AFB/PPRC.20-21/4
06 June 2017

Adaptation Fund Board
Project and Programme Review Committee

PROPOSAL FOR (BENIN, BURKINA FASO, NIGER)

Background

Regional projects and programmes

1. The strategic priorities, policies and guidelines of the Adaptation Fund (the Fund), as well as its operational policies and guidelines include provisions for funding projects and programmes at the regional, i.e. transnational level.

2. In its twenty-fourth meeting, the Board decided:

> *(a) To initiate steps to launch a pilot programme on regional projects and programmes, not to exceed US$ 30 million;*
>
> *(b) That the pilot programme on regional projects and programmes will be outside of the consideration of the 50 per cent cap on multilateral implementing entities (MIEs) and the country cap;*
>
> *(c) That regional implementing entities (RIEs) and MIEs that partner with national implementing entities (NIEs) or other national institutions would be eligible for this pilot programme, and*
>
> *(d) To request the secretariat to prepare for the consideration of the Board, before the twenty-fifth meeting of the Board or intersessionally, under the guidance of the working group set up under decision B.17/20, a proposal for such a pilot programme based on consultations with contributors, MIEs, RIEs, the Adaptation Committee, the Climate Technology Centre and Network (CTCN), the Least Developed Countries Expert Group (LEG), and other relevant bodies, as appropriate, and in that proposal make a recommendation on possible options on approaches, procedures and priority areas for the implementation of the pilot programme.*
>
> *(Decision B.24/30)*

3. The proposal requested under (d) of the decision above was prepared by the secretariat and submitted to the Board in its twenty-fifth meeting, and the Board decided to:

> *(a) Approve the pilot programme on regional projects and programmes, as contained in document AFB/B.25/6/Rev.2;*
>
> *(b) Set a cap of US$ 30 million for the programme;*
>
> *(c) Request the secretariat to issue a call for regional project and programme proposals for consideration by the Board in its twenty-sixth meeting; and*
>
> *(d) Request the secretariat to continue discussions with the Climate Technology Center and Network (CTCN) towards operationalizing, during the implementation of the pilot programme on regional projects and programmes, the Synergy Option 2 on knowledge management proposed by CTCN and included in Annex III of the document AFB/B.25/6/Rev.2.*
>
> ***(Decision B.25/28)***

4. Based on the Board Decision B.25/28, the first call for regional project and programme proposals was issued and an invitation letter to eligible Parties to submit project and programme proposals to the Fund was sent out on 5 May 2015.

5. In its twenty-sixth meeting the Board decided *to request the secretariat to inform the Multilateral Implementing Entities and Regional Implementing Entities that the call for proposals under the Pilot Programme for Regional Projects and Programmes is still open and to encourage them to submit proposals to the Board at its 27th meeting, bearing in mind the cap established by Decision B.25/26.*

(Decision B.26/3)

6. In its twenty-seventh meeting the Board decided to:

> *(a) Continue consideration of regional project and programme proposals under the pilot programme, while reminding the implementing entities that the amount set aside for the pilot programme is US$ 30 million;*
>
> *(b) Request the secretariat to prepare for consideration by the Project and Programme Review Committee at its nineteenth meeting, a proposal for prioritization among regional project/programme proposals, including for awarding project formulation grants, and for establishment of a pipeline; and*
>
> *(c) Consider the matter of the pilot programme for regional projects and programmes at its twenty-eighth meeting.*

(Decision B.27/5)

7. The proposal requested in (b) above was presented to the nineteenth meeting of the PPRC as document AFB/PPRC.19/5. The Board subsequently decided:

> *a) With regard to the pilot programme approved by decision B.25/28:*
>
> *(i) To prioritize the four projects and 10 project formulation grants as follows:*
>
> *1. If the proposals recommended to be funded in a given meeting of the PPRC do not exceed the available slots under the pilot programme, all those proposals would be submitted to the Board for funding;*
>
> *2. If the proposals recommended to be funded in a given meeting of the PPRC do exceed the available slots under the pilot programme, the proposals to be funded under the pilot programme would be prioritized so that the total number of projects and project formulation grants (PFGs) under the programme maximizes the total diversity of projects/PFGs. This would be done using a three-tier prioritization system: so that the proposals in relatively less funded sectors would be prioritized as the first level of prioritization. If there are more than one proposal in the same sector: the proposals in relatively less funded regions are prioritized as the second level of prioritization. If there are more than one proposal in the same region, the proposals submitted by relatively less represented implementing entity would be prioritized as the third level of prioritization;*

(ii) To request the secretariat to report on the progress and experiences of the pilot programme to the PPRC at its twenty-third meeting; and

b) With regard to financing regional proposals beyond the pilot programme referred to above:

(i) To continue considering regional proposals for funding, within the two categories originally described in document AFB/B.25/6/Rev.2: ones requesting up to US$ 14 million, and others requesting up to US$ 5 million, subject to review of the regional programme;

(ii) To establish two pipelines for technically cleared regional proposals: one for proposals up to US$ 14 million and the other for proposals up to US$ 5 million, and place any technically cleared regional proposals, in those pipelines, in the order described in decision B.17/19 (their date of recommendation by the PPRC, their submission date, their lower "net" cost); and

(iii) To fund projects from the two pipelines, using funds available for the respective types of implementing entities, so that the maximum number of or maximum total funding for projects and project formulation grants to be approved each fiscal year will be outlined at the time of approving the annual work plan of the Board.

(Decision B.28/1)

Intersessional review process

8. At its twenty-third meeting, the Adaptation Fund Board (the Board) discussed a recommendation made by the Project and Programme Review Committee (PPRC) of the Board, on arranging intersessional review of project and programme proposals. Having considered the comments and recommendation of the PPRC, the Board decided to:

(a) Arrange one intersessional project/programme review cycle annually, during an intersessional period of 24 weeks or more between two consecutive Board meetings, as outlined in document AFB/PPRC.14/13;

(b) While recognizing that any proposal can be submitted to regular meetings of the Board, require that all first submissions of concepts and fully-developed project/programme documents continue to be considered in regular meetings of the PPRC;

(c) Request the secretariat to review, during such intersessional review cycles, resubmissions of project/programme concepts and fully-developed project/programme documents submitted on time by proponents for consideration during such intersessional review cycles;

(d) Request the PPRC to consider intersessionally the technical review of such proposals as prepared by the secretariat and to make intersessional recommendations to the Board;

(e) Consider such intersessionally reviewed proposals for intersessional approval in accordance with the Rules of Procedure;

(f) Inform implementing entities and other stakeholders about the new arrangement by sending a letter to this effect, and make the calendar of upcoming regular and intersessional review cycles available on the Adaptation Fund website and arrange the first such cycle between the twenty-third and twenty-fourth meetings of the Board;

(g) Request the PPRC to defer to the next Board meeting any matters related to the competencies of the Ethics and Finance Committee that may come up during the intersessional review of projects/programmes and to refrain from making a recommendation on such proposals until the relevant matters are addressed; and

(h) Request the secretariat to present, in the fifteenth meeting of the PPRC, and annually following each intersessional review cycle, an analysis of the intersessional review cycle.

(Decision B.23/15)

9. At the twenty-fifth Board meeting, the secretariat had requested to the Board to consider whether the rules in the intersessional project review cycle could be made more accommodating, with a view to speeding up the process. The Board subsequently decided to:

(d) Amend Decision B.23/15 and require that all first submissions of concepts under the two-step approval process and all first submissions of fully-developed project/programme documents under the one-step process continue to be considered in regular meetings of the Project and Programme Review Committee (PPRC);

(e) Request the secretariat to review, during its inter-sessional review cycles:

(i) First submissions of fully-developed project/programme documents for which the concepts had already been considered in regular meetings of the PPRC and subsequently endorsed by the Board;

(ii) Resubmissions of project/programme concepts and resubmissions of fully-developed project/programme documents;

(f) Request the PPRC to consider intersessionally the technical review of such proposals as prepared by the secretariat and to make intersessional recommendations to the Board;

(g) Consider such intersessionally reviewed proposals for intersessional approval in accordance with the Rules of Procedure; and

(h) Inform implementing entities and other stakeholders about the updated arrangement by sending a letter to this effect, and make effective such amendment as of the first day of the review cycle between the twenty-fifth and twenty-sixth meetings of the Board.

(Decision B.25/2)

The project

10. The following project concept titled “Integration of climate change mitigation and adaptation measures in the concerted management of the WAP Transboundary Park: ADAPT-WAP Project” was submitted by the Sahara and Sahel Observatory (OSS), which is a Regional Implementing Entity of the Adaptation Fund.

11. This is the second submission of the proposal and first submission as a project concept document. It was first submitted as a pre-concept to the twenty-eight Board meeting and was endorsed. It was then submitted to the current intersessional review cycle as a project concept document, using the three-step approval process established for regional projects.

12. The present submission was received by the secretariat in time to be considered in the intersessional review period between the twenty-ninth and thirtieth meetings. The secretariat carried out a technical review of the project concept, assigned it the diary number AFR/RIE/DRR/2016/1, and completed a review sheet.

13. In accordance with a request to the secretariat made by the Board in its 10th meeting, the secretariat shared this review sheet with OSS, and offered it the opportunity of providing responses before the review sheet was sent to the PPRC.

14. The secretariat is submitting to the PPRC the summary and, pursuant to decision B.17/5, the technical review of the project, both prepared by the secretariat, along with the submission of the project concept in the following section. The proposal is submitted with tracked changes between the initial submission and the revised version.

Project Summary

Benin, Burkina Faso, Niger - Integration of Climate Change Mitigation and Adaptation Measures in the Concerted Management of the WAP Transboundary Park: Adapt – WAP Project

Implementing Entity: *OSS*
Project/Programme Execution Cost: USD 648,000
Total Project/Programme Cost: USD 7,200,000
Implementing Fee: USD 702,000
Financing Requested: USD 8,550,000

Project Background and Context:

The W-Arly-Pendjari (WAP) Complex is one of Africa's most important compositions of terrestrial transboundary ecosystems. It is considered as the largest and most important continuum of unharmed ecosystems in the West African savannah belt. Shared by Benin, Burkina and Niger, this network of protected areas consists of a number of areas with different status and protection regimes. In addition to the W Transboundary Biosphere Reserve (WTBR), shared by the three countries, the WAP complex covers the Arly National Park in Burkina Faso and the Pendjari National Park in Benin.

The project aims at strengthening the resilience of ecosystems and improve populations' livelihoods within the WAP Complex, which supposedly faces climate change, through the establishment of a Multi-Risk Early Warning System and the implementation of concrete adaptation measures.

Component 1: Integration of climate change aspects and contingency plan (MHMREWS) in the WAP Complex management (US$ 440,000).

This component seeks to elaborate a regional master plan and to update the existing national and local action plans, integrating climate change aspects and defining the adaptation and mitigation measures to be implemented. Aiming for a common management of protected areas and natural ecosystems of the Complex, this component will complete and harmonize the management tools, studies, databases, digital and mapping supports already in place for the WAP Complex, but which remain fragmented and disparate until today. It mainly aims to mainstream the climate change dimension and its risks in the existing individual parks management plans and into WAP complex global master plan.

Component 2: Design and establishment of a multi-risk early warning system (MREWS) (drought, flood, and fires) (US$ 2,100,000).

Since natural disasters are one of the most serious threats affecting the integrity of ecosystems and the security of the riparian populations of the WAP Complex, this component seeks the establishment of an operational, reliable and efficient Early Warning System in the WAP Complex. The setting up of a detailed contingency plan is of capital importance to reduce the negative impacts of hazards due to climate change. This plan will be made available to different users and stakeholders.

Component 3: Improving ecosystems and populations' livelihoods resilience through the implementation of concrete adaptation and mitigation actions (3,710,000).

This component proposes the implementation of both adaptation and mitigation actions with the aim to maintain the ecological equilibrium of the WAP Complex and to improve the resilience of its riparian populations. The major focused themes, will be, natural resources and ecosystems (water, soil, forest and pastoral ecosystems) as well as common agricultural practices within the Complex (transhumance, overgrazing, illegal logging). This component will allow the implementation of measures to improve infrastructures for the benefit of farmers, fishermen, pastoralists, to develop silvopastoralism, to promote renewable energies and to create a revolving system.

Component 4: Awareness-raising and capacity building for concerted, integrated and sustainable management of the WAP Complex (950,000).

This component is dedicated to awareness-raising, communication and capacity building. It will target different groups (decision-makers, youths, women, etc.), which will be involved in training, capacity building, and environmental education sessions. A strategy and an action plan for communication and awareness-raising will be developed and will serve as a decision-support tool for the concerned managers and authorities in the three countries.

ADAPTATION FUND BOARD SECRETARIAT TECHNICAL REVIEW OF PROJECT/PROGRAMME PROPOSAL

PROJECT/PROGRAMME CATEGORY: Regional Project Concept

Countries/Region: **Benin, Burkina Faso, Niger**
Project Title: **Integration of climate change mitigation and adaptation measures in the concerted management of the WAP Transboundary Complex: ADAPT-WAP Project**
Thematic focal area: **Disaster risk reduction and early warning systems**
Implementing Entity: **Sahara and Sahel Observatory**
Executing Entities: **Benin: *Centre national de gestion des Réserves de Faune*; Burkina Faso: *La Direction Générale des Eaux et Forêts*; Niger: *La Direction Générale des Eaux, de l'Environnement et Forêts* and *Le Centre National de Suivi Environnemental et Ecologique***
AF Project ID: **AFR/RIE/DRR/2016/1**
IE Project ID:
Requested Financing from Adaptation Fund (US Dollars): **8,550,000**
Reviewer and contact person: **Martina Dorigo**
Co-reviewer(s): **Daouda Ndiaye**
IE Contact Person: **Nabil Ben Khatra**

Review Criteria	Questions	Comments on 30 April 2017	Comments on 15 May 2017
Country Eligibility	1. Are all of the participating countries party to the Kyoto Protocol?	Yes.	
	2. Are all of the participating countries developing countries particularly vulnerable to the adverse effects of climate change?	Yes. However, although general information is provided, the climate information described for the target region is not documented. Reference should be provided to the current trends observed and the projections made for the region. **CR1** Furthermore, the project identifies drought, floods and bushfire as climate-related threats to the WAP complex without providing evidence of current or projected occurrence of such threats. **CR2**	**CR1:** Addressed. **CR2:** Partially addressed. It is not clear how these climate threats relate more specifically to the WAP complex, particularly the flood related threat. This should be clarified at the fully-developed project document stage.

Project Eligibility	1. Has the designated government authority for the Adaptation Fund endorsed the project/programme?	Yes, endorsement letters are enclosed in the proposal.	
	2. Does the regional project / programme support concrete adaptation actions to assist the participating countries in addressing the adverse effects of climate change and build in climate resilience, and do so providing added value through the regional approach, compared to implementing similar activities in each country individually?	Needs clarification. The W-Arly-Pendjari (WAP) Complex is one of Africa's most important compositions of terrestrial transboundary ecosystems. It is considered as the largest and most important continuum of unharmed ecosystems in the West African savannah belt. Shared by Benin, Burkina and Niger, this network of protected areas consists of a number of areas with different status and protection regimes. In addition to the W Transboundary Biosphere Reserve (WTBR), shared by the three countries, the WAP complex covers the Arly National Park in Burkina Faso and the Pendjari National Park in Benin. The project aims to strengthen the resilience of ecosystems and improve populations' livelihoods within the WAP Complex, which supposedly faces climate change, through the establishment of a Multi-Risk Early Warning System and the implementation of concrete adaptation measures. A number of anthropogenic pressures to the complex have been identified. However, the proposal does not demonstrate how it is threatened by climate change and recurrent natural disasters. There is no vulnerability assessment undertaken in order to identify which areas to target in priority in the WAP complex. Such study is scheduled to be performed during project implementation, which is not adequate. **CR3** Generally, the rationale for the planned outputs and activities of the project, especially under Outcome 3, is not provided. **CR4** The proposal also presents under outcome 3.2 mitigation-related activities, for a substantial amount. Please clarify how those activities will present adaptation co-benefits, as mitigation measures without adaptation co-benefits are not eligible for funding by the Adaptation Fund. **CR5** Also, the proposal does not specify for each expected output of the project the targeted country and related budget requested. **CR6**	**CR3:** Partially addressed. A comprehensive vulnerability assessment will be conducted to allow the identification of priority areas where the project will intervene. **CR4:** Partially addressed. The fully-developed project document needs to provide the adaptation reasoning behind the support to fishermen under output 3.1.5. **CR5:** Partially addressed. The use of solar panels under output 3.2.4 should be better justified. Also, a general understanding of how all these activities could be connected and complement each other is still missing. **CR6:** Partially addressed. The proposal should use the table provided in the template for regional projects. Also, investments to be made for the Arly National Park in Burkina Faso and the Pendjari National Park in Benin should be specified in the fully-developed project document.

	3. Does the project / programme provide economic, social and environmental benefits, particularly to vulnerable communities, including gender considerations, while avoiding or mitigating negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Fund?	Yes, project is classified under category B, in accordance with the Environmental and Social Policy of the Fund. However, the estimated direct and indirect beneficiaries of this project, including gender considerations, are not provided. **CR7** At the fully-developed project stage, it is expected that the priority sites will be identified.	**CR7:** Partially addressed. An estimated amount of total targeted beneficiaries is still not provided, just general information about the quantity of villages and towns (350) located within 40km from protected areas of the WAP complex. This will be done upon completion of the vulnerability assessment study.
	4. Is the project / programme cost-effective and does the regional approach support cost-effectiveness?	Yes. However, this should be better demonstrated in the fully-developed project document.	
	5. Is the project / programme consistent with national or sub-national sustainable development strategies, national or sub-national development plans, poverty reduction strategies, national communications and adaptation programs of action and other relevant instruments? If applicable, it is also possible to refer to regional plans and strategies where they exist.	Not demonstrated. The proposal does not present how this project is consistent with the relevant protected area-level plans in the three countries and how it is consistent with relevant regional plans and strategies established at the WAP complex of ECOWAS level. **CR8**	**CR8:** Not addressed. WAP-specific plans and strategies are not reflected. For instance, the 2016-2025 management plan for the WAP complex is not referred, neither is the Regional Fisheries Strategy of the WAP complex.
	6. Does the project / programme meet the relevant national technical standards, where applicable, in compliance with the Environmental and Social Policy of the Fund?	Not demonstrated. **CR9**	**CR9:** Addressed. Nevertheless, at full proposal stage a more detailed analysis on how project activities specifically meet national as well as regional technical standards should be provided.

