



ADAPTATION FUND

Project Performance Report

Overview

Period of Report (Dates)	6/24/2022 - 6/23/2023
Project Title	Integrating Flood and Drought Management and Early Warning for Climate Change Adaptation in the Volta Basin
Project Summary	<p>With a total population over 14 million living on the Volta Basin, integrated water resources management and any measures to reduce natural hazards related to extreme events, such as flood and drought, provide high benefits to support socio-economic and environmental development of the six West African riparian countries - Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali and Togo. The geographic setting of the Volta Basin, covering an area of about 400 000 km² and extending from semi-arid to sub-humid areas, is highly vulnerable to meteorological and hydrological events. Climate predictions foresee a mean annual reduction of precipitation and an increase of temperature in the Volta Basin, which will modify the current distribution of water resources over the different climatic zones, and therefore aggravating an already existing situation of conflict between the competing uses. More severe and frequent pattern of floods are also predicted, due to dry and eroded soil conditions exacerbating the surface runoff during the scarce, nevertheless intense, rainfall events. The main objective of the proposed project is to assist the six countries in the implementation of a basin-wide transboundary management framework and concrete disaster risk reduction and adaptation solutions. The project will also include the selection and implementation of appropriate end-to-end early warning systems for floods and drought allowing to integrate short term to seasonal indicators into the long-term management framework.</p>
Database Number	AF00000122
Implementing Entity (IE)	World Meteorological Organization
Type of IE	Multilateral Implementing Entity
Country(ies)	Regional (Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali, Togo)
Relevant Geographic Points (i.e. cities, villages, bodies of water)	Volta Basin countries (Benin, Burkina Faso, Cote d'Ivoire, Ghana, Mali and Togo)

Name of Implementing Entity Focal Point	Moyenda Chaponda
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Project Milestones	
AFB Approval Date	10/12/2018
IE-AFB Agreement Signature Date	2/19/2019
Start of Project/Programme	6/25/2019
Actual Mid-term Review Date (if applicable)	6/25/2021
Original Completion Date	6/30/2022
Revised Completion Date after approval of extension request (if applicable)	6/25/2024

Were there any approval condition for this Project?

No

List each approval condition, if any, and report on the status of meeting them	
Category of condition	
Condition or Requirement	
Current Status	
Planned actions, including a detailed time schedule	

List (only) inception report/ extension request(s)/ MTR that have been prepared for the project and provide date(s) of submission for each

inception report submitted on 24 July 2019-

https://fifspubprd.azureedge.net/afdocuments/project/6324/6324_Inception%20workshop%20and%20Executing%20

MTR submitted on 30 June 2022-

https://fifspubprd.azureedge.net/afdocuments/project/6324/6324_MTE%20report_draft-final-UK_VFDM%20.pdf

List the Website address (URL) of project

<https://www.floodmanagement.info/floodmanagement/volta-basin/>

<https://public.wmo.int/en/projects/integrating-flood-and-drought-management-and-early-warning-climate-change-adaptation-0> <https://www.adaptation-fund.org/project/integrating-flood-drought-management-early-warning-climate-change-adaptation-volta-basin-benin-burkina-faso-cote-divoire-ghana-mali-togo/>

Project Contacts			
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Financial Data

Disbursement of AF grant funds	
Cumulative total disbursement from Trustee to IE as of date (\$)	\$7,920,000.00
Estimated cumulative total disbursement from IE to EEs as of date (\$)	\$4,728,925.00
Project disbursement rate (%)	100
Project execution rate (%)	65.23
Add any comments on AF Grant Funds	<p>All the payment tranches are provided by the Adaptation Fund following the submission of the previous 3 PPR reports and approval. The actual investment income and cumulative investment income since inception will be provided in the completion report (under the PPR-5 report). The total Estimated cumulative total disbursement from IE to EEs (\$) includes the actual fund disbursed to the executing entities and pending obligations which will be provided to the EEs once the activities and deliverables agreed in the agreement are completed. Grant funds were well received and disbursements were made to the Executing Entities, with VBA and GWP-WA receiving funds for the project staffs in 2019, 2020, 2021, 2022, and 2023. The IE hired and paid the Project Manager based at the WMO Secretariat using the IE Fee. The IE Trust Fund and the implementation contracts with the Executing Partners and External Implementing Partners are contracted in the same currency (USD) as provided by the Adaptation Fund. This will avoid losses due to currency fluctuation but IE and the Executing entities reported a minor loss of currency due to Bank Transfers to National agencies or partners. The IE and EEs are utilizing the project execution costs as indicated in the project document. The Project Inception workshop was organized and conducted on 25 and 26 June 2019 and the Inception workshop report was submitted to the AF Secretariat on July 24 2019 The PPR-I, PPR-II, and PPR-III reports were successfully approved on 21 September 2021, 18 January 2022, and 19th January 2023 by the Adaptation Fund Secretariat/Board and the funds for the final year implementation were received around early February 2023. Out of the total 7,920,000 USD amount received from the Adaptation Fund: 20,000 USD was received as PFG1, 80,000 USD as PFG2, 1,995,000 USD as the first year, 2,291,400 USD as the second year, 2,835,600 USD for third year and 798,000 USD for the fourth year implementation as</p>

	project related disbursements Due to the covid-19 pandemic situation between March 2020-March 2022, many of the activities (trainings, workshops, consultation meetings etc.) were carried out virtually (as IE, EEs and technical partners were not allowed to travel within and from outside of the region) or some of the activities were not possible to be executed as planned (such as field visits to check measurements, data collection etc.) and in some cases, national or local experts were hired, trained and provide support to implement or conduct activities at national or local levels. Due to this there will be unspent budget of approximately 500,000 USD will be returned to the Adaptation Fund at the end of the project completion. The details will be provided during the final completion report as well as with the audited financial statement. The total financial reporting will be provided during the submission of the final PPR-5 report which is due on December 2024. Presently under PPR-4, the financial statement provides the actual expenditure as well as obligations to the EEs and technical partners supporting different activities of the Integrating Flood and Drought Management and Early Warning for Climate Change Adaptation in the Volta Basin (VFDM) project
Investment Income (\$)	\$0.00
Cumulative Investment Income since inception (\$)	\$0.00

Expenditure Data	
Output	Amount (\$)
Output 1.1.1: Inventory of information on vulnerabilities, capacities, exposure and risks (VCERs) for floods and drought in the Volta Basin is conducted	\$360,000.00
Output 1.1.2: Database of VCERs, floods and drought related risk maps are developed	\$400,000.00
Output 1.1.3: Capacity of stakeholders to use Floods and Drought risk maps is enhanced	\$240,000.00
Output 1.1.4: Reports and communication documents on vulnerabilities, capacities, exposure and risks (VCERs) and Floods and Drought risk maps of the Volta Basin are available	\$10,000.00
Output 1.2.1: Scenarios for socio-economic and environment development along with the climate change projections are collected	\$40,884.00
Output 1.2.2: Projected impacts on water resources, urban development, environment and agricultural areas are analysed on the basis of future scenarios	\$31,685.00
Output 1.2.3: Impact on environmental and ecosystem services indicators is evaluated for current and future scenarios	\$99,076.00
Output 1.3.1: Guidance documents for stakeholders are developed to raise awareness about the future scenarios	\$12,000.00
Output 1.3.2: Capacity of stakeholders to use future scenarios and to develop action plans is enhanced	\$170,000.00
Output 2.1.1 Needs and existing resources of national and regional agencies staffs for web-based EWS are defined	\$225,280.00
Output 2.1.2 The operational centre for the VoltAlarm Early Warning System is established in synergies with the NMHSs and the Volta Basin Authority	\$170,000.00
Output 2.1.3 The historical and real-time hydrological data from the gauging stations are	\$135,000.00

collected and the procedure to link with the meteorological data is defined	
Output 2.1.4 Thresholds for Floods and Drought risk levels are selected for the various parts of the Volta Basin and linked with environment thresholds	\$30,000.00
Output 2.1.5 The procedure for producing impact-based forecasts for the sub-basins and vulnerable areas on a daily basis is defined	\$100,000.00
(Obligated) Output 2.1.6 The web-based Early Warning dissemination interface for VoltAlarm is designed and developed	\$150,000.00
(Obligated) Output 2.1.7 Knowledge and awareness about VoltAlarm are increased within the user groups.	\$65,000.00
(with obligation) Output 2.2.1 Pilot testing for a number of areas over the basin (Figure 8) during the monsoon and dry seasons are performed	\$140,000.00
Output 2.2.2 Feedback from the series of pilot testing is collected	\$10,000.00
Output 2.2.3 Development and implementation of community-based flood and drought management	\$221,000.00
Output 2.3.1 Knowledge and capacity development using the IUCN Standard for the nature and natural based solutions	\$342,000.00
Output 2.3.2 Capacity development based on the Training Manual for mainstreaming gender in the E2E-EWS-F and flood management	\$285,000.00
Output 3.1.1 The transboundary governance plans, policies and guidelines about long term flood and drought management are evaluated	\$105,000.00
Output 3.1.2 Awareness of policy-makers from the six countries on the key long-term strategies for floods and drought management and environment impact is strengthened	\$40,000.00
Output 3.1.3 Experiences of local communities on key long-term strategies for floods and drought management are collected	\$0.00
Output 3.2.1 Strengthened implementation of the revised, or new, climate adaptation plans (NAPA, NAP, NDC), policies and guidelines (on data and information exchanges) on issues related to risk reduction and EWS	\$0.00
Output 3.2.2 Improved integration of national policies on long term risk reduction and climate adaptation into the transboundary Strategic Action Programme	\$0.00
Output 3.3.1 Collaboration with local communities and organizations in defining the procedures and measures to manage risks and to adapt to climate change	\$0.00
Output 3.3.2 Collaboration with local communities and organizations in finalizing policies and procedures to manage risks and to adapt to climate change	\$0.00
Currency exchange losses(USD-CHF-CFA etc) and bank transfer charges etc to the partners.	\$77,000.00
IE fee (\$)	\$550,000.00
Execution cost (\$)	\$720,000.00

Planned Expenditure Schedule

Output	Projected Cost (\$)	Estimated Completion Date
Output 1.1.2: Database of VCERs, floods and drought related risk maps are developed	\$100,000.00	6/25/2024
Output 2.1.2 The operational centre for the VoltAlarm Early Warning System is established in synergies with the NMHSs and the Volta Basin Authority	\$300,000.00	6/25/2024
Output 2.1.3 The historical and real-time hydrological data from the gauging stations are collected and the procedure to link with the meteorological data is defined	\$100,000.00	6/25/2024
Output 2.1.5 The procedure for producing impact-based forecasts for the	\$40,000.00	6/25/2024

sub-basins and vulnerable areas on a daily basis is defined		
Output 2.1.7 Knowledge and awareness about VoltAlarm are increased within the user groups.	\$15,000.00	6/25/2024
Output 2.2.1 Pilot testing for a number of areas over the basin (Figure 8) during the monsoon and dry seasons are performed	\$1,050,000.00	6/25/2024
Output 2.2.2 Feedback from the series of pilot testing is collected	\$200,000.00	6/25/2024
Output 3.1.1 The transboundary governance plans, policies and guidelines about long term flood and drought management are evaluated	\$10,000.00	6/25/2024
Output 3.1.2 Awareness of policy-makers from the six countries on the key long-term strategies for floods and drought management and environment impact is strengthened	\$250,000.00	6/25/2024
Output 3.1.3 Experiences of local communities on key long-term strategies for floods and drought management are collected	\$225,000.00	6/25/2024
Output 3.2.1 Strengthened implementation of the revised, or new, climate adaptation plans (NAPA, NAP, NDC), policies and guidelines (on data and information exchanges) on issues related to risk reduction and EWS	\$57,600.00	6/25/2024
Output 3.2.2 Improved integration of national policies on long term risk reduction and climate adaptation into the transboundary Strategic Action Programme	\$152,000.00	6/25/2024
Output 3.3.1 Collaboration with local communities and organizations in defining the procedures and measures to manage risks and to adapt to climate change	\$45,000.00	6/25/2024
Output 3.3.2 Collaboration with local communities and organizations in finalizing policies and procedures to manage risks and to adapt to climate change	\$101,000.00	6/25/2024
IE fee (\$)		\$120,000.00
Execution cost (\$)		\$30,000.00

Actual co-financing (if the MTR or TE have not been undertaken this reporting period, do not report on actual co-financing)	
Does this Project have Co-Financing ?	No
How much of the total co-financing as committed in the Project Document has actually been realized? (\$)	\$0.00
Estimated cumulative actual co-financing as verified during Mid-term Review (MTR) or Terminal Evaluation (TE). (\$)	\$0.00
Add any comments on actual co-financing in particular any issues related to the realization of in-kind, grant, credits, loans, equity, non-grant instruments and other types of co-financing.	

Risk Assessment

Identified Risks		
List all Risks identified in project preparation phase and what steps are being taken to mitigate them		
Identified Risk	Current Status	Steps taken to mitigate risk

<p>Acceptance of the project activities Even though detailed needs assessments have been conducted since 2013, the support of the stakeholders to the proposed activities can differ in the six countries. This results in differential levels of acceptance and slows down of the inception phase of the project.</p>	<p>Low</p>	<p>During the fourth year of the implementation phase of the project, all relevant stakeholders (government, agencies, departments and communities) were/are clearly identified and regularly consulted, so that they fully share the vision and goal of the project activities and are aware of their contribution to the project, hence fostering ownership over the process. - MoU and agreement were signed with the participating stakeholders. - Roles and responsibilities of the national working group are defined in the initial stages of the project so that all the activities are completed in a coordinated way. From the inception phase, the project team is involving all the stakeholders at the Local, National and Regional level for their participation and engagement in the project activities. Also, regional workshops or meetings is providing participants to share their experiences and learn from each other.</p>
<p>Technical/quality risks Component 1 and 2 of the project is too technical and not adapted to specific area or countries. This results in low commitment and interest from stakeholders</p>	<p>Low</p>	<p>The fourth year project activities (through concept note and ToR) were shared and reviewed with the support of National Focal Points, local decision-makers and participants from community to understand the expectations and suggestions from the participants. The feedbacks and suggestions from the participants will be integrated. Also multiple planning meetings were organized with the stakeholders so that the overall objective is clear and necessary support is provided for the implementation. From the Inception phase, the project team is ensuring to collect suggestions and feedback from local , National and Regional stakeholders on all the activities and associated reports. The concept note and Terms of Reference are shared in advance to ensure the implementation of activities is accepted by their services and they provide active participation during implementation.</p>
<p>Financial/resources risks ▪ Inadequacy of the financial management system: procurement system, financial availability, monitoring, reporting and auditing system, etc. ▪ Availability of project resources ▪ This will result in slowing down the project activities</p>	<p>Low</p>	<p>During the fourth year of implementation, project and financial monitoring/reviews are conducted regularly to ensure efficient management of project resources. Partners were requested to provide mid-term certified interim financial statements to the IEs. From the Inception phase, the yearly work plan with Budget allocation is shared with the executing partners to ensure adequate financial management as well as timely availability of funds for implementing the activities. Funds are transferred only after having a legal agreement with the local, National, Regional or External technical Implementing partner. The procurement process is in place and used for any procurements of equipment or resources.</p>
<p>Physical risks Administrative barriers hinder sharing of hydro-meteo, social and topographic data. This will result in difficulties to implement activities and delivery of timely outcome</p>	<p>Low</p>	<p>During the fourth year of the implementation, the executing and implementing entities requested National Focal Points and National Implementation Structures that the required data and information are shared. Furthermore, the VBA is mandated for regional exchange of information and can request the enforcement of the agreements. WMO through their national focal points in the countries had several meetings to make them understand the benefit of data and information sharing for developing EWS which will be beneficial for their day-to-day</p>

		<p>services to the population. From the Inception phase, several discussions are carried out with the National stakeholders for data sharing for the development of the products and tools under the project. Letters are shared with them to ensure administrator approvals are provided and also provide assurance of use of data and tool only for the scope of the project activities</p>
<p>Restructuring in the government work structure may cause possible shifts of responsible persons at local and national levels to a different location or agency. This can result in delays and loss of support.</p>	Moderate	<p>During the fourth year of the implementation, several national focal points were transferred to other agencies, alternative persons from the departments were involved in most of the activities so that implementation of project activities would not be hampered at any time (mostly executed with slight delays). From the Inception phase, multiple staff are involved in the implementation of activities which will allow us to work continuously in the countries with the active involvement and engagement of stakeholders.</p>
<p>Human resources/capacity risks</p> <ul style="list-style-type: none"> ▪ Lack of skills or human resources availability ▪ Adequacy between existing and required experience and skills <p>This results in slowing down the project activities</p>	Low	<p>During the fourth year of implementation, - National support was obtained at the level of the governmental agencies to ensure sufficient human resources are provided for the project activities at both national and local levels From the Inception phase, several activities of the project is involving National and local agencies staff and they are trained with the concept and methodologies so that they provide support to the tasks of the activities. This will ensure long-term sustainability of developed products, tools or processes.</p>
<p>Gender neutral approach Techniques and technology developed are not accepted by all groups of the communities. This decreases the gender equality compliances</p>	Low	<p>Continuing from the third year, during the fourth year, the VFDM project includes gender-sensitive approach in all the activities. As the project activities mainly deal with the national hydrological and meteorological services, disaster management, environmental, geographic institute, etc (having or required technical expertise), it is observed that the proportion of male and female staff in these agencies is not equal parity both at the national and local levels. In the implementation of various activities related to the development of the EWS, requests are made to have equal participation of male and female participants in trainings and workshops, however, due to limited staff it is not possible to involve or have equal number of men and women in each activity. Wherever possible, women participants were given preference over men considering having the same technical competence required for the implementation or conducting of the activities. The project has trained several women participants (risk maps development, Nature-based solutions, EWS) and they have been requested to disseminate knowledge to other new young professionals if they join in their national or local agencies in future. Also in the future, training of the VoltAlarm will be organized and dedicated to women participants from the national agencies. Also, during the gender mainstreaming capacity development training activities, women participants were involved together with men, and it was suggested to carry out several outreach and career events at the high schools or universities in the Volta Basin to ensure students take careers in</p>

		the field of hydrology, meteorology and disaster management. Wherever required non-technological or traditional methods were adopted to reach and get participation from every group of the communities. From the Inception phase, gender-inclusive approach is implemented in all the activities at the local levels. Women leaders or representatives of communities are always encouraged and preferred to participate in and support the project activities.
Political risks Interference from the local/national political parties This will result in delaying the project activities	Moderate	During the fourth year, changes in political parties happened in some countries of the project. The project is adhering to the goals, laws, and policies of the respective project countries. Whenever and wherever required, permission of national consensus of the countries will be shown. From the Inception phase, the Executing partners are taking prior permissions from the relevant Ministers and also inviting them to attend the workshops or meetings for checking the progress and benefits provided at the National, local and regional levels.
Documentation/Reporting risks ▪ Lack of available tools and templates for developing reports and progress report ▪ Delays of reporting by the partners ▪ This results in delays in the reporting process and financial access to funding	Low	During the fourth year, appropriate tools/templates and reporting structures and procedures were put in place by WMO to ensure proper documentation and reporting so that donor agencies and steering committee receive timely reports. From the Inception phase, reporting tools and templates are made available to the partners and the National structures. Project communication plan is developed and shared with the executing partners so as to ensure usage of tools and dissemination information are carried out

Critical Risks Affecting Progress (Not identified at project design)

Are there any critical risks with a 50% or > likelihood of affecting progress of project? Yes
 Identify Risks with a 50% or > likelihood of affecting progress of project

Identified Risk

The outbreak of covid-19 pandemic (at national, regional and Global) or political crisis which can cause travel restri for the project partners and stakeholders

On-going Civil war/civil security risks in Mali

(https://wmoomm.sharepoint.com/:b:/s/Services/ERuhyRnAiWNDgtKIwSG7riwBUrqOjCYGd4PXV_HfPxrmig?e=

and also in the parts of Burkina Faso

(<https://wmoomm.sharepoint.com/:b:/s/Services/EdU2ZQRpKBFPj1lI9IXEXuEBX4jpliTF0CmpvnpqFm6JHg?e=S>

which is leading to travel restrictions for the National stakeholders for attending the regional workshop in both the c
and also for project partners to travel to the countries.

