



Regional workshop on :

"Nature-based Solutions (NbS) as a mechanism for responding to floods and droughts" in the Volta Basin

Workshop report

15 and 16 June 2021, Ouagadougou, BURKINA FASO



Contents

1. Introduction	3
2. Objectives and expected results.....	4
2.1. General objective	4
2.2. Specific objectives	4
2.3. Expected results	5
3. Opening ceremony	5
4. Workshop sessions	9
4.1. Day 1 : 15 June 2021.....	9
4.2. Day 2: 16 June 2021.....	18
5. Closing ceremony.....	21
6. Conclusion and recommendations	22
ANNEXES.....	23

1. Introduction

In the framework of the implementation of the project **"Integrating Flood and Drought Management and Early Warning for Climate Change Adaptation in the Volta Basin (VDFM)"** financed by the Adaptation Fund, and implemented by the World Meteorological Organisation (WMO), a specialised agency of the United Nations, the Volta Basin Authority (VBA) and the Global Water Partnership in West Africa (GWP-WA), *the **Nature-based Solutions (NbS)** approach **has been proposed as a mechanism to respond to floods and droughts in the Volta Basin.*** This approach is the result of two studies (i) ***on the feasibility of applying the "Red List of Ecosystems"*** and (ii) on the ***"Basin-wide Integrated Wetland Guidelines for Promoting the Sustainability of Ecosystem Services"*** conducted by the ***International Union for Conservation and Nature (IUCN)*** through the environmental component of the VDFM project.

The environmental component of the project includes the assessment and integration of environmental data and indicators into the Flood and Drought Early Warning System (EWS) to effectively build resilience and responses to climate change and disasters in the Volta Basin region.

It is in this logic that a regional workshop for consultation and exchange with the main national stakeholders of the Volta Basin and the aforementioned project to inform and promote the role of ecosystems and their services in the decision-making process related to climate, risk and disaster management was held on 15 and 16 June 2021 at the Hôtel Résidence Prestige 2 in Ouagadougou 2000, Burkina Faso, under the effective chairmanship of His Excellency the Minister in charge of Water Resources of Burkina Faso.

About fifty participants took part in this workshop, including (i) the Coordinators of the VBS National Focal Structures, (ii) the Representatives of the IUCN Burkina Faso Office, (iii) the Representatives of the partner institutions: WASCAL, the GWP-AO staff, CLISS, UEMO, SP/CNDD and its Projects working on the discussed theme, (iv) the staff of the Volta Basin Authority.

Due to restrictions related to COVID19, representatives and experts from the World Meteorological Organisation (WMO), the CIMA Research Foundation (International Centre for Environmental Monitoring), the International Union for Conservation of Nature (IUCN) and the CERFE (Centre de Recherche et Documentation Février '74) participated virtually.

The list of participants can be found in *Annex 1*.

This workshop report is structured as follows:

- Objectives and expected results ;
- Opening ceremony ;
- Course of work ;
- Closing ceremony ;
- Recommendations made.

2. Objectives and expected results

2.1. General objective

The overall objective of the workshop is to inform and promote nature-based solutions (NbS) for climate change adaptation and disaster risk reduction at the scale of the Volta Basin.

2.2. Specific objectives

The specific objectives of this workshop are to:

- present and explain the 'nature-based solutions' approach with a focus on climate change and natural disaster management;
- inform participants about the importance of sustainable management of national and transboundary aquatic and terrestrial wetlands for the preservation of biodiversity, and the achievement of other multiple benefits;
- present the Integrated Guidelines and the Feasibility Study for the Red List of Ecosystems;
- enrich both reports with environmental, hydrological and disaster risk data available at local, national and basin level in the different countries;
- support countries in designing policy and implementation actions to integrate nature-based solutions into national and basin-wide disaster risk, flood and drought management plans;
- support the identification of bankable project ideas to serve as a foundation for the development of future projects;
- develop a roadmap for the implementation of the workshop results (considering nature-based solutions, guidelines and the Red List of Ecosystems).

2.3. Expected results

The expected outcomes of the workshop:

- participants presented the feedback from two country reports and these were enriched with environmental, hydrological and disaster risk data;
- participants are aware about and understand the "nature-based solutions" approach, particularly with regard to climate change and natural disaster management;
- participants have a good perception of the importance of sustainable management of national and transboundary aquatic and terrestrial wetlands for the preservation of biodiversity, and the achievement of other multiple benefits.
- both the Integrated Guidelines and the Feasibility Study for the Red List of Ecosystems are discussed and validated;
- countries receive guidance on how to design actions at the implementation and policy levels for the integration of nature-based solutions into disaster risk, flood and drought management plans;
- bankable project ideas are collectively discussed and made available as a foundation for future project development;
- a roadmap for the implementation of the lessons and tools from the workshop is developed.

3. Opening ceremony

The opening ceremony was presided over by the Minister in charge of Water Resources of Burkina Faso, the supervising Minister of the VBA. The aim was not only to create a enabling environment to carry on with the agenda, but also to better inform the participants on the specific aspects of the Project, with the aim of stimulating the strong participation of the illustrious guests during the exchanges.

It was marked by five (05) interventions:

- Welcome remarks addressed by **Mr Serge TRAORE**, National Focal Point of VBA in Burkina Faso, and followed by;
- speech by **Mr. Yaovi Robert DESSOUASSI**, Executive Director of the VBA;
- speech by **Mr. Jacques SOMDA**, Head of the IUCN Burkina Faso Programme;
- speech by **Mr Bernard GOMEZ**, WMO representative;
- Opening speech of **Mr. Ousmane NACRO**, Minister of Water and Sanitation of Burkina Faso, Minister in charge of the VBA.

a. Welcome by Mr Serge TRAORE, National Focal Point of VBA in Burkina Faso



Mr. Serge TRAORE, the host National Focal Point of the VBA reiterated his words of welcome to the different delegations and justified the importance of the workshop which is part of the project **"Integrating Flood and Drought Management and Early Warning for Adaptation to Climate Change in the Volta Basin (VFDM)"** whose activities started more than two years ago. He also recalled that the

recrudescence of floods and droughts, the consequences of the effects of climate change and atrophic actions constitute for our States a brake on socio-economic development. He also stressed that this project is based on an innovative approach founded on the sustainable management of ecosystems and ecosystem services and this two-day technical workshop should lead to the next steps. He reassured the participants of his availability to meet their needs during their stay in Ouagadougou and wished them every success in their work.

b. Speech by Mr. Yaovi Robert DESSOUASSI, Executive Director of the VBA



Mr. Yaovi Robert DESSOUASSI, in his speech, expressed his joy for holding this regional workshop in Ouagadougou, the wonderful capital of Burkina Faso. After recalling the importance of the Volta Basin, he noted that it has been facing since the 1970s the adverse effects of climate change characterized, among others, by extreme phenomena such as floods and droughts. Thus, a concerted anticipation could and should be a solution to significantly mitigate or contain the various serious risks faced by the populations of the VBS states. The approach **"Nature-based Solutions (NbS) as a mechanism to respond to floods and droughts in the Volta Basin"**

resulting from the two studies (i) **on the feasibility of applying the "IUCN Red List of Ecosystems"** and (ii) on the **"Basin-wide Integrated Wetland Guidelines to promote the sustainability of ecosystem services"** constitutes a simple solution, natural and effective solution that will contribute towards preserving water resources and associated ecosystems as well as a bulwark against disaster risks related to floods

and droughts in the Volta Basin, especially in its most fragile areas. He concluded by reiterating his sincere thanks to all the participants and expressed his deep gratitude and recognition to the Coordinators of the National Focal Structures, for their prompt and effective support to the Executive Directorate, in the implementation of its activities, despite their heavy workloads at the national level, to all the Technical and Financial Partners for their multifaceted support to the Volta Basin Authority and more particularly to the Climate Change Adaptation Fund which finances this project.

c. Speech by Mr Jacques SOMDA, Head of Programme, IUCN Burkina Faso



The Head of Programme of IUCN Burkina Faso, **Mr Jacques SOMDA**, after recalling the context of the workshop, the donor which finance the organisation of the workshop through the VFDM project, as well as the main technical actors (VBA-GWP/AO-WMO Consortium) in charge of its implementation, emphasised the interest of IUCN's partnership with other regional organisations and States. This, he said, would contribute to building resilient ecological systems that could provide beneficial services not only to people but also to nature. He stressed that IUCN is at the origin of the concept of "**Nature-based Solutions (NbS)**" which is defined as actions aiming at protecting, sustainably managing and restoring natural or modified ecosystems that respond to societal challenges that states are facing in terms of water resources and ecosystems management. Mr SOMDA indicated that IUCN will always be present for projects aiming at protecting ecosystems thus protecting water resources.

d. Speech by Mr Bernard GOMEZ, WMO representative

The representative of the Secretary General of the World Meteorological Organisation (WMO), **Mr Bernard GOMEZ**, in his turn, recalled that over the past year, the Volta Project team had carried out assessments to identify risks to ecosystem services. It notes that the report highlights the capacity of countries to preserve, restore and manage nature and its resources in a systematic and sustainable manner in the context of the Volta Basin. The report also identifies the types of threats (natural and human-induced) and quantifies the level of risk of ecosystem



collapse using tools such as the IUCN Red List of Ecosystems (RLE). These tools are better suited to informing drought and flood management actions and policies, as well as promoting the value of ecosystems. It is for this reason that the report "**Basin-wide Integrated Wetland Guidelines for Promoting the Sustainability of Ecosystem Services**" is designed to inform and support government policy and action plan development and implementation processes with nature-based solutions for adoption and use in the context of the Volta Basin. Finally, he noted that this workshop is the first in a series of workshops or consultation meetings with national stakeholders and that the Pproject team is always available for support to countries.

e. Opening speech by Mr. Ousmane NACRO, Minister of Water and Sanitation of Burkina Faso, Minister in charge of the VBA.