	7. Is there duplication of project / programme with other funding sources?	Needs clarification. Three initiatives are mentioned in this section namely the project Protected Ecosystems in Sahelian Africa (ECOPAS), the Support Programme to the W Park (PAPE), and the Support Programme to the Management of Protected Areas (PAGAP). These and other past initiatives are also mentioned in page 3 of the document. However, it is not specified if synergies could be created among this project and the existing ones or if there would be possible duplications and to what extent. **CR10**	**CR10:** Addressed.
	8. Does the project / programme have a learning and knowledge management component to capture and feedback lessons?	Yes. Component 4 of the project (towards which 13% of the total budget is allocated) is focusing on KM. The provided approach implies the development of different communication and awareness raising tools and training/educational sessions for children and women.	
	9. Has a consultative process taken place, and has it involved all key stakeholders, and vulnerable groups, including gender considerations?	Yes, during the concept preparation, consultative processes took place. In the full project preparation, gender perspectives will be taken into account through "Consultation for preliminary surveys focused on local actors like farmers, households managed by women, vulnerable groups as indigenous peoples" (page 21). Nevertheless, it is not clear how this was ensured during the concept preparation. Please elaborate on this. **CR11**	**CR11:** Not addressed. During the preparation of the fully-developed project document, the proponents should ensure that gender perspectives are fully taken into account.
	10. Is the requested financing justified on the basis of full cost of adaptation reasoning?	Not demonstrated. The information provided is not sufficient to justify the requested financing. For example, the current level of preservation of the WAP complex as well as existing technical and financial resources to effectively manage the protected areas complex and address anthropogenic pressures put on the complex are not documented. **CR12**	**CR12:** Partially addressed. The strategical importance of the WAP complex is underlined, however a baseline scenario versus a scenario with AF funding highlighting the additional benefits and the full cost of adaptation reasoning is still missing. At the fully-developed project document stage, it is expected that a more comprehensive analysis will be made, drawing on information such as the ones

			available in the management plans and fisheries strategy of the WAP complex.
	11. Is the project / program aligned with AF's results framework?	Most probably. However, needs to be demonstrated at the fully-developed project document stage.	
	12. Has the sustainability of the project/programme outcomes been taken into account when designing the project?	Yes. However, this should be further demonstrated at the fully-developed project document stage.	
	13. Does the project / programme provide an overview of environmental and social impacts / risks identified?	Yes (pages 39 – 41).	
	14. Does the project promote new and innovative solutions to climate change adaptation, such as new approaches, technologies and mechanisms?	The proposal states that the project will develop and promote innovative solutions and approaches in order to facilitate and to enhance the communication between the various stakeholders to achieve the targets of the project at the regional scale. This includes the use of remote sensing and GIS and new communication technologies to develop a Multi-Risk Early Warning System for the WAP Complex. This should be better demonstrated in the fully-developed project document.	
Resource Availability	1. Is the requested project / programme funding within the funding windows of the pilot programme for regional projects/programmes?	Yes. Under the large projects funding window.	
	2. Are the administrative costs (Implementing Entity Management Fee and Project/ Programme Execution Costs) at or below 20 per cent of the total project/programme budget?	Yes, at 9,75%	
Eligibility of IE	3. Is the project/programme submitted through an eligible Multilateral or Regional Implementing Entity that has been accredited by the Board?	Yes. OSS is an accredited RIE.	

Implementation Arrangements	1. Is there adequate arrangement for project / programme management at the regional and national level, including coordination arrangements within countries and among them? Has the potential to partner with national institutions, and when possible, national implementing entities (NIEs), been considered, and included in the management arrangements?	n/a (Not required at Project Concept stage).	
	2. Are there measures for financial and project/programme risk management?	n/a (Not required at Project Concept stage).	
	3. Are there measures in place for the management of for environmental and social risks, in line with the Environmental and Social Policy of the Fund? Proponents are encouraged to refer to the Guidance document for Implementing Entities on compliance with the Adaptation Fund Environmental and Social Policy, for details.	n/a (Not required at Project Concept stage).	
	4. Is a budget on the Implementing Entity Management Fee use included?	n/a (Not required at Project Concept stage).	
	5. Is an explanation and a breakdown of the execution costs included?	n/a (Not required at Project Concept stage).	
	6. Is a detailed budget including budget notes included?	n/a (Not required at Project Concept stage).	

	7. Are arrangements for monitoring and evaluation clearly defined, including budgeted M&E plans and sex-disaggregated data, targets and indicators?	n/a (Not required at Project Concept stage).	
	8. Does the M&E Framework include a break-down of how implementing entity IE fees will be utilized in the supervision of the M&E function?	n/a (Not required at Project Concept stage).	
	9. Does the project/programme's results framework align with the AF's results framework? Does it include at least one core outcome indicator from the Fund's results framework?	n/a (Not required at Project Concept stage).	
	10. Is a disbursement schedule with time-bound milestones included?	n/a (Not required at Project Concept stage).	

Technical Summary	The W-Arly-Pendjari (WAP) Complex is one of Africa's most important compositions of terrestrial transboundary ecosystems. It is considered as the largest and most important continuum of unharmed ecosystems in the West African savannah belt. Shared by Benin, Burkina and Niger, this network of protected areas consists of a number of areas with different status and protection regimes. In addition to the W Transboundary Biosphere Reserve (WTBR), shared by the three countries, the WAP complex covers the Arly National Park in Burkina Faso and the Pendjari National Park in Benin. The project aims at strengthening the resilience of ecosystems and improve populations' livelihoods within the WAP Complex, which supposedly faces climate change, through the establishment of a Multi-Risk Early Warning System and the implementation of concrete adaptation measures. The overall objective of the project will be achieved through the following specific objectives: 1. Improve Strategic reference documents, i.e. development and management plans, by integrating climate change issue. 2. Improve populations' resilience through an Early Warning System and provide relevant and timely information on the occurrence of extreme weather events related to climate change in the WAP Complex and its adjacent areas. 3. Improve ecosystems' resilience (fauna and flora) and populations' livelihoods though the consolidation of infrastructure, for example transhumance corridors, drinking troughs, and anti-flood structures.

	4. Ensure the sustainability of adaptation measures through the mobilization and awareness-raising of beneficiaries and partners to master the developed tools and execute the needed work. The initial technical review found that although the protected areas have significant importance in terms of the ecosystem services they provide, the proposal does not adequately justify the adaptation reasoning nor does it provide climate information to back its assertion on identified climate threats in the region. Other issues identified in the proposal include the lack of demonstration of the consistency with local and regional plans and demonstration of consistency with national and regional technical standards. A number of clarification requests were made. The final technical review finds that although some of the clarification requests have been addressed, a number of issues are still pending and should be resolved during the preparation of the fully-developed project document. The following observations are made: a) The fully-developed project document should clarify how climate-related threats such as drought, floods and bushfire relate specifically to the WAP complex, particularly the flood related threat; b) The fully-developed project document should strengthen the adaptation reasoning behind the support to fishermen under output 3.1.5; c) The use of solar panels under output 3.2.4 should be better justified. Also, a general understanding of how all these activities could be connected and complement each other is still missing; d) The proposal should clarify the amounts to be allocated at the national level, including for activities specific to the Arly National Park in Burkina Faso and the Pendjari National Park in Benin; e) The fully-developed project document should better demonstrate the cost effectiveness of the project; f) To demonstrate consistency with national or regional strategies and plans, WAP-specific plans and strategies should be reflected, including the 2016-2025 management plan and the Regional Fisheries Strategy for the WAP complex; g) The fully-developed project document should demonstrate that gender perspectives are fully taken into account; h) The fully-developed project document should better justify the full cost of adaptation reasoning, drawing on the scheduled vulnerability assessment of the complex as well as existing WAP-specific strategies and management plans.
Date:	18 May 2017

OSS comments and responses on the AF clarifications request
Annex to Decision (B.28/19)

Adaptation Fund Comments	OSS Responses
(i) At the concept stage, the proposal should pay close attention to what is achievable, and should address the risk of allocating resources over too large a number of activities;	All the activities proposed under this project are feasible and their budgets have been well estimated. Indeed the activities proposed by the project have been identified according to populations needs and validated in a participatory manner. As regards with the allocated amounts for each activity, various exchanges have been conducted with the national partners to confirm the estimated budget. (pages 13-18)
(ii) The proposal should strengthen the focus on concrete adaptation activities and the transboundary approach;	In the concept note submitted the concrete adaptation activities constitute the major element of the project, on the one hand through the type of interventions and activities to be carried out (water points, firewalls, infrastructure, agroforestry, ...), and on the other hand through the budget allocated to the project concrete adaptation activities. The cross-border approach of this project is expressed at two levels: - Institutional level: the representatives of the three countries are members of the different management structures of the project at the three levels. - Physical level: The major activities have a cross-border aspect where geographical and administrative boundaries are not considered. Indeed, the project intervention is focused on an ecosystem based approach. (page 20, 28, 33, 34, 36 and 37).
(iii) The proposal should further elaborate on the innovative solutions it plans to promote, and the consistence with national strategies and plans, as well as the project's sustainability;	The project plans to promote several innovative solutions, including the establishment of a MREWS and a process of consultation between the various actors and partners. The project will also include appropriate tools and technologies to the project context (eg. weather stations, stream gauge, sensors, piezometers…) and a wide range of innovative solutions (eg. GIS and communication Platform). (pages 25-27).

	As regards with the consistency of the project with the national strategies and plans the Concept Note has already addressed this issue (pages 29-30). Finally the sustainability of the project outcomes will be further ensured by the participatory and consultative process to be adopted for and during the implementation of activities which will ensure the project appropriation by the local authorities and communities of the three concerned countries. (page 38)
(iv) At the concept stage, the proposal should further clarify which institutions will be involved in its management arrangements;	The project institutional arrangements will involve three levels: local, national and regional. • At the local level: Project development and implementation will require the mobilization of populations and local authorities as well as associations, civil society organizations, village representatives, women's cooperatives, etc. • At national level: The project will be implemented by national institutions, which will be mandated in consultation with the ministries responsible for the environment in the three beneficiary countries. • At the regional level: The project will be implemented by the Sahara and Sahel Observatory (OSS), which will serve as a regional implementation entity and will be in charge of all financial aspects, monitoring and reporting to the Adaptation Fund. The project will be executed by a Project Management Team (PMT) to be hosted by OSS and the national executing institutions. The “fiduciary and technically independent” PMT will collaborate with the Tripartite Regional Management Unit and the National Executing Entities. (pages 42-43)
(v) At the concept stage, the proposal should clarify how it would integrate adaptation and mitigation as suggested by the title of the project	Both, adaptation and mitigation, have been well described and detailed. Indeed, component 3 of the project "Improvement of the resilience of ecosystems and populations' livelihoods through the implementation of concrete adaptation and mitigation actions" is dedicated to address these two issues. (Pages 60-61)

ADAPTATION FUND

CONCEPT NOTE FOR A REGIONAL PROJECT

PART I: PROJECT INFORMATION

Title of Project	**INTEGRATION OF CLIMATE CHANGE ADAPTATION AND MITIGATION MEASURES IN THE CONCERTED MANAGEMENT OF THE WAP TRANSBOUNDARY COMPLEXE: ADAPT-WAP PROJECT**
Countries:	Benin, Burkina Faso, Niger
Thematic Focal Area[1]:	Disaster risk reduction and early warning systems
Type of Implementing Entity	Regional Implementation Entity (RIE)
Implementing Entity:	Sahara and Sahel Observatory (OSS)
Executing Entities:	**Regional level:** Project Management Team (PMT) hosted by OSS **National level:** National Project Management Units (NPMUs) : • Benin : Centre National de Gestion des Réserves de Faune (CENAGREF), • Burkina Faso : Direction Générale des Eaux et Forêts (DGEF), • Niger : Direction Générale des Eaux et Forêts (DGEF) and Centre National de Suivi Environnemental et Ecologique (CNSEE)
Amount of Financing requested:	8.55 MK$ (in U.S. Dollars equivalent)

[1]Thematic areas are: Food security; Disaster risk reduction and early warning systems; Transboundary water management; Innovation in adaptation finance; Management of Natural Resources.

1.1. Project Background and Context:

The W-Arly-Pendjari (WAP) Complex is one of Africa's most important compositions of terrestrial transboundary ecosystems. It is considered as the largest and most important continuum of unharmed ecosystems in the West African savannah belt. Shared by Benin, Burkina and Niger, this network of protected areas consists of a number of areas with different status and protection regimes. In addition to the W Transboundary Biosphere Reserve (WTBR), shared by the three countries, the WAP complex covers the Arly National Park in Burkina Faso and the Pendjari National Park in Benin. Including the riparian zones, the WAP Complex extends over a total area of around 50,000 km² (43% in Benin, 36% in Burkina Faso and 21% in Niger). It displays considerable biological diversity that contributes to the economic and social development of the sub-region. In peripheral areas of the complex and at a distance of about 40 km from its protected areas, there are more than 500 towns and villages totalling 1 million inhabitants (about 700 000 in Benin, 200 000 in Burkina Faso and 100 000 in Niger).

The natural resources of the WAP Complex represent a major asset for the local populations whose livelihoods are mainly based on agriculture, livestock breeding, fishery, forest resources (wood and non-wood products), and tourism.

However, the WAP Complex is subject to multiple pressures and threats, mainly conflicts of use, poaching, overgrazing, agricultural lands expansion, transhumance, bushfires, surface water pollution, climate change and variability, unsustainable fishery and use of wood and non-wood products. Added to this, the WAP Complex is located in an agro-pastoral region characterized by high inter-annual variability exacerbated by climate change which makes it more vulnerable.

As a response to this situation, the proposed project aims to implement concrete actions in order to increase the resilience of population and ecosystems and mitigate the impacts of climate change in the WAP Complex.

More precisely, the project will focus on the following issues:

- Droughts leading to uncontrolled movement of pastoralists,
- Floods threatening the safety of populations and plains by the loss of crops,
- Uncontrolled bushfires leading to the shrinking of forest areas and caused by both human and natural factors,
- Expansion of agricultural lands increasing pressure on natural resources and inducing loss of ecosystem services as carbon sequestration.

With all these human pressures on the WAP Complex's natural resources combined to the adverse effects of climate change, the vulnerability of populations and ecosystems is more likely to increase. *De facto,* the introduction of urgent adaptation and mitigation measures has become mandatory to increase the resilience of populations and ecosystems.

1.1.1. Protected Areas and Ecosystems and Transboundary Approach:

The "WAP" Complex is divided into two core areas: the first one is the W Regional Park, called also the W Transboundary Biosphere Reserve (WTBR), shared by the three countries (Benin, Burkina Faso and Niger) and the second one is composed by the Arly National Park, in Burkina Faso, and the Pendjari National Park, in Benin. *Cf* Map1.

The WAP Complex is a top-ranking ecological composition in West Africa and provides a space for well-preserved and conserved Sudanian ecosystems[2]. About 4 000 000 ha of the Complex area is protected, half of it has a National Park Status (W and Pendjari).

The management approaches of the WAP Complex have fundamentally changed after the independence of the concerned countries in the 1960s and a centralized management has given place to a national and more sectorial management.

In 1987, and aware of the existing gaps in regional cooperation for transboundary ecosystems management, the three countries, with the support of several international partners, joined their efforts for the elaboration and implementation of a common regional strategy for the WAP Complex conservation.

In May 2000, the «Tapoa Declaration» was a decisive step, reflecting the countries' political will and commitment to consider the W Parks as a unique entity that should be managed through a regional vision. Thanks to the Lomé III Agreements between the 71 ACP countries and European Economic Community (EEC), the concerned three States were provided support from the European Union for the creation of the W Regional Park Programme (ECOPAS) in January 2001. On November 04, 2002, the W Regional Park acquired the label of the W Transboundary Biosphere Reserve (WTBR).

In addition, the Arly-Pendjari National Parks in Burkina Faso and Benin have also very recently benefited from 10-year development and management plans. These plans set up the technical, institutional, and legal orientations and measures for a better management of these National Parks through an integrated regional vision.

The WAP Complex has been for the last few years the focus of several projects that aimed essentially to preserve its ecosystems and improve populations' livelihoods:

- Parc W - ECOPAS programme– research component -ECOPAS, 2001 to 2008. This project aimed to conserve the biodiversity of the W Transboundary Complex savannahs (Benin, Burkina Faso and Niger). The project was funded by the European Union.
- Entente Park Support Programme (Programme d'Appui aux Parcs de l'Entente (PAPE)), 2011 to 2016, implemented by UEMOA, UNDP, and NGOs and funded for the most part by the European Union.

[2] Source : PAG 2017-2026 WAPO/UNDP, 2016)

- Governance reinforcement and natural resources valorization in the periphery of the Arly and Pendjari national parks in Burkina Faso, 2013 to 2016, implemented by the GRET and funded by the European Union.
- Programme for the Protection and Management of Natural Resources (ProCGRN): 2004 to 2014 in Benin; funded by Benin and the BMZ and implemented by the GIZ.
- Enhancing the Effectiveness and Catalyzing the Sustainability of the W-Arly-Pendjari (WAP) Protected Area System: 2008 to 2013 funded by the GEF and implemented by the UNOPS.