Volta Basin's vulnerability to natural hazards, capacity and resource limitations could constrain sustainability of the achievements. Even if the Project succeeds in developing resilience and capacities at National level through EWS and maps, it may not be enough for preparedness to the climate change events.

Risk Measures

Were there any risk mitigation measures employed during the current reporting period? If so, were risks reduced? If not, why were these risks not reduced?

During the fourth year, IE continuously monitored for the potential risks and impacts through the VFDM Risk Matrix (prepared by WMO with mitigation measures)

<https://wmoomm.sharepoint.com/:x:/s/Services/Eee2xcKpaYNHq3P11CzWwBwBQIy8lser9lbpbwMy7lzHFA?e=X>

Also, the Implementing Partner conducted regular risk monitoring and evaluation of the implemented activities, and the results were tracked and reported in WMO's internal monitoring system. In addition to this, a dedicated Monitoring and Evaluation (M&E) expert was hired to prepare a project risk monitoring framework. In case of delays in the implementation, or possible risk occurrence, risk mitigation measures as indicated above were executed as and when needed, ensuring that the likelihood of occurrence of any risks remained the same or lower than at the time of project submission and did not affect the project implementation. The implementation of first-year, second-year, and third-year activities was severely impacted by the COVID-19 pandemic situation and civil security issues in two countries of the Volta Basin. Delays are encountered to complete the agreed current activities as well as future upcoming activities (many activities are linked with each other). A contingency plan or approach was defined and adopted so as to ensure continuation in the implementation of the activities (virtual consultations with the Countries, Email communication and WhatsApp groups are created for quick communication, Identification, and capacity development of local staff or partners to execute the activities and remote assistance by Implementing Partner and External consultants). The management of risks has been facilitated through close and open lines of communication with the project stakeholders as well as with regular interaction among project partners at the regional and national levels. As stated above, risk mitigation measures proved efficient so far,

including those addressing the COVID-19 imposed risks, and as a result, the implementation of project activities was not halted but maintained and gained momentum, especially from the first half of 2022. Together with the use of virtual meeting platforms, measures such as the identification and capacity building of local and national staff or consultants allowed to carry out activities as planned. During the reporting period, the VFDM risk matrix was updated to identify the risks under each outcome and associated treatment measures to have better monitoring and accountability to the project partners and Adaptation Fund. No grievances were reported during the reporting period of the project (July 2022- June 2023)

ESP Compliance

Section 1: Identified ESP Risk Management

Was the ESP risks identification complete at the time of funding approval? Yes

1. Compliance with the law

Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	Yes
During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)	No
List the identified impacts for which safeguard measures are required (as per II.K/II.L)	During the fourth year, lack of compliance with local and national laws during the implementation of project activities.
List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity.	Measure to avoid: 1) The project design and implementation is compliant with all relevant regional and national laws following extensive consultation with national and regional stakeholders. 2) Management: In case of a lack of compliance, the ESP risk management plan procedure will be executed. 3) No USPs or any project activities is conducted if they do not comply with local, national and international laws.
List the monitoring indicator(s) for each impact identified.	- Activity Concept notes, Terms of References, Feedback survey, Minutes of the meetings/ reports of consultations with regional, national and local authorities will be monitored for compliance during designing and implementation phase - The adaptation action plans and investments will be reviewed to ensure adequate compliance with the laws
State the baseline condition for each monitoring indicator	National and regional stakeholders sharing the information and knowledge on the laws related on ESP. The project design was made to be compliant with all relevant regional and national laws following extensive consultation or requirements formulation with national and regional stakeholders. Before the implementation of all the activities, a concept note or Terms of Reference is drafted and shared with the National and regional stakeholders for review including compliances with law.

Describe each safeguard measure that has been implemented during the reporting period	During the implementation period of fourth year, activities are regularly screened for the ESP principles and are made compliant with all relevant regional and national laws following extensive awareness and consultation with the EEs, national and regional stakeholders. During the design of the each project activities both regional and national stakeholders are consulted to update data sharing protocol/laws between the six countries.
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	During the fourth year, the project involves stakeholders for screening of ESP principles and inclusion of National and regional laws during the implementation of various activities in the third year. It could be possible some in-direct updated national and regional laws or guidelines are not screened (instead the older version are considered) by the experts and can lead to non-compliance. Following this, there might be possibility of risks arising on non-compliance. However, no risks were reported until now.
Describe remedial action for residual impacts that will be taken	None at the moment In case of any non- inclusion or non-adherence of regional and national laws for any activities or USPs, measures will be designed through an expert and implemented during the course of the project. If required international laws on data sharing protocol among different countries are consulted and utilized.
2.Access and equity	
Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	Yes
During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)	No
List the identified impacts for which safeguard measures are required (as per II.K/II.L)	Lack of access to project resources and outputs of the activities implemented. The project has capacity development activities to which only small percentage of the communities will be able to participate.
List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity.	Given that the project will provide support to shared natural resources, the project team is ensuring that outputs or developments through activities do not negatively affect community rights to shared natural resources as well as ensuring equitable benefits from concrete adaptation investments and other project activities. Any activities involving shared resources was screened and conducted in the context of the relevant local or national laws and in joint consultation with the National and local stakeholders. The selection of beneficiaries or participants are made in consultation with local practices, traditions and access to social facilities. The project is ensuring that representatives of communities participating in

	capacity development activities will further disseminate the information to wider groups.
List the monitoring indicator(s) for each impact identified.	- Minutes of the meetings/ reports of consultations with regional, national and local authorities will be monitored for access and equity compliance during designing and implementation phase of the activities - The project activities is providing impartial and equitable access to project benefits for the stakeholders of the six countries - The community-based action plans and investments will be reviewed to ensure equal access and equity to the community individuals.
State the baseline condition for each monitoring indicator	Presently, the activity design is carrying out requirements and need analysis of the communities during which access and equity risks are or will be considered at a maximum level -Disparity are identified between men's and women's on the ownership of assets for building self-help resilience
Describe each safeguard measure that has been implemented during the reporting period	- During this reporting period, a sensitivity design of the project activities at the local, regional and national levels are conducted by the project team ensuring access and equity principles being screened thoroughly. - The project team or experts carries out consultation with both men and women, considering different social and economic status, so as to ensure the project activity delivers resources in both equity and accessibility
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	The project acknowledges there could be tasks or activities (skills and knowledge) which are involving more men than women. For example: Direct access to the EWS to men via mobile phone (as in these Volta Basin countries, mobile phones are less utilized by women)
Describe remedial action for residual impacts that will be taken	At the fourth year, there are no remedial action were implemented at the moment In case of access or equity issues, the project will ensure the ESRMP plan are activated for immediate action. The project team will propose different solutions and joint decision-making to ensure there are no access and equity issues.
3.Marginalized and vulnerable Groups	
Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	Yes
During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)	No
List the identified impacts for which safeguard measures are required (as per II.K/II.L)	Exclusion of marginalised and vulnerable groups from project activities. There is a risk that vulnerable and marginalized groups will have insufficient knowledge and access to technological devices such as mobile phones or lack of good cellular

	connectivity specially required for outcomes 2.1, 2.2 and 2.3 of the proposed activities. To avoid the exclusion of marginalized and vulnerable communities, local radio channels and traditional practices will be implemented to reach these groups especially women, girls, elderly, physically challenged individuals.
List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity.	Avoidance, management or mitigation There is a risk that vulnerable and marginalized groups will have insufficient knowledge and access to technological devices such as mobile phones or lack of good cellular connectivity especially required for component 2.1 of the proposed activities. To avoid the exclusion of marginalized and vulnerable communities, needs and assessment for dissemination channels are identified i.e. local radio channels and traditional practices will be implemented to reach these groups especially women, girls, elderly, physically challenged individuals. Management-Ensure participation of all relevant stakeholders in project activities without social discrimination and with the aim of providing voice in decision making and gaining benefits including for women and elderly as well as marginalized groups. Avoidance: Ensure community consultation from the design and planning phase so the project activities target and support the most marginalized and vulnerable groups to become more resilient to climate change events including women, women-headed households, children and the youth.
List the monitoring indicator(s) for each impact identified.	Terms of Reference prepared for the consultations with communities and MoM with communities and local authorities
State the baseline condition for each monitoring indicator	During the reporting period, Knowledge and awareness on the gendered impacts of climate hazards and climate change is low. -Lack of tools and guidelines to integrate marginalized and vulnerable groups in the design, implementation and sustainability of the project activities
Describe each safeguard measure that has been implemented during the reporting period	During the reporting period of the fourth year implementation, Concept note and ToR are developed after screening the AF ESP and Gender policy ensuring all the criteria are added in the selection of participants and beneficiaries. These concept note and ToRs are shared with the national working group designate at each countries. After review and approval, implementation of activities are carried out by the project team. Experts with experiences of working with social integration and engagement are involved in local level activities so as to ensure activity design includes marginalized and vulnerable groups.
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	The project team acknowledges that not all the vulnerable and marginalized groups in the Volta

	Basin region could be invited to various consultation meeting and also they might not have sufficient knowledge and access to technological devices such as mobile phones or lack of good cellular connectivity to access the EWS. This will result in receiving direct warning or advisory services from the hydro-met offices.
Describe remedial action for residual impacts that will be taken	None at the moment In case of residual impacts, the project will consult with the marginal and vulnerable groups and also to identify traditional ways for accessing early warning for their preparedness and resilience. Also, sharing of experience and knowledge from the groups who have been participating in various capacity development workshops will be encouraged.
4.Human rights	
Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	No
During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)	
List the identified impacts for which safeguard measures are required (as per II.K/II.L)	
List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity.	
List the monitoring indicator(s) for each impact identified.	
State the baseline condition for each monitoring indicator	
Describe each safeguard measure that has been implemented during the reporting period	
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	
Describe remedial action for residual impacts that will be taken	
5.Gender equality and women's empowerment	
Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	Yes
During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)	No
List the identified impacts for which safeguard measures are required (as per II.K/II.L)	Lack of gender equality and women's empowerment in project implementation and outcomes. The proposed project is targeting region where men occupy the majority of the leadership positions.

	<p>Women participation to disaster preparedness and decision making is often limited due to cultural and social norms. There is therefore a risk that women will not benefit equitably from the proposed adaptation measures and capacity-development interventions.</p>
<p>List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity.</p>	<p>Avoidance or Mitigation: The proposed project is improving the gender equity and women empowerment through the WMO developed tool: Training Manual for mainstreaming gender in End to End Early Warning system for Floods and integrated Flood Management through a participatory design approach. This will help in increasing the participation of women, girls and other vulnerable groups in Flood and Drought management activities as well as decision making processes. Planning of the participative activities will ensure that women and representative of women associations will be sufficiently well represented</p> <p>Avoidance: - sex disaggregated data and gender specific tools will be made available for consultations</p> <p>Management: Aim for 50% participation of women in project activities</p> <p>Management- Provision of forming Women Self Help Group to be part of decision-making processes (under local community-based flood and drought management activities planned part of output 2.2.3)</p>
<p>List the monitoring indicator(s) for each impact identified.</p>	<p>Percentage or number of women, men, elderly or youths involved in the project activities at the local, national and regional levels. Concept note and technical report of the activities including capacity development workshops/trainings</p>
<p>State the baseline condition for each monitoring indicator</p>	<p>- Lack of knowledge and awareness on the gendered impacts of climate hazards and climate change . -lack of tool and guidelines to support the community based planning processes and various trainings. - Women's presence in project activities and leadership positions varies from country to country and activity to activity.</p>
<p>Describe each safeguard measure that has been implemented during the reporting period</p>	<p>During the fourth reporting period - All the Activities are designed and implemented with a participatory approach including participation and engagement of women, youths etc. - Identifying actions based on the development and testing of Training Manual for mainstreaming Gender in the end to end early warning system for floods and flood management. - All workshops and training have incorporated both men and women as participants with the need for gender parity and having women in key roles and decision making processes - Seperate discussion with women and men respectively were carried out to better understand the needs and capabilities for development resilience and adaptation measures - Sex-disaggregated data collection tool for community consultation -Involvement of the National and</p>

	International Gender focal points in the designing and implementation of activities
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	The project acknowledges there could be tasks or activities (skills and knowledge) that require specific technical skills, knowledge, and experience which are not equally available in both men and women of the Volta Basin countries. For example: involvement in the development of risk maps. It could be possible that there are fewer women who have knowledge of GIS and risk assessment than men in the Volta Basin countries. Also, for the warning dissemination through mobile apps or social media channels. there is a lack of knowledge and availability of technological instruments with the vulnerable groups, especially women.
Describe remedial action for residual impacts that will be taken	In case of residual impacts, the project will ensure that the extended participation call for women are made so that more women could join the implementation of the activities and can have opportunity to gain required knowledge and skills in developing risk maps or flood and drought management A separate meeting or session will be organized to disseminate knowledge and skills to women working in the local and national agencies
6.Core labour rights	
Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	No
During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)	
List the identified impacts for which safeguard measures are required (as per II.K/II.L)	
List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity.	
List the monitoring indicator(s) for each impact identified.	
State the baseline condition for each monitoring indicator	
Describe each safeguard measure that has been implemented during the reporting period	
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	
Describe remedial action for residual impacts that will be taken	
7.Indigenous people	
Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	Yes

During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)	No
List the identified impacts for which safeguard measures are required (as per II.K/II.L)	There is a risk that the traditional use of water resources; irrigation system and land use pattern will be challenged. Therefore, a detailed analysis will be carried out by local and national agencies to understand the traditional use of natural resources especially regarding water access and land use.
List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity.	Avoidance, management or mitigation The indigenous population in the region are consulted and involved during the design and implementation of the project activities. The traditional knowledge of Indigenous people on Flood and Drought management is useful and considered when preparing the risk maps, the early warnings and information dissemination.
List the monitoring indicator(s) for each impact identified.	Minutes of meetings with the indigenous people - Voices from the field
State the baseline condition for each monitoring indicator	- Lack of knowledge and awareness on the impacts of climate hazards and climate change on the indigenous people. -Involvement of indigenous communities in the project activities (may be due to the accessibility to the indigenous communities)
Describe each safeguard measure that has been implemented during the reporting period	During the fourth reporting period, -Selection of indigenous communities and individuals was carried out to develop their resilience to climate change impact -Use of local traditional practices and skills in the management of flood and drought events in order to ensure solutions and tools are tailored to the needs
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	N/A
Describe remedial action for residual impacts that will be taken	N/A
8.Involuntary resettlement	
Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	Yes
During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)	Yes
List the identified impacts for which safeguard measures are required (as per II.K/II.L)	There are no activities proposed in the project which will create direct involuntary resettlement of communities. However, the risks of displacement of the population after the mapping of floods and drought risk areas could be possible as some areas could be classified as high risk for the loss of life.
List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented	A built-in safeguard approach will be defined for minimizing the negative effects of involuntary settlements. In case of involuntary resettlement, the

during the reporting period. Please break down the safeguard measures by activity.	population will be informed of their rights in a timely manner, made aware of grievance mechanism, consulted on their options and, offered technical, economically resettlement alternatives or fair and adequate compensation. The displaced population will face challenge in terms of acquiring resources for living (house, food and livelihood) and social integration with the new communities. The project will ensure that activities, especially with the local administrative services provide support in terms of strategies or actions in case of population displacement. Management: The National stakeholders will be informed of risk zones and impacted sectors (human-life, economy, environment, bio-diversity etc.) and joint consultation and discussion will be planned for managing risks and impacts.
List the monitoring indicator(s) for each impact identified.	National consultation reports, National action plan and guidelines for management of risks and impacts.
State the baseline condition for each monitoring indicator	- Lack of knowledge and awareness on the risk zones and impacts of future climate hazards and climate change variability at all locations of the Volta Basin region.
Describe each safeguard measure that has been implemented during the reporting period	During the reporting period, on the basis of evidence-based and scientific information, the National agencies are informed about the high risk zones (places where flooding or drought happened in the past years) and possible impact areas. Risk prevention and management strategies are developed jointly with the stakeholders - Capacity development of stakeholders at every stage of the activities (designing, data collection, development, finding and analysis, reporting, decision making).
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	The project acknowledges there could be some indirect impacts related to Involuntary resettlements once the risk maps is developed and shared with the National agencies. No direct risks or impacts were notified during the reporting period
Describe remedial action for residual impacts that will be taken	In case of any residual impacts, the project team will ensure the national agencies are informed and follow the human-right laws and ensure the people who will be moved to a new locations will have access to basic resources. The project will also propose a new prevention plan to prohibit future settlement in the high risk areas.
9. Protection of natural habitats	
Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	Yes
During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)	No

List the identified impacts for which safeguard measures are required (as per II.K/II.L)	There are no potential direct risks to the protection of ecosystems and its natural habitats and biological diversity through the project activities. There is a possibility of indirect risks through the revised policies and plans at national and transboundary scale decreasing the protection level of critical habitats.
List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity.	Avoidance, management or mitigation: Capacity development activities with the National stakeholders will be carried out for example: Natural and nature-based solutions will be promoted using the IUCN standards for Nature-based solutions or Flood Green Guide by WWF(but they will not be implemented in the course of the Volta project as they would need detailed ecological assessment)
List the monitoring indicator(s) for each impact identified.	Technical reports, Consultation meeting notes, voices from the field
State the baseline condition for each monitoring indicator	- Limited knowledge and awareness on the impacts to the habitat due to climate hazards and climate change
Describe each safeguard measure that has been implemented during the reporting period	During the reporting period, - Capacity development of stakeholders at every stage of the activities (designing, data collection, finding and analysis, reporting, decision making).were initiated especially during the trainings related to Nature-based solutions -Development of joint effective measures to mitigate or manage the risks (providing support of international and national experts to the National Agencies) related to protection of natural habitats Furthermore the activities under output 1.2.3 and component 2 are considering native species characteristics and critical values for defining environmental thresholds.
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	The project acknowledges there could be lack of integration of local environmental and ecosystem related data and information in the early warning and risk maps as these might not be available or shared by the local authorities
Describe remedial action for residual impacts that will be taken	In case of such situation, the project team will ensure to use the global available data and will continuously request the environmental agencies in the Volta Basin countries to provide local data and information Capacity building activities will be carried out on importance of sharing local and national level data and information The existing and new policies, plans and activities to protect natural habitats will be screened with the stakeholders to ensure that the critical habitats are legally protected through the convention on wetlands such as RAMSAR, Iran, 1971. and consultation with authoritative sources like IUCN, UNESCO as well as indigenous communities.
10.Conservation of biological diversity	
Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	No
During project/programme formulation, an impact	

assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)	
List the identified impacts for which safeguard measures are required (as per II.K/II.L)	
List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity.	
List the monitoring indicator(s) for each impact identified.	
State the baseline condition for each monitoring indicator	
Describe each safeguard measure that has been implemented during the reporting period	
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	
Describe remedial action for residual impacts that will be taken	
11.Climate change	
Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	No
During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)	
List the identified impacts for which safeguard measures are required (as per II.K/II.L)	
List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity.	
List the monitoring indicator(s) for each impact identified.	
State the baseline condition for each monitoring indicator	
Describe each safeguard measure that has been implemented during the reporting period	
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	
Describe remedial action for residual impacts that will be taken	
12.Pollution prevention and resource efficiency	
Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	No
During project/programme formulation, an impact assessment was carried out for the risks identified.	

Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)	
List the identified impacts for which safeguard measures are required (as per II.K/II.L)	
List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity.	
List the monitoring indicator(s) for each impact identified.	
State the baseline condition for each monitoring indicator	
Describe each safeguard measure that has been implemented during the reporting period	
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	
Describe remedial action for residual impacts that will be taken	
13.Public health	
Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	No
During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)	
List the identified impacts for which safeguard measures are required (as per II.K/II.L)	
List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity.	
List the monitoring indicator(s) for each impact identified.	
State the baseline condition for each monitoring indicator	
Describe each safeguard measure that has been implemented during the reporting period	
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	
Describe remedial action for residual impacts that will be taken	
14.Physical and cultural heritage	
Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	No
During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require	

management actions to prevent unacceptable impacts? (as per II.K/II.L)	
List the identified impacts for which safeguard measures are required (as per II.K/II.L)	
List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity.	
List the monitoring indicator(s) for each impact identified.	
State the baseline condition for each monitoring indicator	
Describe each safeguard measure that has been implemented during the reporting period	
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	
Describe remedial action for residual impacts that will be taken	

15.Lands and soil conservation

Are environmental or social risks present as per table II.K (II.L for REG) of the proposal?	No
During project/programme formulation, an impact assessment was carried out for the risks identified. Have impacts been identified that require management actions to prevent unacceptable impacts? (as per II.K/II.L)	
List the identified impacts for which safeguard measures are required (as per II.K/II.L)	
List here the safeguard measures (i.e. avoidance, management or mitigation) identified for each impact that are supposed to be (or had to be) implemented during the reporting period. Please break down the safeguard measures by activity.	
List the monitoring indicator(s) for each impact identified.	
State the baseline condition for each monitoring indicator	
Describe each safeguard measure that has been implemented during the reporting period	
Describe the residual impact for each impact identified - if any - using the monitoring indicator(s)	
Describe remedial action for residual impacts that will be taken	

Section 2: Monitoring for unanticipated impacts / corrective actions required

Has monitoring for unanticipated ESP risks been carried out?	Yes
Have unanticipated ESP risks been identified during the reporting period?	No
If unanticipated ESP risks have been identified,	

describe the safeguard measures that have been taken in response and how an ESMP has been prepared/updated	
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Section 3: Categorisation

Is the categorisation according to ESP standards still relevant?	Yes
If No, please describe the changes made at activity, output or outcome level, approved by the Board, that resulted in this change of categorization.	

Section 4: Implementation arrangements

What arrangements have been put in place by the Implementing Entity during the reporting period to implement the required ESP safeguard measures?	<p>During the fourth reporting period, the IE has monitored the risks identified during the project design or planning stage and also informed to the other EEs as well as all National stakeholders about the ESMP availability with the project and potential risks to Environmental and Social Safeguards. Also, during any planning of new activities, the IE informs the concerned partners about the potential risks that could arise from the implementation. The Project Management Unit (PMU) also informs the technical partners to ensure the solution that are designed and developed do not lead to any risks or impacts to the stakeholders at the Local, National, and Regional levels. In case of any possible risks, the partners are requested to immediately inform the IE focal points for necessary action. Partners are informed to report any grievances, issues or risks, the IE has made available the following page to the partners, users, and stakeholders</p> <p>https://www.floodmanagement.info/volta-basin/contacts/ for reporting any grievances. Once the complaint or grievance is received, necessary actions will be handled by the project coordination and management unit, who will investigate first through a call or on-site visit. The IE will form a committee and may invite other relevant agencies (local/national/transboundary) to participate in the investigation. During the investigation, the root causes of the risks or issues will be identified and the concerned individuals or agencies responsible for correcting or resolving the issue will be assigned. The committee will produce a report of its findings such as causes of issues, involvement of concerned agencies, time taken to resolve, recommendations and actions. Complainants may request or will be sent a copy of the reports related to the complaint. All the complaints (if received any) and measures taken will be stored in a database of the project coordination and management unit and will also be reported to the Adaptation Fund along with the yearly progress report.</p>
Have the implementation arrangements been	Yes

effective during the reporting period?	
What arrangements have been put in place by each Executing Entity during the reporting period to implement the required ESP safeguard measures?	The EEs have been reaching out to the National and local partners to check for potential risks during the entire phase of implementation. In case of any risks or issues at the National or local level, it should be reported to them via email, telephone or visits to their headquarters and it will be then reported to the IE for a joint action.
Have the implementation arrangements at the EEs been effective during the reporting period?	Yes

Section 5: Projects/programmes with unidentified sub-projects (USPs). This section needs to be completed only if the project/proramme includes USPs.

Have the arrangements for the process described in the ESMP for ESP compliance for USPs been put in place?	
Is the required capacity for ESMP implementation present and effective with the IE and the EE(s)? Please provide details.	
Have all roles and responsibilities adequately been assigned and positions filled?	
Has the overall ESMP been updated with the findings of the USPs that have been identified in this reporting period?	

Identified USPs in the reporting period	Application of ESMP to the USP	ESP risks identified for the USP	Has an impact assessment been carried out?	Consultation held for risks and impacts identification for USP	Gender disaggregation to identify risks and impacts	Safeguard measures identified for the USP	Monitoring indicator(s) for each impact
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Section 6: Grievances

Was a grievance mechanism established capable and known to stakeholders to accept grievances and complaints related to environmental and social risks and impacts?	Yes
Were grievances received during the reporting period?	No

List all grievances received during the reporting period regarding environmental and social impacts; gender related matters; or any other matter of project/programme activities	For each grievance, provide information on the grievance redress process	Provide the status/outcome
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Comments

No grievances have been reported during the fourth reporting period to the Implementing and Executing Partners as well as to the Adaptation Fund. Any Grievance or issues can be reported through the project webpage <https://www.floodmanagement.info/floodmanagement/volta-basin/contacts/> or directly to the Adaptation Fund or the Implementing Partner. If any grievance or issues are reported in the future, it will be informed to the Adaptation Fund directly or through the PPR report, describing also the measures taken to

resolve or mitigate it.

GP Compliance

Section 1: Quality at entry

Was an initial gender assessment conducted during the preparation of the project/programme's first submission as a full proposal? Yes

Does the results framework include gender-responsive indicators broken down at the different levels (objective, outcome, output)? Yes

List the gender-responsive elements that were incorporated in the project/programme results framework

Gender-responsive element	Level	Indicator	Baseline	Target	Rated result for the reporting period
Percentage of households (including female headed households) with improved livelihoods or economic benefits	Objective	% of household(including female headed) with improved livelihood or economic benefits	0	50%- to be measured at the end of the project	Satisfactory
Capacity of stakeholders to develop Floods and Drought risk maps is enhanced	Output	number of women trained	0	20	Satisfactory
Capacity of stakeholders to use Floods and Drought risk maps is enhanced	Output	% of women participated	0	50%	Satisfactory
Risk Management strategies in short, medium and long term to be integrated into development plans (economic, social, environmental aspects)	Outcome	% of women participated	0	50%	Satisfactory
Improved flood and drought forecasting instruments and Early Warning	Outcome	Number of women participated	100	5000-Activity under progress. EWS will be designed with the consultation of	Satisfactory

Systems (EWS) and coordination at the transboundary level to reduce disaster risks in vulnerable communities				women. Specific bulletins will be requested targeting women groups involved with economic and livelihood activities. To be measured at the end of year 4	
Improved flood and drought forecasting instruments and Early Warning Systems (EWS) and coordination at the transboundary level to reduce disaster risks in vulnerable communities	Outcome	Number of beneficiaries (male and female – data disaggregated by gender) and regions are identified and benefited from forecasting and EWS	0	1000-Activity under progress. Number of beneficiaries will include both female and male participants. To be measured at the end of project	Satisfactory
The web-based Early Warning dissemination interface for VoltAlarm is designed	Output	Percentage of the population (men, women, elderly, and youths) understanding the added-value of the early warning system	0	1000-Activity under progress. More than 200 participants (50% women) in the country were presented with the VOLTALARM EWS for understanding and sharing the usability experience . Once finalized with modelling and forecasting, additional participants from the countries and regional levels will be trained. To be measured at the end of project	Satisfactory
Pilot testing for a number of areas over the basin during the monsoon and dry seasons is performed	Output	% of women participated in coordination meeting and decision-making	0	50%- Activity to be initiated after availability of EWS. During the initial consultations at the 10 pilot sites,	Satisfactory

				women representatives provided information related to issues and need for better ways for early warning dissemination. This will be considered during the design and development of the EWS. To be measured at the end of project	
Development and implementation of community-based flood and drought management	Output	% of women participated and benefitting from the local system and capacity development	0	Approximately around 1000 women participated and benefited from the community based flood management activities implemented in the six communities of the Volta Basin	Good
Knowledge and capacity development using the IUCN Nature-based standards	Output	% of women participated and trained	0	50%- Good For the 8 National workshops training on Mainstreaming Gender, we had more than 60 percentage women participants as compared to men. The project team were able to get women decision makers, gender focal points in each countries who were eager to provide support in developing road map as well as providing budgeting for mainstreaming gender into E2E-	Good

				EWS-FF and IFM. Please check the below link https://www.floodmanagement.info/training-workshops-for-mainstreaming-gender-into-e2e-ews-ff-and-ifm/	
Awareness of policy-makers from the six countries on the key long-term strategies for floods and drought management and environmental impact is strengthened	Output	% of women participated	0	50%-To be measured at the end of year 5	Satisfactory
Experiences of local communities on key long term strategies for floods and drought management are collected	Output	number of women, elderly and youths consulted	0	50%-To be measured at the end of year 5	Satisfactory
Strengthened capacities of actors and decision makers at national and transboundary level on long term risk management policies, plans and strategies	Outcome	number of women participated	0	50-To be measured at the end of year 5	Satisfactory
A collaborative process is developed to ensure those instruments and strategies are accepted by the local organization and communities and adapted to the local context	Outcome	number of women, elderly and youths consulted	0	50%-To be measured at the end of year 5	Satisfactory

Capacity development based on the Training Manual for mainstreaming gender in the E2E-EWS-F and flood management	Output	number of men, women, elderly , persons with disabilities and youths were consulted and participated in the capacity development workshops	0	80%- more than 200 participants from different gender based or vulnerable groups were involved to understand impacts and issues during flood management, identify their needs and design solutions to improve their capacities and provide support during flooding situations.	Good
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Section 2: Quality during implementation and at exit

List gender equality and women's empowerment issues encountered during implementation of the project/programme. For each gender equality and women's empowerment issue describe the progress that was made as well as the results.

Gender equality and women's empowerment issues	Rated result for the reporting period	Provide justification of the rating provided
N/A - to be completed and shared with final PPR	Satisfactory	During the reporting period, no gender equality and women empowerment-related issues were identified. The project provided necessary support to ensure gender equality, and gender-inclusive participation to various activities including wherever possible to ensure women's empowerment is supported.

Section 3: Implementation arrangements

What arrangements have been put in place by the Implementing Entity during the reporting period to comply with the GP	During the reporting period related to PPR4, the Implementing Entity and Executing Entities, continued to make efforts to comply with the principles of the AF Gender Policy, including gender equity, gender mainstreaming, gender responsiveness, gender sensitivity, gender-inclusive, and women's empowerment during the implementation. As many of the activities were implemented at the local level, there were important considerations to ensure gender-inclusive approach have been followed. In particular, the following aspects have been put in place to ensure compliance with the AF gender policy: 1-Ensure Gender experts from different agencies, IEs and EEs are involved in the planning, organization and implementation of the project activities. 2 - Ensuring that the local or household baseline incorporated sex-disaggregated
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	<p>data and gender-specific questions. 3 - Encouraging project partners/ executing entities/consultants/national stakeholders to hold gender-sensitive consultations and assessments, for example conducting separate focus group discussions for men and women, therefore allowing women's views to be better captured without being overshadowed by men. 4 - Ensuring Local, National, and Regional Workshops and Training (including the VFDM Inception workshop) have the participation of both men and women. 5 - Ensuring that gender issues were discussed at Inception and during consultation and work planning meetings - for example, the question of how activities are designed so as to encourage full participation and engagement of women</p>
<p>Have the implementation arrangements at the IE been effective during the reporting period?</p>	<p>Yes</p>
<p>What arrangements have been put in place by each Executing Entity during the reporting period to comply with the GP?</p>	<p>During the reporting period of PPR-4, the implementation arrangements at the IE for Gender Policy compliance have been effective during the implementation of activities. The Gender Focal points of the IE and EEs were/are involved in designing activities Discussions regarding gender issues or participation are held during project activities implementation and work planning meetings, ensuring: 1) all partners consider the needs (language, cultural, ensure equal participation of women and men) and constraints (giving floor to women participants to present their views etc.) of women participation in project activities; 2) ensure Gender participation (checking availabilities from their schedule) in all activities; 3) aim for assigning activity leadership to women and 4) capture sex-disaggregated data for the baseline and other assessments and activities. This has laid the foundation for effective Gender Policy implementation in the project. -During the hiring of national or local technicians, consultants or experts, a higher selection weightage is and will be given to female applicants. WMO continued during Consultation and implementation of activities (workshops, development of products, and tools), a review is carried out through a Gender expert or with a Gender Lens while designing activities or requirement gatherings. The experts involved in the implementation of the activities are made aware of the AF Gender policy consideration and ensure the involvement of women, youths as much as possible in their activities. VBA: The VBA at the regional level ensures National gender focal points, where available are involved, in project planning meetings and on review of reports, concept notes, and documents to ensure the incorporation of gender aspects. - While organizing workshops and training</p>

	both men and women are invited as participants. In the project Inception workshop, more than 40% percent of participants were female -During the hiring of consultants, a higher selection weightage is given to female applicants. GWP-WA: - During PPR-4, while organizing workshops and training as well as during implementation both men and women are invited as participants and engaged in tasks. In the activities related to gender mainstreaming, more than 60% percent of participants were female -During the hiring of consultants, a higher selection weightage is given to female applicants.
Have the implementation arrangements at the EE(s) been effective during the reporting period?	Yes
Have any capacity gaps affecting GP compliance been identified during the reporting period and if so, what remediation was implemented?	No

Section 4: Grievances

Was a grievance mechanism established capable and known to stakeholders to accept grievances and complaints related to gender equality and women's empowerment?	Yes
Were grievances received during the reporting period?	No

List all grievances received through the grievance mechanism during the reporting period regarding gender-related matters of project/programme activities [6]	For each grievance, provide information on the grievance redress process used	Provide the status/outcome used
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Comments

Grievance mechanism for Gender related issues can be submitted through: <https://www.floodmanagement.info/floodmanagement/volta-basin/contacts/>. No grievance related to the gender issues were reported to the IE and EEs during the reporting period