The Minister of Water and Sanitation of Burkina Faso, **Mr. Ousmane Nacro**, in his speech, first expressed his joy to see experts and development partners from the sub-region meeting in his country. After recalling the definition that IUCN has developed for Nature-based Solutions (**NbS**), the principle of the foundation of the approach, its stakes for the populations, the flora and fauna ecosystems in the Basin, he indicated that the



approach is based on the principle of using living organisms, animals and plants, and more globally natural means and processes, to preserve, restore or manage ecosystems by effectively meeting ecological, economic and social objectives. He also noted the importance of implementing NbS in the Volta Basin for resilience in the face of the issues and challenges that climate change poses for development scenarios in the West African sub-region, which is often confronted with floods and droughts. He recalled that the conclusions of the workshop should lead to the appropriation of the NbS, and the elaboration of a roadmap allowing its implementation and operationalization in the national portions of the Volta Basin, and urged the participants to make relevant analyses and proposals that should lead to strong recommendations that will contribute to the achievement of the objectives of the **VFDM Project**, for which the VBA States have high expectations.

In conclusion, he expressed his gratitude to the other Technical and Financial Partners, namely (WMO, GWP/AO, IUCN) and all the stakeholders, by inviting them to continue their efforts alongside the VBA, while addressing his words of congratulations to the Executive Management of the VBA for the actions carried out on the ground for the benefit of the riparian populations of the Basin.

The opening speech by the Minister of Water and Sanitation of Burkina Faso ended with loud cheers, followed by the introduction of the participants and the setting up of the bureau.

4. Workshop sessions

Prior to the workshop, IUCN Experts developed a website¹ which was made available to participants containing: TORs, information on NbS and the Red List of Ecosystems and presentations from the workshop.

The workshop was conducted in French and English, simultaneous translation was provided to facilitate understanding. The sessions consisted of oral presentations followed by exchanges and interactive sessions. The exchanges and interactive sessions enabled participants to better assimilate the themes addressed during the workshop as well as to highlight barriers, challenges and opportunities in the context of accessing funding from donors, i.e. Adaptation Fund and/or Green Climate Fund (GCF), defining National Action Plans (NAPs) and identifying project ideas.

These two days of technical meetings aimed at sharing knowledge, appropriation and integration of the NbS approach in the development of projects and programmes in the different countries.

4.1. Day 1 : 15 June 2021

Held over two (02) days in accordance with the terms of reference, **day 1 of the workshop was** marked by the opening ceremony, the setting up of a bureau and the presentation of the reports that served as a basis for exchanges in plenary. The adopted programme is *attached as Annex 2*.

After a round table introduction of the participants, the bureau was set up as follows.

¹ [Project Volta - Home](#)

Post	Responsible for
President	Mr. TRAORE Serge, VBS Focal Point of Burkina Faso
1st Vice President	Ghana
2nd Vice President	Ivory Coast
First rapporteur	Benin
Second rapporteur	Mali
Third rapporteur	Togo
Support team	VBA GWP AO (M.M. NIAMPA and TEBLEKOU) and the IUCN Consultant (Germain GOUNGOUNGA)

1. The Volta Basin - projects and activities related to NbS

ABE-GEF Project (Burkina Faso), Mr. Nongbila Eugène ALMA, National Project Coordinator

The objective of the project is to reduce the vulnerability and build the resilience of local communities. It has therefore addressed :

- presentation of the ABE-GEF project;
- main results ;
- effects and impacts of the project;
- good practices and lessons learned.

This project, which has benefited women, has enabled them to carry out income-generating activities (IGA) on market gardening areas. We also note the actions related to assisted natural regeneration (ANR), the production of plants adapted to the liberation of watercourse easement zones and also adapted to climate change and the reduction of pressure on ecosystems in the Sahel region and the Boucle du Mouhoun/BF.

It recommends opting for the programme approach (+ 6 years) in the duration of the implementation to perceive tangible results. The project also uses SICOFORMO, a planning and decision-making tool with 9 themes and 88 indicators.

Presentation of projects in the Volta Basin, Dr Dibi MILLOGO, DEA VBA

In his presentation, Dr MILLOGO focused on NbS at the Volta Basin level on REWarD, PREE, Tripe A, P-DREV/UEMOA, PGRN_DR_CC, PDI, etc. He was supported by the Head of Programme of IUCN Burkina Faso for the PREE project, which has two major results directly linked to the NbS. These are: R1, evaluation of the Red List of Ecosystems: quantity of information on the degradation of ecosystems in the Niger, Volta and Lake

Chad basins and the Fouta Djallon Massif, and R2: Supporting the implementation of perimeter restoration activities respecting easement zones (riverbanks).

The main concerns of the participants were

- The existence of capitalisation documents in the framework of the experiences of the ABE-GEF project;
- How did the intervention from the baseline contribute to reducing climate change risk in the GEF ABE project?
- How to address the challenges raised in the ABE-GEF activities?
- Are the lowland developments of the GEF ABE Project implemented with a total or partial water control system? Does this type of development allow producers to grow off-season crops?
- What is the strategy for the sustainability of the project's actions and the capacity of the communities to continue the development of the experiences gained and the lessons learned in the medium and long term after the project has ended?

The answers provided by the GEF ABE Project Coordinator were as follows

- The ABE-GEF project capitalization documents are available and will be shared immediately with participants;
- The project had two intervention sites with two major problems:

1 Site

- Drilling boreholes and pastoral wells for water availability;
- Introduction of fodder technology (bourgou, etc.) as an alternative solution ;
- Setting up charters to regulate exploitation.

2 Site

Difficulties with abandonment and the return of people to the banks. The main solutions were:

- Awareness-raising on the abandonment of chemicals;
- endowment of improved seed types;
- revegetation of riverbank areas; and riparian forests to reduce erosion and change production patterns.

A suggestion was made to harmonise the distance of the easement zones in the different states. This varies between 25 and 100 metres depending on the State. At the end of the exchanges a motion was made to the ABV Member States to provide data for the updating of the two reports that are the subject of this workshop.

2. VFDM project - IUCN commitment

This presentation was made by **Ms. Bora MASUMBUKO**. In her presentation, the presenter first introduced the ***Integrating Flood and Drought Management and Early Warning for Climate Change Adaptation in the Volta Basin (VFDM) Project***. It is financed by the Adaptation Fund and implemented by the WMO, VBA, GWP-AO Consortium, in direct partnership with National Structures and Agencies in charge of Meteorology, Hydrology, Water Resources Management, Civil Protection, Environment, WMO partners, such as CIMA Research Foundation, International Union for Conservation of Nature (IUCN), CERFE, UNITAR. The main objective is to provide solutions, concerted and innovative approaches to flood and drought forecasting and early warning system in the Volta Basin based on policies, plans, experiences and lessons learned in the six countries sharing the water resources of the Volta Basin.

IUCN's commitment to nature-based solutions in the VFDM is reflected in

1. ecosystem management through the assessment of ecosystem status, particularly threatened and neglected ecosystems, for increasing resilience and reducing risk through ecosystem-based approaches;
2. the feasibility study of the Red List of Ecosystems aiming to demonstrate the role of ecosystems and their services as essential elements of disaster risk reduction and CC adaptation strategies/plans. The assessment of the basin ecosystems can support and inform national and basin-wide decision and policy making processes;
3. the guidelines for promoting the sustainability of ecosystem services, with the objective of contributing to the development of long-term and integrated adaptation strategies and plans that take biodiversity and ecosystem services into account; and assisting Volta Basin managers and decision-makers to integrate good practice in integrated management of the Volta Basin into national, regional and transboundary policies and inform decision-making. In terms of expected results, IUCN intends to have the guidelines promoted by relevant stakeholders throughout the implementation of the project and beyond;
4. the holding of this regional workshop to accelerate the adoption and use of integrated wetland guidelines at the basin scale through raising awareness of the importance of investing on NbS for disaster risk reduction and adaptation to CC and mobilising action at the policy and implementation levels.

3. Nature-based solutions - opportunities and challenges

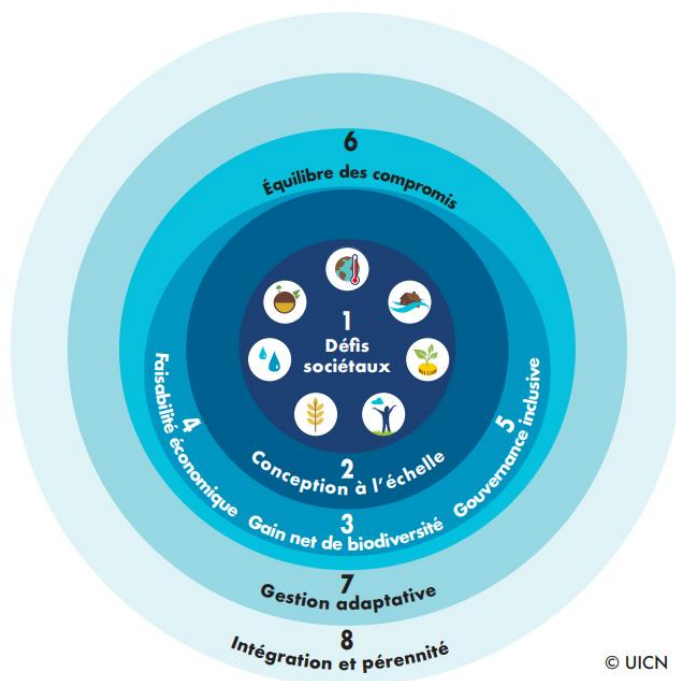
The presentation was given by **Ms Verónica RUIZ GARCIA** and Ms **Bora MASUMBUKO, IUCN**. It focused on :

- The IUCN SfN team;
- The origins of NbS ;
- NbS as an important source for addressing challenges;
- The pillars of NbS ;
- Scaling of NbS to ensure their potential;
- The operational framework for NbS: the Global Standard for NbS™;

It states that:

- IUCN is already in the process of developing an insurance system and this is already appreciated by some donors (i.e. European Union, AFD);
- NbS are a tool for aligning national/international frameworks, agreements and objectives (e.g. SDGs, Paris Agreement, post-2020 biodiversity framework, Sendai framework).