1.1.2. Project Area:

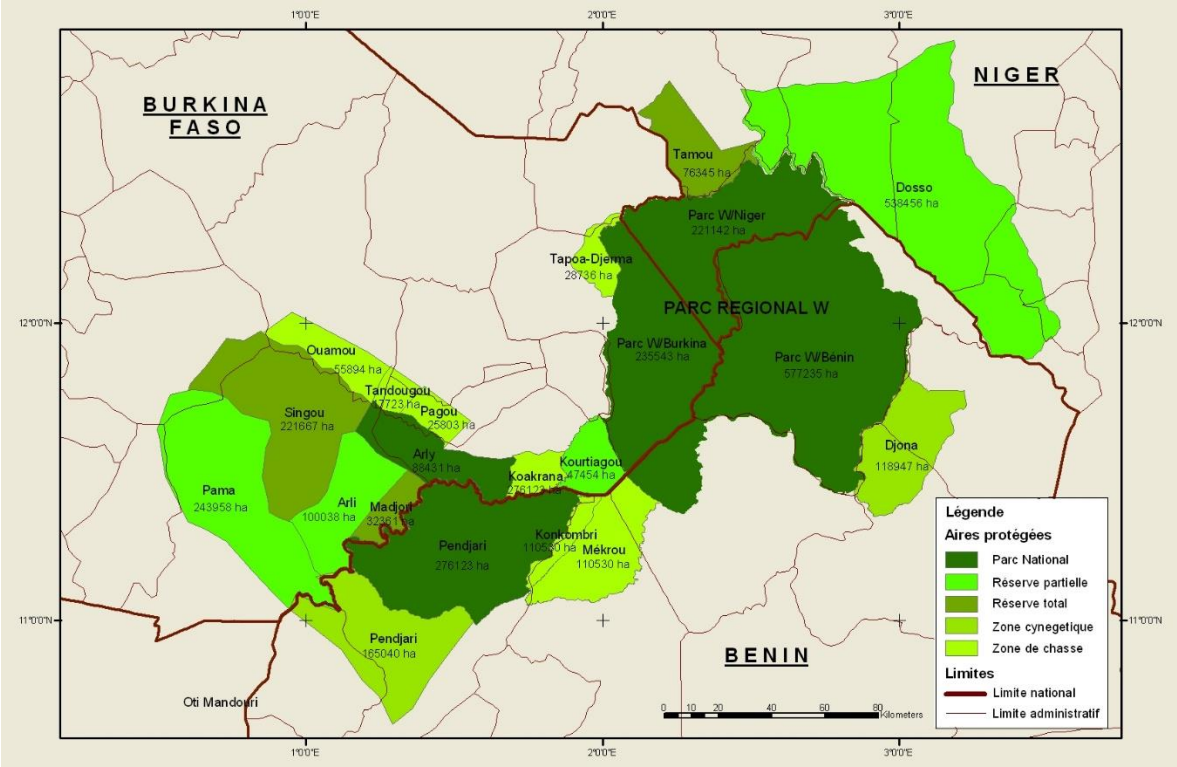
Physical characteristics:

Geographical location

Including the W-TBR, Arly and Pendjari Parks, the WAP Complex covers a total area of 5.000.000 ha, of which 3 094 026 ha are protected areas[3].

- The W Transboundary Biosphere Reserve (W TBR) is located between latitudes 11° and 12°35 North and longitudes 2° and 3°50 East. Its protected areas has a total size of about 1 823 280 ha, distributed in the three countries as follows:
    - Benin : 795 280 ha
    - Burkina Faso :316 000 ha
    - Niger : 712 000 ha
- The Arly National Park is located between latitudes 11° and 12° North and longitudes 00° and 02° East. It is located in the extreme south-east of Burkina Faso, and about 500 km from Ouagadougou. It is situated in the Tapoa province and has a total area of 818 046 ha.
- The Pendjari Biosphere Reserve (PBR) is located between latitudes 10°30’ and 11°30’ North and longitudes 0°50’ and 2°00’ East. It is located in the extreme north-west of Benin, and about 650 km from Cotonou. It is situated in the Atacora department and has a total area of 452 700 ha.

[3]UNDP Project Document «Enhancing the Effectiveness and Catalyzing the Sustainability of the W-Arly-Pendjari (WAP) Protected Area System »



Map 1: Geographical location of the WAP Complex

Climate characterisation

The WAP Complex is characterized by a continental climate. However, and given the large extent of its area, there is a clear climatic and bioclimatic difference between the three-existing regions of the Complex.

The Sudano-Sahelian Climate in the Benin region

In this region, the precipitation is varying between 500 and 750mm. According to the climatic diagram of the Kandi station, two major seasons characterize this region: i) a rainy season (from mid-May to October) with an average monthly temperature of 26°C, and ii) a dry season (from March to mid-May) corresponds to a hot period with an average monthly temperature ranging between 30°C and 34°C and a maximum up to 40°C; a cool period (between October and February) with a monthly temperature average of 25°C and a minimum of 12°C. This is Harmattan season.

The Sudanian Climate in the Burkina Faso region

The average of annual precipitation in this region is about 750 mm, varying from 600 to 950mm (Fontès and Guinko, 1995). According to the climate data registered in Diapaga, the average minimum temperature is 14,9°C in January, whereas the average maximum temperature in the period between March and June is of 35°C, and may reach sometimes 40 °C.

Two main seasons characterize this region: i) a dry season (from November to April) characterized by rainfall shortage and average temperature that may attain 33°C, and ii) a rainy season (from June to October) with maximum of precipitations in July and August.

The Sahelo-Sudanian Climate in the region of Niger

This climate is characterised by precipitations ranging between 450mm and 600 mm and two main seasons: i) a wet season (from May to September) with maximum precipitations recorded in July/ August, and ii) a dry season (October to April) with cold weather from November to February (January is the coldest month with an average temperature of 24°C) and a hot weather from March to June accompanied by the Harmattan (35°C as an average temperature during the hottest month of May). The temperature is at its maximum in April and May (with a temperature more than 40°C) and at its minimum (20°C) between December and January.

Climate Trends and projections

The Sahelo-Sudanian zone is one of the regions of the world where climatic variability is most noticeable. According to the IPCC report in 2014, the evolution of temperatures during the last 50 years has been marked by a statistically significant warming between 0.5 ° C and 0.8 ° C. This increase was significantly higher in the period 1995-2010 than in the period 1979-1994. The region also experienced a relative increase in rainfall during the 20th century until 1950 when a significant decrease of 15 to 30% in precipitation with a net break between 1968 and 1972 was recorded. This trend resulted in a shift of isohyets of 200 km to the south and an acceleration of the process of climate aridification in the area. The WAP complex, located in this region, is subject to this climatic variability perceptible through spatio-temporal change of precipitation patterns, seasonal shifts and increased frequency of drought in the north and flooding in the south of the WAP complex. Projections of climatic parameters for 2032 and 2050 show a respective increase of about 2°C and 2,5°C for annual temperatures and a decrease of about 9% for precipitation[4].

At the WAP complex level, these disturbances are at the origin of the reduction and the displacement of the active period of vegetation. They also affect the reproductive biology of animal populations, the floristic composition of the different plant formations and the phytomass production of the complex, thus disrupting its traditional ecological balance.

The management plan for the W Transboundary Biosphere Reserve (RBTW) for the period 2017-2026, highlights the need to study the impact of climate variability on biological resources (modeling ecological niches of habitats of rare species, future production of phytomass, regional loading capacity, etc.) and on

[4] Niang, I., O.C. Ruppel, M.A. Abdrabo, A. Essel, C. Lennard, J. Padgham, and P. Urquhart, 2014 : Africa. In : Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change

water resources (hydrographic network, Permanent and / or temporary water points). This will anticipate the adverse effects of climate change and enhance the resilience of ecosystems and populations[5].

Hydrography

The WAP Complex region includes several watercourses, namely the Niger River and its three tributaries: Tapoa in the North, Mekrou (410 km) in the West and Alibori (338 km) in the East, in addition to several other tributaries.

In Benin, the WAP Complex is drained by the Alibori and Mekrou rivers, which border the Complex respectively in its East and West parts. Some of the other major tributaries in the WAP Complex are: Kpako, Kompagarou, Bedarou, Djiga and Konekoga, which are all intermittent watercourses receiving water on both sides from other secondary streams. The rock formations of the region, arranged in long bands of NNE-SSW direction, are crossed at two points by the Mekrou River giving birth to the Koudou falls and to a series of rapids and narrow passages, most notably the "gorge de la Mékrou".

In Burkina Faso, the Complex is supplied by two main catchments: (i) The Niger River basin in the North, drained by the rivers and its tributaries: Diamangou, Tapoa, Goulbi, Mékrou and Tvénétiegal; (ii) The Volta basin through the Pendjari River in the South and which comprises the Bokouongou, Doubodo, Kourtiagou and Arly rivers.

In Niger, five main semi-permanent watercourses, i.e. the Niger River tributaries, irrigate the Complex: Sirba, Goroubi, Diamangou, Mékrou, Tapoa.

However, water availability remains a permanent concern in the three areas of the WTBR especially towards the end of the dry season (April-May) as the majority of ponds dry up completely.

Biological Characteristics

Vegetation

The WAP Complex is extremely rich in vegetation species, which are subject to strong climate and anthropic pressure. Vegetation species differ from one Park to another.

The Complex provides *in situ* protection for at least 515 woody species grouped into 84 families. These include endemic species found within dry savannahs and forests, some of them are now endangered or vulnerable.

In the W Park: vegetation is marked by abundant herbaceous and in particular, by graminaceous plants. Other more closed vegetation formations as the dry forests or open woodlands are also found, especially in the southern part of the Park. The W Park contains also about 1000 Sudanian species of plants. In general, vegetation formations in the complex are of several distinct types and may be subdivided into two main types:

[5] Plan d'aménagement et de gestion du bloc transfrontalier W (2017-2026)

(i) shrubby and woody type including species of the Combretaceae family (trees and shrubs, mainly the *Combretum, Terminalia and Anogeissus leiocarpa*). It is abounding with different species of shrubs and trees as spiny plants, including numerous Acacia trees, and some other Sudanian species as the *Balanites aegyptiaca or Ziziphus mauritiana* etc.

(ii) *Herbaceous* annual grass and spiny plants is located in the south of the Mekrou-Niger east-west axis. The Vegetation abandons the Sahelian species, characteristic of the north part and particularly in the borders of the Tamou reserve, to endorse in the South of the Complex some of the most typical Sudanian landscapes. Vast savannahs of shrubs and trees home for large herds of elephants, buffalos, and antelopes (hippotragues, bubales, etc.) dominate the southern part.

In wet and aquatic environments, several formations exist, such as (i) rapids and waterfalls vegetation, (ii) ponds and backwater aquatic and drifting vegetation, (iii) the “bourgou " fields, identified with the *Echinochloa stagnina* prevailing plant, which forms drifting grasslands anchored up to a depth of six meters. However, these “bourgou” fields are increasingly threatened due to overexploitation, and especially due to rice cultivation. (Iv) "Semi-aquatic" vegetation which includes a number of highly diversified vegetation formations, (v) gallery forests and riparian forests, which represent distinct ecosystems along the rivers.

***In the Arly* Park** in Burkina Faso, vegetation is characterized by highly important ecological wealth.

The dry zones are the largest formation in the park. It is home of the major part of the ungulate fauna in the Reserve by providing both shelter and food. Plant species are dominated by *Combretum* and animal species like *Cephalophus, Hippotragus, Damaliscus.* This zone is subdivided into three main types :

(i) *Bushy formations*: these formations grow essentially on porous and little fertile soils. Plant species are *Combretum micranthum, C. nigricans, Dicrostachys glomerata, Guiera senegalensis, Burkea africana, Anogeissus leiocarpus, Loudetia togoensis, L. annua, Ctenium newtonii, Hyperrhenia involucrata, Andropogon gayanus*…and animal species, for example (antelopes, elephants, and primates …).

(ii) *Herbaceous formations*: xerophile formations are located on the summit of plateaux, graminaceous formations in lateritic bedrocks and hydrophilic formations in the flood plains of the main watercourses.

(iii) *Clearing* areas (Bowé): ranging from few hectares to several square kilometres surfaces, they are distributed on flat ferruginous lands at the plateau level. They are dominated mainly by annual species (*Loudetia togoensis, Aristida spp., Microchloa indica, Andropogon fastigiatus, Andropogon pseudapricus*). Some other bushy species are also found (like *Combretum nigricans, Combretum glutinosum, and Acacia ataxacantha*).

The humid zones include i) permanent or temporary water bodies (rivers, ponds, and springs) and flooding zones, home for plant species (*Polygonum spp, Trapanatans, Mitragyn ainermis, Mimosa pigra, Pistia stratiotes, Vetiveria nigritana, Nymphea spp*.) and animal species (fish, crayfish, mussels, snails, batrachians etc.) and ii) *Gallery forests* where the major plant species found are (*Anogeissus leiocarpus, Pterocarpus erinaceus, Diospyros mespiliformis*, and animal species (like bushbucks, warthogs, monkeys, Nile lizards, python, batrachians).

In the Pendjari Park, vegetation is characteristic of the Sudanian zone with a mosaic of herbaceous, shrubby, wooded savannah and open woodlands hosting a grass-dominated herbaceous layer.

To these well-distributed formations are added two other formations that are found exclusively in the vicinity of the Pendjari River: the gallery forest and riparian forest of Bondjagou, East of the Pendjari Park.

The Reserve flora is composed of a more or less wooded savannah divided into forest formations, of which 5% is covered by shrubby savannah and 80% by open woodlands. In total, 241 plant species are present distributed among 53 families.

In a number of places in the Reserve, and particularly along the Pendjari River and the Atacora cliff, the presence of specific and anthropogenic vegetation provides evidence for the previous existence of many villages before the Reserve creation. The *Andansonia digitata* and *Anogeissus leiocarpus* species confirm this conclusion, in addition to the shea (*Vitellaria paradoxa*) and néré (*Parkia biglobosa*) trees indicating the traces of old fields.

Contrary to the relief, the plant formations are varied and distinguish the external aspect of the Reserve. They also provide a diverse habitat for wildlife species.

Fauna

The WAP Complex is home to numerous vulnerable species and is most important for the last Sudanian and Sahelian mammal populations. In particular, it hosts different species of birds (378), insects (94), fishs (80) and some reptiles and amphibians in its protected areas[6].

The mammal fauna of the WAP Complex has been studied by several scientific authors as Rouamba et al. (2002), Bouché et al. (2003) and Bouché et al. (2012). Generally, 52 mammal species (except for the small rodents and chiropterans) were recorded, including the Elephant (*Loxodonta Africana),* Buffalo (*Syncerus caffer nanus*), Kob (*Kobuskob*), Waterbuck (*Kobus ellipsiprymnus defassa*), Reedbuck (*Redunca redunca*), Damaliscus (*Damaliscus lunatus korrigum*), Kongoni (*Alcephalus buselaphus*), Giraffe (*Giraffa camelopardalis*), Hippopotamus (*Hippopotamus amphibius*), Hippotragus (*Hippotragus equinus*), Lion (*Panthera leo*), Cheetah (*Acinonyxjubatus*) and a variety of monkeys (*cynocephalus, patas, green monkey*...).

According to the IUCN's list, the Reserve species existing in the complex and endangered at the international level are the cheetah (*Acinonyx jubatus*), the African wild dog (*Lycaon pictus*), the Elephant (*Loxodonta africana*) and the Manatee (*Trichechus manatus*).

The cheetah is the emblem of the Pendjari National Park. It is found in the Park's herbaceous savannahs, especially along the Pendjari River. The Complex encompasses a small number (some fifty) of lions probably due to competition with other carnivorous animals, such as, in addition to the Cheetah, the lycaon, the hyena, the jackel, and the leopard. The Pendjari lions are characterized by the almost total absence of the mane for the males.

Some of the rare but not endangered species present in the Complex are the damaliscus, the groot otter, the lion, the leopard, the Defassa waterbuck, the reedbuck, and the golden jackal. Except for the

[6] Joyce Francisco: "results-based management within the framework of the UNOPS-case of the WAP project". Master Thesis. 2011

hippotragus, whose number has increased between 2003 and 2012, the number of all other species is decreasing. This may be explained by poaching and water scarcity.

For avian fauna, and according to Adjakpa (2004), some 360 species are found in the Complex. There are no endemic species in the Complex, but endangered species (Adjakpa, 2003) as the vulture (*Trigonoceps occipitalis*), the eagle owl (*Bubo africanus*), the roller (*Coracias garrulus*), the secretary bird (*Sagittarius serpentarius*) and the falco (*Falcocuvieri*) (Grell et al., 2002).

The most frequent bird species found in the Complex are the bateleur eagle (*Terathopius ecaudatus*), the spur-winged goose (*Plectropterus gambensis*), the Great African bustard (*Otis ferox*), the Great Calao of Abyssinia (*Buceros abyssinicus*), the guineafowl (Numida meleagris), the double spurred francolin (*Francolinus bicalcaraus bicalcaratus*), the rock chicken (*Ptilopachus petosus*), and the crowned crane (*Balearica pavonina*).

The Complex encompasses about 150 of reptile and amphibian species (Cury et al., 2008; Mensah 2009). Arboreal agames and turtles are widespread with nearly 80 species (Cury et al., 2008). Species such as the sand snake (*Genus psammophis*), the common agame (*Agama agama*), the lizard (*Nucrus genus*), the skink (*Mabuya megalura*), the African rock python (*Python sebae*), the soft-shell turtle (*Cyclanorbis genus*), the Nile crocodile (*Crocodilus niloticus suchus*) and the Nile monitor (*Varanus niloticus*) are also frequently encountered in the Complex.

The Complex constitutes a refuge and predilection area for fish fauna and it harbors more than 2/3 of the fish species, of which are more than 80% endemic. Some of the most frequently encountered fish species in the complex are the *Synodontis arnoulti*, the *Tilapia mariae*, the *Hydracon spp*., the *Lates spp*., the *Labeo spp*., the *Bagrus spp*., the *Slestes spp*., the *Hetrotis spp*., the *Parailia spiniserrata*.

In general, the knowledge of the Complex's fauna (reproductive biology, population dynamics, effects of anthropogenic factors and climate variability, etc.) is still partial and limited.

Socio-economic characteristics:

Population livelihoods in the complex are strongly linked to natural resources exploitation and hence affected by climate change and variability.

Populations and demography

The economic structure of the Complex is based on agriculture, breeding, fishery and the exploitation of forest resources (wood and non-wood products).

The WAP is an important destination for agricultural migrants as well as an important crossing point for transhumant livestock, all attracted by the relatively greater availability of natural resources.