Rating

Implementing Entity

Project components/outcomes	Alignment with AF outcomes	Expected Progress
Outcome 1.1: Improved knowledge of risks, climate change impacts and risk management capacities through knowledge sharing and participatory	Outcome 1	The project team has identified preliminary existing information in relation to flood hazards in each of the six countries and integration of existing information through different national data and information collection is on-going 1. The baseline information on flood hazards in the six countries and National reports are validated and available. 2. The missing information on flood hazards survey sheet is shared with the countries 3. Identification of Globally available data on flood hazards via web-based EWS is completed 4. National and local data and information (hazard, exposure, social and structural) are collected from the National Agencies 5. Trainings (virtual and physical) for National technicians are completed to develop the GIS layers of hazards, vulnerability and risk

mechanisms		risk maps on floods and drought are presently developed by the technical partner National level GIS layers of exposure, vulnerabilities and impact maps (check https://www.floodmanagement.info/volta-basin/deliverables/) 7. Development of database for storing and managing the Hydrological, Meteorological, Climatological environmental data and information is under final stage. Discussion with countries agencies hosting the database has been identified 8. Procurement of the IT and D going (planned completion by Dec 2023)	
Outcome 1.2: Bridging the gap in adaptation measures to integrate future scenarios (economic, urban, climate, environment, etc.) into current practices and knowledge	Outcome 6	Identification of existing information on climate change predictions, social and awareness of future risks and impacts on economic, urban, climate, and environment and variability 1. Global information related to climate projections is collected at the National stakeholders are completed to share National data and information 3 completed, on-going project's are completed and used for the development of the simulate climate change impacts to various sectors (population, urban, water resources simulations have been completed (https://www.floodmanagement.info/floodmanagement/content/uploads/2022/08/Volta_RiskProfile_Total_English.pdf and https://www.floodmanagement.info/floodmanagement/wp-content/uploads/2022/10/Exposure_Impact_Maps_Technicians_6december2021	
Outcome 1.3: Risk management strategies in short, medium and long-term to be integrated into development plans (economic, social, environmental aspects)	Outcome 7	Capacity development of relevant stakeholders for integrating risk management plans with assigned roles and responsibilities 1. Secondary literature review and stakeholders are carried out to identify existing information (plans, policies or guidelines related to floods and drought events at local, national and regional levels 2. Base management strategies and framework was developed https://www.floodmanagement.info/floodmanagement/wp-content/uploads/2022/12/Draft_ze%CC%81ro_Risk_Management_Strategy_flood-2-1.pdf and https://www.floodmanagement.info/floodmanagement/wp-content/uploads/2022/12/Draft_ze%CC%81ro_Strategie_gestion_inondation_se	
Outcome 2.1: Improved flood and drought forecasting instruments and Early Warning Systems (EWS) and coordination at the transboundary level to reduce disaster risks in vulnerable communities	Outcome 2	1. Design and development of the web-based EWS is on-going 2.Integration of time information from the National and Regional projects or initiatives are on-going EWS for the context of the Volta Basin countries (availability and design of the agencies, Volta Basin regional maps, etc)	
Outcome 2.2 Demonstration of the added value of the E2E EWS VoltAlarm through a series of pilot testing during monsoon and dry seasons	Outcome 2	Identification of the pilot sites in each of the project countries in joint consultation finalized and initial consultation meetings with the stakeholders have been held	
Outcome 2.3: Strengthened awareness of vulnerable people on hydro-meteorological risks, prevention, preparedness, and response strategies through education	Outcome 3	Identification of the National Agencies staffs and local representatives for capacity development activities are completed. 8 workshops on mainstreaming gender into workshops on IUCN standards for nature-based solutions are completed Action plan at the regional, national and local levels are under development. Concept note for based solutions for flood and drought management is available and discussion for various donors and financial institutions	

programs using participative solutions			
Outcome 3.1: Decision support and policy development for strengthening resilience at the local, national and transboundary levels of the Volta Basin	Outcome 3	Existing plans, policies and guidelines documents available at national and transboundary levels and reviewed. (On-going as planned and final status will be reported in PPR 5)	
Outcome 3.2: Strengthened capacities of actors and decision makers at national and transboundary level on long term risk management policies, plans and strategies	Outcome 7	Identification of the National Agencies staffs and local representatives (policy-makers) and awareness activities is completed. Capacity building will continue throughout the project. Will be reported in PPR 5	
Outcome 3.3: A collaborative process is developed to ensure those instruments and strategies are accepted by the local organization and communities and adapted to the local context	Outcome 7	Identification and consultation with the local communities representatives for capacity building and awareness activities will be started in July 2023	

Please provide the Name and Contact information of the person(s) responsible for completing the Rating section

Name	Email
Ramesh Tripathi	rtripathi@wmo.int

Please justify your rating. Outline the positive and negative progress made by the project since it started. Provide specific recommendations for next steps.

Until the reporting period (until June 2023), The VFDM project has been progressing satisfactorily positively in terms of technical design and development of the tools and products jointly with National and Regional stakeholders especially VOLTALARM EWS(<https://volta.mydewetra.world>), building capacity on risk mapping, climate scenarios, risk prevention, and management strategies, gender mainstreaming, IUCN NbS, coordination and engagement of the National stakeholders, developing synergies with other projects and initiatives etc. Nevertheless, some delays were encountered initially due to the identification of roles and responsibilities and the signing of agreements between the executing partners. The implementation was on track until the COVID-19 pandemic situation imposed travel restrictions and organization of activities/meetings at both National and regional levels. The project management team continued virtual discussions with the Regional and National stakeholders and planned measures for implementing upcoming activities. Starting from March 2022, the implementation of activities has been started now at the National level and it is expected to continue at the National and local levels through trained national and local consultants. The overall IP rating is Marginal Satisfactory based on the overall status of completion of the outputs/activities. There has been an additional challenge as three of the six project countries have civil security issues not allowing partners and agencies to regularly travel to the countries to implement activities on the ground. Local and national consultants have been hired to provide necessary support which has

resulted in delays in implementation.

Executing Entity / Project Coordinator

Project components/outcomes	Alignment with AF outcomes	Expected Progress	Progress to date	Rating
<p>Outcome 1.1: Improved knowledge of risks, climate change impacts and risk management capacities through knowledge sharing and participatory mechanisms</p>	<p>Outcome 1</p>	<p>1. At least, 400 official letters have been written and sent to the 6 VBA Line Ministries in support the mobilization of actors for the various meetings; 2. Provisional reports have been sent to the various Focal Points for amendment and additional missing information; 3. A country-by-country agenda was negotiated and obtained for the various meetings and activities. 4. VBA worked in collaboration with the national agencies of the six (6) countries to set up six (6) national working groups. Each working group will ensure coordination and synergy of action in the implementation of the activities entrusted to it. Also additional activities have been completed during the reporting period 1. Support the concept note finalization for the conduct of the different activities; 2. Identification and creation of IT/ and Database Expert list in support of the completion of the 1122 activity; 3. Support the concept note finalization for a virtual meeting on the implementation of the activity in the 6 countries 4. VBA IT/DB expert visited 6 countries to collect necessary information on understanding current capabilities and needs for establishing National database and accessing the VOLTALARM EWS.</p>	<p>Completed</p>	<p>Satisfactory</p>
<p>Outcome 1.2: Bridging the gap in adaptation measures to integrate future scenarios (economic, urban, climate, environment etc.) into current practices and knowledge</p>	<p>Outcome 6</p>	<p>1.Support the concept finalization of activities 1113, 1114, 1122, 1231-1237 in the 6 countries; 2. Support concept notes finalization for the holding of the various virtual meetings for the implementation of activities 1113, 1114, 1231-1237 in the 6 countries; 3. Organizing and holding a meeting to harmonize the understanding of the terms of reference for carrying out the activity 1231-1237; 4. Support for the development of the final version of the Concept Note for the Conduct of Activities 1231-1237 5. Preparing and sending a message to the National Focal Points to share the finalized conceptual notes of the activities and the virtual meeting with the 6 countries 6. Organizing the mini-workshops</p>	<p>Completed</p>	<p>Satisfactory</p>

		at each country to review and validate the two reports (Feasibility study of the application of the IUCN Red List of Ecosystem and Integrated basin-wide wetland guidelines to promote ecosystem services sustainability) prepared by IUCN in close coordination with the PMT 7. Organizing and conducting the regional workshop (attended by more than 50 participants) on 15th and 16th June 2021 mainly to review the ecosystem services status through the two reports and capacity development for Nature-based solutions leading to the development of a bankable project proposal.		
Outcome 1.3: Risk management strategies in short, medium and long term to be integrated into development plans (economic, social, environmental aspects)	Outcome 7	1. Secondary literature review and discussion with the National stakeholders are carried out to identify existing information (plans, policies or guidelines) for managing risks related to floods and drought events. • Finalization of the Terms of Reference with the WMO and GWP-WA • Recruitment of six (6) national consultants • the signing of six (6) service contracts • Launch and monitoring of data collection and the preparation of interim study reports Pursuant to these steps, the following deliverables were obtained: • One (01) ToR finalized; • Recruitment and contracting with six (6) national consultants; • drawing up and signing six (6) employment contracts; • six (6) national and one (1) regional, reports prepared. • One (1) regional workshop report established • Six (6) mini national workshops to amend and adapt the draft policies, plans, strategies, programs and directives to climate extremes such as flood and drought; • six (6) amendment reports were produced by the country teams. The regional national strategies for risk prevention and management is presently under development and will be reported in PPR-5	Ontrack	Satisfactory
Outcome 2.1: Improved flood and drought forecasting instruments and Early Warning Systems (EWS) and coordination at the transboundary level to reduce disaster risks in vulnerable communities	Outcome 2	1. Development of the web-EWS is ongoing 2.Integration of the existing information from other National and Regional projects 3. Capacity development of the relevant forecasters and experts within VBA and national agencies have been carried out for the VOLTALARM EWS	Ontrack	Satisfactory
Outcome 2.2 Demonstration of the added value of the E2E	Outcome 2	Identification of the pilot sites in each of the project countries in joint consultation with the National agencies are completed	Ontrack	Satisfactory

EWS VoltAlarm through a series of pilot testing during monsoon and dry seasons		and initial consultations are carried out ongoing and will be reported in PPR-5		
Outcome 2.3: Strengthened awareness of vulnerable people on hydro-meteorological risks, prevention, preparedness, and response strategies through education programs using participative solutions	Outcome 3	Identification of the National Agencies staffs and local representatives for capacity building trainings and skills development activities or the implementation of this activity, the VBA proceeded as follows: To date, the deliverables resulting from this activity are: six (6) local partners recruited six (6) contracts or partnership agreements signed six (6) flood and drought management committees set up six (6) community flood and drought management action plans developed six (6) activity launch reports five (5) out of six (6) quarterly technical and financial activity reports prepared and available • Ten (10) discussions and monitoring of activities organized with local partners; • Six (6) flood and drought management committees set up; • Six (6) community flood and drought management action plans developed; • six (6) quarterly technical and financial progress reports prepared and available; • six (6) progress reports were produced; • five/six (5/6) hydro-meteorological stations were installed and are operational.	Completed	Satisfactory
Outcome 3.1: Decision support and policy development for strengthening resilience at the local, national and transboundary levels of the Volta Basin	Outcome 3	Plans, policies and guidelines documents are reviewed	Ontrack	Satisfactory
Outcome 3.2: Strengthened capacities of actors and decision-makers at national and transboundary level on long-term risk management policies, plans, and strategies	Outcome 7	Identification of the National Agencies staffs and local representatives for capacity development and awareness activities	Ontrack	Satisfactory
Outcome 3.3: A collaborative process is developed to ensure those instruments and strategies are accepted by the local organization and communities and adapted to the local context	Outcome 7	Identification and consultation with the local communities representatives for capacity development and awareness activities	Ontrack	Satisfactory

Please provide the Name and Contact information of the person(s) responsible for completing the Rating section

Name	Email	Institution
NIAMPA Boukari, Project Technical Officer at VBA	niampaboukary@yahoo.fr	Volta Basin Authority

Please justify your rating. Outline the positive and negative progress made by the project since it started. Provide specific recommendations for next steps.

The overall rating is Satisfactory As a project implementation partner during the reporting period, the Volta Basin Authority (VBA) through the project technical officer, provided support in several areas as follows: - At the technical level, it contributed to technical and coordination meetings both in and outside of Burkina Faso. It took part in the meetings to amend and finalize the working papers (Work Plan, Budget, signing of the agreements, and Terms of Reference). VBA regularly participated in the national and regional workshops - in terms of mobilizing the partnership and the stakeholders for the implementation of the project, VBA facilitated the transmission of information, consultations, and the mobilization of non-financial co-financing and synergy commitments in favor of the implementation of the VFDM project. It has constantly informed the 6 VBA Line Ministries on the implementation of the project's activities in each country and reported to the Council of Ministers of the Volta Basin. In addition, it has regularly linked the National Focal Points VBA, WMO, and GWP/WA in favor of synergistic support of the project's activities; - administratively, VBA provided institutional communication through over 400 official letters and at least 500 e-mail messages sent to the countries, including in relation to (i) the organization and conduct of EWS missions; (ii) interim study reports, (iii) the selection of national consultants and 60 sites for mapping vulnerability and capacity at the community level, (v) the organization of virtual meetings for the presentation of study reports, concept notes and questionnaires relating to the completion of activities 1113; 1.1.1.4; 1.1.2.2; 1.1.2.3; 1.2.3.1 to 1.2.3.7; 1121; 1124; 2161; 2162, 223; completion of the community-based flood and drought management activities, risk mapping and climate scenarios, IT and DB assessment and identification of the national host agency in each of the Volta Basin countries, support in the design and development of the VOLTALARM EWS. To better achieve efficiency and effectiveness in the implementation of the project during the 5th year, it is recommended to: - have a Work Plan and Budget on time, with clear responsibilities indicated; - provide the National Actors necessary support to facilitate the carrying out of the activities. - hold regular meetings for updating and orientation between the three executing partners; - make budgetary adjustments to (i) save money; (ii) fill the necessary gaps allowing certain under-budgeted activities to be completely carried out - involve the national working group in a flexible way with less administrative protocol;

Other

Project components/outcomes	Alignment with AF outcomes	Expected Progress	Progress to date	Rating
Outcome 1.1: Improved knowledge of risks, climate change impacts and risk management capacities through knowledge sharing and participatory mechanisms	Outcome 1	1. The Project Technical Assistant designed and led the process leading to the selection of 62 technicians, data collection and capacity building of technicians for the development of flood and drought risk maps. 2. The Project Technical Assistant prepared the twelve (12) national capacity building workshops of technicians for the development of flood and drought risk map and participated in the workshops in Burkina Faso, Benin and Togo 3. Comments and improvements to the draft concept note of a joint regional workshop for stakeholders to	Completed	Satisfactory

		<p>deliver knowledge on Vulnerability Capacities Exposures and Risks (VCER's) database and Floods and Drought risk maps of Volta Basin 4. The Project Technical Assistant prepared and facilitated a joint regional workshop for stakeholders to deliver knowledge on Vulnerability Capacities Exposures and Risks (VCER's) database and Floods and Drought risk maps of Volta Basin 5. The Project Technical Assistant finalized and shared the regional workshop report for stakeholders to deliver knowledge on Vulnerability Capacities Exposures and Risks (VCER's) database and Floods and Drought risk maps of Volta Basin 6. Comments and improvements to the draft concept note of a national workshops to raise awareness in regional and national stakeholders about the volta risk profile for floods and droughts 7. The Project Technical Assistant prepared and facilitated the six national workshops to raise awareness in regional and national stakeholders about the volta risk profile for floods and droughts</p>		
<p>Outcome 1.2: Bridging the gap in adaptation measures to integrate future scenarios (economic, urban, climate, environment etc.) into current practices and knowledge</p>	Outcome 6	<p>1. Participation in the regional workshop and contribution to the finalization of the report of the regional workshop on Nature-Based Solutions and to the various facilitation materials for the workshop. 2. A Concept note related to the implementation of the NBS have been developed and will be shared with relevant donors by VBA and GWP-WA.</p>	Completed	Satisfactory
<p>Outcome 1.3: Risk management strategies in short, medium and longterm to be integrated into development plans (economic, social, environmental aspects)</p>	Outcome 7	<p>Facilitating the discussion with national stakeholders to identify existing information (plans, policies or guidelines) and the recommendations for managing risks related to floods and drought events The regional strategy is under development and will be shared during the PPR-5 reporting</p>	Ontrack	Satisfactory
<p>Outcome 2.1: Improved flood and drought forecasting instruments and Early Warning Systems (EWS) and coordination at the transboundary level to reduce disaster risks in vulnerable communities</p>	Outcome 2	<p>The final progress will be provided during PPR-5. Below are some of the progress '1. Facilitating the planning and attending the six national virtual meeting to present the Web-EWS to the national stakeholders and to obtain their acceptance for its development 2. Comment and improvements provided to the draft concept note of the regional training workshop on the use of the VoltAlarm Platform 3. Participation in the regional workshop and contribution to the finalization of the report of the regional workshop 4. Regional and national workshops have been carried out to build the capacity of the national and regional</p>	Ontrack	Satisfactory

		stakeholders especially from hydrology, meteorology, and disaster management.		
Outcome 2.2 Demonstration of the added value of the E2E EWS VoltAlarm through a series of pilot testing during monsoon and dry seasons	Outcome 2	'1. Contributing to the elaboration of the guidance note provided to the national agencies to identify pilot sites in each of the six countries of the Volta Basin 2. Comment and improvements provided to the draft concept note of community initiatives for integrated flood and drought management in the Volta Basin 3. Comment and improvements provided to the draft concept note of the terms of reference for the recruitment of local partners who will support the implementation of initiatives at the local level. 4. Participation in the process of recruiting local partners who will support the implementation of initiatives at the local level. 5. Participation in the various discussion sessions organized online with the various structures selected at the end of the recruitment process Further update will be provided during PPR-5	Ontrack	Satisfactory
Outcome 2.3: Strengthened awareness of vulnerable people on hydro-meteorological risks, prevention, preparedness, and response strategies through education programs using participative solutions	Outcome 3	1. Development of the concept note for the adaptation of the training manual on the integration of gender in the E2E-EWS-FF and the IFM to the context of the Volta basin; 2. Development of the terms of reference and recruitment of the consultant responsible for supporting the adaptation of the training manual; 3. Adaptation of the manual and development of facilitation materials for national training workshops on gender mainstreaming in the SAP BEB PC and GIRI; 4. Planning and organization of eight national training workshops on gender mainstreaming in E2E-EWS-FF and the IFM 5. Facilitation and reporting of the eight national training workshops on gender mainstreaming in E2E-EWS-FF and the IFM 6. Comment and improvements provided to the draft concept note of national capacity building workshops for Volta Basin actors on "nature-based solutions" with a view to developing bankable projects at the scale of the Volta Basin 7. Participation and animation in the national capacity building workshops (in Benin, Togo and Côte d'Ivoire) and contribution to the finalization of the report of the national workshop 8. The Project Technical Assistant contributed in developing the concept note for the regional program on nature-based solutions in the Volta Basin and then in organizing the regional workshop to present the concept note	Completed	Satisfactory

Outcome 3.1: Decision support and policy development for strengthening resilience at the local, national and transboundary levels of the Volta Basin	Outcome 3	1. Facilitating the discussion with national stakeholders to identify existing plans, policies or guidelines for managing risks related to floods and drought events in the volta bassin 2. Participation in the process of recruiting the consultants who will conduct the review of policies, plans, strategies, programs and directives related to adaptation and resilience to climate change in the Volta Basin 3. Comment and improvements provided to the draft report of review of policies, plans, strategies, programs and directives related to adaptation and resilience to climate change in the Volta Basin 4. Support to the preparation and participation to the regional workshop held in Benin that presented the results of the review of policies, plans, strategies, programs and directives related to adaptation and resilience to climate change in the Volta Basin. will be reported during PPR-5	Ontrack	Satisfactory
Outcome 3.2: Strengthened capacities of actors and decision makers at national and transboundary level on long term risk management policies, plans and strategies	Outcome 7	Facilitating the identification of the national agencies to identify staffs and local representatives for capacity development and awareness activities. Will be reported during PPR-5	Ontrack	Satisfactory
Outcome 3.3: A collaborative process is developed to ensure those instruments and strategies are accepted by the local organization and communities and adapted to the local context	Outcome 7	Facilitating the identification and consultation with the local communities representatives for capacity development and awareness activities. Will be reported during PPR-5	Ontrack	Satisfactory

Please provide the Name and Contact information of the person(s) responsible for completing the Rating section

Name	Email
Maxime TEBLEKOU	maxime.teblekou@gwpao.org

Please justify your rating. Outline the positive and negative progress made by the project since it started. Provide specific recommendations for next steps.