It notes that :



The Global Standard for NbS™, published in July 2020, incorporates 8 criteria (and 28 indicators), the first of which is about societal challenges, the second refers to designs taking into account scale, the next three are about the pillars of sustainable development, the fifth about governance, the sixth about trade-offs, the seventh about adaptive management and finally the eighth about integration and sustainability of actions.

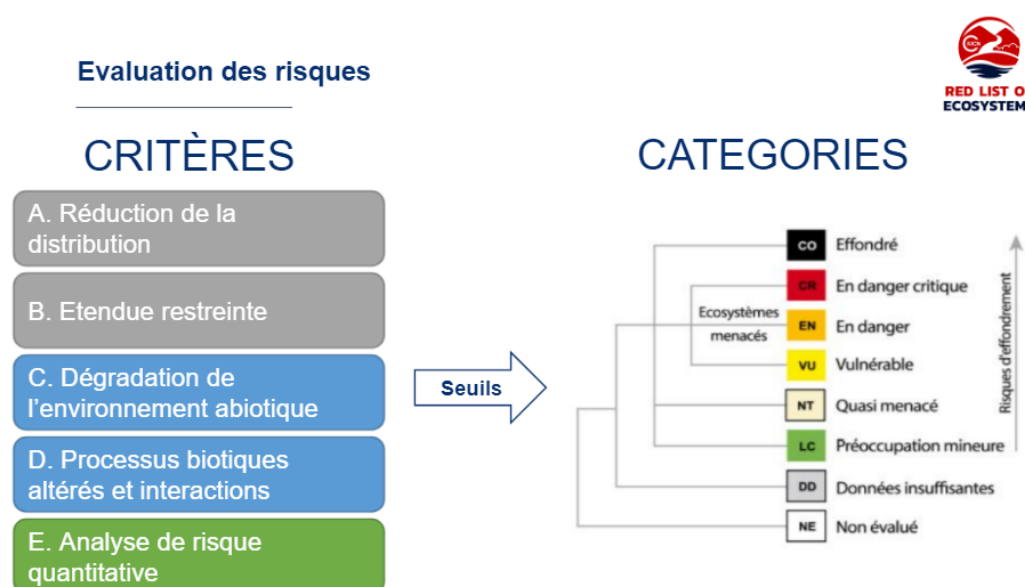
Scaling up of NbS to ensure their potential is needed to meet our global challenges and the standard can help in this process. A video on NbS has been shared:

<https://www.youtube.com/watch?v=qZuTdZsMb1c&t=125s>.

4. Ecosystem Feasibility Study, Integrated Guidelines, Next Steps

The presentation series itself started with the **presentation of the feasibility study of the Red List of Ecosystems**. This session was moderated by **Ms Verónica RUIZ GARCIA**.

From the feasibility study of the Red List of Ecosystems (RLE), it notes that the assessment of the risk of ecosystem collapse is based on 5 criteria, with thresholds, 2 of which are related to spatial symptoms, 2 functional and 1 to quantitative risk analysis. ELA serves as a decision-making and awareness-raising tool, and is thus an opportunity to provide information that can be integrated into the Early Warning System (EWS) that is being developed under this project.



The rest of the presentation was moderated by Ms. Bora MASUMBUKO and focused on ecosystem guidelines and key recommendations.

In her presentation, she highlighted the opportunities and challenges of the Volta Basin. The opportunities are the diverse landscape and the availability of ecosystem services; the challenges are environmental, political and the need to integrate ecosystems into management plans.

Thus, a response using the NbS approach allows:

- Ecosystem-based disaster risk reduction (Eco-DRR) such as the case of land salinization in Senegal;
- Ecosystem-based adaptation (EbA) and,
- Forest landscape restoration (FLR).

Potential recommendations highlighted the need to:

- Establish an operational mechanism for effective coordination of sectoral policies in the Volta Basin;
- Strengthen regional cooperation to promote NbS for the management of the Volta Basin;
- Ensuring communication and awareness of NbS;
- Improve the adoption of the NbS approach by decision-makers and policy formulation to integrate ecosystem risk into early warning systems;
- Improving the availability of scientifically sound data;
- Develop a regional initiative for NbS in the Volta Basin.

Finally, the presentation on the **next steps was made by Ms Verónica RUIZ GARCIA and reflected the following:**

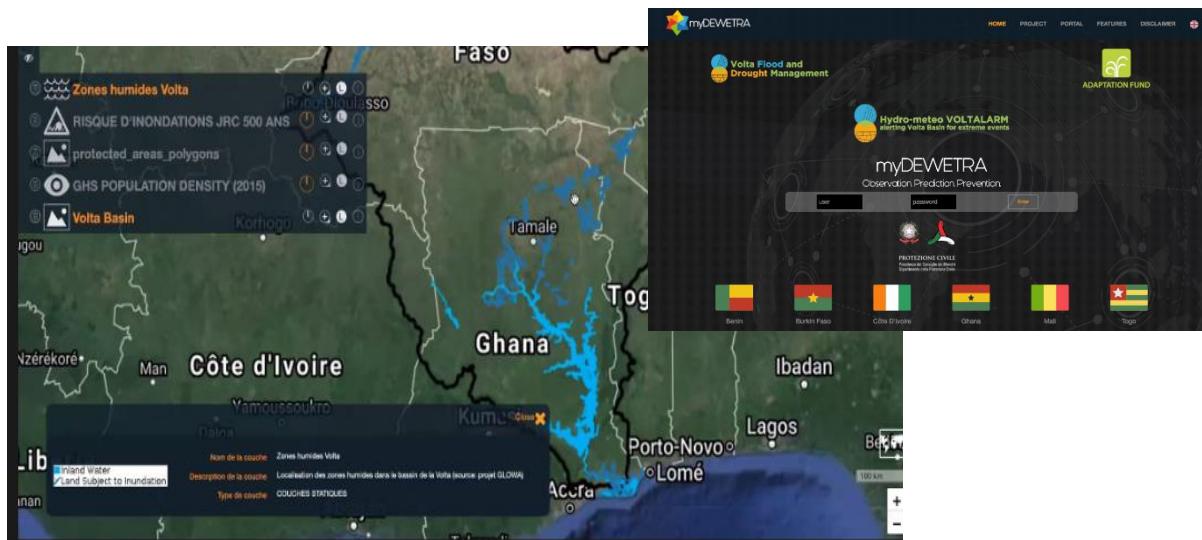
- Organise national information and training workshops on NbS during 2021 and 2022;
- Update the data in both reports, also considering the amendments provided at the national mini-workshops;
- Establish national action plans to implement actions with a focus on nature-based solutions and project ideas.

5. My Dewetra platform

Ms Anna MAPELLI, CIMA, made a presentation with a demo of the *VOLTALARM early warning system platform*. It states that the VOLTALARM Early Warning System is based on the My Dewetra platform. It allows:

- Knowledge of risks and disasters;
- Hazard management, monitoring, analysis and forecasting;
- dissemination and communication of alerts;
- Repair and response capacity.

VOLTALARM is a 3-pillar decision support with several. It allows real-time risk scenario overlay and analysis and alert communication. VOLTALARM has several data providers and users, allows data integration and visualisation and has a tool for alert bulletins. Following this series of presentations, points of clarification were addressed by the participants.



The comments were :

- For Benin, an alert system has been in place since 2014, with the production of data but difficulties in communicating information to the population at the grassroots. Thus, with the EWS, which has 4 components, it is too dense for the people of Benin to get involved;
- The model is a powerful tool for feeding and outputting the forecast, a fluid mechanism for making it available to the population. It is true that some of the stations in the basin are no longer in service due to lack of maintenance. The ABV will take care of the situation of the stations in the country;
- The platform seems to be aimed at the central level, while the countries want to be at the EU level;
- Hydrosolution Switzerland produces a newsletter on water in Mali, so there is an opportunity for collaboration;
- There is a flow model for monitoring the evolution of floods on the Oti River in Togo, and it would be desirable for this SAP system to be integrated into the platform.

The main issues raised are:

- What will be the circuit and the time of the information? Is it from the central level to the populations?
- What will be the synergy of action with other weather structures?
- How is the data disaggregated?
- How to implement the mechanism to get the information to the people quickly?
- The development of the local content of the platform to what extent have the National Experts been involved and who are the managers of the platform?
- Are there any local experts working to feed the platform system?
- How will the user take over the platform once the contract with CIMA is terminated?

- Could the user open the platform to other modules?
- How is information gathered in the basin? Will local residents be involved?
- Is it possible to add the floods to get the volume of water?

The answers provided:

Anna, reassures that work is underway to integrate other existing products in order to improve and integrate them into the platform. Eventually, the platform will be managed by experts from national structures. It has a flood and drought alert tab that allows the production of pdf reports.

In addition to Anna, Ramesh said that discussions with countries are underway for a wider connection of the system. It will not be about creating multiple systems for countries. Discussions with national agencies are about weather, environment, etc. for their integration into the platform. As a next step, countries will have training in the use and analysis of information for country agencies to produce reliable alerts.