In the Complex's peripheral areas, and at a distance of less than 40 km from its protected areas, there are hundreds of cities and villages inhabited by a total population of about 1 million inhabitants.

~~**In Benin**: In general, the riparian population is composed of a number of ethnic groups: the Bariba, the Dendi and related groups, the Peulh and other minorities (MISAT, 1997).~~

~~Estimated at about 700 000 inhabitants, the population is more concentrated in the communes of Banikoara, Kandi and Malanville (RGPH 4/INSAE, 2013).~~

~~**In Burkina Faso**: estimated at about 200 000, the riparian population is constituted essentially of the Gourmantchés, the Haoussa, the Peulhs and the Mossi. Gulmancema is the first spoken language at the local level. It is often associated with the Mooré, the Fulfulde and the Dgerma languages (ES/CEBNF Project, 2002).~~

~~**In Niger**: The riparian population is mainly composed of Peulh, Haoussa, Zarma, Sonrai, Touaregs and Foulmangani people. This population is estimated at about 227 517 inhabitants and is estimated to 100 000.~~

~~The population in this part is distributed unequally among the communes and more concentration in the communes of Falmey and Tamou.~~

Benin: In general, the population of the Parc W / Benin is mainly composed of Bariba (34.6%), Dendi and related (30.6%); Peulh (23.2%) and other minorities (11.6%). The most common religions are Islam (51.4%), traditional religion (32.1%), Christianity (10.1%).

Estimated to be about 759.300 inhabitants, this population is more concentrated in the communes of Banikoara (248.621 inhabitants), Kandi (177.683 inhabitants) and Malanville (168.006 inhabitants). The evolution and projection of this population in the various communes is estimated on a natural increase rate of 3.23%. In 2023, the population of the Parc W / Benin is estimated at about 783.900 inhabitants.

As a result, there is a strong demand for natural resources and arable land. Today this demand is satisfied only by the advance of the agricultural front and by illegal acts in the Parc W / Benin. The need to stabilize the facilities and protect the biological resources of the Reserve is more than imperative to contain the growing anthropogenic pressure.

Niger: The current demographic architecture is based on a mosaic of ethnic groups living in villages. This migration is evidenced by population growth. Migration to the peripheral communes of the Niger W Park has resulted in an exponential increase in the size of the population during the period 1988 to 2012. The advent of immigrants resulted in the emergence of a new territorial pattern and a recomposition of space by the creation of new localities on the periphery of Park W from 115 to 334.

The populations of the Parc W / Niger riverside communes are mainly composed of Peul, Haoussa, Zarma, Sonrai, Touaregs and Foulmangani. Islam is the most widely practiced religion in nearly 98% of this population. The population of the Parc W/ Niger riparian communities is unequally distributed with a concentration in the communes of Falmey (78.186 inhabitants) and Tamou (72.042 inhabitants). The population has been estimated at about 227.517 inhabitants and projections show an average growth rate of about 3.33%.

The consequences will be a high demand for natural resources on which riparian communities depend. Currently, there are several forms of pressure, for example illegal clearing, illegal transhumance, poaching, illegal fishing, etc… on the protected area. If measures are not taken, this demand will be met only at the cost of Parc W / Niger's natural resources.

Burkina Faso: The populations living in the Parc W are mainly Gourmantchés (86%), Haoussa (6%) Peulhs (5%) and Mossi (2%). It is a predominantly animist population, Christians (Catholics and Protestants) and Muslims make up only 15%. Locally, the Gulmancema is the most spoken language. The latter is often associated with Moore, Fulfulde and Dgerma. The population is unequally distributed in these communes and it also grows very quickly (Rate increase of 3.42%). The total population of the communes bordering the Parc W / Burkina Faso has risen to 221,994 inhabitants in 2015.

The overall picture of the resident population of communes in the WAP Complex / Burkina Faso is estimated at about 538.072 inhabitants, of which are 50.24 % women.

Thus it is imperative to protect and conserve the resources of the Complex WAP / Burkina Faso. The proposed activities of the project ADAPT WAP will contribute to stabilize different forms of occupancy of space on the periphery of the WAP and in fact limit the anthropogenic pressure. Alternative actions should enable communities to meet basic needs without any further advance of the agricultural front and aggressions in the Complex WAP and, furthermore, allow a sedentarization of the riparian populations.

Population structure by age

The age distribution of the population of the three countries Benin, Burkina Faso and Niger provides a broad age pyramid at the grassroots level, particularly for the 0-14 age group. For example, in case of Burkina Faso and more specific in the Complex WAP, the structure of the population is marked by a very high proportion of young people, i.e. 50.16% are between 0 and 14 years old. The population - aged between 15 and 64 - represents 46.83% and the population - aged 65 and over - make only 2.4%.

This situation raises the demand of meeting needs where the proposed Project WAP is going to contribute.

Direct and Indirect Beneficiaries

The overall objectives of the Project are to enhance, in a sustainable manner, the conservation of the ecosystems of the WAP Complex with a regional perspective and with a contribution to optimize benefits for the riparian population.

In this sense, the Projects' activities address the requirements of different target groups at national, provincial, and local levels in each of the three beneficiary countries.

About 350 towns and villages, are found within 40 km of the protected areas in the WAP Complex. The largest riparian population around the Complex is found in Benin and Burkina Faso, while the smallest is in Niger.

The direct beneficiaries are composed of pastoral, transhumant herder, agricultural and agro-pastoral, and fishermen communities, particularly vulnerable groups including women whose livelihoods largely depend on the sustainable management of land and other natural resources conflicting with wildlife.

The beneficiaries and target groups are the people who will benefit from the Project and are living in the municipalities and different project sites, community associations focusing on natural resources management, peripheral communities of the Complex, local NGOs or associations, media representatives

(network of journalists), political decision-makers, and deconcentrated administrative and technical services in each of the three beneficiary countries.

Issues to be addressed by the Project's actions fall within several National Line Ministries and institutions. Collaboration across existing governance and administrative systems, which is necessary for the implementation of the project, will strengthen the integration of environmental concerns into development agendas, both at local and national, and regional levels.

As the key stakeholders of the implementation process are at the local level, they will be given the capacity, the needed knowledge and tools to fulfill their roles.

The role of traditional or local institutions such as councils of elders and other community-based organizations, including local non-governmental organizations, e.g. pastoral associations, farmers, fishermen, etc., will be strengthened through awareness-raising and capacity building for concerted, integrated and sustainable management of natural resources and through supporting measures.

Women's traditional roles and knowledge in natural resource management and food security are critical for livelihoods. Promotion of alternative livelihoods, which is one of the keys to the proposed Project, is mainly focused on developing income generating activities related to micro and small enterprises, targeting women and other vulnerable groups in the context of business aspects about farming, postharvest handling and processing.

Respect for marginalized minorities and their rights, including their involvement in the processes of participation and consultation, will be taken into account through the Project's support for transhumant communities.

Furthermore, the Project will support smallholder farmers and fishermen to primarily increase their marketable surpluses and improve their access to markets. They will directly benefit from the Project by technical services, capacity building, market orientation and financial assistance by means of the "Revolving Fund".

On the other hand, concrete adaptation activities will benefit producers, traders and the rural population in general, for example through the development of transhumance routes and rest areas, potable water and irrigation systems and other infrastructures such as production and postharvest facilities that ensure the development of value chains in the WAP Complex.

A network of journalists, training and education specialists will provide support for awareness-raising and capacity building on environmental issues in each country.

A political dialogue at national and transnational levels will accompany in a permanent way the implementation of best practices in the municipalities. The project will facilitate and support representatives of national governments to provide recommendations and help to improve the legal frameworks that are needed for the management of the WAP Complex, especially the replication of best practices to assure the long-term conservation of the transboundary National Parks.

Major Economic Activities

Based on the existing documents and the results of the consultative workshop organized in Tapoa (February 2017), agriculture and livestock breeding are the two main economic activities practiced in the riparian communes of the complex in the three countries.

Farming is practiced by the main part of the population, followed by breeding. Social changes have taken place and most of the producers combine both farming and breeding activities and most of them are agro-pastoralists.

The riparian communes have a significant agricultural potential based on the climate and quality of soil which are both favourable for conducting agricultural activities especially in the Southern part.

Other secondary economic activities exist and include forest exploitation, fishery, handcrafts, trade, apiculture, tourism and picking. These activities contribute to the diversification of incomes and the amelioration of the livelihoods for the local populations.

However, uncontrolled and conducted in unsustainable manners, all of these activities have a negative impact on natural resources. As mentioned above, the expansion of agricultural lands has disturbed the ecological stability of the WAP Complex and affected the potential of its ecosystem services.

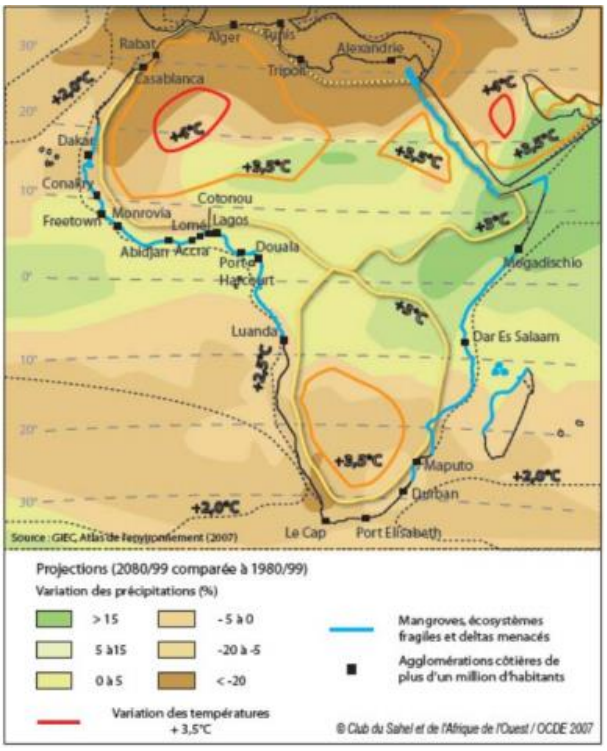
The continuous growth of the local population and the flows of transhumant pastoralists and herders present additional factors of pressure on the WAP Complex.

In a context affected by climate change and socio-economic mutation, the ways of land and water management must be reviewed in order to alleviate the pressure on the Complex ecosystem and to improve the populations livelihoods.

Vulnerability to Climate Change:

The IPCC fifth assessment report says that "warming in the climate system is unequivocal and since 1950 many changes have been observed throughout the climate system that are unprecedented over decades to millennia".

Most of climate models confirm the projected future temperature trends, both at the global and continental levels. The IPCC foresees a rise in temperatures of 3 °C and 4 °C in Africa between the periods 1980/1999 and 2080/2099. This increase would be less in the coastal and equatorial areas (+ 3 °C) but higher in the western part of the Sahara (+ 4 ° C), C*f*. Map 2.



Map 2: Temperature Projections in Africa for the period 2080-2099 compared to the period 1980-1999

The WAP Complex is subject today to a changing climate inducing negative effects on precipitations trends in time and space, a continuous increase of temperature and season creep. Climate projections for 2032 and 2050 for the complex region shows an increase in the order of 2 °C and 2,5°C for annual temperature and a decrease in the order of 10% for annual precipitations.

The frequency of rainfall deficit that have marked the region since 1970 is increasing. This change in climate parameters affects the reproduction of the animal populations, the composition of the different plant formations and the phytomass production in the Complex. Hence, the equilibrium of the complex is found threatened today.

Researches on the impact of climate variability on biological resources (modeling of the ecological niches of rare species, the future production of phytomass, regional load capacity) and on water resources (hydrographic network, permanent and/or temporary water points) are necessary to anticipate the adverse effects of climate change and to strengthen populations and ecosystems' resilience.

According to climate change scenarios mentioned above, the bordering population of the WAP Complex, which currently counts more than one million inhabitants, will be strongly affected in terms of its agricultural and pastoral management practices on existing natural resources and ecosystems. This is the reason why urgent adaptation and mitigation measures based on scientific data and know-how are needed for the Complex.

Pressures on the WAP Complex

Despite all the efforts engaged by actors and stakeholders, the natural resources and ecosystems of the WAP Complex remain threatened by several factors, including mainly land clearing, agricultural and rangelands expansion, poaching, fires, mining, population growth, migration, unsustainable use of non-wood products, land and water pollution, and especially climate variability, including the increase of climatic hazards and natural disasters' frequency and periodicity.

Food insecurity, structural obstacles related to inadequate synergy between stakeholders, different management modes and protection status, non-harmonized regulations among the three countries, and irregular and floating financial support are additional factors making an urgent regional and transboundary approach mandatory for the Complex conservation.

Vulnerability and areas of the Complex

The ministers in charge of shared resource management at the W-Arly-Pendjari Transboundary Complex (WAP) in Benin, Burkina Faso and Niger have provided guidance for better harmonization of approaches to protection, security and valorising Complex biodiversity. The recommendations were formulated at the meeting held on 24 January in Cotonou (see Annex).

According to the presentation made at the meeting, nine threats were cited, including poaching, uncontrolled transhumance, uncontrolled bush fires, siltation and pollution of surface waters. Illegal logging, climate change, unsustainable exploitation of fisheries resources are dangerously compromising the biodiversity and development of the complex.

In the final communique, which sanctioned the meeting, the ministers reaffirmed their commitment to implement the political will of their respective heads of state, to make the complex a community space for biodiversity conservation and regional integration.

Agriculture, one of the most important sectors of the complex, is practiced by the populations of the villages in the buffer zone and transition zone of the complex. Population growth and the degradation of cropland have led shoreline populations to shifting cultivation by approaching the boundaries of the complex through clearing for the acquisition of new fields where the destruction of vegetation cover which is the habitat of wildlife.

The aridity of the area as a result of changes and climatic variability leads to the decline of certain wildlife populations from north to south. Hence the degradation and impoverishment of the environment with all its corollaries. It is clear that programs to adapt to the effects of climate change are necessary.

Climate change is a reality and trends indicate that the phenomenon will be strengthened. Rural populations, especially those living on the periphery of protected areas where land pressure is high, express a higher vulnerability to this phenomenon. Deforestation due to anthropogenic pressure leads to the loss of carbon sinks.

Vulnerabililty in Burkina Faso :

For the next few decades[7], the forecasts are as follows:

- Risk of extending the rainy season from the beginning to the end, with less rain in July-August and more rain in September and October,
- Risk of increased variability from one year to the next,
- Risks of more frequent torrential rains and longer drought with higher variability at the beginning and end of the season,
- Risk of rising maximum and minimum temperatures from 2.5 ° C to 5 ° C,
- Risk of a significant increase in monthly potential evapotranspiration (ETP) (2 to 10 mm).

The foreseeable consequences will be:

- The high variability of rainfall from one year to the next and the increase in potential evapotranspiration will pose certain risks to the running of the growth cycle of rainfed crops;
- More frequent and severe floods are to be feared, with their destructive effects on infrastructure and precarious habitat, crop losses and destruction of biodiversity in the shallows, as well as the resurgence of water-borne diseases such as Cholera and other parasitic diseases;
- The potential evapotranspiration growth combined with anthropogenic activities should accelerate degradation of vegetation cover, which will decrease groundwater recharge by infiltration. In addition, surface water will be subjected to greater evaporation, and perennial rivers will tend to disappear with gallery forests. At present evaporation causes more than 60% of the water retained in dams to be lost;
- The capacity to regenerate forest formations should no longer be able to compensate for the withdrawal of wood for energy needs;
- The scarcity of pasture and water supplies should force pastoral activities to migrate farther and farther south;
- The lengthening of the rainy season will increase malaria cases and reduce the dry period conducive to meningitis, but this will be characterized by a general rise in temperatures;
- Electrical energy consumption in air conditioning is expected to increase by an additional 25% to 50% due to the increase in temperature that complicates the management of production during hot flashes.

This analysis shows that the sectors of agriculture and water, which are closely linked and represent the sectors affected by climate change, are the most vulnerable.

[7] http://www4.unfccc.int/nap/Documents/Parties/PNA_Version_version%20francaise%20finale%20BF.pdf

Vulnerability in Benin

Climate risks are characterized by:

- Delay of rainfall events and the shortening of the single rainy season causing longer dry period and more severe rains;
- Reduction in agricultural yields and decrease in the rate of renewal of the vegetation cover;
- Increase in minimum temperatures.

The agricultural sector is vulnerable to climate change, but to varying degrees[8]. Thus, the following options could help the communities concerned to adapt better to climate change:

- Establishment of an early warning and disaster management system;
- Development of plant and animal production systems adapted to climate change;
- Water control in agricultural systems;
- Promotion of aquaculture in fisheries areas.

In forestry: Four adaptation options are identified in this sector, namely:

- Strengthening of the ecological monitoring system for flora, fauna and forest ecosystems;
- Sustainable management of vegetation fires;
- Promotion of large-scale public and communal plantations;
- Strengthening forestry legislation and regulatory framework.
- Farmers migration

Vulnerability in Niger

Climate risks are characterized by:

- Decrease in the total area of forest areas;
- Water stress due to heat;
- Accelerated loss of animal and plant biodiversity;
- Insufficient natural regeneration and loss of young plantations;
- Soil degradation;
- Reduction of surface water and the decrease of the water table;
- Silting that threatens the different rivers, in particular the niger river;
- Disruption and modification of ecosystems;
- Proliferation of climate-sensitive diseases.

[8] http://unfccc.int/resource/docs/natc/bennc2f.pdf

The socio-economic impacts of climatic factors on agriculture[9] are characterized by lower agricultural yields:

- Food deficit leading to permanent food insecurity;
- Exacerbation of often deadly land conflicts;
- Decrease in the contribution of agriculture to GDP.
- Increasing rural poverty.

The main impacts of the decline in rainfall will be soil degradation, declining agricultural and pastoral production, and chronic food supply shortages. Large-scale continuous population movements, an increase in diseases and a significant loss of biodiversity are also expected.