The rating is satisfactory as the project has developed or strengthen necessary capacities at the national, regional and local levels especially with the operational EWS for timely monitoring and forecasting of the climate change hazards. The relevant stakeholders and population will be informed with warning or advisory services. Basically, the project implementation is going well with minor delays due to the initial COVID-19 pandemic situation in 2020, 2021 and early 2022 and later on with the civil security issues in three countries (Burkina Faso, Mali and Northern part of Benin). The concept notes of the activities are finalized by considering the comments and improvements provided by the different partners. The same applies to the methodological approaches and data collection tools proposed by the consultants for the conduct of

activities. These different documents (concept notes and methodological guide) are shared with the focal points (WMO, VBA and GWP-WA) of the countries of the Volta Basin to enable them to take ownership of the activities and to make their contributions. During the four years of implementation, GWP-WA has contributed to the collection of data and the preparation of national consultation reports on the assessment of national capacities and needs for forecasting and warning systems. to floods and droughts (which will provide benchmarks for measuring the impacts of the project), the recruitment of local experts, the identification of around sixty sites throughout the Volta basin and the monitoring of data collection at different sites for local community risk mapping. It contributed to the selection of 62 technicians and to the organization of a first series of face-to-face national workshops for the development of flood and drought risk maps in the Volta Basin. GWP-WA also contributed to the development of the project monitoring and evaluation manual, to the communication around the project activities, to the formation of the Project Technical Advisory Committee (PTAC) which annually reviews the progress of the project; risks encountered and mitigation measures, suggestions, and technical assistance on the implementation of activities in subsequent years. He contributed (i) to the adaptation of the training manual on gender mainstreaming in SAP end-to-end for flood forecasting and integrated flood risk management to the context of the Volta Basin; (ii) the organization of eight (08) national training workshops on the mainstreaming gender into end-to-end SAP processes for flood forecasting and integrated flood risk management in the Volta Basin context. GWP-WA has contributed to the process of capacity building, data collection and production of flood and drought risk maps of the Volta Basin, which has now made it possible to develop the risk profile of the Volta Basin. Floods and Drought of the Volta Basin. During the fourth year of project implementation, GWP-WA facilitated the organization of national awareness workshops for national and regional stakeholders on the flood and drought risk profile of the Volta Basin. GWP-WA also supported the preparation and facilitation of national training workshops on nature-based solutions and the development of bankable projects. GWP-WA took an active part in the preparation and animation of the meetings of the Technical Advisory Committee of the Project. Due to the situation of the covid-19 epidemic, some activities of the first year and second year have been postponed to the third year and now to the fourth year because the project team and external partners were not allowed to meet. travel to the project countries as well as some of the staff of the national agencies working from home. During the third year of project implementation, all the planned activities are almost carried out. Some activities are underway and should be completed by the end of 2022. These are mainly: (i) the development of the action plan to improve the participation of women and vulnerable groups in the integrated management and flood warning at local, national and regional levels in the Volta Basin; (ii) the development of online course modules on dissemination, decision support and response in connection with flood and drought warning; (iii) organization of online courses on dissemination, decision support and response in connection with flood and drought warning; and (iv) the organization of a regional training workshop on the entire Early Warning System (EWS) process for flood forecasting and the three pillars of drought management. and (v) development of flood and drought impact based forecasting and early warning system Some of future recommendations for implementation: 1) Implement non-linked activities parallelly in the Six countries 2) Mobilizing National and local stakeholders for their support to the Activities 3) When possible, hire local and/or national experts to implement activities with proper training provided by the Technical partners

Overall Rating

Overall rating

Satisfactory

Please justify your rating. Outline the positive and negative progress made by the project since it started. Provide specific recommendations for next steps.

1. Indicate trends, both positive and negative, in the achievement of outcomes as per the project indicators. The overall implementation experience has been positive. The project-executing entities continued to work well under the overall guidance or oversight of the Implementing Entity (WMO). Also, the project team is continuously involving the National, local, and regional stakeholders from the six countries including the ministries responsible for Meteorological, Hydrological, and Agriculture, who committed to providing their

support and staff engagement in the implementation of the activities and ensuring the deliverables are effective, tailored, open-source and sustainable. This Project continues with high visibility and relevance in the national and regional context ensuring methodologies, tools, and product development are maintained and scaled to the entire National portion of the six countries. The institutional arrangements for the Project Management Team (PMT) are in place and operational including the Project Technical Advisory Committee (PTAC). At the National level, each country is requested to provide focal points that will provide necessary support or assistance in fulfilling the tasks or activities of the project ensuring the project activities align with their mandates and tools and products are useful for their day-to-day services or work. As the national working groups are finalized, the implementation of activities will intensify at both the National and Regional levels, ensuring activities in the country are executed parallelly involving relevant stakeholders. As the National agencies have to carry out their day-to-day services and also work on different ongoing initiatives or projects, sometimes the staff are not able to timely respond or provide feedback to the concept note, ToR, and technical reports which leads to delays in finalization or completion of the activities. In the fourth year, the project team spent considerable time and effort meeting and consulting the relevant stakeholders identifying current needs, and capabilities for developing an early warning system for floods and drought and discussing synergies with other projects and avoid duplication of efforts. Several Terms of Reference (TORs) or Concept Notes were prepared for the activities planned in the four years of implementation and shared with the National stakeholders for their review, feedback, and support in the implementation. Development of risk maps and climate scenarios under Component 1 has been completed with the support of the National agency's staff to build preparedness measures for climate change events as well as for economic development. Later with the development of the National/Centralized database in each of the project countries, the development of risk maps and climate scenarios could be scaled from the Basin level to the National level. The database (data from different agencies or different on-going or completed projects) will be connected to the Early Warning System for floods and drought (planned for the fifth of the project) for monitoring, modeling and forecasting. Implementation is expected to be intensified in the coming months and looks promising in delivering on its planned targets. Several other activities are implemented such as identification and review of existing policies, plans and guidelines for the management of climate change extremes. As the project is transboundary, the project team has developed several communication documents (both in English and French) channels and plans for dissemination of the project requirements, deliverables, and results to the National and local stakeholders. As the 5 project countries are French-speaking and one English-speaking, the project team has to develop all the reports, concept notes, and documents in both languages which sometimes takes time to translate and review.

2. Detail critical risks that have affected progress. A major pandemic (COVID-19) situation has severely affected project progress to date (no cost extension for one year was received from the Adaptation Fund to implement delay or complete the pending activities). As informed to the Adaptation Fund during early March 2020 and through PPR-I and PPR-II, National workshops and other planned activities were not conducted due to travel restrictions imposed on the project team and other partners as well as National stakeholders were not available as there were restrictions on having a workshop with more than 15 participants and for more than 2 hours. Several virtual consultations were made with the countries to inform about the delay and even meetings were held to make progress in the implementation of activities (finalization of the reports, filling the data, and information availability survey sheet). Informing the National stakeholders at an early stage was well appreciated by the project partners and continued open communication on any challenges or issues was welcomed. Several measures have been in place now (training of local/National experts so as to implement activities as planned, parallel implementation of activities in different countries). However, the measures adopted is taking extra effort, time, and commitment from the Project partners and National/Regional/Local experts who will provide their support in the implementation of activities.

3. Outline response to MTR undertaken this reporting period. The independent MTR was conducted with the national, local, and regional stakeholders and the report was submitted to the Adaptation Fund Secretariat for review and endorsement. Some of the recommendations on project relevance, project effectiveness, project structure, efficiency, and sustainability are considered in the implementation of the pending activities. It is also highlighted that the continuous support and participation from the national and regional agencies will be important for the success and long-term sustainability of the project outcomes

4. Outline action plan to address projects with a rating of HU, U or MU. Please keep your input to 1200 words N/A for this reporting period. The VFDM project has been progressing satisfactorily in terms of technical design and development of the tools and products jointly with the support of National and Regional stakeholders,

building capacity, coordination and engagement of the National stakeholders, developing synergies with other projects and initiatives, etc. The project management team is continuously implementing innovative methods, measures, and processes for the timely implementation of the upcoming activities with the Regional and National stakeholders. Post-COVID-19 pandemic situation, the implementation of activities has been ongoing at the National level (even though focal points in the countries have been changed, retired or moved to other agencies) and it is expected to continue at the National and local levels through trained national and local consultants. The IP rating is Marginal Satisfactory (MS) based on the overall status of completion of the outputs/activities.

Project Indicators

List of indicators

Type of Indicator (indicators towards Objectives, Outcomes, etc...)	Indicator	Baseline	Progress Since Inception	Target for Project End
Objectives	<ul style="list-style-type: none"> • Degree of improvement in populations' resilience to floods and drought events • Percentage of households (including femaleheaded households) with improved livelihoods or economic benefits • Quantitative details of the reduced number of the deaths and damage to assets and environment • Change in quality of climate related advisory to target population by the National services. 	<ul style="list-style-type: none"> • Number of floods and drought disasters without adequate and integrated management • Lack of investment for concrete measures developing resilience to climate change • Increasing growth of populations losing interest in agriculture based economic activities 	<ul style="list-style-type: none"> • Assessment of current capabilities and needs related to the development of risk maps and EWS (minimum 5 agencies in each countries were consulted) were completed • Identification and discussion with other national and regional projects (completed and on-going) for developing synergies and complementarities-Until the reporting period, synergies with 4 completed and on-going projects (FANFAR, FEWS White Volta and Oti-basin, CREWS project in Burkina Faso, Togo, and West Africa, CIMA risk profiles 2018 in 2 countries of the Volta Basin) were carried out. Other national and regional projects (GEF-REWARD, Adaptation Fund 	<ul style="list-style-type: none"> • Development of the risks map and end-to-end web-based early warning systems for floods and drought events. • Climate scenarios are mainstreamed into national plans and decision making tools. • 70% of floods and drought events are foreseen and adequate preparedness measures are taken by the beneficiaries

			<p>National project in Cote d'Ivoire) and initiatives are screened and synergies/complementarities will be identified. • Development of decision-making tools and long term risks prevention and management strategies • Design and development of the EWS (https://volta.myDewetra.world) for the Volta Basin is on-going and testing the effectiveness and applicability at the 10 pilot sites will commence from July 2023 For some activities, to be measured at the end of project</p>	
Goals	<ul style="list-style-type: none"> • Local /national agencies and communities have capacities and trained on climate change adaptation measures for floods and drought and mainstreaming of gender • Policies and guidelines at national and transboundary level for flood and drought management are better integrated and action plans are developed. 	<ul style="list-style-type: none"> • Insufficient understanding of risks, shortage of hydro-meteo infrastructures and resources • Lack of participation of Volta Basin countries at the national and transboundary level for flood and drought management • Unavailability of IT equipment's, trained resources for data and information management and sharing. 	<ul style="list-style-type: none"> • Development of the risk maps for the Volta Basin (risk maps and climate scenarios for the Volta Basin are developed) • National agencies staff are involved in the development of the risk maps (61 technicians working in the national and local agencies and academia were involved in the development of risk maps) and risk prevention and management strategies (more than 8 national agencies are involved in the development of risk prevention and management strategies) • Assessment and consultation with the 	<ul style="list-style-type: none"> • More than 1000 individuals from communities, agencies and organizations are trained through various workshops and are expected to disseminate knowledge and tools to other stakeholders • National and transboundary agencies are trained and water and natural resources policies and guidelines are developed

			<p>National agencies on needs and capabilities for the development of the National Centralized database and accessing the EWS (29 agencies Number of Agencies consulted in each country: Benin- 3, Burkina Faso - 6, Cote d'Ivoire - 5, Ghana - 6, Mali - 5, Togo- 4) especially meteorology, hydrology, disaster management, water resources etc.) were consulted for understanding current capacities and needs for establishing centralized database. For some activities, to be measured at the end of project</p>	
Outcomes	Development of Flood and Drought risks maps for the Volta Basin region	<p>The existing products, reports and documents don't have information on Floods and Drought risks mapping for the Volta Basin region and its consequences on human and natural resources.</p>	<ul style="list-style-type: none"> • Assessment of current capabilities and needs related to the development of risk maps (minimum 5 agencies in each countries were consulted) • Identification and collection of data required for the development of the flood and drought risk maps (National working groups and 61 technicians working in the national and local agencies and academia/universities were involved in the data collection related to vulnerabilities, risks and development of risk maps) • 	<p>Availability of Flood and Drought risks maps for risk-informed decision making Availability of climate scenarios and impacts due to the projected climate Availability of the risk prevention and management strategies (under finalization)</p>

			<p>Identification and discussion with other national and regional projects (completed and on-going) for developing synergies and complementarities for risk maps development. Until the reporting period, synergies with 4 completed and on-going projects (FANFAR, FEW White Volta and Oti-basin, CREWS project in Burkina Faso, Togo, and West Africa, CIMA risk profiles 2018 in 2 countries of the Volta Basin) were carried out. Other national and regional projects (GEF-REWARD, Adaptation Fund National project in Cote do'Ivoire)</p>	
Outputs	<p>Percentage of baseline information on vulnerabilities, capacities, exposure and risks will be made available for the Volta Basin</p>	<p>There is a lack of updated and integrated information on Floods and Drought related VCERs for the Volta Basin region</p>	<ul style="list-style-type: none"> • Assessment of current capabilities and needs related to the development of risk maps and climate scenario (6 countries and VBA consultation reports (242 participants participated) were developed with current capabilities and needs related to the development of risk maps and climate scenario. check here https://www.floodmanagement.info/volta-basin/deliverables/) • Identification of National and local updated data and information available for risk mapping risk maps 	<p>The VCERs database and flood and drought risk maps (risk zones) for the Volta Basin are developed with the available data; Metadata of VCERs will be available</p>

			<p>related data were collected and used for developing risk profiles</p> <p>https://www.floodmanagement.info/floodmanagement/content/uploads/2022/08/Volta_RiskProfile_Total_</p> <ul style="list-style-type: none"> • Identification and selection of National and Regional staff for providing training on VCERS GIS layers (61 technicians working in the national and local agencies and academia/universities were involved in the data collection related to vulnerabilities, risks and development of risk maps) • Identification and discussion with other national and regional projects (completed and on-going) for developing synergies and complementarities <p>Until the reporting period, synergies with 4 completed and on-going projects (FANFAR, FEW White Volta and Oti-basin, CREWS project in Burkina Faso, Togo, and West Africa, CIMA risk profiles 2018 in 2 countries of the Volta Basin) were carried out. Other national and regional projects (GEF-REWARD, Adaptation Fund National project in Cote d'Ivoire)</p>	
Outputs	Progress in terms of developing the database and risk maps (zones) on VCERS of Volta	No database and risk maps are available for Floods and Drought events at the Volta Basin	During the reporting period • Assessment of current capabilities and needs related to the	The VCERS database and flood and drought risk maps (risk zones) for the Volta Basin will

