaboration at all levels in the implementation of the project activities so far.

As for the decisions adopted by the members, they relate to:

- The PTAC approves the agenda for its 3rd meeting of the CTC;
- The PTAC approves the minutes as well as the state of implementation of the actions and recommendations resulting from its 1st meeting of the CTC;
- The PTAC approves the technical and financial progress of the project activities;
- PTAC approves the findings of the Adaptation Fund monitoring mission

X. Date of the next session of the CTC.

Next Face-Face/hybrid PTAC meeting scheduled for December 2023. Following a regional workshop attended by PTAC members.

Conclusion of the 3rd session of the CTC of the VFDM Project

Overall, the third session of the Technical Advisory Committee (PTAC) of the VFDM project went well. The objectives set have been achieved and the expected results have been achieved. The members of the PTAC encouraged the stakeholders for a smooth implementation of the project for the happiness of the populations of the Volta Basin.

APPENDICES

ANNEX 1: Terms of reference for the third session

Introduction

The World Meteorological Organization WMO (a specialized agency of the United Nations), VBA (Volta Basin Authority) and GWP (Global Water Partnership) West Africa are implementing the VFDM project titled '[Integrating Flood and Drought Management and Early Warning for Climate Change Adaptation in the Volta Basin](#)'. Project activities started in June 2019 and will last until mid-2023. This project is funded by the Adaptation Fund. The project has set up a [Technical Advisory Committee \(CTC\)](#) with experts and representatives of national agencies and regional organizations of the Volta Basin (list of members is available below in Annex 1) to review the implementation of project activities and share experiences and insights. methodologies to develop synergies and complementarities with other initiatives.

The main task of the PTAC is to provide strategic direction and support to the project coordinator and the project team to ensure that the activities and results meet the project objectives. The responsibilities and duties of the members of the PTAC are as follows:

- Review project products/results and identify strengths/weaknesses in relation to projects objectives and applications of results (open source, sustainable and tailor-made products and services with institutional strengthening)
- Comment on the skills of the teams and the relevance of their proposals and actions;
- Link the efforts of project stakeholders to other initiatives to create synergies, optimize resources and ensure coherence;
- Promote the visibility of the activities of the VFDM project.

This session will provide an opportunity to provide additional inputs and verify the first findings of the monitoring mission of the VFDM project which is being carried out by the Adaptation Fund at regional, national and local levels. The report of the monitoring mission of the VFDM project will be prepared and submitted to the Board of the Adaptation Fund for approval. Significant discussion points, recommendations and suggestions from the PTAC meeting will also be incorporated into the Final Project Progress Report (PPR) and shared with the Adaptation Fund for approval no later than January 2023.

Objectives of the PTAC annual meeting:

The general objectives of the third session of the PTAC are to present and review the progress of the project, mainly the project activities carried out in collaboration with the national and regional agencies of the countries of the Volta Basin. It will also involve providing inputs to the results of the Adaptation Fund project monitoring mission by proposing modalities for project implementation, coordination at regional, national and local levels, and for the improvement Project impacts on stakeholders and beneficiaries. It will also identify the effectiveness and applicability of the results of the implementation, the challenges encountered and the way forward.

Participants expected at the meeting:

- 1) VFDM PTAC members as provided in Appendix 1
- 2) Project implementing partners (WMO, VBA, GWP-AO)

3) The Adaptation Fund

Dating method:

The half-day PTAC meeting will be held face-to-face in Accra, Ghana with the option to connect virtually via Zoom/Teams software during which simultaneous interpretation from English to French and vice versa -versa will be provided to participants. The login link will be shared when available.

Expected results :

- Provide comments and feedback on the progress of the project and the work plan for the years 2023 and 2024 (until June 2024);
- Provide inputs and support to the regional project monitoring mission led by the Adaptation Fund;
- A Meeting Minutes (MoM) with important talking points will be prepared and shared with participants.