The socio-economic impacts of climatic factors, particularly during recurrent periods in the livestock sector, are characterized by:

- Decline in rural incomes;
- Changes in herd composition through gradual replacement of cattle by small ruminants and camels;
- Malnutrition of the population;
- Conversion of a large number of nomadic pastoralists into sedentary ones, thereby reducing cultivable areas;
- Decrease in the contribution of agriculture to GDP.

The peril of livestock could lead livestock breeders to switch to other types of activities, leading to upheavals in habits and customs. At the macroeconomic level, the livestock sector, which is the second lung of the national economy, will no longer be able to contribute significantly to the country's gross domestic product and trade balance.

Details of the different sources of pressure at the Complex[10] are described in the following chapter:

Non-rational agricultural practices

Agriculture is the main activity conducted by the population in the WAP Complex bordering areas. However, these agricultural practices lead to different impacts, as runoff pollution (especially by the cotton fields), erosion and land degradation.

Agrochemical runoff directly impacts aquatic and other biodiversity as agro-chemicals are transported into the WAP Complex. Erosion directly affects biodiversity by causing siltation of rivers and ponds. This affects the retention capacity of such ponds causing water shortages during the dry season. Early drying out of ponds forces wild animals to concentrate around the remaining few water points, thus facilitating poaching.

[9] http://unfccc.int/resource/docs/natc/nernc2f.pdf

[10] Participatory governance of protected areas: case of the Niger W Biosphere Reserve, , SOULEY Kabirou, 2016 and the project document of the « Enhancing the Effectiveness and Catalyzing the Sustainability of the W-Arly-Pendjari (WAP) Protected Area System" GEF/UNDP's project

Land erosion and degradation due to agriculture activities have other indirect effects on WAP biodiversity. By causing a decline in agricultural productivity, these phenomena are responsible for land shortages, pushing people to seek out for new fertile land to clear for cultivation. Land shortages are also related to high rates of natural population growth (2-3% per annum) and a steady flow of immigrants who are authorized by local communities to operate within areas on the periphery of the Complex. Together, these factors result in decreasing availability of arable land per capita has created incentives for agricultural encroachment within the WAP Complex.

The introduction and extension of cash crops such as cotton, which is the main source of revenue for a large segment of the riparian populations, has contributed to the conversion of most available lands into cotton fields and less land is available for growing crops. This reveals a limited awareness from the local population of major regulations governing the Complex as well as apathy concerning the issue of conservation.

Uncontrolled transhumance

Each year during the dry season, transhumance exerts heavy pressure on fodder and water resources in the different parts of the Complex, and notably in areas located in the vicinity of the W-ARLY- Pendjari Parks.

The presence of livestock within the WAP Complex gives rise to several threats to ecosystems and species, such disturbance of wildlife, competition over the use of feed resources, risk of zoonosis transmission, risk of poisoning of wild carnivores by herders, poaching, etc.

An aerial survey conducted in 2003 on the entire set of the WAPO Complex (W, Arly, Pendjari, Oti-Mondouri), showed that bovine population is estimated at about 65 000. Pastoralists have increasing incentives to bring livestock into the Complex, because of land degradation, in landscape areas and limited risk of penalties.

“Uncontrolled transhumance” (and illegal) stands as a significant threat to the area. In order to tackle this problem, a number of agreements were concluded on the exact location of transhumance routes, checkpoints, rest areas, watering points as well as destination sites for transhumant cattle. These infrastructures need to be realized in order to operationalize the agreements.

Poaching

Poaching is one of the major causes of degradation and pressure on ecosystems and fauna species at the Complex. Several factors contribute to the proliferation of poaching, including mainly easy availability of firearms, high level of demand for bushmeat, relatively high standard of living of the riparian population, in addition inadequate legal and regulatory instruments and provisions and limited inter-state coordination (needed to address the significant cross-border component of poaching). Inter-state poaching control agreements have been reached by the three countries-for instance between Burkina Faso and Benin in 1984, and among all three countries in 1987. The application of the agreement remains very limited due to lack of tools and means.

Uncontrolled bushfires

The management of biotopes and species is partially hampered by bush fires. This scourge occurs as a result of poor knowledge of the stakes among riparian residents. Moreover, it is a deeply linked to practice in local cultures and customs. It is often associated with poaching. In fact, a large part of the savannahs are devastated each year by uncontrolled bushfires mainly for fishery and pastoral lands management. Historically, the savannahs' ecosystems have adapted to these fires. Unfortunately, their resilience is being undermined today as the occurrence of these fires is more related to weather conditions, and climate change in particular.

Siltation and pollution of surface waters

The introduction and intensification of industrial crops such as cotton and low-input agricultural practices (including plant and animal production) exacerbate the adverse effects of wind and water erosion, ultimately leading to the gradual silting up of streams and rivers.

The silting up of the Niger River has reached such a point that a specific project has been implemented by the Niger Basin Authority 'NBA) with GEF funding, addressing this issue among others. Furthermore, surface waters are becoming increasingly polluted by pesticides and other agro-chemicals, which threaten fauna and flora species, particularly those living in wetlands.

Non-wood forest product exploitation

Non-wood forest products contribute a great deal to food security at the complex level. This sector provides employment opportunities for the populations, especially for women.

Many endemic species found within the WAP Complex are now endangered or vulnerable due to unsustainable use related to food, pharmaceutical, pastoral and handicraft production. It is thus highly important to develop this sector in a sustainable way in order to protect vulnerable and endangered species and promote available resources which could create job opportunities and valorize related products (honey, néré, shea …).

Woodcutting

Given its significant forest potential, the WAP Complex and its area of influence are almost permanently subject to activities of wood gathering for charcoal production. Cutting down trees in the three countries is subject to national regulations. However, due to lack of means, forest management services have so far been unable to control, or to organize this activity in a sustainable manner, around the WAP areas, despite success in other areas outside the Complex.

Fishery

Fishes and other aquatic animals are severely endangered within the WAP Complex. The main danger comes from the utilization of chemical products, leading to high mortality rates. The definition of a fishing strategy

processes at different levels have revealed several gaps and weaknesses, including the absence of common and harmonious policy for fishery management in the WAP Complex.

Pastoral Pressure

Illegal transhumance in the Complex protected areas is adopted as an alternative solution by the majority of herders. This is translated in a continuous increase in the number of bovine population which moves from the Parks peripheral areas to the center. Out of the1933 bovines owned by 33 herders, 1765 i.e. 91,3%, are transhumant.

The total reserve of fauna in the Tamou commune comprises two transhumance axes that extend up to Burkina Faso passing respectively by Kaleyenou and Zoumboukoli. The neighbor commune of Torodi, in Niger, encompasses four large transhumant routes that lead all to Burkina Faso through four main entries (Tchéllol Ballol, N'gnaro, Kerta, and Tampéna Bakano). The left bank of the Niger River (partial reserve of the Dosso fauna) encompasses eight transhumance routes located in the territories of Kirtachi and Falmey, and which all lead to the Benin part of the WAP Complex. (SOULEY K., 2004).

1.2. Project Objectives

The ADAPT-WAP aims to strengthen the resilience of ecosystems and improve populations' livelihoods within the WAP Complex facing climate change through the establishment of a Multi-Risk Early Warning System and the implementation of concrete adaptation measures.

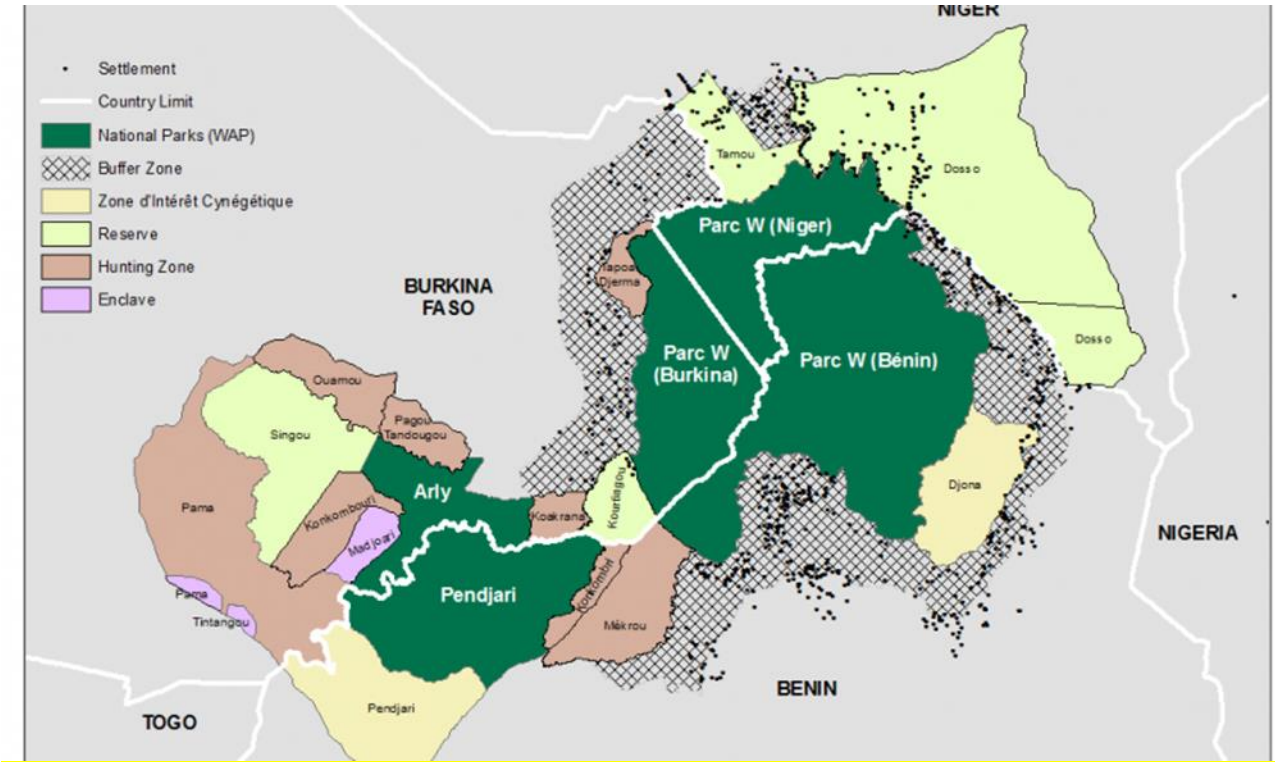
This project will allow to consolidate synergies between the three beneficiary countries by strengthening the sustainable and participatory management of the Complex and its natural resources while contributing to resolving conflicts between the different users.

The specific objectives of the project include:

- Improving Strategic reference documents, i.e. development and management plans, by integrating the climate change issues.
- Improving populations' resilience through an Early Warning System and providing relevant and timely information on the occurrence of extreme weather events in the WAP Complex and its adjacent areas.
- Improving ecosystems' resilience (fauna and flora) and populations' livelihoods through the consolidation of infrastructure, for example transhumance corridors, drinking troughs, and anti-flood structures.
- Ensuring the sustainability of adaptation measures through the mobilization and awareness-raising of beneficiaries and partners to master the tools developed and to execute the planned activities.

As part of the project, the selection of priority areas will be done during the preparation of the final full proposal. In fact, a vulnerability assessment will be conducted to allow the identification of priority areas where the project will intervene. The selection will focus on the buffer zones of the complex where there is

a high concentration of population (see map 3) and sites that contain relatively high numbers of threatened and or vulnerable species to climate change.



Map 3 : Buffer zone of the complex WAP

Table 1: LOGICAL FRAMEWORK –ADAPT-WAP PROJECT

Component/outcome/output/activity	Notes on the budget	Cost $	Number of units	Total budget $
Component 1: Integration of climate change aspects and contingency plan (MHMREWS) in the WAP Complex management				
Outcome 1.1: Climate change and risks as well as contingency plan are integrated into the Complex management plans				
Output 1.1.1:The Complex development master plan integrating climate change is updated and validated				
Activity 1.1.1.1: Elaboration of mapping products ~~(demarcation of the project area, vulnerability…)~~ : setting up a Geographic Information System	Lump-sum	50,000	1	**50,000**
Activity 1.1.1.2: Implementation of 3 studies (land-tenure, socio-economics, strategic focus: institutional, administrative, legal …)	Study	30,000	3	**90,000**
Activity 1.1.1.3: Update of forest and pastoral management and development plans	Plan	50,000	1	**50,000**
Activity 1.1.1.4: Organization of a workshop for studies and mapping products validation	Workshop	20,000	2	**40,000**
Activity 1.1.1.5: Design and editing of the Complex development master plan	Diagram	30,000	1	**30,000**
Activity 1.1.1.6: Organization of a workshop for master plan validation	Workshop	20,000	1	**20,000**
Output 1.1.2: Adaptation ~~and mitigation~~ action plans are elaborated				
Activity 1.1.2.1: Validation with communities of the most vulnerable sites for implementation of concrete adaptation ~~and mitigation~~ actions	Workshop	~~30,000~~ 40,000	3	~~**30,000**~~ **40,000**
Activity 1.1.2.2: Organization of consultation workshops with technicians for the validation of sites and adaptation ~~and mitigation~~ measures	Workshop (adap, ~~Mitigation~~, pop, tech)	~~10,000~~ 15,000	4	~~**40,000**~~ **60,000**

Component/outcome/output/activity	Notes on the budget	Cost $	Number of units	Total budget $
Activity 1.1.2.3. Elaboration of an action plan for the implementation of the identified adaptation actions	Plan	30,000	1	**30,000**
~~Activity 1.1.2.4. Elaboration of an action plan for the implementation of the identified mitigation actions~~	~~Plan~~	~~30,000~~	~~1~~	~~**30,000**~~
Activity 1.1.2.4: Organization of a workshop for the validation of the adaptation ~~and mitigation~~ action plan	Workshop	30,000	1	**30,000**
			Subtotal	**440,000**

Component 2: Design and establishment of a multi-risk early warning system (MREWS) (drought, flood, and fires)				
Outcome 2.1: A rapid early warning system is used by the project's beneficiaries to manage emergencies				
Output 2.1.1: Preparatory studies are elaborated and validated: MREWS is designed				
Activity 2.1.1.1: Implementation of six preliminary studies for the establishment of the MREWS (from hazards identification and risks evaluation to the MREWS design and operation)	Study	20,000	6	**120,000**
Activity 2.1.1.2: Organization of two regional workshops for the validation of Studies	Workshop	15,000	2	**30,000**
Activity 2.1.1.3: Organization of three national consultation workshops with populations on the MREWS priorities	Workshop	15,000	3	**45,000**
Output 2.1.2: The MREWS necessary equipment are acquired and put in place				
Activity 2.1.2.1: Acquisition and installation of observation equipment (weather stations, stream gauge, sensors, piezometers…)	Lump-sum	365,000	1	**365,000**
Activity 2.1.2.2: Acquisition of IT equipment (servers, processing unit, software, GPS...)	Lump-sum	120,000	1	**120,000**
Activity 2.1.2.3: Acquisition of necessary data to the MREWS (biophysical, socio-economic, mapping…)	Lump-sum	120,000	1	**120,000**
Activity 2.1.2.4: Acquisition of necessary tools and equipment to broadcast warning messages to populations (beacon, flags, siren, signals, loud-speakers…)	set/country	40,000	3	**120,000**
Activity 2.1.2.5: Constitution and organization of the Tripartite Regional Management Unit (TRMU)	meeting	5,000	4	**20,000**
Activity 2.1.2.6: Rehabilitation/construction of premises for the Tripartite Regional Management Unit (TRMU)	Lump-sum	100,000	1	**100,000**
Output 2.1.3. The MREWS is developed and operational				

Activity 2.1.3.1: Creation of the MREWS unit under the supervision of the regional management unit				0
Activity 2.1.3.2: Organization of training sessions for the MREWS unit (MREWS use, data processing, elaboration of indicators…)	Thematic workshop	30,000	4	**120,000**
Activity 2.1.3.3:.Organization of launching/presentation/monitoring workshops of the MREWS	Workshop	20,000	4	**80,000**
Activity 2.1.3.4: Organization of quarterly meetings of the Tripartite Regional Management Unit	Meeting	2,500	16	**40,000**
Activity 2.1.3.5: Organization of study and exchange trips	Travel	20,000	2	**40,000**
Activity 2.1.3.6: Acquisition of supplies/consumables for the Tripartite Regional Management Unit	Lump-sum	60,000	1	**60,000**
Activity 2.1.3.7: Design, validation and editing of products (MREWS letter, maps, summary reports, digital supports...)	Set/year	15,000	4	**60,000**
Activity 2.1.3.8: Organization two testing operations	Operation	70,000	2	**140,000**

Output 2.1.4: Disasters contingency plans are set up				
Activity 2.1.4.1: Elaboration of an Contingency Response Plan (ERP) against climate change related hazards at the level of the three beneficiary countries	Plan	50,000	1	**50,000**
Activity 2.1.4.2. Organization of training sessions on the ERP utilization aimed at the different actors involved in the three countries	3 national workshops. and 1 regional.	20,000	4	**80,000**
Activity 2.1.4.3. Acquisition of equipment for disasters management (3 devices for combating fires, bicycles, motorcycles, canoes, dinghies…)	set/year	130,000	3	**390,000**
			Subtotal	**2,100,000**
Component 3: Improving ecosystems and populations' livelihoods resilience through the implementation of concrete adaptation and mitigation actions				
Outcome 3.1: Populations and ecosystems' resilience is improved through concrete adaptation actions				
Ouput 3.1.1: Water points are developed/rehabilitated at the Complex level involving local work force				
Activity 3.1.1.1: Identification of sites for the establishment of water points	survey - study	15,000	1	**15,000**
Activity 3.1.1.2: Identification and training of the employed work force	Workshop	5,000	1	**5,000**
Activity 3.1.1.3: Water points development and equipment works	5 water points/countries	10,000	15	**150,000**
Output 3.1.2: Transhumance routes and rest areas are constructed/created for cattle involving local work force				
Activity 3.1.2.1: Identification of the layout of the area	Survey- study	20,000	1	**20,000**
Activity 3.1.2.2: Identification and training of the involved work force	Workshop (resting places and drinking troughs)	5,000	2	**10,000**