	<p>Basin (Percentage of basin surface area). The data from different countries will be made compatible with products and services highlighting the missing data and information of respective countries</p>	<p>region. The Volta Basin lacks updated classifications of the regions according to Flood and Drought risks.</p>	<p>development of risk maps and centralized database with Hydro, Meteo, Climate, social and structural related data and information Studies and reports on database and IT network for each of the Six countries are available including architecture for the national centralized database https://www.floodmanagement.info/volta-basin/deliverables/ <ul style="list-style-type: none"> •Virtual trainings and National face-to-face workshops organized for developing exposure and impact layers for the flood and drought events in the Volta Basin . 61 technicians (Number of Male technicians: 49 Number of female technicians: 12)were involved and 12 national workshops were conducted to develop exposure and impact layers. • Identification and discussion with other national and regional projects (completed and on-going) for developing synergies and complementarities until the reporting period, synergies with 4 completed and on-going projects (FANFAR, FEW White Volta and Oti-basin, CREWS project in Burkina Faso, Togo, and West Africa, CIMA risk profiles </p>	<p>be developed with the available data; Metadata of VCERs will be available</p>
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			<p>2018 in 2 countries of the Volta Basin) were carried out. Other national and regional projects (GEF-REWARD, Adaptation Fund National project in Cote do'Ivoire)</p> <ul style="list-style-type: none"> •Availability of flood and drought risk maps for current climate and future climate and visualized under the VOLTALARM EWS Risk maps and climate scenarios are developed with local and national data and information available at the national agencies and archived in the database of VOLTALARM EWS (https://volta.myDewetra.world) 	
Outputs	Progress in the development of the VCER and Flood and Drought risk maps report	Report on the VCER and Flood and Drought risk maps are not available for various actors concern by climate change adaptation and disaster risk reduction	<ul style="list-style-type: none"> •Availability of flood and drought risk maps for current climate and future climate and visualized under the VOLTALARM EWS Reports are available here https://www.floodmanagement.info/floodmanagement/content/uploads/2022/08/Volta_Risk_Profile_Total_2022.pdf and https://www.floodmanagement.info/VCERmanagement/content/uploads/2022/08/Volta_Risk_Profile_Total_2022.pdf •List of actors and stakeholders to whom the document will be shared - it is shared with more than 30 participants during the national workshop organized in the Six countries. Also posters were prepared and shared on the impact areas 	<p>and infographics materials on VCERs and Flood Risk Profile Total_2022.pdf</p> <p>Drought risk maps are developed</p>

			in the Volta basin https://www.floodmanagement.info/floodmanagement/content/uploads/2022/10/Exposure_Impact_Maps_	
Outcomes	Development of future scenario for the climate change variability and Floods and Drought events with VCERs database, Hydro-meteo information, climate projections etc.	There is no prediction about the role of future scenarios on socio-economic, urban, climate and environmental conditions	<ul style="list-style-type: none"> •Availability of flood and drought risk maps for the future climate scenarios and visualized under the VOLTALARM EWS. Reports available below:https://www.floodmanagement.info/floodmanagement/content/uploads/2022/08/Volta_RiskProfile_Total_events and https://www.floodmanagement.info/floodmanagement/content/uploads/2022/08/Volta_RiskProfile_Total_events and information visualized under https://volta.mydewetra.world 	Future scenarios are developed for the climate change variability and Floods and Drought events
Outputs	Progress in acquiring data and information on socio-economic, climate change projections for developing future scenarios	There is no availability of future scenarios for socio-economic and environmental development related to the climate change projections	Data and information related to socio-economic and environmental development are identified and collected at the National and local level and used for the development of risk maps and climate scenario for understanding the flood and drought impacts at local, national and transboundary Climate change projection for next 10, 100 and 1000 years are developed and made available Reports available below: https://www.floodmanagement.info/floodmanagement/content/uploads/2022/08/Volta_RiskProfile_Total_events and https://www.floodmanagement.info/floodmanagement/content/uploads/2022/08/Volta_RiskProfile_Total_events	Data and information on climate change projection and environment development is made available to the National stakeholders
Outputs	Progress in terms of modeling, analysis of qualitative or modeled data output	Lack of methodology to understand the impact of Flood and Drought events on risks;	Methodologies, tools and models for assessing projected impacts on water resources, urban development, and bio-diversity and	The future scenarios are developed and impact on various sectors are visualized and presented to the stakeholders

			agricultural areas are developed and visualized under the VOLTALARM EWS https://volta.mydewetra.world	
Outputs	Progress in terms of impact assessment, designing measures and identification of actors	Lack of strategy and action plans for managing social, economical and environmental risks in the Volta Basin	Assessment study and data collection related to the present environmental status and ecosystem services of the Volta Basin region were completed development of guidance document with the National and Regional stakeholders for integrated basin-wide wetland guidelines to promote ecosystem services sustainability (aquatic/terrestrial transition zone (ATTZ)) Reports available here https://www.floodmanagement.info/floodmanagement/content/uploads/2021/08/VFDM-1236-Draft-General-guidance-July-2021-English.pdf and https://www.floodmanagement.info/floodmanagement/content/uploads/2021/08/VFDM-1236-Draft-Orientations-generales-Juillet-2021-French.pdf Developed one regional bankable project concept note/proposal and identification of financial institution or donors is developed and shared with the potential donors	A tool-kit is designed and developed for assessing environmental risks for current and future scenarios One bankable National project concept note or proposal will be developed and ready for submission to the financial institute
Outcomes	Participation and training of the relevant stakeholders (Number of women involved) on risk	A knowledge tool to integrated risk management strategies into development plans	• development of flood and drought risk prevention and management strategies	Availability of Guidance document for risk-informed decision making on future scenarios due

	management strategies and action plan	are unavailable for the policy-makers of the Volta Basin countries	(https://www.floodmanagement.info/floodmanagement/info/floodmanagement/content/uploads/2022/12/Draft_ze%CC%82-1.pdf) •Capacity development workshops were organized with 40-50% women participants during November - December 2022 and January 2023	(https://www.floodmanagement.info/floodmanagement/info/floodmanagement/content/uploads/2022/12/Draft_ze%CC%82-1.pdf)	Iro_Ris
Outputs	Guidance document on future scenarios for the Volta Basin region is been developed for the National portion of the Volta Basin or transboundary level	There are no reports or guidance documents available for future scenarios of climate change projections on socio-economic and environment in the Volta Basin region.	On-going and planned to be completed by January 2023 Draft strategy available here: https://www.floodmanagement.info/floodmanagement/content/uploads/2022/12/Draft_ze%CC%82-1.pdf and https://www.floodmanagement.info/floodmanagement/content/uploads/2022/12/Draft_ze%CC%81.pdf	Availability of Guidance document for risk-informed decision making on future scenarios due to the climate change projections.	Iro_Ris
Outputs	Number of workshops are organized for the dissemination of risk management strategies and action plan for their integration into development plans	National stakeholders lack knowledge and tools to mitigate or manage risks due to Floods and Drought events.	Six national workshops were organized and conducted by January 2023 to finalize the risk management strategy and validate with the national and regional ministers for integration into their development plans	Atleast one national workshop per country were organised and followed with the mini workshop in each country for the final review of the strategy 1 transboundary level consultation workshop with National Focal Points(NFP) An action plan is available with roles and responsibilities of the relevant actors	Iro_Str
Outcomes	Progress in the establishment of Forecasting and EWS for Floods and Drought Number of beneficiaries (male and female – data disaggregated by gender) and regions are identified for forecasting and EWS	Presently, there is a lack of integrated forecasting and early warning systems for both Floods and Drought Agencies and populations are unaware of the relevance and utility of the Forecasting and EWS and how to use it	On-going - Progress in the design and development of the VOLTALARM forecasting and EWS for floods and drought (https://volta.myDewa) integrating existing projects and risk maps, observation stations, static data from the Volta Basin To be measured at	The Flood and Drought forecasting and EWS is operational At least 70 % of the Volta Basin region covered by Forecasting and EWS and there are used. More than 60% of the women have direct access to the EWS information	

			the end of the project	
Outputs	Number of meetings and consultation workshops organized and conducted to understand capacities and needs of the NHS and other stakeholders	There is a lack of skills and knowledge on the forecasting and early warning systems among the local and national staffs	One virtual and one face to face training conducted for understanding the current needs and capacities for the EWS. On-going - assessment on existing capabilities and needs on Hydro-meteorological data and information, models and forecasting tools at the National and Regional levels are carried out 3 distance learning courses on flood and drought EWS were conducted with a total participants of 200 from the Volta Basin countries Design and development of models and forecastig system identified. integration with the national database is on-going To be measured at the end of the project	Meeting and consultation workshop are organised at the national and transboundary level with identification of needs and capabilities
Outputs	Progress in the identification of need and procurement of the resources (equipment's, staffs etc.) List of sofware and hardware required with technical specifications Tentative list of vendors or suppliers	Presently, there is no real-time Early Warning System for Floods and Drought covering the entire Volta basin region	The identification of need and resources (equipments, Internet, availability of staffs, software, trainings to be conducted etc) at the National and regional levels for development and functioning of the EWS at the national and regional levels completed To be measured and presented at the end of the project	The operational centre is established in consultation with NMHSs and Volta Basin Authority
Outputs	Percentage of data collection, storage and management at	Hydro-meteo data are not available timely and as well	completed : study on availability of historical and real-	Compatible data or meta-data are available from the

	National and local level	not managed	time data and information carried out Identification of any data sharing agreement available at the National and regional level There was a request from the National agencies to rehabilitate the existing hydrological stations in order to get real time water level and precipitation data for visualization under the myDewetra EWS To be measured and presented with the PPR-IV	respective countries for flood and drought forecasting and EWS
Outputs	Progress in the development of thresholds levels for Floods and Drought risks linked with the environmental thresholds	Thresholds levels for the Floods and Drought risks linked with the environmental thresholds are not available for the Volta Basin region	Continuous consultation and capacity development with the national and regional stakeholders	Availability of the thresholds for Floods and Drought risks linked with the environmental thresholds in the Volta Basin region
Outputs	Percentage of operationalization of Floods and Drought forecasting at the local and regional centers.	Adequate Floods and Drought Modelling and Forecasts are not available at the local and national levels in the Volta Basin region	On-going Consultation and capacity development with the national and regional stakeholders to define procedure for impact based forecasting To be measured and presented with the PPR-V	Modeling and Impact based forecasting of Floods and Drought are available at the local and national centers of the Volta Basin region.
Outputs	Progress in the design and development of the early warning dissemination tool Percentage of the population (men, women, elderly, and youths) understanding the added-value of the early warning system	Currently there are no forecasting and early warning techniques available for the communities and agencies of the Volta Basin region, which can be interpreted easily	Development of the web-based platform with existing data and information (from Global level products and other completed and on-going projects) are incorporated and visualized Visualization of local and national data are on-going To	The web-based Early Warning dissemination interface is co-designed and developed so that the early warning information will reach more than 70 % of the communities in the Volta Basin prone to floods and drought

			be measured and presented with the PPR-V	events
Outputs	Number of workshops/meetings are organised and conducted to develop capacities of the participants (by Gender) Percentage of the population understands the added-value of the early warning system	Lack of knowledge on forecasting and EWS for Floods and Drought	The project team is demonstrating the designed and developed web-based EWS to the National and Regional stakeholders for receiving feedbacks and suggestions. One regional workshop (Number of women participate: 5 Number of Men participate: 40) and presentation during the 12 national workshops are carried out (total participants: 200) Virtual and face-to-face workshop trainings on the VoltaAlarm EWS are carried out with the local, national and regional stakeholders To be measured at the end of the project	Atleast 1 or 2 workshops/meetings per each country are conducted and participants (communities and agencies) have increased knowledge, awareness and skills. Also, early warning communication and dissemination mechanism are developed for timely warning communication
Outcomes	Pilot-tests are organised to assess the impact of tools and models developed	Lack of medium and long-term adaptation measures with early warning system.	Finalization of the 10 pilot sites for the testing of the EWS are completed together with the initial consultation at the 10 sites. The consultation with the communities are carried out to inform the purpose of the activities, gather their support and commitment in the implementation of the project activities To be measured at the end of the project	Pilot testing in atleast one location of each riparian countries More than 80% of the participants benefits from the pilot-testing to understand their roles and responsibilities beneficiaries
Outputs	Progress in the pilot testing (identification and	Agencies and Communities have limited knowledge	Finalization of the pilot sites for the testing of the EWS	Pilot testing in atleast one location of each riparian

	selection of pilot tests, monitoring during the floods and dry season etc.) of forecasting and EWS Participation of various actors and stakeholders working for Floods and Drought management	about the forecasting and EWS for both Floods and Drought events	and identification of relevant stakeholders working on floods and drought management are completed To be measured at end of the project	countries More than 80% of the participants benefits from the pilot-testing to understand their roles and responsibilities beneficiaries
Outputs	Workshops are organised and conducted to take feedback and develop capacities of the participants for future events Development of the communication material	Lack of coordination and collaboration between the actors and stakeholders.	To be measured at the end of the project once the pilot testing of the VOLTALARM EWS are completed	Atleast 1 workshop per each country is conducted with local and National stakeholders Success stories, best practices, lessons learned are shared through various social media channels so as to reach a broader audience.
Outputs	Progress in the identification and implementation of the local systems Number of people contributing and benefiting from the local systems	Need for local flood and drought systems empowering the communities for enhanced hazard management	community-based flood and drought management activities in the six sites of the volta basin are completed through local partners. Report and manual available here https://www.floodmanagement.info/floodmanagement/content/uploads/2022/10/Manual-CBFD-VB_FinalVersion.pdf and https://www.floodmanagement.info/floodmanagement/content/uploads/2022/11/VersionFinaleManuel-methodologies-for-management-of-floods-and-drought-events Total population supported with capacity development trainings and tools: Approximately 5000 Number of women involved: 259 elderly involved: 150 and youths involved : 412 Number of local measures identified,	Atleast one local community in each country has measures and is using the products, tools and methodologies for management of floods and drought events

			developed: at least 3 on each site Total number of local Hydro-Meteo stations installed: 5	
Outcomes	Workshops are organised and conducted to develop capacities of the participants Number of women, youths are trained	Lack of tools and awareness on mainstreaming gender and natural and nature-based solutions for flood management	6 national workshops on IUCN nature-based solutions are completed with the national and local stakeholders Number of national training workshops organised:6 Number of participant (female, male and youths); number of countries representative involved:214 Total number of female participants:51 Total number of Male participants:163 Number of participants successfully completed the NbS trainings:200 One Concept note for the implementation of the identified NbS is available and presently donors are screened for potential financing. 8 national gender mainstreaming workshops are organized in the six Volta Basin countries Number of workshops organized with the National and local stakeholders: 8 (workshops reports are available here https://www.floodmanagement.info/volta-basin/deliverables/ - check activities 2.3.2.2) Number of participants including youths in	Atleast 1 workshop per each country is organised 1 workshop is organised with national focal points of countries

			the 8 country workshops: 209 in total Number of women participants involved in each country: 93 in total	
Outputs	<p>Number of workshops organised and conducted to develop capacities of the participants</p> <p>Number and type of local and national staffs selected for the training</p> <p>Number of women trained</p>	Lack of knowledge on natural and nature-based solutions for Floods	<p>Based on the initial assessment and reports, the project is now using IUCN standards for the nature-based solution instead of original WWF Flood green guide tool, no changes will be made on the original indicators, baseline and targets to be achieved</p> <p>National stakeholders from hydrology, meteorology, disaster management, environmental agencies, municipality, water resources were identified for the training workshops on Nature-based solutions, concept note shared and finalized</p> <p>Number of participant (female, male and youths); number of countries representative involved:214 Total number of female participants:51 Total number of Male participants:163</p> <p>Number of participants successfully completed the trainings:200</p> <p>Workshop reports are available here https://www.floodmanagement.info/volta-basin/deliverables/check_activity</p> <p>2.3.1.2 One regional</p>	<p>Atleast 1 workshop per each country is organised and Nature based solutions are identified for regions in the country affected by floods and drought</p>

Outputs	Number of workshops organised and conducted to develop capacities of the participants (decision-makers, policy-makers) Number of women participating in the workshops	Lack of knowledge and tools for the key stakeholders to manage flood and drought events at the transboundary level	Activities planned from July 2023. To be measured at the end of the project	One workshop at the transboundary level is conducted. The present information gap and key long-term strategies are identified and disseminated
Outputs	Progress in the organising meetings or consultation workshops at local level Number of women, elderly, and youths consulted	Lack of involvement of key-stakeholders in the development of key long term strategies for floods and drought management	Activities planned in July 2023. To be measured at the end of the project	More than 20 meetings or consultation takes place at various locations of the Volta Basin region. The discussion outcomes are drafted to improve the existing policies, plans etc.
Outcomes	Workshops are organised and conducted to develop capacities of the participants Number of documents reviewed and discussed	Limited knowledge of transboundary policies, plans and guidelines for the key actors to manage risks with the local collaboration of the communities and authorities	Activities planned from October 2023. To be measured at the end of the project	One transboundary consultative workshop is conducted with participants from each country of Volta Basin Climate adaptation plans (NAPA, NAP, NDC), policies and guidelines (on data and information exchanges) on issues related to flood and drought risk reduction and the Early Warning System are revised or developed and shared with the stakeholders for their approval
Outputs	Number of transboundary consultative workshop organised with the policy-makers and advisors Number of documents reviewed and discussed Number of women participants	Limited knowledge and implementation of action plans, policies and guidelines for the risk management	Activities planned from October 2023. To be measured at the end of the project	One transboundary consultative workshop is conducted with participants from each country of Volta Basin Climate adaptation plans (NAPA, NAP, NDC), policies and guidelines (on data and information

				exchanges) on issues related to flood and drought risk reduction and the Early Warning System are revised or developed and shared with the stakeholders for their approval
Outputs	Consultative meetings are organised so that new or existing plans, policies and guidelines on climate change adaptation and disaster risks management are integrated into the transboundary SAP.	There is lack of integration of national policies on long term risk reduction and climate adaptation into the transboundary Strategic Action Programme	To be measured at end of the project	Improved integration of national policies on risk reduction and climate adaptation into the Transboundary Strategic Action Programme (SAP) resulting in better management of water resources and flood and drought events at the national and transboundary level
Outcomes	Collaboration meeting is organised with the stakeholders (including community representatives, associations and civil authorities) Number of men, women, elderly, and youths consulted	Lack of consultation and collaboration with the direct and in-direct beneficiaries on the instrument and strategies for climate change risk management	To be measured at the end of the project	Atleast 2-3 meetings in each of the Volta Basin countries are conducted and measures and plans are adapted to the local context
Outputs	Number of meetings organised with the communities and organizations (NGO's, associations etc.) Number of men, women, elderly, and youths consulted	Communities knowledge and experience are not involved in the development of the policies and action plans for managing risks and climate change adaptation	To be measured at the end of the project	Workshops/meetings are conducted and participants are provided with opportunities to share their views and perceptions on the policies and action plans Communities and organizations involvement in the designing and implementation of action plans are developed
Outputs	Number of meetings organised with the communities and	Communities are not consulted and involved in the	To be measured at the end of the project	Meeting for reviewing and finalizing is

	organizations Number of men, women, elderly, and youths consulted	refining of the policies and action plans for managing risks and climate change adaptation		conducted and approval or necessary changes suggested by the participants are considered
Outputs	(1.1.3) Number of workshops are organized for the dissemination of knowledge on VCERs and Flood and Drought risk maps No. of staff trained to develop skills for developing risk maps and mitigate the impact of climate –related events (by gender-number of women trained).	The risks related to Floods and Drought are not well identified and are not taken into account by the different actors of Volta Basin Limited knowledge and skills with the National services to develop risk maps for floods and drought events	1 regional and 12 national workshops are organized with the stakeholders to disseminate the knowledge on VCER, risk maps and climate scenarios • Identification and selection of National and Regional staff for providing training on VCERs GIS layers - 61 technicians hired to provide support •6 Virtual trainings, and 12 National face-to-face workshops are organized for developing exposure and impact layers for the flood and drought events in the Volta Basin	Atleast one workshop per country will be organised to disseminate knowledge on VCERs database and Flood and Drought risk maps 1 transboundary level consultation workshop with National Focal Point (NFP)
Outputs	(1.1.4) Progress in the development of the VCER and Flood and Drought risk maps report	Report on the VCER and Flood and Drought risk maps are not available for various actors concern by climate change adaptation and disaster risk reduction	•Availability of flood and drought risk maps for current climate and future climate and visualized under the VOLTALARM EWS Reports are available here https://www.floodmanagement.gov.gh/content/uploads/2022/08/Volta_Risk_Profile_Total_08192022.pdf and https://www.floodmanagement.gov.gh/content/uploads/2022/08/Volta_Risk_Profile_Total_08192022.pdf •List of actors and stakeholders to whom the document will be shared - it is shared with more than 30 participants during the national workshop organized	Report, guidelines and infographics and materials on VCERs management and Flood Risk Profile_Total_08192022.pdf Drought risk maps are developed/flood management and Drought risk Profile_Total_08192022.pdf stakeholders

			in the Six countries. Also posters were prepared and shared on the impact areas in the Volta basin https://www.floodmanagement.info/floodmanagement/content/uploads/2022/10/Exposure_Impact_Maps_
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Comments