National agencies will be able to use this and stakeholders will be informed when the EWS is tested for operation. So, this EWS builds on what already exists and identifies who can access and disseminate alerts, i.e. professionals with a specific mandate.

4.2. Day 2: 16 June 2021

The second day of exchanges on NbS began with a review of the presentations and discussions of the first day. This was done by the Coordinator of the National Focal Structure, facilitator of this workshop. He outlined the different presentations of the previous day and insisted on the sharing of experiences of the different agencies. Afterwards, he announced the programme for the second day, and a revision was made to the programme. This revision concerned the inclusion on the agenda of the presentations of the observations and amendments of the national mini-workshops.

1. Synthesis of the national mini-workshops by each country

It emerged that a number of elements needed to be reviewed to improve the two documents submitted to this workshop. These are mainly the geographical maps and figures, the statistical data of the VBA member countries to be updated and disaggregated by country, the environmental indicators to be reviewed, the involvement of national experts in the drafting of the said documents and to highlight the various national action plans and strategies.

Each country was able to make rewordings and insertions were proposed. All these observations and comments were sent to the VBA secretariat to be taken into account in both reports.

The comments and observations will be taken into account to reflect the position of each country. The summaries of the comments will be included in *Annex 3*.

Following the presentations of the observations and amendments of the national mini-workshops, the floor was given to anyone who wanted to speak freely so that the participants could appreciate their real situation.

Thus, for **the ED / VBA**, it will be necessary to make available all the documents mentioned (strategies, indicators, etc.) for retrocession to IUCN for taking into account the comments and observations.

For **Bora**, comments and observations will be analysed and considered. The various references cited can be shared to facilitate the improvement of the reports.

Ramesh, after thanking the stakeholders for the comments, stressed that they will agree on what will be added to improve the reports and which can be used by other projects in the different countries to come up with usable solutions for our communities. Also, the update will be shared with all partners.

Veronica, all the feedback will be used to update both reports.

The GWP AO project makes suggestions for the title of the Red List of Ecosystems document. Suggestions may include guidelines or guidance notes or an implementation guide.

UEMOA suggests that a roadmap for the guidelines be established

CILSS has not received the different reports and proposes that from now on a synthesis can be made for exploitation while waiting for the final reports.

2. National Action Plans: Long-term view

This presentation by **Ramesh Tripartit, Project Coordinator (WMO)** focused on the Green Climate Fund, Adaptation Fund, Global Environment Facility, etc. She traced their processes and mechanism for financing water-related projects. For the Adaptation Fund, it is open to various sectors at both national and regional levels. Except that at the regional level, at least two countries are required to submit. The submission of projects is done in three phases according to the procedures of the AF. To help the bidding countries master the project submission system, the AF provides them with financial support and a consultant to accompany the development and submission of the project. The duration of these three phases is approximately one and a half years. It specifies that the Early Warning System, ecosystems, ecosystem services, droughts and floods is a mandatory criterion for the submission of reports. The same applies to SfNs, which must be integrated into the entire cycle of these funds.

The amount allocated per project is between 1 billion and 14 billion CFA francs.

In light of this presentation on the funding mechanism of the AF, IUCN and WMO asked States to briefly present the barriers, opportunities and challenges for each State that may hinder or favour their eligibility for the AF. This is summarised in *Annex 4*

For **Ms Verónica RUIZ GARCIA**, the **action plan** will be a follow-up to this regional workshop and will ensure that the knowledge acquired and the expertise of all the actors involved is brought together in order to define the national action plan. These action plans will form the basis for the development of project proposals to be submitted to donors. The actions are the following:

1. Appointment of national focal points (1 or 2) during or after the regional workshop of 15 and 16 June 2021. This focal point will then be in contact with the various partners, but in particular with IUCN in all matters concerning the environment;
2. Sharing of missing or other relevant data from national agencies with IUCN and project partners for visualisation in MyDewetra - VoltaAlarm ;
3. Organisation of a national workshop for each riparian country on capacity development on nature-based solutions and the IUCN Global Standard. The activities related to the implementation of these workshops will be coordinated with

the National Focal Structures Coordinators, the project partners and IUCN under the technical supervision of the project team (WMO-GWP-AO) Ramesh Tripathi, Niampa Boukari, Maxime Teblekou;

4. Finalise national and/or regional action plans on disaster risk reduction (DRR) and climate change adaptation (CCA) for droughts and floods through nature-based solutions;
5. Preparation of a regional or national concept note with the support of national agencies, IUCN and VBA. This will be the responsibility of the individual countries;
6. Organisation of a Regional Workshop to present the concept note(s) and identify potential donors to fund the concept note prepared under point 5.

With regard to the development of national action plans, the following guide can be used to identify ideas on disaster risk reduction (DRR) and climate change adaptation (CCA) for droughts and floods. This guide will serve as a baseline that will contain the essential information for the development of a full project proposal that can then be submitted to donors.

The actions and activities to be considered are

- Facilitating the coordination and strengthening of national platforms by supporting initiatives that facilitate coordination between national and regional authorities as well as public and private institutions working on disaster risk reduction while linking them to national level planning activities;
- Linking DRR to climate change by supporting actions to better inform end-beneficiaries about the impact of climate change and the changing situation;
- Sustainability of projects with clear entry and exit strategies for planned operations. Multi-country operation to strengthen the exchange of good practice and expertise between riparian countries;
- Cross-cutting issues: participation of women, children, vulnerable groups such as the disabled, ethnic minorities, environmental protection, etc.

The drafting plan can be found in *Annex 5*.

3. Working groups session



Contries worked together (bringing also participants who joined online) in order to develop its national action plan and identify project ideas to respond to floods and droughts. The IUCN and WMO team supported participants (face-to-face and online) from each country in developing their national action plans and identifying project ideas. Details by country are provided in *Annex 6 and 7*.

5. Closing ceremony

The closing ceremony was punctuated by four interventions. Firstly, the representative of the WMO thanked all the participants for the work done and the rich exchanges which enabled important orientations to be taken, and also the donor to note the quality of the deliverables. He insisted that the project team was counting on the support of all.

The IUCN representative (Jacques Somda), in turn, thanked the participants for the seriousness and quality of the work. For him, the exchanges were rich with great opportunities to be seized.

The same words were formulated by the VBA representative at the end of two days of fraternal and convivial work, in the respect of each other. He thanked all the organisers, the Technical and Financial Partners, the participants and the translators.



As for the representative of the Coordinator of the National Focal Structure. On behalf of the Minister, he thanked all the participants for the rich exchanges recorded throughout the workshop and wished everyone a peaceful return home.

The regional workshop on "Nature-based solutions as a mechanism to respond to floods and droughts" in the Volta Basin ended on a note of general satisfaction at 18:05 with the presentation of certificates to the participants.

6. Conclusion and recommendations

Overall, the workshop met the expectations of the participants. As much as some had concerns that were met, the participation of the organisers was active. However, time management and the quality of the internet connection to follow the videoconference were deplored as weak points. Overall, for the participants, the content of the workshop was dense, interesting and enriching, the exchanges frank and fruitful, the presenters were experienced and open. The moderation was excellent and the logistics very good

Recommendations were made to the different stakeholders of the project:

At IUCN

- Updating baseline data ;
- Considering the amendments, observations and recommendations from the mini-workshops;
- List missing data by national portion.

To the WMO-WMO-GWP/AO consortium

- Allow sufficient time to review the working documents;
- WMO, make the necessary arrangements to facilitate the collection of hydrometeorological data by country.

To the countries / NbS

- To make available to IUCN via the VBA the documents and other information promised for the enrichment of the two reports.
- Collect additional data



ANNEXES

ANNEX 1: Attendance list

N°	Name and surname	Gender		Function	Institution	Email	Telephone	Participation
		F	M					
1	GOUNGOUNGA Germain		x	Technician	IUCN - Burkina Faso	germain.goungounga@gmail.com	(226) 70 01 80 82	Face-to-face
2	BADOLO Kéli Fabienne	x		Technician	GWP-AO	keli_fab@yahoo.fr	(226) 72 79 79 42	Face-to-face
3	SOMDA Jacques		x	Programme Manager	IUCN - Burkina Faso	jacques.somda@uicn.org		Face-to-face
4	BARRO/SANOGO Fatimata	x		Director Technical Assistant	AEM	diefatiba@gmail.com	(226) 70 35 24 08	Face-to-face
5	NIAMPA Boukari		x	Technical Officer ABV	AFDM - ABV	niampaboukary@yahoo.fr		Face-to-face
6	HOUANYE Kokou Armand		x	Executive Secretary	GWP-AO	armand.houanye@gwpao.org		Face-to-face
7	DESSOUASSI Yaovi Robert		x	Executive Director ABV	ABV	rdessouavi@abv.int robertdessouassi@gmail.com		Face-to-face
8	ABUNGBA Joachim A.		x	Basin Director Black Volta – WRC	Water Resources Commission	joachimabungba@yahoo.com		Face-to-face
9	Dr SOVOE Simon		x	Deputy Director	EPA-Ghana	Simon.Sovoe@epa.gov.gh	(233) 050 130 17 27	Face-to-face
10	SOH Elie A.		x	C/SSABV DG Water	DG Water / MEM	lilazouc2000@yahoo.fr	(229) 95 32 75 20	Face-to-face
11	DOSSOU Kuassi V. Martial		x	SAP National Focal Point	DG Water / MEM	Samumax@yahoo.fr	(229) 95 05 05 66	Face-to-face
12	MILLOGO Dibi		x	Deputy Executive Director	ABV	fredmilfr@yahoo.fr		Face-to-face
13	GOITA Amidou		x	National GEF/Mali Focal Point	AEDD/Mali	amidougota@gmail.com	(223) 66 88 36 48	Face-to-face