Activity 3.1.2.3: Development of transhumance routes	Lump-sum	200,000	1	**200,000**
Activity 3.1.2.4: Construction of troughs and rest areas for cattle	15 water troughs and 9 resting places	10,000	24	**240,000**
Output 3.1.3: Firewalls strengthened and developed involving local work force				
Activity 3.1.3.1: Identification of locations for firewalls	Survey - study	20,000	1	**20,000**
Activity 3.1.3.2: Identification and training of the involved work force	Workshop	5,000	1	**5,000**
Activity 3.1.3.3: Development and cleaning of the identified sections	Lump-sum	200,000	1	**200,000**
Output 3.1.4: Agro-forestry and small-scale irrigation are applied				
Activity 3.1.4.1: Identification of the agroforestry species to be used	Survey - study	10,000	1	**10,000**
Activity 3.1.4.2: Identification and training of the agro-forestry and irrigation dedicated to the beneficiary farmers	Workshop (agro-forestry, small-scale Irrigation	5,000	2	**10,000**
Activity 3.1.4.3: Creation of nurseries for the production of agroforestry plants and attribution to the beneficiaries	3 nurseries /country	10,000	9	**90,000**
Activity 3.1.4.4: Acquisition and attribution of irrigation equipment (drip irrigation) to beneficiaries	3 sets/country	10,000	9	**90,000**
Output 3.1.5: Structures and equipment are provided for fishermen				
Activity 3.1.5.1: Identification of priority landing sites along the river and its tributaries	Survey - study	10,000	1	**10,000**
Activity 3.1.5.2: Construction of docking structures for canoes	2 structures/country	15,000	6	**90,000**

Activity 3.1.5.3: Identification and training of beneficiary fishermen	Workshop	5,000	1	**5,000**
Activity 3.1.5.4: Acquisition and attribution of fishing equipment (conservation equipment)	1 set/country	50,000	3	**150,000**
~~**Outcome 3.2: Populations and ecosystems' resilience (fauna and flora) are improved through concrete mitigation measures**~~				
Output 3.1.6: Wooded and pastoral areas are improved and reforested				
Activity 3.1.6.1: Identification of sites for reforestation and pastoral improvement	Survey - study	10,000	1	**10,000**
Activity 3.1.6.2: Training of beneficiary nursery growers	Workshop	5,000	1	**5,000**
Activity 3.1.6.3: Creation of forest and pasture nurseries	3 Nurseries/country	10,000	9	**90,000**
Activity 3.1.6.4: Training of the work force involved in the reforestation works	Workshop	5,000	1	**5,000**
Activity 3.1.6.5: Reforestation and pastoral improvement	Lump-sum	1,200,000	1	**1,200,000**
~~**Output 3.2.2: Improved cook stoves are allocated to women**~~				
~~Activity 3.2.2.1: Identification of beneficiary women (inventory, selection and consultation)~~	~~Survey - study~~	~~5,000~~	~~1~~	~~**5,000**~~
~~Activity 3.2.2.2: Training of beneficiary women on the utilization of cook stoves~~	~~Workshop~~	~~5,000~~	~~1~~	~~**5,000**~~
~~Activity 3.2.2.3: Attribution of improved cook stoves to beneficiary women~~	~~Lump-sum~~	~~100,000~~	~~1~~	~~**100,000**~~
~~**Output 3.2.3: Solar panels are installed in wells and in community infrastructures (schools, local administrations…)**~~				
~~Activity 3.2.3.1: Identification of infrastructure and wells to equip~~	~~Survey - study~~	~~20,000~~	~~1~~	~~**20,000**~~
~~Activity 3.2.3.2: Training of beneficiaries on the utilization and maintenance of solar panels~~	~~Workshop~~	~~5,000~~	~~1~~	~~**5,000**~~
~~Activity 3.2.3.3: Equipment of infrastructures with solar panels~~	~~1 set/country~~	~~100,000~~	~~3~~	~~**300,000**~~

Outcome 3.2: Populations' resilience to Climate change is strengthened and their livelihoods are improved through income-generating activities				
Output 3.2.1: Revolving funds are set up to diversify income sources				
Activity 3.2.1.1: Organization of information and awareness-raising workshops for communities on revolving funds	1 Workshop/country	10,000	3	**30,000**
Activity 3.2.1.2: Training of beneficiaries on the use and management of revolving funds	1 Workshop/country	15,000	3	**45,000**
Activity 3.2.1.3: Handover and Supervision of Disbursement of the funds	Lump-sum	15,000	1	**15,000**
Output 3.2.2: Income-generating activities are sustained				
Activity 3.2.2.1: Selection and training of the beneficiaries of income generating activities	1 workshop	30,000	3	**90,000**
Activity 3.2.2.2: Acquisition and distribution of beehives to beneficiaries	600 hives/country	100	1800	**180,000**
Activity 3.2.2.3: Acquisition of equipment for the distillation of essential oils	1 Set/country	40,000	3	**120,000**
Activity 3.2.2.4: Valuation of non-timber forest products (NTFP) (shea, baobab, moringa, nereid, tamarind, gums…)	1 Set /country	40,000	3	**120,000**
Activity 3.2.2.5: Construction of "Nature's Stores" to offer and sell local and artisan products	1 Set /country	15,000	3	**45,000**
Output 3.2.3: Improved cook stoves are allocated to women				
Activity 3.2.3.1: Identification of beneficiary women (inventory, selection and consultation)	Survey - study	5,000	1	**5,000**
Activity 3.2.3.2: Training of beneficiary women on the utilization of cook stoves	Workshop	5,000	1	**5,000**
Activity 3.2.3.3: Attribution of improved cook stoves to beneficiary women	Lump-sum	100,000	1	**100,000**

Output 3.2.4: Solar panels are installed in wells and in community infrastructures (schools, local administrations…)				
Activity 3.2.4.1: Identification of infrastructure and wells to equip	Survey - study	20,000	1	**20,000**
Activity 3.2.4.2: Training of beneficiaries on the utilization and maintenance of solar panels	Workshop	5,000	1	**5,000**
Activity 3.2.4.3: Equipment of infrastructures with solar panels	1 set/country	100,000	3	**300,000**
			Sub-total	**3,710,000**
Component 4: Awareness-raising and capacity building for concerted, integrated and sustainable management of the WAP Complex				
Outcome 4.1: Concerned actors are mobilized and sensitized through adapted communication and capacity building				
Output 4.1.1: Practitioners and technicians are sensitized and trained on environmental challenges				
Activity 4.1.1.1: Elaboration of specific training modules on the main themes addressed by the project (natural resources)	Module	5,000	10	**50,000**
Activity 4.1.1.2. Organization of thematic training workshops for practitioners and technicians	Workshop	10,000	10	**100,000**
Activity 4.1.1.3. Organization of information and extension sessions aimed at decision-makers at each country level (simplified training module)	Workshop	10,000	5	**50,000**
Output 4.1.2: Populations are informed and sensitized				
Activity 4.1.2.1. Elaboration of an action plan about communication and awareness-raising	Plan	30,000	1	**30,000**
Activity 4.1.2.2: Design and development of communication supports (leaflets, posters, flyers, syntheses, documentaries , spots for local radios, phone application …)	1 set/year	50,000	4	**200,000**
Activity 4.1.2.3: Creation/strengthening of environmental clubs at local institutions (colleges, high schools,) through training and equipment	Club	20,000	3	**60,000**

Activity 4.1.2.4 : Design of environmental education sessions for school children and women (in local language)	kits	5,000	2	**10,000**
Activity 4.1.2.5: Organization of environmental education sessions for pupils and women	5 sessions/country	10,000	15	**150,000**
Activity 4.1.2.6: Organization of awareness and information days for populations (cultural and artistic activities on CC mitigation and adaptation)	5 sessions/country	15,000	15	**225,000**
Activity 4.1.2.7: Setting up of a radio web (studio equipment, server on a portal, and a mobile application)	1 studio, 1 server, 1 portal and 1 mobile application	15,000	1	**15,000**
Activity 4.1.2.8: Organization of training sessions to create radio content for the riparian populations of the three countries (presenter and designer)	2 sessions /pays	10,000	6	**60,000**
			Subtotal	**950,000**
			Total components	**7,200,000**
Component 5: Project Execution				
Implementation costs (Implementing Unit)				**702,000**
Execution costs (Management Unit)				**648,000**
			Total project	**8 550 000**

1.3. Projected Calendar

The Project Duration is 4 years (48 months)

Milestones	Expected Dates
Start of Project Implementation	January 2018
Mid-term Review (if planned)	June 2020
Project/Programme Closing	December 2021
Terminal Evaluation	June 2022

PART II: PROJECT JUSTIFICATION

A. Description of the project / programme components

The WAP Complex is an area of outstanding biodiversity significance based on the following factors:

- It is the largest and most important continuum of terrestrial, semi-aquatic and aquatic ecosystems in the West African savannah belt;
- It is the most significant territory for elephant conservation in the entire West African sub-region;
- It is the most viable natural refuge, available to most of the vulnerable and/or threatened animal species in Benin, Burkina Faso and Niger;
- It is endowed with a significant network of wetlands linked to a large hydrographical network that serves as the habitat for aquatic and water dependent plant and animal species, including migratory birds;

Globally significant biodiversity is threatened within the WAP Complex by various factors, for example agricultural encroachment, uncontrolled transhumance, poaching, uncontrolled bushfires, siltation and pollution of surface waters and unsustainable harvesting of fish, timber and Non-timber forest products (NTFPs). The impact of all these pressures are amplified by climate change effects.

The sustainability of the WAP Complex management depends on three interrelated elements:

- Active participation of the communities in the buffer and transition zones;
- Effective interrelated network for the Protected Areas;
- More coordinated efforts for the conservation of the WAP Complex.

The above described elements, although partially effective to support the conservation of WAP biodiversity, are facing many barriers that prevent, operating effectively and sustainably.

In addition to the various threats that hinder the management of the complex, the latter is affected by the effects of climate change whose impacts are increasingly visible on natural resources and ecosystems. Thus, it appears that urgent adaptation and mitigation measures are needed to maintain the equilibrium of the Complex to ensure the integrity of its ecosystems and to improve the livelihoods of its adjacent populations.

Adaptation ~~and Mitigation~~ Measures

The three concerned countries (Benin, Burkina Faso and Niger) with the support of the OSS propose, through the present project request, the development and implementation of a concerted and synergistic adaptation strategy to be integrated in the regional management plan of the WAP Complex. This strategy will include concrete pilot adaptation actions and a Multi Risk Early Warning System (MREWS).

The project will complete the development of activities already undertaken in the region and will focus on adaptation to climate change and mitigation measures. It will strengthen the capacities of national and sub-regional institutions involved in the management of the WAP Complex and the management of natural resources of the adjacent areas. This project proposal is based on four components, combining regional, national, and local actions. The following components and activities, as shown above, will be undertaken:

- Component 1: Integration of climate change aspects and a contingency plan in the management of the WAP Complex;
- Component 2: Design and establishment of a Multi-Risk Early Warning System (MREWS), related to droughts, floods, and fires;
- Component 3: Enhancement of the resilience of ecosystems and populations through the implementation of concrete adaptation ~~and mitigation~~ actions, and
- Component 4: Awareness-raising and capacity building for the concerted and integrated sustainable management of the WAP Complex.

The activities of component 3 will include concrete adaptation and mitigation actions to be conducted in-field with a view to reduce the communities' vulnerability to climate change. The grant will be used for the implementation of the contingency plan and for various actions. Namely, it will aim at protecting and rehabilitating ecosystems, diversifying livelihoods, setting up structures for resources mobilization, encouraging renewable energy use, raising awareness of populations, managers and technicians mainly on best practices of natural resources management. In fact, the implementation of updated regional and national management plans, integrating climate change aspects will allow a better protection and a concerted management of natural resources. Thus, adapted to the specificities of the WAP Complex, these new management plans will reduce the risks of conflicts between the several users.

The project will use the local know-how of the three beneficiary countries and will offer a regional platform for the exchange of experiences and effective natural management practices. These conditions will help to preserve the Complex's ecosystems and hence to improve the livelihoods of its local populations. The Multi-Risk Early Warning System and the adaptation measures to be developed by this project will generate

successful lessons and ensure the validation of best practices to be documented and, above all, replicated in other areas.

In the framework of this project, a regional approach will be adopted, that allows a holistic treatment of major themes at the Complex level while taking into account the different characteristics of each country. The ecosystems, like biotic communities, migratory wildlife, rivers and streams, and user populations such as transhumant pastoralists, fishermen, etc. that are directly affected by extreme weather events are, indeed, transboundary. Thus, a regional, harmonized and common approach is needed to resolve border problems. Beside this, it will help to maximize the learning and sharing of lessons among the concerned actors and stakeholders.

The project activities will be designed in alignment with existing national and regional strategies. It will emphasize the development of a global master plan for the whole Complex and the integration of climate change aspects in the existing specific park management plans. The expected results will help to improve the WAP management and development plan elaborated within the framework of the ECOPAS/W regional program ("Protected Ecosystems in Sahelian Africa"). The project results will also feed into the sub-regional action plan for reducing vulnerability to climate change (PASR-RV-AO), adopted in 2010 by the Heads of States of the Economic Community of West African States (ECOWAS). This issue will be conducted in a participatory manner in order to be in line with the national and sub-regional development plans and strategies.

The Project will allocate **US$ 3.710.000 to Component 3** for the implementation of concrete adaptation actions for resilient and sustained ecosystems in the WAP Complex. The benefits of these actions will include improved economic productivity and better livelihoods. This Component is the most important as it will ensure the introduction of concrete climate change adaptation actions in the WAP Complex, which will also allow to reduce the loss of incomes due to extreme events.

In addition, **US$ 2.100.0000** will be foreseen to **Component 2** for the establishment of a MREWS to natural disasters and **US$ 440.000** for the integration of the climate dimension and an contingency plan into the development and management plan of the Complex, to be developed within the **Component 1**.

Furthermore, **US$ 950.000** will be allocated to **Component 4** for strengthening the capacities of institutions and communities and for knowledge management. The regional approach will enhance cost effectiveness of capacity building and will ensure the scaling up of tools and processes application and replication. To ensure a more effective and enhanced knowledge sharing, the project will provide an opportunity for networking with stakeholders concerning climate change adaptation, environment and development planning.

The **project preparation** will be carried out through four steps and at regional, national and local levels:

i. Identification and definition of stakeholders and beneficiaries,

ii. Exchanges between OSS, as Implementing Entity, and the identified national partners,

iii. Consultation for preliminary surveys focused on local actors like farmers, households managed by women, vulnerable groups as indigenous peoples, and

iv. Organisation of national and regional workshops, bringing together the different stakeholders to validate the final project document that derive from a common vision

The project sustainability will be maintained thanks to the commitment of certain key stakeholders, targeted for capacity building, including staff of extension services from various areas such as forestry, agriculture, pastoralism, water, environment, and community development. After having mastered the tools elaborated in the framework of the project through training sessions, the technicians will be able to manage the overall achievements even after the end of the project. In addition to the ownership of the tools, the project will implement innovative solutions that will generate financial benefits that will be used to sustain the monitoring activities, i.e. access fees, breed improvement centre, etc.

The present project is classified under category B in accordance with the Social and Environmental Policy of the Adaptation Fund. A social and environmental assessment will be conducted as a preliminary step to the submission of the full project proposal.

Components and expected outcomes of the project

The project aims to improve the riparian populations' livelihoods in the WAP Complex and to increase the resilience of ecosystems, which are threatened today more than ever by a consistently changing climate and recurrent natural disasters. These threats may exacerbate the situation of a large part of vulnerable and endangered people and natural resources, if no urgent and direct actions are undertaken to preserve them.

Component 1: Integration of climate change aspects and contingency plan in the WAP Complex management:

Encompassing multiple protected areas, the WAP Complex is of particular importance in West Africa as it offers shelter and habitat to a wide variety of fauna and flora. The pressure exerted on the WAP Complex by the riparian populations made it even more vulnerable to Climate Change. Therefore, the Complex has attracted, during the last few decades, the attention of both, public authorities of the three neighbour countries and a number of international institutions. In fact, several projects/programmes were implemented that has led to the elaboration of plans aiming for a common management of protected areas and natural ecosystems of the Complex.

In this framework, the proposed project dedicates the first component to the elaboration of a regional master plan and the updating of existing national and local action plans, integrating climate change aspects and defining the adaptation and mitigation measures to be implemented.

This first component is structured as follows*:*

Outcome 1.1: **The climate change dimension and the contingency plan are integrated into the Complex master plan**

This outcome is set up to complete and harmonize the management tools, studies, databases, digital and mapping supports already in place for the WAP Complex, but which remain fragmented and disparate until today. It mainly aims to mainstream the climate change dimension and its risks in the existing individual parks management plans and into WAP complex global master plan. The activities to be carried out to achieve this outcome are:

Output 1.1.1: The Complex management master plan integrating climate change is developed and validated:

The delimitation of the intervention zone and the assessment of its physical and social assets determine the success and sustainability of the project. Therefore, the project must be part of an overall strategic framework for the WAP complex. It is for this reason that the activities under output 1.1.1, have been planned as prior as mapping, preparatory studies and design of the Master plan of the WAP complex.

- Activity 1.1.1.1: Set up of a Geographic Information System and elaboration of mapping products ~~(demarcation of the project area, vulnerability…)~~
- Activity 1.1.1.2: Implementation of three studies about land-tenure, socio-economics, and strategic orientation (institutional, administrative, legal …)
- Activity 1.1.1.3: Update of forest and pastoral management and development plans
- Activity 1.1.1.4: Organization of a workshop for the validation of studies and mapping products
- Activity 1.1.1.5: Design and editing of the master plan
- Activity 1.1.1.6: Organization of a workshop for the validation of the master plan

Output 1.1.2: The adaptation ~~and mitigation~~ action plans are elaborated

Priority areas and sites identified in the vulnerability assessment study will be validated with communities and all stakeholders. The concrete adaptation actions will be clearly detailed in a participatory manner to ensure that the proposed activities are endorsed by the communities.