A limited progress was made during the period of December 2022-June 2023 due to unavailability of the stakeholders as they were occupied with the national level activities, including in some countries, change of government and officials from the targeted agencies or departments. It took some time to gather their support and continue with the implementation. Final update on the project indicator will be provided during the submission of the PPR-V in December 2024

Lessons Learned

Implementation and Adaptive Management		
<p>Describe any changes undertaken to improve results on the ground or any changes made to project outputs (i.e. changes to project design)</p>	<p>Challenges & Opportunities</p>	<p>During the reporting period - the VFDM project continue to implement the pending third year activities (delays encountered due to the Covid situation and civil security issues in the three countries), several consultation meetings at the regional and national level with the stakeholders were organized for adequate planning and coordination of the activities. With six targeted countries, there are multiple stakeholders in each countries who need to be involved in most of the activities but some agencies are required for specific activities such as environment agencies, sustainable development, statistics office etc. The communication is often inefficient and information exchange with the executive entities (Volta Basin Authority, Global Water Partnership West Africa and WMO) hampered by national interests. - During the fourth year, Integration with other ongoing regional projects like the World-Bank funded HYDROMET project in Burkina Faso, the multi-country</p>

financed CREWS West Africa initiative or FANFAR was strengthened and visualized in the interest of capitalizing on previous efforts and boosting efficiency of implementation. - The project activities especially workshops and training sessions are providing opportunity to bring together various stakeholders at the National, local and regional levels to participate and contribute to the development of deliverables and outcomes of the project. Also, these sessions provides an opportunity for the participants to better understand their roles and responsibilities within the project. Also, it provide a way to have dialogue and discussion with other agencies who are involved in the project activities. Through these project related sessions, it was possible that many participants from the National agencies could identify a way to collaborate and build cooperation for the joint project activities (and also beyond the scope of the project) with other Agencies focal points. Some of the critical decisions are unfortunately not being taken jointly by the project technical advisory committee, as each country seeks to take independent decisions based on their particular needs and experience. A considerable gender imbalance still exists at all levels, albeit some progress to improve this situation has been achieved. The imbalance is especially noticeable at the national agencies and at the regional coordination level, less so at the community level. There is an overall lack of conscience at the regional executive entity level and at national hydro-meteorological agencies, concerning the fact that ownership of observing

equipment sponsored by the project needs to be transferred to national agencies and needs to be maintained and integrated into national networks. - The project is executed by three partners namely WMO, VBA, and GWP-WA. Each of the entities has their respective National focal points and when sharing project information., it was challenging initially to reach out to all the respective focal points. However, coordination at both regional and national levels among project partners and stakeholders are fully established now (a working group of 3-4 individuals are formed at the National level who will provide technical and coordination support) and it will be crucial for project success in the remaining duration. - Due to the covid-19 pandemic situation, at National and local levels, staff were not allowed to work from office (instead working from home). This resulted in delays for receiving data and information from them as they were not having remote access to their servers or databases. - The project is mainly Nationally focused and driven and involves consultation, engagement, and agreement with various national and sub-national stakeholders. These engagements sometimes take time and can result in delays, however, they are necessary to ensure sustainability, ownership, and ultimate success of the project. - One of the six countries is English speaking and others are francophone. So all the concept notes, ToR, and other reporting documents are developed in both English and the French language in order to ensure National stakeholders are

		<p>provided documents in their respective language and their continuous support and participation are received. This sometimes causes a delay in the implementation of the activities. - The involvement of stakeholders from different National agencies requires proper coordination and support in terms of defining proper roles and responsibilities to each of them. No changes have been made to project Outputs at the moment. The development of flood and drought monitoring and forecasting systems initially scheduled for Year 2, has been moved to Year 3 and 4 after informing and discussing with EEs and stakeholders, who agreed that the implementation would best be conducted in Year 4 once the capacity assessments, existing information, and methodologies are identified and implemented with the stakeholders.</p>
<p>Have the environmental and social safeguard measures that were taken been effective in avoiding unwanted negative impacts?</p>	<p>Challenges & Opportunities</p>	<p>For the activities undertaken during the reporting period, the environmental and social safeguards measures have been adequate and as yet no negative impacts have emerged. The stakeholders are made aware of any risks which could arise from the implementation. They need to ensure right processes, laws, involvement of participants are taken into consideration during planning. The major delays were caused by external factors (due to the Covid-19 situation and civil security issues) beyond the control of the project partners.</p>
<p>How have gender considerations been taken into consideration during the reporting period? What have been the lessons learned as a consequence of inclusion of such considerations on project performance or impacts? List lessons learned specific to gender, detailing measures and project/programme-specific</p>	<p>Opportunities</p>	<p>During the reporting, the IEs and EEs continue to identify considerable gender imbalance at the level of regional and national technical agencies. To the contrary, female involvement in activities on climate adaptation measures</p>

indicators highlighting the role of women as key actors in climate change adaptation.

(e.g. nature-based solutions) at the level of rural or urban communities, is much more balanced (1/3 to 1/2 of participants are female). There is also a clear difference between Social science and technical professions, with women represented much stronger in the former. The lack of women in technical professions at the level of national and regional agencies is mainly attributable to less women following science or technology study curricula across all Volta basin countries. As a result, there exist less female candidates for recruitment in technical professions. Albeit there is awareness of this issue among the project executive entities, however problem is not rapidly solvable as there is a prior need of preparing more women in technical and scientific disciplines. Another non-negligible reason for female under-representation in responsibility positions, especially at the community level, are of cultural type. The project partners have undertaken the following measures in relation to gender considerations in the VFDM project until the PPR-3 report: - ToR for hiring gender experts were reviewed by WMO gender experts and had the inclusion of profiles from the Volta Basin region, - The project team aimed for having 50% participation of men and women in all the consultation meetings, training, and project activities at ground level (including as participants and trainers). However most of the cases its was not possible - The project team ensured equal participation of men and women in institutions and decision-making processes

		<p>related to the project. However, it is not always possible to ensure equal participation of men and women in some technical activities due to lack of technical background or expertise, social and cultural barriers existing in the countries, however, efforts for such are being made. Some lessons emerging from the project relating to gender include the following: - Based on the implementation experience, women in the Volta Basin are participating in training workshops and decision-making processes and want to be part of the development of resilience in some of the regions. The project has taken commitment from the decision makers to involve women groups in mainstreaming gender into E2E-EWS-FF as well as ensure budgets are allocated for their participation. - At the national levels, project is providing products and services for managing extreme events. Very few countries have female staffs in their Hydrological and Meteorological services. Hopefully this will be improved now after completion of the National workshops on mainstreaming gender in E2E-EWS-Floods and Integrated flood management. To keep track of issues and lessons learned over the course of the project, the MTE for the project included questions disaggregated by gender as well as gender-specific questions on the impacts (positive and negative of project activities). - The number of staff trained to use VOLTALARM EWS and issue impact-based warnings on the impact of, climate-related events (by gender). - Percentage of women, girls, and youths receiving timely</p>
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		<p>early warnings for floods and drought events and the associated impacts - Percentage of local volunteers (male and female) who are integrating disaster risk reduction and adaptation strategies at the community level - Number of women being part of decision-making team at local, national and regional levels. - Number of youths sessions for taking study in STEM related subjects including hydrological, meteorological, disaster management etc.)</p>
<p>Were there any delays in implementation? If so, include any causes of delays. What measures have been taken to reduce delays?</p>	<p>Challenges & Opportunities</p>	<p>There were minor delays in project implementation largely due to the following factors: 1) Development of detailed work plan for the third and fourth years and agreement with the implementing partners took more time than expected, which caused a delay in starting the implementation of the third year project activities including partial pending activities of first and second year. 2) As there are on-going projects in the countries on the similar themes (CREWS, World Bank Hydromet projects etc.), sometimes getting a time for organizing workshops with right stakeholders is not possible as they are occupied with other work responsibilities. For this, the project team has to wait for having their availabilities for the workshops and results in delay. It is important to ensure we have right stakeholders (technical and decision makers) so as to have discussion , agreements and joint follow-up actions. 3) Due to the continuous COVID-19 outbreak globally, many of the planned has to be postponed or moved to the second and third year of the project as there were travel restrictions to the project countries. or instance, the</p>

shipment and installation of equipment was (hydro-meteorological observing stations) was considerably delayed. At a different note, the pandemic also caused some workshops and activities to take place only online. While local NGOs still could travel to rural places, support by external (international) technical partners (e.g. K&I) to local communities could only occur online. Nevertheless, besides the pandemic, some delays are caused by slow progress at the institutional level. This concerns the availability of data to set up the VOLTALARM system as well as the decision process on how to manage and operate the system 4) Some of the activities or training sessions were conducted virtually especially for the community-based flood and drought management, risk mapping. However the local NGOs or consultant were trained virtually to practice and test methodology together so that they learn from each other. This took additional time for better understanding of the work to be carried out. Measures are taken to reduce delays: 1) Workplan and agreements were developed by Implementing Partner and shared with the executing and technical implementing partners. The IE requested the partners to provide quick feedbacks and agreement on the implementation of activities including budgeting. 2) The project stakeholders are always informed that the VFDM project is building synergies and complementarities with other on-going initiatives or projects. It is important that VFDM stakeholders inform the other project focal points about the work carried out or planned

		<p>for future in order to avoid duplication of efforts. 3) The Project Team continued working virtually at both regional levels as well as with National stakeholders so that some works such as finalization of reports, concept note, or ToR could be completed (which does not require travel) . Virtual meetings were organized with the National and local stakeholders for some trainings and later pilot testing of methodology was conducted to better learn the methodology and tools developed.</p>
<p>What implementation issues/lessons, either positive or negative, affected progress?</p>	<p>Challenges & Opportunities</p>	<p>During the reporting period-(implementation of the project activities was successfully carried out with the national and regional stakeholders). It is continuously observed that the cooperation among national agencies involved with climate adaptation and impacts within each country requires dissemination of information through planned workshops for agencies within single countries or in the region (this is part of component 2 of the project - pilot testing of the VOLTALARM EWS in the 10 sites). Similarly, it is important to strengthen the collaboration between the national level and the community level (local NGOs and local communities), while ensuring effective involvement of civil society (GWPAO national representations in the 6 countries, the Red Cross, etc.) and civil protection services. National partners (meteorology and hydrology) need to be well prepared in the selection of the technical characteristics of hydro-meteorological measurement equipment and their regular maintenance, to effectively integrate the equipment into the existing national network. Systems must</p>

		<p>be selected as to make countries autonomous in the management of the early warning system after project wrap-up. Follow-up and maintenance costs should be minimized and made available by each country. Project impact can be increased through intervention of local NGOs, by addressing the difficulties related to agricultural activities and considered a priority by the communities. Difficulties include lack of risk knowledge, unaware of climate change adaptation measures, losses in agricultural yields, access to seeds, cultivation techniques to counteract the effects of drought, agricultural finance and the fight against diseases that ravage livestock. Note - to be filled and updated also at the project completion.</p>
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Has the project already reached mid term or project completion?(yes/no).

Yes

Climate Resilience Measures	
<p>What have been the lessons learned, both positive and negative, in implementing climate adaptation measures that would be relevant to the design and implementation of future projects/programmes for enhanced resilience to climate change?</p>	<p>Based on the MTE conducted in March 2022, the cooperation among national agencies involved with climate adaptation and impacts within each country requires dissemination of information through planned workshops for agencies within single countries or in the region (this is part of component 2 of the project - pilot testing of the VOLTALARM EWS in the 10 sites). Similarly, it is important to strengthen the collaboration between the national level and the community level (local NGOs and local communities), while ensuring effective involvement of civil society (GWPAO national representations in the 6 countries, the Red Cross, etc.) and civil protection services. National partners (meteorology and hydrology) need to be well prepared in the selection of the technical characteristics of hydro-meteorological measurement equipment and their regular maintenance, to effectively integrate the equipment into the existing national network. Systems must be selected as to make countries autonomous in the management of the early warning system after project wrap-up. Follow-up and maintenance costs should be minimized and made</p>

	<p>available by each country. Project impact can be increased through intervention of local NGOs, by addressing the difficulties related to agricultural activities and considered a priority by the communities. Difficulties include lack of risk knowledge, unaware of climate change adaptation measures, losses in agricultural yields, access to seeds, cultivation techniques to counteract the effects of drought, agricultural finance and the fight against diseases that ravage livestock. Note - to be filled also at the project completion.</p>
<p>What is the potential for the climate resilience measures undertaken by the project/programme to be replicated and scaled up both within and outside the project area?</p>	<p>Based on the MTE, Climate resilience measures are mostly dependent on local geographic and climatic as well as social conditions. The particular measures proposed in the VFDM are mostly applicable in similar subsaharian contexts. The activity at the regional level, such as data acquisition and exchange as well as the implementation of early warning systems are part of trans-boundary water management practices, in line with UN sustainable development goal SDG 6.5, and therefore upscalable/applicable also outside of the project area. One of the examples of the project scaling up is the Burkina Faso national hydro-met project is looking for expanding the EWS and risk maps to cover outside the National portion of the Volta Basin region in Burkina Faso (discussion is still on-going). N/A - to be filled also at project completion.</p>
<p>Readiness Interventions (Applicable only to NIEs that received one or more readiness grants)</p>	
<p>What have been the lessons learned, both positive and negative, in accessing and implementing climate finance readiness support that would be relevant to the preparation, design and implementation of future concrete adaptation projects/programmes?</p>	<p>N/A</p>
<p>How have the outputs (such as manuals, guidelines, procedures or the experience from providing peer support, etc) from employing readiness grants been used to inform institutional capacity needs, gender issues, and environmental and social aspects in developing and implementing concrete projects/programmes for enhanced resilience to climate change?</p>	<p>N/A</p>
<p>Concrete Adaptation Interventions</p>	
<p>What have been the lessons learned, both positive and negative, in implementing concrete adaptation interventions that would be relevant to the design and implementation of future projects/programmes implementing concrete adaptation interventions?</p>	<p>Projects have a greater impact at the rural community level, with interventions made by the local NGOs especially with the climate adaptation measures. These have the capability in particular with respect to climate vulnerability and adaptation in agricultural activities, which they consider priority for socio-economic development. Vulnerabilities include loss of lives, agricultural yields, access to seeds for sowing, particular cultivation techniques to counter the effects of drought, agricultural credits and the</p>

	<p>fight against diseases that ravage livestock were shared and solutions were identified and implemented based on the budget availability, capacity and sustainability. During the community based activities, communities are trained and made aware of flood level markings in the community. Considering the flood warning marking together with the warning messages from the local authorities, communities can carry out evacuation to the safer places. Flood marking are also used for raising the level of houses (for future construction). In future meteorological warnings will be useful in understanding the crop changing patterns, timely cutting and drying of crops etc. which will be useful for livelihood and economical activities.</p>
<p>What is the potential for the concrete adaptation interventions undertaken by the project/programme to be replicated and scaled up both within and outside the project area?</p>	<p>The particular climate-adaptation interventions at the community level are strongly dependent on local geographical circumstances and can therefore be replicated and upscaled mostly in environments similar to the project region. The interventions undertaken at the national or the regional level can be replicated also outside the project area, as they concern transboundary water resources management in accordance with the UN sustainable development goals. The effective building of capacities and the raising of awareness of climate change impacts to enhance resilience at the level of local communities.</p> <p>b) The attempt to integrate data flows from the basin states at the regional level for improving forecasting capabilities and better coordinate hazard impact mitigation activities c) gender mainstreaming in E2E-EWS-FF and IFM, d) Awareness on nature-based solutions for flood and drought management and most importantly, availability of warning information through the concrete and innovative EWS which includes risk maps for the impact based forecasting. Knowledge transfer and education belong to the most sustainable low-cost forms of adaptation measures. Commitment at the regional and national levels to continue providing data and operation of the VOLTALARM EWS. Partnerships (collaboration and coordination at the local, national and regional levels) , transfer of knowledge and sharing of experiences and lesson learned are keys for long term sustainability. All measures that have been put in place have been quite successful to improve project results. However, resources availability (high speed internet, national staffs, infrastructure, investment through the national budget) would create more impacts. However these needs are informed through dialogue, reports and policy documents to the decision makers.</p>
<p>Knowledge Management</p>	
<p>How has existing information/data/knowledge been</p>	<p>In the interest of long-term sustainability and</p>

<p>used to inform project development and implementation? What kinds of information/data/knowledge were used?</p>	<p>appropriation of systems by the target countries, it must be ensured that these become as autonomous as possible in the management of the VOLTALARM system after project wrap up. One key is using license-free or low-cost software for data transmission and administration which is presently the system which is made available to the project countries. National hydro-meteorological data and information have been requested to the countries for the development of the EWS which will in turn provide accurate and timely warning (which is quite note possible with only satellite information and products). Risk maps have been developed jointly with the support of National staffs as well as using local and national social, structural and hydro-meteorological information provided by the national agencies. While meteorological services are generally well equipped due to their services to commercial aviation, hydrological services, which are essential for water resources assessment and flood warning, are under-equipped and poorly functional. Climate adaptation interventions require a clear focus on strengthening the water resources component of national services. Projects have a greater impact at the rural community level, if these are targeted through interventions of local NGOs. These have the capability in particular with respect to climate vulnerability in agricultural activities, which they consider as priority. Such vulnerabilities include loss of agricultural yields, access to seeds for sowing, particular cultivation or honey bee restoration techniques to counter the effects of drought, agricultural credits and the fight against diseases that ravage livestock.</p>
<p>Has the existing information/data/knowledge been made available to relevant stakeholder? If so, what channels of dissemination have been used?</p>	<p>Risk maps and EWS have been developed jointly with the support of National and regional staffs as well as using the available local and national social, structural and hydro-meteorological information provided by the national agencies. Risk maps together with other hydro-meteorological products have been made available to the NMHSs, civil protection and water resources agencies to timely analyze the floods and drought situation and disseminate the warning to the local population. Specific communication materials (flyers, brochures, video etc.) have been developed and disseminated to the communities during community consultation and through social media channels (radio, Facebook, WhatsApp).</p>
<p>Please list any knowledge products generated and include hyperlinks whenever possible (e.g. project videos, project stories, studies and technical reports, case studies, training manuals, handbooks, strategies and plans developed, etc.)</p>	<p>Knowledge products generated by the project are published on the project web portal and are accessible at https://www.floodmanagement.info/volta-basin/deliverables/knowledge-and-learning/, news item:</p>

	<p>https://www.floodmanagement.info/category/volta-basin/news-events/, press release: https://www.floodmanagement.info/volta-basin/press-room/. The knowledge sharing products includes mainly reports and GIS maps as well as a flood forecasting platform https://www.floodmanagement.info/volta-basin/deliverables/.</p>
<p>If learning objectives have been established, have they been met? Please describe.</p>	<p>Various training and capacity development sessions were organized for the development of risk maps, EWS, gender mainstreaming, nature based solutions, development of strategy, policies, plans etc. Following the training, national technicians provided in-kind contribution in the development of the vulnerability, exposure maps which were useful for the risk maps development and also supported in the development of the EWS with available data and information.</p>
<p>Describe any difficulties there have been in accessing or retrieving existing information (data or knowledge) that is relevant to the project. Please provide suggestions for improving access to the relevant data.</p>	<p>All available geographical information to define areas vulnerable to climatic hazards has been made available by the national agencies. At the time of the reporting, hydro-meteorological data were not available or shared by the states for the operation of the myDEWETRA VOLTALARM platform. The project has been requesting the sharing of the real time data and the discussion between the agencies are on-going. Once the national centralized database is established, countries will be trained for the using of the open and free database. Also MoU will be signed between different national entities to share the real-time data at this centralized database.</p>
<p>Has the identification of learning objectives contributed to the outcomes of the project? In what ways have they contributed?</p>	<p>The project involved national and local stakeholders in the development of the risk maps and EWS through collection of hydro-meteorological data, development of GIS layers on exposure and vulnerabilities, etc. Following these capacity development trainings, the risk maps, climate scenarios and EWS (one of the major outcomes) were successfully developed and visualized for the entire Volta Basin region.</p>
<p>Innovation</p>	
<p>Describe any innovative practices or technologies that figured prominently in this project.</p>	<p>The development and installation of the VOLTALARM EWS is a clear technological innovation for Volta basin transboundary flood and drought management. This innovative tool can provide support in monitoring and forecasting of the floods and drought events at the same time in the country (it is observed that in several countries at one time of the year, there is a flood situation in one part and drought situation in another part so there is a need for a integrated approach to flood and drought warning services).</p>
<p>Complementarity/ Coherence with other climate finance sources</p>	
<p>Has the project been scaled-up from any other</p>	<p>Yes</p>

climate finance? Or has the project build upon any other climate finance initiative?	
If you answered yes, kindly specify the name of the Fund/Organization.	The project is building synergies with other on-going projects such as recently funded REWARD project by the GEF, World Bank funded hydro-met project in Burkina Faso, CREWS project of West Africa, Burkina Faso and Togo.