N°	Name and surname	Gender		Function	Institution	Email	Telephone	Participation
		F	M					
14	BOUARE Damassa		x	Deputy National Director	DNH/Mali	bouaredamassa@yahoo.fr	(223) 76 16 25 46	Face-to-face
15	DIARRA Niambélé Aminata	x		Technical Advisor	MEADD/Mali	mineyitou@yahoo.fr	(223) 76 07 66 11	Face-to-face
16	GOULA Bi Tié Albat		x	SFN Coordinators	DPARE MINEF	dpare.minef@gmail.com		Face-to-face
17	BALIMA Larba Hubert		x	Researcher Coord. PREE	WASCAL	lhubertbalima@gmail.com		Face-to-face
18	BELLO Etienne		x	Mayor	Baye/Mali	pdiobos@gmail.com	(223) 65 64 00 38	Face-to-face
19	CORRERA Aminata	x		PRAPS NRM expert	CILSS	aminata.correra@cilss.int		Face-to-face
20	TEBLEKOU Maxime		x	Project Manager	GWP-AO	maxime.teblekou@gwpao.org		Face-to-face
21	TETOU P. Essondong		x	Head of Department	DE/MERF - Togo	tetou.jopre@yahoo.fr		Face-to-face
22	AGOUDA Koadja		x	Head of Division	Director of Water Resources/Togo	agoudakoadja@yahoo.fr		Face-to-face
23	BAGA Wendzoodo Amédée		x	Technician	DRGRE/Burkina Faso	bagaamedee@gmail.com		Face-to-face
24	DENE Salifou		x	IT	ABV	dene.abv@gmail.com		Face-to-face
25	OUEDRAOGO Alligouamé Vincent		x	Agent	DGRE/Burkina Faso	rigouame@gmail.com		Face-to-face
26	TARAMA W. Jacques Ismaël		x	Head of Branch	ABE-GEF project	jacktaram@gmail.com		Face-to-face
27	BALMA N. Eugene		x	Coordinator	ABE-GEF project	eugenebalma@gmail.com		Face-to-face
28	ILBOUDO Daniel		x	Agent	SP-CNDD	ilboudodaniel84@yahoo.fr		Face-to-face
29	NANA S. Patricia Marie Parfaite	x		DPGIRE Assistant	ABV	marieparfaite2608@gmail.com		Face-to-face
30	YAMEOGO Sibiri Julien		x	DPGIRE Assistant	ABV	yameogojulien@gmail.com		Face-to-face
31	KONE M. H. Farida	x		Assistant Hydrologist	ABV	fkone@abv.int / faridakone@gmail.com		Face-to-face
32	AJAVON Ayayi		x	Translator	ABV	lenbisant@yahoo.fr		Face-to-face

N°	Name and surname	Gender		Function	Institution	Email	Telephone	Participation
		F	M					
33	FOFANA Rafatou	x		Dir. Volta Pi Observatory	ABV	rafatoufofana.abv@gmail.com	(226) 70 82 45 83	Face-to-face
34	DIALLO Blâmi		x	Head of Department representing Coord. SFN/Burkina Faso	DGRE/Burkina Faso	dialloblami@gmail.com		Face-to-face
35	ASSAO Abdoukarim		x	Water Resources Officer	WAEMU Commission	aassao@uemoa.int	(226) 76 56 52 59	Face-to-face
36	SALIFOU Mahamadou		x	Agropastoralist expert	CILSS	salifou.mahamadou@cilss.int		Face-to-face
37	ZONGO Gérard		x	Director of Studies and Information Water	DEIE	zongo.gerard@gmail.com		Face-to-face
38	TRAORE Serge M. D.		x	DGER	Ministry of Water and Sanitation	smdtra1980@gmail.com	(226) 70 23 55 74	Face-to-face
39	AMOAH A. Boasiako		x	Deputy Director	EPA-Ghana	aantwib@gmail.com		Face-to-face
40	COULIBALY Sidi		x	Communicator	GWP-AO	sidi.coulibaly@gwpao.org	(226) 70 23 41 04	Face-to-face
41	TAPSOBA Mahamadou		x	Interpreter	Establishment DIVERSIFIA	diversifia@gmail.com	(226) 76 65 25 82	Face-to-face
42	SIDIBE Douramane		x	Interpreter		doursid@yahoo.fr	(226) 76 60 08 42	Face-to-face
43	KANGA BROU Isidoire		x	Direction de la Météorologie nationale Cote d'ivoire	Direction de la Météorologie nationale Cote d'ivoire			Online
44	GOMEZ Bernard		x	WMO	WMO			Online
45	RAMESH Tripathi		x	WMO	WMO			Online
46	KAKPA B Didier		x	Benin	Benin			Online
47	SOUMAHORO Amed			Ivory Coast	Ivory Coast			Online
48	ISSAOU Latifou		x	Togo	Togo			Online
49	QUINTI Gabrielle	x						Online

N°	Name and surname	Gender		Function	Institution	Email	Telephone	Participation
		F	M					
50	TOUSSA Aurelien		x					Online
51	MAPELLI Anna	x		CIMA	CIMA			Online
52	RUIZ GARCIA Verónica	x		IUCN, Switzerland	IUCN, Switzerland			Online
53	MASUMBUKO Bora	x		IUCN, Kenya	IUCN, Kenya			Online

ANNEX 2: Revised and adopted agenda

08:30	Reception of participants	30	OMM / ABV / GWP-AO
	Introductory elements of the workshop		
9:00 - 10:00	Welcome to participants	60	Coordinator of the National Focal Point in Burkina Faso
	Speech by the Executive Director of the VBA or his representative		Executive Director of the ABV
	Speech by the IUCN Representative		IUCN
	Speech by the WMO Representative on behalf of the Consortium		WMO representative
	Speech by the Minister of Water and Sanitation of Burkina Faso		Mr. Minister of the ABV
	Media and photo sessions with the Authorities		Organising Committee
10:00 - 10:30	Opening cocktail	30	Organising Committee
10.30-10.45 am	Establishment of the Presidium	15	Protocol
10.45 - 11.15 am	<ul style="list-style-type: none"> Review and validation of the workshop programme Presentation of the objectives and results of the workshop 	30	Presidium, ABV / GWP-AO, IUCN
11:15-12:00	The Volta Basin - projects and activities	45	ABV / GWP-AO, IUCN
12:00-12:15 pm	VFDM Project - IUCN Commitment	15	IUCN
12:15-13:00	Nature-based solutions - opportunities and challenges	45	IUCN
1:00 - 1:30 pm	Ecosystem Feasibility Study	30	IUCN
1.30-2.30 pm	Lunch break	60	Organising Committee
14:30-15:00	Ecosystems - Integrated guidelines	30	IUCN
15:00-15:30	Ecosystems - Next steps	30	IUCN
15:30-15:45	Coffee break	15	Organising Committee
15:45-16:00	My Dewetra platform	45	CIMA
16:00-16:30	Summary and remarks of the first day	30	All / IUCN
16:00	Closing of Day 1		
Day 2	Session		Responsible for
	Presentation of the summaries of the national mini-workshops by country	60	Country ABV
08:30-8:45	Presentation of the Agenda - Day ²	15	IUCN
	National Action Plans: Long-term view		
08h45-09:45	Identifying project ideas: responding to floods and droughts	60	IUCN
09:45-10:15	General Action Plan - How to develop it	30	IUCN
10.15-10.30 a.m.	Coffee break	15	Organising Committee
10:30-11:00 am	General action plan - continuation	30	IUCN

11:00-11:30 a.m.	National Action Plans - Approach and first steps	30	Facilitated group discussion / IUCN
11.30am-12.30pm	National Action Plans - Development	60	Facilitated group discussion / IUCN
12:00 - 13:30	Lunch break	60	
13:30-14:00	National Action Plans - Further development	30	Facilitated group discussion / IUCN
14:00-15:00	Exhibition and discussion	60	Rapporteurs / All
15:00-15:30	Next steps and follow-up actions	30	IUCN
15:30-15:45	Final remarks	15	ABV / GWP-AO
15:45-16:00	Group photo with presentation of certificates	15	All
16:00	Closing of the workshop		

ANNEX 3: Summary of observations and amendments from the national mini-workshops.

N°	Country	Document concerned	Observations/comments
1	Benin	Both documents	Water quality and losses are not included in the Take stock to see what already exists in the case of Benin Detail the methodology of the surveys. Involve national experts to assist the consultants.
2	Burkina Faso	Both documents	Put the documents in a sustained register and make a list of figures and photos. The sentences are long. Review the geographical coordinates and repeat the map. Economic context: specify the initial population used. Review the way in which lakes and dams are categorised. Improving the description of IWRM Burkina Faso asks for the sources of its claims in the documents Read again to see the amendments and recommendations
3	Mali	Both documents	Mention that Mali has four (4) framework documents Regarding climate change, the green wall is to the north of the Malian portion: so take that into account. Mali has a national strategy for risk and disaster management. In addition, we have an early warning system in place: take this into account. Take into account the latest report on the state of the environment in Mali and the national policy for the protection of the Volta
4	Togo	Both documents	A lot of things are left unsaid. It is difficult to understand your ideas. Rephrasing
5	Ghana	Both documents	We note that the translation of the document from French to English distorts the meaning of the words: review this Use recent maps.
6	Ivory Coast	Both documents	Summary too long, sentences too long. Specify the indicators used and the vulnerability indices.