- Activity 1.1.2.1: Validation with communities of the most vulnerable sites for implementation of concrete adaptation and mitigation actions
- Activity 1.1.2.2: Organization of consultation workshops with technicians for the validation of sites and adaptation ~~and mitigation~~ measures
- Activity 1.1.2.3: Elaboration of an action plan for the implementation of the identified adaptation actions
- ~~Activity 1.1.2.4: Elaboration of an action plan for the implementation of the identified mitigation actions~~
- Activity 1.1.2.5: Organization of a workshop for the validation of the adaptation and mitigation action plans

Component 2: Design and establishment of a Multi-Risk Early Warning System (MREWS) related to droughts, floods, and fires

Natural disasters are one of the most serious threats affecting the integrity of ecosystems and the security of the riparian populations of the WAP Complex. The establishment of an operational, reliable and efficient Early Warning System in the WAP Complex is one of the major objectives of this project. The

setting up of a detailed contingency plan is of capital importance to reduce the negative impacts of hazards due to climate change. This plan will be made available to different users and stakeholders.

This component is structured around the following outcome:

Outcome 2.1: A Multi-Risk Early Warning System (MREWS) is used by the project's beneficiaries to manage emergencies

The MREWS is a tool for elaborating and provided information for the WAP Complex's different users, including the populations and the users of forest, pastoral and agricultural areas. The MREWS will be community-based and adapted to the socio-ecological context of the WAP Complex for a better preparedness to manage natural disasters and extreme climate events.

The following activities and measures are proposed:

Output 2.1.1: The preparatory studies are elaborated and validated: The MREWS is designed

The Early Warning System is one of the key components of this project. With regards to this, it is necessary to develop preliminary studies in order to establish an efficient and reliable system. These studies will deal with different items, as the identification of potential natural hazards, the analysis and characterization of disasters related to climate change at the local level, the assessment of the risks incurred in the project area and modeling potential risks, the identification of current activities and practices of the various stakeholders having impacts on the increase of risks,etc....

- Activity 2.1.1.1: Implementation of six preliminary studies for the establishment of the MREWS, from hazards identification and risks evaluation to the MREWS design and implementation
- Activity 2.1.1.2: Organization of two regional workshops for the validation of studies
- Activity 2.1.1.3: Organization of three national consultation workshops with populations on the use of the MREWS

Output 2.1.2: The necessary MREWS equipment are acquired and put in place

Once identified, the tools and equipment necessary for the establishment of the Early Warning System are acquired : weather stations, stream gauge, sensors, piezometers, servers, processing unit, software, GPS, necessary data related to the MREWS, flags, siren, signals, loud-speakers,….

In order to ensure participatory, effective and sustainable management, the tripartite committee will be strengthened and the project will also rehabilitate its premises and provide it with the necessary means for an efficient work.

- Activity 2.1.2.1: Acquisition and installation of observation equipment (weather stations, stream gauge, sensors, piezometers…)
- Activity 2.1.2.2: Acquisition of IT equipment (servers, processing unit, software, GPS...)
- Activity 2.1.2.3: Acquisition of necessary data related to the MREWS (biophysical, socio-economic, mapping…)

- Activity 2.1.2.4: Acquisition of necessary tools and equipment for broadcasting warning messages to populations (beacon, flags, siren, signals, loud-speakers…)
- Activity 2.1.2.5: Constitution and organization of the Tripartite Regional Management Unit (TRMU)
- Activity 2.1.2.6: Rehabilitation/construction of premises for the Tripartite Regional Management Unit (TRMU)

Output 2.1.3: The MREWS is developed and operational

The start-up and functioning of the Early Warning System certainly requires to strengthen the capacities of its managers and users. To make the MREWS operational a management unit is planned to be created and will be under the supervision of the tripartite committee. This unit will be provided with training sessions and will also have the necessary logistical means to carry out its functions. In order to ensure that the system operates correctly, two system test operations are planned.

- Activity 2.1.3.1: Creation of the MREWS Unit under the supervision of the Tripartite Regional Management Unit
- Activity 2.1.3.2: Organization of training sessions for the MREWS unit (MREWS use, data processing, elaboration of indicators…)
- Activity 2.1.3.3: Organization of workshops for presenting the MREWS
- Activity 2.1.3.4: Organization of quarterly meetings of the Tripartite Regional Management Unit (TRMU)
- Activity 2.1.3.5: Organization of study and exchange trips
- Activity 2.1.3.6: Acquisition of supplies and consumables for the Tripartite Regional Management Unit
- Activity 2.1.3.7: Design, validation and editing of products (MREWS letter, maps, briefs, reports, digital supports...)
- Activity 2.1.3.8: Organization of two testing operations

Output 2.1.4: A Disasters contingency plans are set up

A contingency plan consists of an operational manual to manage disaster impacts at the level of the three countries concerned by the project. This contingency plan, as a major adaptation activity, will be submitted to the various users (management units, tripartite unit, and representatives of the population ...) who will benefit from the training and equipment necessary for its optimal use.

- Activity 2.1.4.1: Elaboration of a contingency Response Plan against climate change related hazards at the level of the three beneficiary countries
- Activity 2.1.4.2: Organization of training sessions on the contingency Response Plan deployment, aimed at different actors involved in the three countries

- Activity 2.1.4.3: Acquisition of equipment for disasters management (3 devices for combating fires, bicycles, motorcycles, canoes, dinghies…)

Component 3: Improvement of the resilience of ecosystems and populations' livelihoods through the implementation of concrete adaptation and mitigation actions

The impact of climate change on natural resources and populations livelihoods is a fact in the WAP Complex. In order to address this critical situation, the project proposes the implementation of both adaptation and mitigation actions with the aim to maintain the ecological equilibrium of the WAP Complex and to improve the resilience of its riparian populations. The major focused themes, will be, natural resources and ecosystems (water, soil, forest and pastoral ecosystems) as well as common agricultural practices within the Complex (transhumance, overgrazing, illegal loggin). This component will allow the implementation of measures to improve infrastructures for the benefit of farmers, fishermen, pastoralists, to develop silvopastoralism, to promote renewable energies and to create a revolving system.

This component will have three main outcomes:

Outcome 3.1: The resilience of ecosystems and populations is improved through concrete adaptation actions

Under this outcome, the project will conduct activities that will help to reduce the adverse impact of climate change on the integrity and equilibrium of the natural resources, in order to maintain and preserve ecosystem services. The adaptive capacity of the population living around the Complex, will also be enhanced via concrete adaptation measures (development of infrastructures: water points, transhumance paths …) and through promoting other activities as agroforestry and small-scale irrigation. The different actions to be undertaken will be realized involving the local workforce.

The planned outputs and activities with this outcome are:

Output 3.1.1: The Water points are developed or rehabilitated

The water points are of multiple use: for the watering of animals and livestock, for fighting fires, for the population, the local managers ... the establishment of these water points will be ensured by the local workforce. This workforce must be trained to do the work of creating and managing water points as it should.

- Activity 3.1.1.1: Identification of sites for the establishment of water points
- Activity 3.1.1.2: Identification and training of the employed workforce
- Activity 3.1.1.3: Development of water points through the installation of equipment

Output 3.1.2: Transhumance routes and rest areas for cattle are constructed

Transhumance is one of the specificities of the WAP complex. This transhumance must be managed as rationally as possible to mitigate its negative impact on the site natural resources. At this level, it is

necessary to design and delimit the transhumance corridors, which will be equipped with the necessary infrastructure.

- Activity 3.1.2.1: Identification of the layout of routes and rest areas
- Activity 3.1.2.2: Identification and training of the involved workforce
- Activity 3.1.2.3: Creation of transhumance routes
- Activity 3.1.2.4: Construction of drinking troughs and rest areas for cattle

Output 3.1.3: Firewalls are strengthened and developed

To mitigate the impacts of fires that may occur in forest areas, it is highly recommended that firewalls are identified and established. This involves the opening of trenches within forest stands in accordance with the appropriate technical standards and criteria.

- Activity 3.1.3.1: Identification of firewalls locations
- Activity 3.1.3.2: Identification and training of the involved workforce
- Activity 3.1.3.3: Development and clearing of the identified sections

Output 3.1.4: Agro-forestry and small-scale irrigation are applied

Agroforestry is among the niches that can be an alternative adaptation solution, with socio-environmental benefits. At the level of this output, it is necessary to implement agroforestry activities for the benefit of local beneficiaries of the three countries. The species to be used will be chosen according to their adaptation to the environment and their socio-economic benefits. For the supply of seedlings for the beneficiaries, nurseries will be set up to make this output a whole chain.

- Activity 3.1.4.1: Identification of the agroforestry species to be used
- Activity 3.1.2.2: Identification and training on agro-forestry and irrigation dedicated to the beneficiary farmers
- Activity 3.1.4.3: Creation of nurseries for the production of agroforestry plants and attribution to the beneficiaries
- Activity 3.1.4.4: Acquisition and attribution of drip irrigation equipment to beneficiaries

Output 3.1.5: Structures and equipment for fishermen are provided

Fishing is a standard activity in the WAP area. However, fishermen do not have the infrastructure and equipment necessary for a more profitable and rational fishery. For this purpose, the projects plans to build docking constructions on priority sites and to acquire equipment for the benefit of fishermen.

- Activity 3.1.5.1: Identification of priority landing sites along the river and its tributaries
- Activity 3.1.5.2: Construction of docking structures for canoes

- Activity 3.1.5.3: Identification and training of beneficiary fishermen
- Activity 3.1.5.4: Acquisition and attribution of fishing equipment (conservation equipment)

~~**Outcome 3.2: Resilience of ecosystems and populations are improved through concrete mitigation measures**~~

~~To enhance mitigation measures in African countries, the present project includes several activities for GHG mitigation and promotion of renewable energy as solar and wind energies. This will contribute to achieve the Nationally Determined Contributions (NDCs) of the three beneficiary countries as well as the global objectives set up within the framework of the Agreement at the COP21 to the UNFCCC held in Paris in 2015.~~

~~This outcome will be structured with three outputs as follows:~~

Output 3.1.6: Wooded and pastoral areas are improved and reforested

Forest and pastoral reforestation is an activity that will contribute to the improvement of vegetation cover and to the protection of natural resources (water, soil, vegetation, etc.) by enhancing their resilience to climate change effects. For this purpose, nurseries for the production of forest and pastoral seedlings will be created to ensure replanting campaigns in the appropriate sites. Reforestation will be carried out by a local workforce who will be trained for this issue.

Apart from its conservation and adaptation impacts, reforestation will contribute to mitigate climate change effects and to increase carbon sequestration capacities.

- Activity 3.1.6.1: Identification of sites for reforestation and pastoral improvement
- Activity 3.1.6.2: Training of beneficiary nursery growers
- Activity 3.1.6.3: Creation of forest and pasture nurseries
- Activity 3.1.6.4: Training of the work force involved in the reforestation works
- Activity 3.1.6.5: Reforestation and pastoral improvement

~~**Output 3.2.2: Improved cooking stoves are allocated to women**~~

- ~~Activity 3.2.2.1: Identification of beneficiary women (inventory, selection and consultation)~~
- ~~Activity 3.2.2.2: Training of beneficiary women on the utilization of **cooking stoves**~~
- ~~Activity 3.2.2.3: Allocation of improved **cooking stoves** to beneficiary women~~

~~**Output 3.2.3: Solar panels are installed in wells and in community infrastructures (schools, administration offices…,)**~~

- ~~Activity 3.2.3.1: Identification of infrastructure and wells to be equipped~~
- ~~Activity 3.2.3.2: Training of beneficiaries on the utilization and maintenance of solar panels~~

- ~~Activity 3.2.3.3: Equipment of infrastructures with solar panels~~

Outcome 3.2: The resilience of populations to Climate change is strengthened and their livelihoods are improved through income-generating activities

The involvement of the riparian population and the improvement of their livelihoods are prerequisites for the success and sustainability of the project activities. The resilience of the local population will be strengthened through the establishment of a micro-finance mechanism for the creation of income-generating activities for the beneficiaries.

The present project includes several activities for GHG mitigation and promotion of renewable energy as solar energy and cook stoves use. This will contribute to achieve the Nationally Determined Contributions (NDCs) of the three beneficiary countries as well as the global objectives set up within the framework of the Agreement at the COP21 to the UNFCCC held in Paris in 2015.

This outcome will be achieved through the following outputs and activities:

Output 3.2.1: Revolving funds are set up to support diversification of incomes

A revolving fund will be created to provide finance for the beneficiaries. The initial feeding of this fund will be procured by the project and it will then ensure its sustainability through recovery actions via financing agreements to be established with the beneficiaries.

- Activity 3.2.1.1 : Organization of information events and awareness-raising workshops for communities on revolving funds
- Activity 3.2.1.2 : Training of beneficiaries on the use and management of revolving funds
- Activity 3.2.1.3 : Handover and Supervision of Disbursement of the funds

Output 3.2.2: Income-generating activities are sustained

According to the preliminary investigations, three themes were chosen to implement income-generating activities: apiculture, distillation of essential oils and crafts. Also "Nature's stores" will be set up to serve for exhibition and sale of the products to the visitors and ecotourists. Training sessions for beneficiaries will be provided by professionals on the selected themes.

- Activity 3.2.2.1: Selection and training of the beneficiaries on income generating activities
- Activity 3.2.2.2: Acquisition and distribution of beehives to beneficiaries
- Activity 3.2.2.3: Acquisition of equipment for the distillation of essential oils
- Activity 3.2.2.4: Valuation of non-timber forest products (NTFP) such as shea, baobab, moringa, néré, tamarind, gums, etc.
- Activity 3.2.2.5: Construction of "Nature's Stores" to present and sell local handcrafts

Output 3.2.3: Improved cooking stoves are allocated to women

The local population generally uses firewood for cooking and generally in a non-rational manner, which causes pressure on the natural resources of the complex. The cooking stoves that will be distributed to the beneficiaries will contribute to the improvement of their living conditions and will also have a positive impact on greenhouse gases mitigation and increase of carbon sequestration.

- Activity 3.2.3.1: Identification of beneficiary women (inventory, selection and consultation)
- Activity 3.2.3.2: Training of beneficiary women on the utilization of **cooking stoves**
- Activity 3.2.3.3: Allocation of improved **cooking stoves** to beneficiary women

Output 3.2.4: Solar panels are installed in wells and in community infrastructures (schools, administration offices…,)

Solar energy is a cheaper and cleaner alternative than other conventional energy sources. The project will install solar panels on existing buildings and constructions (schools, dispensaries, administrations, wells ...). This alternative will also have positive impacts on the mitigation of greenhouse gases. A local workforce will be trained so that it will take in charge the setting up of these equipment.

- Activity 3.2.4.1: Identification of infrastructure and wells to be equipped
- Activity 3.2.4.2: Training of beneficiaries on the utilization and maintenance of solar panels
- Activity 3.2.4.3: Equipment of infrastructures with solar panels

Component 4: Awareness-raising and capacity building for concerted, integrated and sustainable management of the WAP Complex

The success and sustainability of programs and projects is very often determined by the degree of the awareness of target groups and their adaptive capacity. therefore, an entire component dedicated to awareness-raising, communication and capacity building is proposed. This component has a cross-cutting dimension, it will concern different targeted groups and will focus on the major challenges and issues in the WAP Complex. A strategy and an action plan for communication and awareness-raising will be developed and will serve as a decision-support tool for the concerned managers and authorities in the three countries.

This component will have the following outcome:

Outcome 4.1: The concerned actors are mobilized and sensitized through adapted communication and capacity building

In order to achieve the project goals, all target groups (decision-makers, youths, pupils, women, etc) will be involved in training, capacity building, and environmental education sessions. This will lead to a better understanding of concepts in relation with the major themes of this project as: climate change, natural disasters, natural resources, and biodiversity. The trainings will also cover the use of the tools and products to be developed by the project.

Communication and awareness channels, tools and supports that will be used, will be identified taking into consideration the specific characteristics of the target area and the available means (Radios, SMS, WEB, environmental clubs…).

This outcome will be achieved through the following outputs and activities:

Output 4.1.1: Practitioners, technicians and decision makers are sensitized and trained on environmental challenges

- Activity 4.1.1.1: Elaboration of specific training modules on the main themes addressed by the project,
- Activity 4.1.1.2: Organization of thematic training workshops for practitioners and technicians,
- Activity 4.1.1.3: Organization of information events and extension sessions aimed at decision-makers at each country level

Output 4.1.2: Populations are sensitized and informed

- Activity 4.1.2.1: Elaboration of a strategy and an action plan for communication and awareness-raising
- Activity 4.1.2.2: Design and development of communication supports (leaflets, posters, flyers, syntheses, documentaries, spots for local radios, phone application …)
- Activity 4.1.2.3: Creation/strengthening of environmental clubs at local institutions (colleges, high schools) through training and equipment
- Activity 4.1.2.4 : Design of environmental education sessions for pupils and women in local language
- Activity 4.1.2.5 : Organization of environmental education sessions for pupils and women
- Activity 4.1.2.6 : Organization of awareness and information days for populations (cultural and artistic activities on climate change adaptation and mitigation)
- Activity 4.1.2.7: Set- up of a radio web (studio equipment, web server, and a mobile phone application)
- Activity 4.1.2.8: Organization of training sessions to create radio programs for the riparian populations of the three countries (radio announcer and program designer)

B. New and innovative solutions and approaches

As previously described, the project will develop and promote innovative solutions and approaches in order to facilitate and to enhance the communication between the various stakeholders to achieve the targets of the project at the regional scale. This issue will be presented more in details in the full proposal and discussed during the consultative workshops.

The project will promote innovative solutions and new tools adapted to the regional context. It will use remote sensing and GIS and new communication technologies as mentioned above in Table 1.

These technologies will be used to develop the MREWS tools and messages for broadcasting. In addition, it will use existing linkages with relevant national level sectors and other regional forums to share lessons and policy recommendations. Also, face-to-face interactions during regional workshops and meetings will be facilitated. Furthermore, the promotion of innovative solutions will be considered in various activities of the project through the involvement of different stakeholders and target groups, such as youths, women, private sector, NGOs, and civil society, in the design of the alert system, the updating of the management plan or the execution of the activities. This approach will foster ownership of the project and ensure the sustainability of its achievements.