Results Tracker

Goal: Assist developing-country Parties to the Kyoto Protocol and the Paris Agreement that are particularly vulnerable to the adverse effects of climate change in meeting the costs of concrete adaptation projects and programmes in order to implement climate-resilient measures.

Impact: Increased resiliency at the community, national, and regional levels to climate variability and change.

Is this the mid-term or terminal project performance report? After Midterm

Impact: Increased resiliency at the community, national, and regional levels to climate variability and change

Core Indicator: No. of beneficiaries

		Total	% of female beneficiaries	% of Youth beneficiaries
Baseline information	Direct beneficiaries supported by the project	0	0	0
Baseline information	Indirect beneficiaries supported by the project	0	0	0
Baseline information	Total (direct + indirect beneficiaries)	0	0	0
Target performance at completion	Direct beneficiaries supported by the project	1000	50	30
Target performance at completion	Indirect beneficiaries supported by the project	100000	40	30
Target performance at completion	Total (direct + indirect beneficiaries)	101000	45	30
Performance at mid-term	Direct beneficiaries supported by the project	500	30	20
Performance at mid-term	Indirect beneficiaries supported by the project	50000	20	20
Performance at mid-term	Total (direct + indirect)	50500	25	20

	beneficiaries)			
Performance at completion	Direct beneficiaries supported by the project			
Performance at completion	Indirect beneficiaries supported by the project			
Performance at completion	Total (direct + indirect beneficiaries)	0	0	0

Outcome 1: Reduced exposure to climate-related hazards and threats

Indicator 1: Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis

	Number of targeted stakeholders - Total	Number of targeted stakeholders - % of female targeted	Hazards information generated and disseminated	Overall effectiveness
Baseline information	100000	50	Inland flooding	5: Very effective
Target performance at completion	100000	50	Inland flooding	5: Very effective
Performance at mid-term	50000	20	Inland flooding	4: Effective
Performance at completion				

Output 1.1 Risk and vulnerability assessments conducted and updated

Indicator 1.1: No. of projects/programmes that conduct and update risk and vulnerability assessments

	No. of projects/programme that conduct and update risk and vulnerability assessments	Sector	Scale	Status
Baseline information	2	Disaster risk reduction	National	1: No plans conducted or updated
Target performance at completion	3	Disaster risk reduction	Regional	3: Risk and vulnerability assessments completed or updated
Performance at mid-term	2	Disaster risk reduction	National	2: Undertaking or updating of assessments in progress
Performance at completion				

Output 1.2 Targeted population groups covered by adequate risk reduction systems

Core Indicator 1.2: No. of Early Warning Systems

	No. of adopted Early Warning Systems	Category targeted	Hazard	Geographical coverage	Number of municipalities
Baseline information	1	1: Risk knowledge	Inland flooding	Regional	1000
Baseline information	1	2: Monitoring and warning service	Inland flooding	Regional	1000
Baseline information	1	1: Risk knowledge	Drought	Regional	1000
Baseline information	1	2: Monitoring and warning service	Drought	Regional	1000
Target performance at completion	1	1: Risk knowledge	Inland flooding	Regional	
Target performance at completion	1	2: Monitoring and warning service	Inland flooding	Regional	
Target performance at completion	1	1: Risk knowledge	Drought	Regional	
Target performance at completion	1	2: Monitoring and warning service	Drought	Regional	
Performance at mid-term	1	1: Risk knowledge	Inland flooding	Regional	100
Performance at mid-term	1	2: Monitoring and warning service	Inland flooding	Regional	1000
Performance at mid-term	1	1: Risk knowledge	Drought	Regional	1000
Performance at mid-term	1	2: Monitoring and warning service	Drought	Regional	1000
Performance at completion					

Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses

Indicator 2: Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased

	Number of staff targeted - Total	Number of staff targeted - % of female targeted	Sector	Capacity level
Baseline information	100	40	Disaster risk reduction	3: Medium capacity
Target performance	1000	40	Disaster risk	3: Medium capacity

at completion			reduction	
Performance at mid-term	200	30	Disaster risk reduction	2: Low capacity
Performance at completion				

Output 2.1 Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events

Indicator 2.1.1: No. of staff trained to respond to, and mitigate impacts of, climate-related events

	Total staff trained	% of female staff trained	Type
Baseline information	100	20	Public
Target performance at completion	1000	50	Public
Performance at mid-term	400	30	Public
Performance at completion			

Indicator 2.1.2: No. of targeted institutions with increased capacity to minimize exposure to climate variability risks

	Type	Scale	Sector	Capacity Level
Baseline information	Public	National	Disaster risk reduction	2: Low capacity
Target performance at completion	Public	National	Disaster risk reduction	3: Medium capacity
Performance at mid-term	Public	National	Disaster risk reduction	2: Low capacity
Performance at completion				

Output 2.2. Increased readiness and capacity of national and sub-national entities to directly access and program adaptation finance

Indicator 2.2.1: No. of targeted institutions benefitting from the direct access and enhanced direct access modality

	Number of beneficiaries	Scale	Sector	Capacity Level
Baseline information	30	National	Disaster risk reduction	2: Low capacity
Target performance at completion	100	National	Disaster risk reduction	3: Medium capacity
Performance at mid-term	50	National	Disaster risk reduction	2: Low capacity
Performance at completion				

Outcome 3: Strengthened awareness and ownership of adaptation and climate risk

reduction processes

Indicator 3.1: Increase in application of appropriate adaptation responses

	Percentage of targeted population applying adaptation measures	Sector
Baseline information	10	Disaster risk reduction
Target performance at completion	50	Disaster risk reduction
Performance at mid-term	30	Disaster risk reduction
Performance at completion		

Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities

Indicator 3.1.1: Percentage of targeted population awareness of predicted adverse impacts of climate change, and of appropriate responses

	No. of targeted beneficiaries	% of female participants targeted	Level of awareness
Baseline information	1000	20	2: Partially not aware
Target performance at completion	50000	40	4: Mostly aware
Performance at mid-term	20000	20	3: Partially aware
Performance at completion			

Output 3.2: Stenghtened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning

Indicator 3.2.1: No. of technical committees/associations formed to ensure transfer of knowledge

	No. of technical committees/associations	% of women represented in committes/associations	Level of awareness
Baseline information	20	40% to 60%	3: Partially aware
Target performance at completion	30	40% to 60%	4: Mostly aware
Performance at mid-term	20	20% to 39%	3: Partially aware
Performance at completion			

Indicator 3.2.2: No. of tools and guidelines developed (thematic, sectoral, institutional) and shared with relevant stakeholders

	No. of tools and guidelines	Type	Scale
Baseline information	10	Technical guidelines	National
Target performance at completion	20	Technical guidelines	National
Performance at mid-term	10	Training manuals	Regional
Performance at			

completion			

Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets

Indicator 4.1: Increased responsiveness of development sector services to evolving needs from changing and variable climate

	Project/programme sector	Geographical scale	Response level
Baseline information	Disaster risk reduction	National	2: Partially responsive (Lacks most elements)
Target performance at completion	Disaster risk reduction	Sub-National	4: Mostly responsive (Most defined elements)
Performance at mid-term	Disaster risk reduction	National	3: Moderately responsive (Some defined elements)
Performance at completion			

Core Indicator 4.2: Assets produced, developed, improved or strengthened

	Sector	Targeted asset	Changes in asset (quantitative or qualitative)
Baseline information	Disaster risk reduction	1: Health and Social Infrastructure (developed/improved)	2: Somewhat improved
Baseline information	Agriculture	1: Health and Social Infrastructure (developed/improved)	2: Somewhat improved
Baseline information	Urban development	2: Physical asset (produced/improved/strengthened)	2: Somewhat improved
Baseline information	Water management	1: Health and Social Infrastructure (developed/improved)	2: Somewhat improved
Target performance at completion	Agriculture	1: Health and Social Infrastructure (developed/improved)	4: Mostly Improved
Target performance at completion	Disaster risk reduction	1: Health and Social Infrastructure (developed/improved)	4: Mostly Improved
Target performance at completion	Water management	2: Physical asset (produced/improved/strengthened)	4: Mostly Improved
Target performance at completion	Food security	2: Physical asset (produced/improved/strengthened)	3: Moderately improved
Performance at mid-term	Agriculture	1: Health and Social Infrastructure (developed/improved)	3: Moderately improved
Performance at mid-term	Disaster risk reduction	1: Health and Social Infrastructure (developed/improved)	3: Moderately improved
Performance at mid-term	Water management	2: Physical asset (produced/improved/strengthened)	3: Moderately improved

Performance at mid-term	Food security	2: Physical asset (produced/improved/strengthened)	2: Somewhat improved
Performance at completion			

Indicator 4.1.1: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability

Indicator 4.1.1: No. and type of development sector services to respond to new conditions resulting from climate variability and change

	Number of services	Type	Sector
Baseline information	2		Disaster risk reduction
Target performance at completion	7		Disaster risk reduction
Target performance at completion	10		Disaster risk reduction
Target performance at completion	10		Disaster risk reduction
Target performance at completion	10		Agriculture
Performance at mid-term	5		Disaster risk reduction
Performance at mid-term	5		Disaster risk reduction
Performance at mid-term	5		Disaster risk reduction
Performance at mid-term	5		Agriculture
Performance at completion			

Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress

Indicator 5: Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress

	Natural resource improvement level	Sector	Type
Baseline information	2: Partially effective	Disaster risk reduction	Water areas
Baseline information	2: Partially effective	Agriculture	Land
Baseline information	2: Partially effective	Water management	Water areas
Target performance at completion	3: Moderately effective	Disaster risk reduction	Water areas
Target performance at completion	3: Moderately effective	Water management	Land
Target performance at completion	3: Moderately effective	Agriculture	Water areas
Performance at mid-term	4: Effective	Disaster risk reduction	Water areas
Performance at mid-term	2: Partially effective	Agriculture	Land
Performance at mid-term	3: Moderately effective	Water management	Water areas
Performance at completion			

Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability

Core Indicator 5.1: Natural Assets protected or rehabilitated

	Natural asset or Ecosystem (type)	Total number of natural assets or ecosystems protected/rehabilitated	Unit	Effectiveness of protection/rehabilitation
Baseline information	Catchment area/Watershed/Aquifer	0	ha rehabilitated	2: Partially effective
Baseline information	Protected areas/National parks	0	km protected	2: Partially effective
Baseline information	Cultivated land/Agricultural land	0	ha rehabilitated	2: Partially effective
Target performance at completion	Catchment area/Watershed/Aquifer	5	ha rehabilitated	4: Effective
Target performance at completion	Protected areas/National parks	5	km protected	3: Moderately effective
Target performance at completion	Cultivated land/Agricultural land	5	km protected	4: Effective
Performance at mid-term	Catchment area/Watershed/Aquifer	1	ha rehabilitated	2: Partially effective
Performance at mid-term	Protected areas/National parks	1	km protected	2: Partially effective
Performance at mid-term	Cultivated land/Agricultural land	1	km protected	2: Partially effective
Performance at completion				

Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas

Indicator 6.1: Increase in households and communities having more secure access to livelihood assets

	No. of targeted households	% of female headed households	Improvement level
Baseline information	10000	30	2: Limited improvement
Target performance at completion	10000	30	4: High improvement
Performance at mid-term	1000	20	2: Limited improvement
Performance at completion			

Indicator 6.2: Increase in targeted population's sustained climate-resilient alternative livelihoods

	No. of targeted households	% of female headed households	% increase in income level vis-à-vis baseline	Alternate Source
Baseline information	10000	30	From 0 to 0.5%	Agricultural-related

Baseline information	10000	30	From 0.5 to 1%	Construction/repairing business
Baseline information	10000	30	From 0.5 to 1%	Services
Baseline information	10000	30	From 0.5 to 1%	Cultivation
Baseline information	10000	30	From 0.5 to 1%	Fishing
Target performance at completion	10000	30	From 30% to 40%	Agricultural-related
Target performance at completion	10000	30	From 20% to 30%	Construction/repairing business
Target performance at completion	10000	30	From 30% to 40%	Services
Target performance at completion	10000	30	From 30% to 40%	Cultivation
Target performance at completion	10000	10	From 30% to 40%	Fishing
Performance at mid-term	1000	20	From 5% to 10%	Agricultural-related
Performance at mid-term	1000	20	From 5% to 10%	Agriculture
Performance at mid-term	1000	20	From 10% to 20%	Construction/repairing business
Performance at mid-term	1000	20	From 10% to 20%	Cultivation
Performance at mid-term	1000	20	From 1% to 5%	Fishing
Performance at completion				

Output 6 Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability

Indicator 6.1.1: No. and type of adaptation assets created or strengthened in support of individual or community livelihood strategies

	Number of Assets	Type of Assets	Sector	Adaptation strategy
Baseline information	0	Adaptation strategies	Disaster risk reduction	Monitoring/Forecasting capacity
Target performance at completion	10000	Adaptation strategies	Disaster risk reduction	Monitoring/Forecasting capacity
Performance at mid-term	1000	Adaptation strategies	Disaster risk reduction	Monitoring/Forecasting capacity
Performance at completion				

Core Indicator 6.1.2: Increased income, or avoided decrease in income

	Number of households (total number in the project area)	Income source	Income level (USD)
Baseline information	10000	Agricultural-related	500
Target performance at completion	10000	Agricultural-related	500

Performance at mid-term	1000	Agricultural-related	100
Performance at completion			

Outcome 7: Improved policies and regulations that promote and enforce resilience measures

Indicator 7: Climate change priorities are integrated into national development strategy

	Integration level
Baseline information	2: Most not integrated
Target performance at completion	4: Most
Performance at mid-term	3: Some
Performance at completion	

Output 7: Improved integration of climate-resilience strategies into country development plans

Indicator 7.1: No. of policies introduced or adjusted to address climate change risks

	No. of Policies introduced or adjusted	Sector	Scale	Type
Baseline information	10	Disaster risk reduction	National	Water policy
Target performance at completion	20	Disaster risk reduction	National	Water policy
Performance at mid-term	10	Disaster risk reduction	National	Water policy
Performance at completion				

Indicator 7.2: No. of targeted development strategies with incorporated climate change priorities enforced

	No. of Development strategies	Regulation	Effectiveness
Baseline information	10	2: Partially not enforced (Most elements not implemented)	2: Partially effective
Target performance at completion	10	4: Enforced (Most elements implemented)	4: Effective
Performance at mid-term	5	3: Partially enforced (Some elements implemented)	3: Moderately effective
Performance at completion			

Outcome 8: Support the development and diffusion of innovative adaptation practices, tools and technologies

Indicator 8: Innovative adaptation practices are rolled out, scaled up, encouraged and/or accelerated at regional, national and/or subnational level

	Sector of innovative practice	Geographic Scale	Type
Baseline information	Disaster risk reduction	National	Innovation rolled out
Target performance at completion	Disaster risk reduction	National	Innovation accelerated
Performance at mid-term	Disaster risk reduction	National	Innovation accelerated
Performance at completion			

Output 8: Viable innovations are rolled out, scaled up, encourages and/or accelerated

Indicator 8.1: No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated

	No. of innovative practices/ tools technologies	Sector	Status	Effectiveness
Baseline information	10	Disaster risk reduction	Undertaking innovative practices	2: Partially effective
Target performance at completion	20	Disaster risk reduction	Undertaking innovative practices	3: Moderately effective
Performance at mid-term	10	Disaster risk reduction	Undertaking innovative practices	2: Partially effective
Performance at completion				

Indicator 8.2: No. of key findings on effective, efficient adaptation practices, products and technologies generated

	No. of key findings generated	Type	Effectiveness
Baseline information	20	Innovative practice	2: Partially effective
Target performance at completion	20	Innovative product	3: Moderately effective
Performance at mid-term	10	Innovative product	2: Partially effective
Performance at completion			