ANNEX 4: Results of the discussions / working group on barriers, opportunities and challenges

Country	Barriers	Opportunities	Challenges
Benin	<ul style="list-style-type: none"> - Linguistics, in this case English; - Unfamiliarity at this stage with the procedures of the Adaptation Fund's project submission and financing mechanism; - Current priorities for the country's development. 	<ul style="list-style-type: none"> - Existence of the National Designated Authority for the LEF at the Ministry of Living Environment and Sustainable Development; - Existence of a policy, legal, strategic and regulatory framework for the management of water resources and related ecosystems; - Existence of a policy, legal, strategic and regulatory framework for Integrated Water Resources Management (IWRM); - Existence of a document committing the country to combat climate change. 	<ul style="list-style-type: none"> - Electricity for all ; - 100% drinking water supply by 2021, revised ; - Food security ; - Protection and safeguarding of the environment ; - Total control of water for uses ; - Public sanitation.
Burkina		<ul style="list-style-type: none"> - For a number of years, funding has been provided in the field of CC, PA GIRE and everything that is centred on CC with the new programme financed by the Danes, the hydromet project which finances this water component, the World Bank, SIERBA - Existence of the Green Fund Executive Secretariat - Existence National Designated Authority Adaptation funds 	
Ivory Coast	<ul style="list-style-type: none"> - The implementation of the integrated water management context is difficult due to the institutional context, despite the 	<ul style="list-style-type: none"> - All the problems are known (drought, flooding), 	

Country	Barriers	Opportunities	Challenges
	<p>fact that the law ensures a separation of the tasks of manager and user</p>	<ul style="list-style-type: none"> - The country is currently experiencing a drought in the decline of hydraulic dams, SfN to help increase water volumes - At the sectoral level, all sectors are obliged to draw up an optimal water management plan, which means that there must be consultation between stakeholders - Gold panning an opportunity for SfN-type project development - Sharing of watercourses bilaterally (e.g. PAGEV, cooperation between Burkina, Mali and Cote d'Ivoire on the COMOE, idem with Ghana with the BIHA) - 6 Ramsar areas in difficulty with the disappearance of certain spaces (hairy crab), - Protection of groundwater recharge areas, as backfilling to build houses provides opportunities for initiatives 	
Ghana	<ul style="list-style-type: none"> - Origin of multilateral funds and the limited nature of the funds so activities to be funded become pilot and cannot be scaled up - Delays in project schedules, often lasting 3 years and may be 	<ul style="list-style-type: none"> - Accessing this funding for development 4 national communications with GEF, UNEP, - Accessing the Adaptation Fund in some activities in northern Ghana in the water sector with the World Bank to build infrastructure - Financing in the field of forest ecosystems 	

Country	Barriers	Opportunities	Challenges
	<p>irrelevant as they often follow disasters</p> <ul style="list-style-type: none"> - How to distinguish an adaptation project from a normal development project. Complicated dividing line between the two. 	<ul style="list-style-type: none"> - Availability of cable experts to help draft bankable projects 	
Mali	<ul style="list-style-type: none"> - Complexity and difficulty in mobilising resources for the VFC, difficult start-ups and procedures for the Adaptation Fund and the VFC - Adaptation funds for ideas are developed at the NC level, so barrier to capacity of project leaders - Requiring that idea carriers be accredited at the FAO level - Project ideas without being backed by a partner do not pass - Requirement for sponsorship of projects by UN agencies (UNDP, FAO, UNFEM). 	<ul style="list-style-type: none"> - Existence of the Fourth Written Communication on climate change ; - Review of the NDC and validation by stakeholders 	
Togo	<ul style="list-style-type: none"> - Complexity and requirements of the CVF (Precision, studies to be done) to be reduced 	<ul style="list-style-type: none"> - Several policy and planning documents - NDP axis 3, on CC 	<ul style="list-style-type: none"> - CC NAPA developed since 2016, now local NAPAs being developed

Country	Barriers	Opportunities	Challenges
	<ul style="list-style-type: none"> - Language barrier, French-speaking countries feel disadvantaged because CCUN - Why only one language? - That French and other languages are accepted 	<ul style="list-style-type: none"> - Government roadmap - Convention CC - 3rd Communication on CCs - Project to be submitted to the AF with BOAD - hyromet project on standby - Project with FAO to be submitted in VFC for populations in mountain areas - WACA project for coasts with Togo as border (Nouakchott -Abidjan) - Short-term pollutant abatement strategy - Strategy being developed to feed data requested by partners - UNDP-funded project for the resilience of populations in the 	<ul style="list-style-type: none"> - Building the resilience of communities in mountain areas that contribute to fragile ecosystems (FAO).

ANNEX 5: General Action Plan Guide

1. Context. Describe the relevant environmental and climate challenges of the country/basin and note commitments, existing investment frameworks and if possible ongoing projects/activities on DRR and CCA in the country/basin.
2. Duration
3. Challenges and obstacles
4. Target area and beneficiaries
5. Review of policies - NDCs, regulatory frameworks, etc. in the country and basin
6. Project objective and expected results - indicators if possible
7. Approach - Results and Activities

Examples of activities

- a) Local disaster management components targeting local actors and populations in disaster-prone areas: early warning systems, data mapping and computerisation, local capacity building, training.*
- b) Institutional linkages and advocacy, targeting institutions involved in disaster management/disaster risk reduction: advocacy, coordination facilitation, institutional strengthening.*
- c) Information, education, communication, targeting direct and indirect beneficiaries (population served): public awareness and education.*
- d) Small-scale infrastructure and services at community level: support for mitigation infrastructure and works, operation and maintenance systems; non-structural mitigation activities.*

8. Implementation schedule

ANNEX 6: Update on the National Action Plans (NAPs) developed by the states at the regional workshop.

NAP of Benin

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
Appointment of national focal points (1 or 2) during or after the regional workshop on 15-16 June 2021 ² .	Directorate General for Water					
Sharing of missing or other relevant data from national agencies with IUCN and project partners for visualisation in MyDewetra - VoltaAlarm ;	DGEau; DGEC; Météo-Bénin; ANPC; DGFRN; Génie-Rural; ABE, CENATEL, SAPEURS POMPIERS, beneficiary communities.	Provision of missing data and other relevant data that may help to achieve the project objectives; Monitoring of hydrometeorological observation networks ; Capacity building in the use of Voltalarm ; Development of alert dissemination channels at EU level; Development of forecasting models ;	FNEC INE	Financial support	Meeting period ; field trip ; Formalise the framework for consultation between structures	To be defined

² This focal point will then be in contact with the various partners, but in particular with IUCN in all matters relating to the environment.

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
		- Technical and material capacity building ; Implementation of Community EWS				
Organisation of a national workshop for each riparian country on capacity building on nature-based solutions and the IUCN Global Standard.	DGEau; DGEC; Météo-Bénin; ANPC; DGFRN; Génie-Rural; ABE, CENATEL, SAPEURS POMPIERS; beneficiary communities.	Participate in the workshop; prepare the workshop report and implement the recommendations	Project team	Activities related to the implementation of these workshops will be coordinated with the National Focal Structures Coordinators, project partners and IUCN under the technical supervision of the project team (WMO-WMO-GWP-AO) Ramesh Tripathi, Niampa Boukari, Maxime Teblekou;	Presentation of various papers followed by discussions; Group work ; Logistical means ; Conference room ;	To be defined
Finalise national and/or regional action plans on disaster risk reduction (DRR) and climate change adaptation (CCA) for droughts	DGEau; DGEC; Météo-Bénin; ANPC; DGFRN; Génie-Rural; ABE, CENATEL, SAPEURS POMPIERS; beneficiary communities	Elaboration of the SDAGEs and updating of the PANGIRE	Adaptation Fund and the Consortium (WMO-	Financing of activities; technical support	Preparation of ToRs for the recruitment of consultants; Organisation of workshops for the	To be defined

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
and floods through nature-based solutions; Preparation of a regional or national concept note with the support of national agencies, IUCN and VBA. This will be the responsibility of the individual countries;			WMO-GWP-AO)		validation of the different documents; -	
Organisation of a national workshop to introduce policy makers, national project designers, national financiers and others to the nature-based approach with a view to its inclusion in project and programme formulation	DGEau; DGEC; Météo-Bénin; ANPC; DGFRN; Génie-Rural; ABE, CENATEL, SAPEURS POMPIERS; beneficiary communities	- Raising awareness and popularising different nature-based approaches for inclusion in project/programme formulation	Adaptation Fund and the Consortium (WMO-WMO-GWP-AO	Preparation of tdrs for the organisation of the workshop Identification of policy makers and other associated actors; Implementation of the workshop recommendations	Presentation of various papers followed by discussions; Group work ; Logistical means ; Conference room	To be defined
Organisation of a Regional Workshop to present the concept note(s) and identify potential donors to fund the concept note prepared under point 5.	Adaptation Fund and the Consortium (WMO-WMO-GWP-AO	Elaboration of tdrs for the organisation of the workshop. Setting up the logistics ; Sharing of workshop documents. etc	DGEau; DGEC; Météo-Bénin; ANPC; DGFRN	Participation in the regional workshop ; Render at the national level ; Implementation of the recommendations from the workshop.		
Monitoring the implementation of the concept in the States	Adaptation Fund and the Consortium (WMO-WMO-GWP-AO	Online or face-to-face meetings;	DGEau; DGEC; Météo-	Implementation of the concept		

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
		State travel mission for monitoring	Bénin; ANPC; DGFRN; CENATEL			

PAN of Burkina Faso

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
Appointment of two (02) National Focal Points (Principal and Deputy) during or after the regional workshop on 15-16 June 2021 ³ .	Directorate General for Water Resources (DGWR)	<ul style="list-style-type: none"> - Coordination with other structures - 		<ul style="list-style-type: none"> - Execution of the 		
Sharing of missing or other relevant data from national agencies with IUCN and project partners for visualisation in MyDewetra - VoltaAlarm ;	Directorate General for Water Resources (DGWR)	<ul style="list-style-type: none"> - Coordination of data collection - Data collection 	<ul style="list-style-type: none"> AE DREA ANAM CONASUR SP/CNDD DGEF DGEAP Communities Civil society 0. NGO 1. DGAHDI 2. Etc. 	<ul style="list-style-type: none"> - Provision of data - Provision of policy and strategy documents, - - 	<ul style="list-style-type: none"> - Protocol with partner structures - Transmission by e-mail or by slip in digital format - Have a right of access to a platform 	<ul style="list-style-type: none"> - Per month
Organisation of a national workshop for each riparian country on capacity building on nature-based solutions and	Directorate General for Water Resources (DGWR)	Coordination	Project team	Activities related to the implementation of these workshops will be coordinated with the National Focal Structures	<ul style="list-style-type: none"> - Exchange meeting - Awareness campaign - Logistics 	Twice a year

³ This focal point will then be in contact with the various partners, but in particular with IUCN in all matters relating to the environment.