Provisional agenda:

Time	Talking Points/Topics	Presenter
09:30 – 10:00	Opening remarks from WMO, VBA, GWP-WA and the Adaptation Fund WRC opening speech Presentation of participants Family photo	VFDM
10:00-10:30	Presentation of the concept note and adoption of the agenda	VFDM
10:30-11:00	Presentation of the project implementation status to date, difficulties and challenges	VFDM
11:00-11:20	Exchanges on the presentation of the state of execution of the project	Attendees
11h20-12h20	Presentation of the results and findings from the monitoring mission of the VFDM project led by the Adaptation Fund Discussions and Q&As	Adaptation fund
12:20 p.m.- 12:25 p.m.	Final remark and follow-up points	VFDM
12:25-12:30 p.m.	Date of the next PTAC and closing of the meeting	VFDM Partners

PTAC Members

- - 21 members in total
- - People from national agencies/departments (NMHS, water resources) and international or regional organization
- - Have experience related to project activities
- - Be part of or have worked in the Volta Basin region or in West Africa
- - Be an expert in disaster risk reduction, flood and drought early warning system, ecosystem, agriculture, urban development, etc.

PAC MEMBERS	EXPERTISE FIELD	NAME AND CONTACT DETAILS
WMO COUNTRY REPRESENTATIVES		
Benin	Benin National Meteorological Agency	Boris Polynice ANATO (+229) 66 43 18 18/95 74 25 25 Email: boris_polynice@yahoo.fr
Burkina Faso	Meteorology	Mr Joel ZOUNGRANA, Director General of ANAM joezoung@yahoo.fr
Ivory Coast	Director of Evaluation and Hydraulic Heritage	Ahmed Lamine SOUMAHORO Phone (+225) 21 58 62 94 Cell (+225) 89 80 61 19 e-mail: lamine.soumahoro@sodexam.ci
Ghana	GMet Eric Assuman Samuel Owusu	ericuz04@yahoo.com ansahsamuelowusu2014@gmail.com
mali	Weather report	Djibrila MAIGA Tel(+223) 76 45 39 71 email: djimagaf@yahoo.fr
Togo	Director General of National Meteorology, WMO Country Representative	Dr Latifou ISSAOU Tel: +228 93286661 / 90268628 E-mail: isslat@yahoo.fr
VBA COUNTRY REPRESENTATIVES		
Benin	Hydro chemist, expert in natural disaster risk management	Martial V. Kuassi DOSSOU (+229) 95 05 05 66/97 37 13 58 Email: samumax@yahoo.fr
Burkina Faso	Acting Director of Water Studies and Information/Study and Analysis Advisor; DEIE-DGRE	Mr Gérard ZONGO, 76 57 57 94/ 62 59 64 60 Email: zongo.gerard@gmail.com
	Civil protection	TABORE Haidara Moctar, DPO/DGPC Such. 70741939 moctarhaidara@gmail.com
Ivory Coast	Water resources	Professor Koffi Fernand KOUAME Tel (+225) 22 43 50 05 Cell (+225) 48 65 59 78/03 03 99 81 Email: dgpre.minef@gmail.com
Ghana	Water Resources Commission Eric Moula	- ericmuala25@gmail.com
	Hydrological Service department Sylvester Darko	- slykwesi@yahoo.com
mali	Water resources	Drissa SAMAKE

		Phone (+223) 66 73 06 36 e-mail: drissamakey@yahoo.fr
Togo	water resource	Kpadja AGOUDA, +228 90 26 62 84 agoudakpadja@yahoo.fr k.agouda@gmail.com
REPRESENTATIVES OF SUB-REGIONAL INSTITUTIONS/ORGANIZATIONS		
WASCAL	Risks/vulnerability/to climatic extremes	Dr. Seyni SALACK salack.s@wascal.org
CEMR/ECOWAS	CEMR/ECOWAS Water Observatory	January BAZOUM bazdamou@gmail.com
CILSS	Expert Agronomist, in charge of adaptation to climate change at the Agrihmet Regional Center,	Dr. Agali HASSANE, +227 96 59 36 56 /90 33 11 25, +227 95 95 36 56, alhassane.agali@cilss.int , agrhyment.cilss.int NIAMEY-NIGER



**Volta Flood and
Drought Management**

ANNEX 2: List of Participants