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
the IUCN Global Standard.				Coordinators, project partners and IUCN under the technical supervision of the project team (WMO-WMO-GWP-AO) Ramesh Tripathi, Niampa Boukari, Maxime Teblekou;		
Finalise national and/or regional action plans on disaster risk reduction (DRR) and climate change adaptation (CCA) for droughts and floods through nature-based solutions; Preparation of a regional or national concept note with the support of national agencies, IUCN and VBA. This will be the	<ol style="list-style-type: none"> 1. Directorate General of Water Resources 2. Directorate General for the Green Economy and Climate Change 	<ul style="list-style-type: none"> - Activity management - 	<ul style="list-style-type: none"> - AE - NGO - SP/CNDD - DGAHDI - ANAM - 	<ul style="list-style-type: none"> - Contribute to the development of action plans - Product review and validation - 	<ul style="list-style-type: none"> - Set up an editorial board - Set up a monitoring committee - Involvement of resource persons 	1 month

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
responsibility of the individual countries;						
Organisation of a national workshop to introduce policy makers, national project designers, national financiers and others to the nature-based approach with a view to its inclusion in project and programme formulation	ABV	Coordination	DGER GWP/AO, IUCN	Contribute to and participate in the organisation	<ul style="list-style-type: none"> - Logistics - Room - Etc. 	1 or 2 days
Organisation of a Regional Workshop to present the concept note(s) and identify potential donors to fund the concept note prepared under point 5.	ABV	Coordination	The member countries			
Monitoring the implementation of						

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
the concept in the States						
Protection of banks/water sources	Water Agency/LAC	Organisation of actors/coordination of actions	Decentralised technical services Local and regional authorities Private law actors	Technical support/monitoring and evaluation Implementation of activities Social mobilisation	Awareness raising Participatory identification of sites/technical and financial resources Identify potential sources of funding CLE space Develop and implement the reforestation technology package Develop plant maintenance strategies Treatment of gullies Creation of stone barriers/zai/semi-watersheds/filtering dikes	All year round
Cleaning/rehabilitation of water bodies and streams	DGIH/AE	Organisation of actors/coordination of actions	Companies / Labour intensive	AE/CLE/DREA/DREEV CC	Carrying out a feasibility study/ESIA/recruitment of service providers/monitoring and evaluation of activities	November/January-June

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
Promotion of agroecology along the riverbanks	Agriculture/EA/DREEV CC	Organisation of actors/coordination of actions/marketing	Private law actors CLE/OP/Decentralised technical services/	Technical support/monitoring and evaluation Implementation of activities Social mobilisation	Awareness raising/organisation of stakeholders Application of technology packages Marketing of products Monitoring and evaluation	All year round

NAP of the Republic of Côte d'Ivoire

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
Appointment of national focal points (1 or 2) during or after the regional workshop on 15-16 June 2021 ⁴ .	(1) SFN ABV National Coordinator (DPARE/DGRE/MINE F (2) WEATHER	(1) Liaise with the different partners/(2) (2) Support the Coordinator	(1) IUCN/ABV (2) Universities (LGE, CRE) (3) Hydrology	Collaborate	Convention/ Meetings / Mail / Email / Phone	July

⁴ This focal point will then be in contact with the various partners, but in particular with IUCN in all matters relating to the environment.

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
Sharing of missing or other relevant data from national agencies with IUCN and project partners for visualisation in MyDewetra - VoltaAlarm ;	(1) SFN ABV National Coordinator (DPARE/DGRE/MINE F	(1) Formulate data requests (2) Collect (3) Analyse (3) transmit	(1) METEO (2) Universities (LGE, CRE) (3) Hydrology (4) Environment	(1) make the data available	Mail/Email/Phone	August - September
Definition of TORs for project ideas	(1) IUCN	Propose TORs for projects	Project team	Contribute to the formulation of the project ToR	Email	July
Collection of project ideas	(2) SFN ABV National Coordinator (DPARE/DGRE/MINE F	Collect drafts of concept notes	(1) METEO (3) Hydrology	Summarising	Email/ Online meeting	August September
Organisation of a national workshop for each riparian country on capacity building on nature-based solutions and	(1) SFN ABV National Coordinator (DPARE/DGRE/MINE F	(1) Ensure collaboration with IUCN and the project team	Project team	Activities related to the implementation of these workshops will be coordinated with the Focal	Mail/Email/Phone	October

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
the IUCN Global Standard.				Structures Coordinators Nationals, project partners and IUCN under the technical supervision of the project team (WMO-GWP-AO) Ramesh Tripathi, Niampa Boukari, Maxime Teblekou; (1) Compile projects		
Finalise national and/or regional action plans on disaster risk reduction (DRR) and climate change adaptation (CCA) for droughts and floods through	IUCN	Elaborate	SFN CI	Making amendments	Email	October

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
nature-based solutions; Preparation of a regional or national concept note with the support of national agencies, IUCN and VBA. This will be the responsibility of the individual countries;						
Organisation of a national workshop to introduce policy makers, national project designers, national financiers and others to the nature-based approach with a view to its	(1) SFN ABV National Coordinator (DPARE/DGRE/MINE F	(1) Ensure collaboration with IUCN and the project team	Project team	Activities related to the implementation of these workshops will be coordinated with the Focal Structures Coordinators Nationals, project partners and IUCN under the technical	Mail/Email/Phone	November

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
inclusion in project and programme formulation				supervision of the project team (WMO-GWP-AO) Ramesh Tripathi, Niampa Boukari, Maxime Teblekou; (2) Compile projects		
Organisation of a Regional Workshop to present the concept note(s) and identify potential donors to fund the concept note prepared under point 5.	IUCN	Coordinate	Project team	Support		November
Monitoring the implementation of the concept in the States						

PAN of Ghana

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks Supporting actors	Framework, methods, tools, means	Timeline
Appointment of national focal points (1 or 2) during or after the regional workshop on 15-16 June 2021. This focal point will then be in contact with the various partners, but in particular with IUCN in all matters relating to the environment ⁵	Water resources commission (WRC) National focal structures	Consultation at the country level and support in linking with IUCN	EPA, Gmet NADMO	Support in collection of data Work with national focus structure on activities	National climate change policy and national IWRN plans	
Sharing of missing data or other relevant data from national agencies with IUCN and project partners for visualisation under MyDewetra - VoltaAlarm	WRC HSD Gmet	Provide the list of missing data	MSWR, EPA	Provide additional data Provide technical input and assistance		July-December 2021
Organisation of a national workshop for each riparian	IUCN and National focal structures (WRC), VBA	Support in organizing the national workshop in Ghana	Project team	Activities related to the implementation of these workshops will be	Workshop	October to December 2021

⁵ This focal point will then be in contact with the various partners, but in particular with IUCN in all matters relating to the environment.

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks Supporting actors	Framework, methods, tools, means	Timeline
country on capacity development on nature-based solutions and the IUCN Global Standard		Build capacity of participating institutions		coordinated with the National Focal Structures Coordinators, project partners and IUCN under the technical supervision of the project team (WMO-VA-GWP-AO) Ramesh Tripathi, Niampa Boukari, Maxime Teblekou		
Finalization of national and/or regional action plans on disaster risk reduction (DRR) and climate change adaptation (CCA) for droughts and floods through nature-based solutions	VBA, IUCN, National focal structures (WRC), EPA	Collect and collate plans, and actions Update other plans	NADMO, Gmet, HSD	Activities related to DRR to be made available Synergies, actions and plans		November 2021 to March 2022
Organisation of a Regional Workshop to present the concept note(s) and identify potential donors to fund the concept note prepared in point 5	VBA, ICUN, WMO, GWP, AO	Harmonize project concept Validate concepts produced	WRC (National focal structures), EPA, HSD, GMet, NADMO	Support in organizing the workshop	Workshop	April 2022
Organisation of a national workshop to introduce policy	ICUN, VBA, WRC, GWP	Introduce concepts and approached of	EPA, Gmet, HSD, MSWR	Provide inputs	Workshop	May August 2022

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks Supporting actors	Framework, methods, tools, means	Timeline
makers, national project designers, national funders and others to the nature-based approach with a view to incorporating it into project and programme formulation		nature based solutions to national actors				
Monitoring the implementation of the concept at the country level	WRC, EPA	Provide framework for monitoring	HSD, Gmet	Provide support in monitoring	DRR framework	All period

NAP of the Republic of Mali

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
Appointment of national focal points (1 or 2) during or after the regional workshop on 15-16 June 2021 ⁶ .	DNH /AEDD	Coordination and monitoring of the project preparation process	DGPC	Data generation and delivery / Capacity building	Coordination and follow-up meeting	July 2021
			DNEF	Data generation and delivery / Capacity building		
			DNACPN	Data generation and delivery / Capacity building		
			Communities	Mobilisation of local actors / capacity building		
Sharing of missing or other relevant data from	Mali-Météo,	Production and supply of data			Data collection	July 2021 -

⁶ This focal point will then be in contact with the various partners, but in particular with IUCN in all matters relating to the environment.

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
national agencies with IUCN and project partners for visualisation in MyDewetra - VoltaAlarm ;	IGM	Production and supply of data			Data synthesis and validation meeting	
	INSTAT	Production and supply of data				
	DGPC	Production and supply of data				
	CNAP	Production and supply of data				
Organisation of a national workshop for each riparian country on capacity building on nature-based solutions and the IUCN Global Standard.	DNH /AEDD /IUCN	Facilitation	Project team	Activities related to the implementation of these workshops will be coordinated with the National Focal Structures Coordinators, project partners and IUCN under the technical supervision	Identification and mobilisation of the actors involved Preparation of communication materials	September 2021

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
				of the project team (WMO-WMO-GWP-AO) Ramesh Tripathi, Niampa Boukari, Maxime Teblekou		
Finalise national and/or regional action plans on disaster risk reduction (DRR) and climate change adaptation (CCA) for droughts and floods through nature-based solutions	DNH /AEDD /IUCN	Facilitation	DNEF /DGPC /Mali-Weather NGOs	Proposals for action	Drafting and Monitoring Committee	March 2022
Preparation of a regional or national concept note with the support of national agencies, IUCN and VBA. This will be the responsibility of the individual countries	DNH /AEDD /IUCN	Coordination and monitoring	Communities NGOs DNEF /DGPC /Mali-Weather	Expression of needs Proposals for action	Stakeholder meetings	October 2021

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
Organisation of a national workshop to introduce policy makers, national project designers, national financiers and others to the nature-based approach with a view to its inclusion in project and programme formulation	DNH /AEDD /IUCN	Facilitation	DNEF /DGPC /Mali-Weather DNPd CSLP	Technical support	Preparation of communication materials	November 2021
Organisation of a Regional Workshop to present the concept note(s) and identify potential donors to fund the concept note prepared under point 5	DNH /AEDD /IUCN	Facilitation	DNPd CSLP NGOs	Technical support	Preparation of communication materials	January 2022
Monitoring the implementation of the concept in the States	DNH /AEDD /IUCN	Support and advice to stakeholders	NGOs	Technical support	Preparation of communication materials	

NAP of the Togolese Republic

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
Appointment of national focal points (1 or 2) during or after the regional workshop on 15-16 June 2021 ⁷ .	Ministry of Water Ministry of the Environment	Act as a liaison between the country and the ABV-WMO-GWP/AO/IUCN Consortium	Ministry in charge of Meteorology (DGMN), Ministry in charge of Civil Protection (ANPC) Ministry of the Environment (Forest Resources Directorate, ANGE, ODEF)	To support the main actors in their tasks	Face-to-face meeting Webinar	End of July 2021
Sharing of missing or other relevant data from national agencies with IUCN and project partners for visualisation in MyDewetra - VoltaAlarm ;	Ministry of Water Ministry of the Environment	Collect and provide missing data to IUCN and Partners	Same as	Assist in collecting data to share with IUCN	Email	End of September 2021

⁷ This focal point will then be in contact with the various partners, but in particular with IUCN in all matters relating to the environment.

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
Organisation of a national workshop for each riparian country on capacity building on nature-based solutions and the IUCN Global Standard.	Ministry of Water	Preparation and implementation of the national workshop	Project team	Activities related to the implementation of these workshops will be coordinated with the National Focal Structures Coordinators, project partners and IUCN under the technical supervision of the project team (WMO-WMO-GWP-AO) Ramesh Tripathi, Niampa Boukari, Maxime Teblekou	Email	End of November
Finalise national and/or regional action plans on disaster risk reduction (DRR) and climate change adaptation (CCA) for droughts and floods through nature-based solutions; Preparation of a regional or national concept note with the support of national agencies, IUCN and VBA. This will be the responsibility of the individual countries;	National structures (Ministry of Water Ministry of the Environment) And the Consortium (WMO-WMO-GWP-AO)	Technical validation (expert) National validation Organisation of a regional validation workshop Development of a concept note	Project team	Support national and regional organisation	Email National and regional face-to-face workshops	March 2022

Action	Main actor(s)	Missions/tasks	Supporting actors	Tasks supporting actors	Methods, means, working environment	Chronogram
Organisation of a national workshop to introduce policy makers, national project designers, national financiers and others to the nature-based approach with a view to its inclusion in project and programme formulation	National structures (Ministry of Water Ministry of the Environment) And the Consortium (WMO-WMO-GWP-AO), IUCN	Preparation of the workshop	Project team	IUCN under the technical supervision of the project team (WMO-GWP-AO) Ramesh Tripathi, Niampa Boukari, Maxime Teblekou	Email National and regional face-to-face workshops	May 2022
Organisation of a Regional Workshop to present the concept note(s) and identify potential donors to fund the concept note prepared under point 5.	IUCN and the Consortium	Preparation of the workshop	Project team	Supporting the organisation	Email Face-to-face workshop	July 2022
Monitoring the implementation of the concept in the States	National structures (Ministry of Water Ministry of the Environment) IUCN and the Consortium	Country monitoring missions	National structures (Ministry of Water Ministry of the Environment) IUCN and the Consortium	Supporting the organisation	Email Face-to-face meeting Field visit	October 2022

APPENDIX 7: SfN-related project ideas for submission to donors proposed by states.

Project ideas from the Republic of Benin

Prioritised adaptation options	Prioritised adaptation measures	Actions/Activities	Associated structures
Option 1 Development of climate change resilient infrastructure	Promotion of techniques and practices to protect the quality and economy of water resources	<ul style="list-style-type: none"> • Kit development, organisation and awareness raising 	NGOs, PNE, Municipalities, Private sector
	Realisation/rehabilitation of structuring infrastructures (dams/surface water reservoirs) with multiple functions;	<ul style="list-style-type: none"> • Baseline studies ; • Implementation (see SDAGE Ouémé, Mékrou, Mono) ; • Support project for the construction of electricity dams in Benin 	CBO (Comité du Bassin de l'Ouémé)
	Promotion of flood and drought resilient water supply facilities ;	<ul style="list-style-type: none"> • Training of actors on the construction of resilient structures 	DGEau, Municipalities, NGOs
Option 2 Improved governance of the sector	Institutional capacity building	<ul style="list-style-type: none"> • Development of capacity building plans 	SG/MEM; Private Sector
	Gender mainstreaming in water governance.	<ul style="list-style-type: none"> • Gender analysis of the sector ; • Promotion of women in decision-making bodies 	PNE, NGOs, Agency, Municipalities
	Strengthening and implementation of regulations to combat the occupation of natural water outlets	<ul style="list-style-type: none"> • State of play and implementation of recommendations 	SG/MEM; Private Sector
	Enforcement of regulations (the "levy payer", "user pays" and "polluter pays" principles)	<ul style="list-style-type: none"> • Popularisation, information, communication on the regulations in force 	MCVDD; Ministry of Justice, Ministry of the Interior
Option 3 Mobilisation and Sustainable Management of Water Resources	Strengthening measures to combat the pollution of water resources (surface and groundwater)	<ul style="list-style-type: none"> • Popularisation, information, communication on the regulations in force 	NCBs, Municipalities DGEAU
	Restoration and safeguarding of gallery forests, spring heads, associated ecosystems	Refer to Forestry sector	DGEau, Agency
	Storage and reuse of runoff water for purposes other than drinking water	<ul style="list-style-type: none"> • Construction of mini runoff retention structures for agricultural purposes 	Communes; Direction du Génie Rural
	Promotion of integrated water resources management	<ul style="list-style-type: none"> • Elaboration of the SDAGEs and updating of the PANGIRE ; 	ABV DGEAU

Prioritised adaptation options	Prioritised adaptation measures	Actions/Activities	Associated structures
		<ul style="list-style-type: none"> Establishment and strengthening of water management bodies 	
Option 4 Improved knowledge of water resources and hydro-climatic risk management	Strengthening of surveillance systems, monitoring of observation networks (surface water, groundwater and their quality);	<ul style="list-style-type: none"> Acquisition and installation/rehabilitation of water level stations equipped with teletransmission devices; Acquisition and installation of water quality sensors ; Acquisition of groundwater monitoring equipment 	Meteo-Benin, DGEau
	Strengthening the water information system (data collection, processing, dissemination and archiving);	<ul style="list-style-type: none"> Development and improvement of communication and information dissemination tools; Design of a collection, processing and dissemination platform 	Meteo-Benin DGEau
	Strengthening of the hydro-climatic multi-hazard early warning system (EWS) (flood and drought)	<ul style="list-style-type: none"> Development of forecasting models ; Technical and material capacity building ; Implementation of Community EWS 	Meteo-Bénin, ANPC, IRHOB DGEAU

Project ideas from the Republic of Ghana

N°	Headings
1	Increasing Volta basin community's resilience in climate change adaptation through nature-based solutions/ governance (CRIPS)
2	Application of nature-based solutions in integrated water resources management in the Volta basin
3	Adoption of nature-based solutions by riparian districts in their climate change adaptation plans

Project ideas from the Republic of the Mali

N°	Headings
1	Sustainable management of ecosystems in the Sourou Valley (Mali/Burkina) ;
2	Food Security of the Sourou River Communities (Mali/Burkina) ;

3	Reducing people's vulnerability to CC through adaptation based on ecosystem "services" (AfE) and promoting sustainable management of natural and biological resources in the Sourou Valley (Mali/Burkina).
---	--

Project ideas of the Togolese Republic

N°	Headings
1	Integrated project for the development of transhumance corridors for peaceful pastoralism
2	Community capacity building project in the mountain areas of Togo