C. Socio-economic and environmental benefits of the project

At the socio-economic level:

The project will directly contribute to improve the populations' livelihoods, in the three beneficiary countries through innovative approaches and mechanisms, as well as through the development of income-generating activities. The improvement of infrastructures and the organization of transhumance will also help to increase the income from livestock breeding and agricultural activities practiced to date in the region. This would ensure food security for the affected population and would reduce people's instability and migration within the Complex.

The approach to be adopted by the project will contribute to managing conflicts between communities related to access to and use of natural resources. Vulnerable groups (Women and children) will be specifically targeted by the project to assure their participation in all its activities (training and community based management).

The livelihoods improvement will be based on the development of alternative income generation activities such as beekeeping, handcrafts, essential oils extraction, valorization and commercialization of the forest non-timber products. To support the development of these activities in this context, a revolving funds scheme will be set up, since the activities will focus on poorer households.

Some activities of the project are specifically targeting woman and vulnerable groups. To reduce pressure on forest and other ecosystems and natural resources, improved cook stoves will be introduced thereby improving resilience to climate change. The stoves will also have the positive side effect of reducing women's and children's burden of collecting fuel wood. Women could then spend more time on productive activities. The youth will also be engaged in activities such as tree seedlings production in tree nurseries.

In general, the project will contribute to stabilizing and improving the situation in rural areas and thereby preventing migration of young men to urban centers in search of income generation activities.

At the environmental level:

The project will have very high impacts on the natural ecosystems of the WAP complex and on the population living around it. Indeed, the implementation of the proposed Multi-Risk Early Warning System (MREWS) will allow the reduction of the impacts related to climate changes disasters. The

information that the MREWS will generate at the appropriated moment will help the complex managers and population to trigger the contingency plan (EP), and hence to reduce the damages. The project will develop a specific EP on the base of the analysis of the vulnerabilities of ecosystems and population.

The improvement of the actual parks management plans and the development of the complex master plan by mainstreaming climate change will have concrete benefits on the ecosystems through adoption of adapted approaches, measures and actions. In another hand, these strategic documents will contain measures to restore ecosystems and rehabilitate forest and pastoral areas. The restoration of these habitats will have benefic impacts on the preservation and development of the existing animal and plant biodiversity. These strategic documents will also emphasis on mitigation measures focusing on reforestation promoting carbon sequestration and the uses of renewable energies to alleviate pressure on woody ecosystems. Developing such strategic documents should ensure the durability of the projects results.

On the ground and during the project implementation period, the activities to be undertaken will have direct environmental benefits. The nurseries to be developed, the sites to be reforested, the management tools to be achieved such as water points, the trails for transhumance to be realized, the intervention tools to be furnished, etc. will have concrete impacts on the existing ecosystems.

The design of the project will promote activities compatible with the ecological and social context of the complex such as agroecology, agroforestry and adapted pastoralism.

The lessons learnt and the good practices to be adopted will be extended to other parks and sites in the three involved countries and in the sub region. This will be favored through the involvement of the population and actors at local and central level.

The sensitization and communication planned activities will ensure the mobilization of decision makers and local population and their engagement for a sustainable management of the ecosystems in the complex and around it (the buffer zone). Awareness raising is the basis for sustaining the project's achievements in favor of the preservation of the natural resources of the complex.

Capacity building of the population and involved stakeholders will focus on the approaches and adapted technics of management of the different the complex components.

D. Cost-effectiveness of the project

The proposed project is focusing its actions on a transboundary agro-ecological transition zone. The project with all its activities directly related to the adaptation of agriculture and Natural Resource Management to climate change, is both catalytic, pioneer and innovative in addition to its positive cost-benefit ratio. The implementation of activities such as support livestock mobility and cross border transhumance cannot be coordinated only at the national level. Therefore, regional coordination has a comparative advantage and cost-effectiveness.

The development of the Multi-Risk Early Warning System, the various infrastructures and managements and the acquisition of productive assets (e.g. energy efficient cook stoves), are relevant needs expressed by the three involved countries and have been selected based on available studies and technical feasibility analyses and on the basis of their potential for generating multiple social, economic and environmental benefits. Experience from adaptation projects has shown that building adaptation

measures based on ecosystem management principles will deliver better returns on natural, human and economic capital investments, while at the same time maintaining resilient ecosystems, using less natural resources and reducing social disparities.

From an environmental perspective, this project is expected to generate significant benefits through the protection and rehabilitation of degraded and fragile ecosystems in the WAP Complex, who will then be able to continue to provide key ecosystem services, including water filtration (rivers, wetlands, peatlands), flood protection, carbon sinks (forests), as well as biodiversity that is vital to the continued livelihoods of rural communities. The approach taken for the development of this project has also sought to build on linkages and synergy with other projects under implementation or/and development, which is expected to generate multiple benefits nationally. By so doing, the project presents the least costly means of achieving rapid benefits.

The advantages of these investments will consist mainly in improving approaches for the rational conservation and management of the WAP Complex' forest formations, rangelands, water resources, lands, and fish resources, etc. and in strengthening the livelihoods of its adjacent population. Furthermore, the project will allow putting in place an efficient and operational Multi Risk Early Warning System which will serve to control natural hazards caused by climate change and variability, and which will substantially help to alleviate the damage on ecosystems and local livelihoods caused by these natural disasters. Concrete adaptation and mitigation measures will certainly contribute to more resilient ecosystems and natural resources to climate change and variability, and, consequently, to well-preserved ecosystem services.

E. Consistency of the project with national strategies and action plans for sustainable development

The present project is in line with the different regional and national environmental policies and sustainable development strategies and action plans implemented in the three concerned countries[11] : Benin, Burkina Faso and Niger.

The consideration of climate change dimension and the integration of adaptation and mitigation measures in development policies, strategies, programs and projects at the national and sub-regional level are the major objectives of the African countries highly affected by the adverse impacts of climate change. West Africa is one of Africa's most exposed regions to climate change and knows recurrent floods and droughts cycles, which hinder its economic and social development.

The project concerted approach is in line with the following:

- The Environmental Policy of the ECOWAS adopted on 19 December 2008 in Abuja by "the additional act A/SA.4/12/08" introduced by the Heads of the States of the ECOWAS and translated into Priority Action Programmes
- The actions of the Global Alliance for Resilience (AGIR) –Sahel and West Africa,

[11]Source: UN Conference on the Rio +20 Development goals, information document on DG in Benin, March 2012.

- The Common Environmental Improvement Policy of the ECOWAS aiming to reverse the trends of natural resources degradation and reduction in the sub-region,

- The activities and actions of the Permanent Inter-State Committee for Drought Control in the Sahel (CILSS) created in 1973 and which constitute a form of regional adaptation to address the consequences of the 1970s droughts episodes,

- The initiatives developed by the « Global Climate Change Alliance », and which contributes to the strengthening of the CILSS/ECOWAS countries in implementing priority adaptation and mitigation measures.

- The climate change Convention was also translated by the States into national adaptation action plans (NAPAs), some of which have evolved into operational programs and projects.

- This commitment to address the climate change issue is further confirmed by the countries through:

    - The establishment of interdepartmental inclusive institutional frameworks (national climate change committee)

    - The creation of national councils for sustainable development for a better understanding and execution of climate change adaptation actions,

    - The regular production of information on climate change through the elaboration of National Communications,

    - The establishment of the African Union Environment Ministers meeting, the organization of sub-regional consultations etc., for the definition of an appropriate sub-regional institutional framework (NEPAD Initiative on the environment etc.)

The project complies also with the national development plans and policies, poverty reduction strategies, National Environmental Action Plans, and INDCs of three concerned countries: Benin, Niger and Burkina Faso.

The provision of various climate services to the different producers and managers of the WAP Complex, the elaboration of an early warning system, the implementation of concrete adaptation actions to reduce the vulnerability of the communities to climate change, the reduction of conflicts, the improvement of monitoring and observation mechanisms with a view to eradicating poaching, ensuring harmonized management of the Complex protected areas, strengthening the capacities of local actors, producing and disseminating information related to the adaptation of populations and natural resources to climate change , will all contribute to increasing the resilience of the Complex ecosystems and riparian populations and to reducing poverty.

Specifically, the main national strategies and action plans which the project is aligned with are presented below:

Benin:

Within the framework of the national Agenda 21, the Government of Benin elaborated a National Sustainable Development Strategy (SNDD). The document was validated in September 2005 by the concerned stakeholders and adopted by the Government of Benin in March 2006. The SNDD defines a number of objectively verifiable indicators and mechanisms for the efficient implementation of the national Agenda 21.

The Strategy offers a reference framework for the development of a dynamic relation between all the actors concerned by the implementation of the Agenda 21 and the integration of the sustainable development component in all development actions, both at local and national levels. The SNDD is structured into 8 chapters and presents two strategic development areas, namely:

- Sectorial strategic fields: forestry, agriculture, livestock breeding, fishery, tourism, health, pollution, water resources protection;
- Inter-sectorial strategic fields: legislative and legal framework, macro-economic framework, education, training and research, democracy and good governance, gender sustainable development relation, poverty reduction, credit system, international cooperation, ICTs.

Since 1999, Benin has committed to the elaboration and implementation of poverty reduction strategies. Following the Interim Poverty Reduction Strategy (IPSR), drafted in 2000, Benin has developed three (3) other poverty reduction strategy papers:

- Poverty Reduction Strategy (PRS 1) 2003-2005 which served as a strategic reference and dialogue framework with Technical and Financial Partners (TFP);
- Growth Strategy for Poverty Reduction (PRS 2) 2007-2009;
- Growth Strategy for Poverty Reduction (PRS) 2011-2015. This Strategy is the result of a large participatory process that closely associated public administration, economic operators and the civil society. Generally, the PRS is inspired from the long-term vision described in the "National Long-term Outlook Studies", « Benin-Alafia 2025 » and is based on the Strategic Development Guidelines defined by the Government in 2006. This Strategy will contribute to the achievement of the Millennium Development Goals (MDGs) and is one of the country's mechanisms for resources mobilization and coordination.

As for land tenure, the major actions undertaken by the Government of Benin are as follows:

- The elaboration of a national land tenure policy;
- The enactment of a law on rural land tenure and the elaboration of rural land tenure plans;
- The elaboration of land registers in urban centres;

- The improvement of the mapping and topographic capacities of institutions in charge of land tenure;
- The formalization of land tenure rights at lower cost;
- The education of and communication with the population;
- The improvement of land tenure information registration and management and the outplacement of traffickers.

The present project is in line with the guidelines and objectives of the National Adaptation Programme of Action (NAPA) of Benin, elaborated in 2008 in accordance with the requirements of the United Nations Framework Convention on Climate Change (UNFCCC).

This Action Plan envisages several priority adaptation actions and measures, including among others:

- Urgent adaptation measures in all sectors, including agriculture, forests and rangelands,
- Establishment of a rapid Early Warning System to ensure food security,
- Adaptation of households to climate change through the promotion of renewable energy and economic and performing cookers,
- Mobilization of surface waters to increase adaptation to climate change in the communes.

In addition, the project responds to the *effect 6* of the United Nations Development Assistance Framework (UNDAF) in Benin 2014-2018, which stipulates that « By 2018, the institutions and populations of the intervention communes ensure a better management of the environment, natural resources, energy, living conditions, consequences of climate change, crises and natural disasters ».

Burkina Faso:

Sustainable development in Burkina Faso has achieved remarkable results at environmental, socio-economic and cultural levels. At the environmental level, several achievements were obtained in terms of research in soil and water conservation (drip irrigation, impluvium, etc.), grafting techniques of wild fruit trees (shea, néré, jujube, etc.), introduction of high-value and high-output forest species and crop varieties, development of energy-saving technologies (improved cook stoves, economic cookers locally called "bitatorés"), in addition to other technologies using new renewable energies (like solar dryer, solar boiler, biodigester), the sustainable management of natural resources (demarcation and safeguard of rehabilitated lands, elaboration of sustainable management plans for forests and pastoral and silvo-pastoral areas), and the promotion of eco-citizenship. Despite the significant success, the country still faces several obstacles.

To cope with this situation, Burkina Faso has defined a number of policies and strategies, aiming at promoting the environment and natural resources[12] such as:

[12]Source: Sustainable Development Policy of Burkina-Faso, October 2013

- Poverty Reduction Strategy (PRS) 2000-2010
- Rural Development Strategy 2003-2015
- Letter for the Development of the Energy Sector (LPDSE) 2000
- Action Plan for Integrated Natural Resources Management (PAGIRE) 2003
- Action Plan and Investment Programme for the Livestock Sector (PAPISE) 2009
- National Environmental Education Strategy (SNEE) 2001
- National Environmental Education Action Plan for Sustainable Development (PANEDD)
- National Population Policy (PNP) 2010
- National Gender Policy (PNG) 2009
- National Action Programme for Combating Desertification (PAN/LCD) 1994
- National Strategy and Action Plan on Biological Diversity
- National Strategy (called also National Communication) on Climate Change 2000
- National Action Programme for Climate Change Adaptation (PANA) 2006
- National Forest Policy (PNF) 1996
- National Environmental Policy (PNE) 2006
- Environmental Plan for Sustainable Development (PEDD) 2006.

In terms of adaptation to climate change, Burkina Faso has been implementing since 2007 an Action Plan which enabled a full diagnosis of the vulnerability of different sectors and the identification of priority activities, measures and projects. These priorities include:

- Early warning system
- Promotion of irrigation
- Development and management of water plans
- Production of fodder
- Development of natural formations
- Combating erosion
- Optimisation of irrigation
- Protection of pastoral areas

- Promotion of SWC/SDR
- Management of fauna and habitat
- Protection of water against pollution
- Promotion and improvement of households.

It should be noted that the objectives of the ADAPT-WAP project are consistent with several of the above-listed priorities and will support them through the establishment of an Early Warning System and the conservation of fauna and habitat in the Complex.

The project responds also to *effect 1* of the United Nations Development Assistance Framework UNDAF-Burkina Faso « Accelerated economic growth is sustainable and pro-poor".

Niger:

In Niger, the National Environmental Plan for Sustainable Development (PNEDD)[13] is equivalent to the National Agenda 21. It was elaborated in 1998 with the goal of expanding and sustaining development options for future generations. Its main objective is to afford favourable conditions for ensuring food security in the country, resolving the domestic energy crisis, improving sanitation and promoting economic development. To this end, the PNEDD has four complementary sub-objectives:

- Ensure a more rational management of natural resources in the framework of combating desertification by adopting a more holistic and systematic approach in addressing this issue;
- Integrate major environmental concerns in policies, programs and projects conducted for each development sector;
- Promote the involvement, empowerment and participation of populations in the management of their natural resource and environment, which would in turn contribute to the preservation and improvement of their livelihoods;
- Build efficient partnerships among different actors involved in the issues of environment and sustainable development in Niger.

The PNEDD comprises of six priority programs:

- National Action Programme for Combating Desertification and for Natural Resources Management;
- Biological Diversity Management Programme;
- Climate Change Adaptation Programme;

[13]source CHM, Niger

- Water and Sustainable Development Programme;
- Urban Environment and Living Conditions Programme;
- Energy and Sustainable Development Programme.

The National Action Plan for Adaptation to Climate Change of Niger was elaborated in 2006 and identified several priority activities related to different sectors. In accordance with its objectives and scope, the present project will contribute to the implementation of some of these priority activities.

Finally, the project responds to *effect 1* of the UNDAF-Niger "By 2018, vulnerable households and targeted communities have increased their resilience in terms of food security, environment, disasters and socio-economic inclusion".

F. Compliance with national technical standards

The project will be conducted with the full respect of national strategies and action plans for adaptation to climate change, biodiversity management, fight against land degradation, environment conservation, water and ecosystems sustainable management, and poverty reduction. All relevant national technical standards as environmental and social studies guidelines, land tenure regulations, etc, will be considered during the project implementation. Some resources from the project budget will be used to tackle difficulties encountered in natural resources management. Regarding this issue and in line with the national technical standards, the project aims to develop an Multi-Risk Early Warning System (MREWS) and a contingency plan to mitigate the negative potential impacts of threats and hazards that could affect local populations' livelihoods and ecosystems.

The proposed project will comply with the environmental standards of the three concerned countries. It will be in line with the guidelines of the National Sustainable Development Strategies (SNDS) and with the major guidelines of the national Agenda 21 and with the Poverty Reduction Strategy Paper (PRSP). More particularly, the project will support the implementation of sectorial and thematic action plans and strategies such as water strategy and forest and pastoral strategy. It will also contribute to achieve the objectives of the national action plan for combating desertification, the national biodiversity strategy and plan, and the Nationally Determined Contributions (NDC) and the National Adaptation Programme of Action (NAPA). Indeed, the NAPAs provide a reliable tool for the Least Developed Countries to identify priority activities, which respond to their urgent and immediate needs for adaptation. ~~In West Africa and in the Sahel region, 14 countries, including Benin, Burkina Faso, and Niger, have developed their NAPAs. Their main objective is to draw a list of priority adaptation activities and project profiles that are intended to address the identified needs.~~

More precisely, the project activities will be implemented in accordance with the standards and regulations for the three countries concerned by the project. Below is a list of laws and legal texts that will frame the project:

Benin:

• Law No. 98-030 of 12 February 1999 on the Framework Law on the Environment in Benin;

• Law No. 2010-44 of 21 October 2010 concerning water management in the Republic of Benin; • Law No 87-015 Act of 21 September 1987 on the Code of Public Health of the Republic of Benin;

• Law No 87-016 Act of 21 September 1987 on Water Code in Benin;

• Law No. 2002-016 of 18 October 2004 on the regime of wildlife in Benin;

• Law n ° 93-009 of 2 July 1993 to lay down forestry in Benin;

• Decree No. 2001-190 of 19 June 2001 on the organization of the Public Hearing process in Benin;

• Law No. 87-013 of 21 September 1987 regulating the grazing vain, for the care of pets and transhumance. Amended in November 2013 36

Niger:

• Law N° 98-56 of 29 December 1998 framework law for the management of the environment;

• Law 2004 - 040, June 8, 2004, covering the Forestier in Niger;

• Law No. 2001-032 31 December 2001 on the orientation of spatial planning policy;

• Law N° 98-007 29 April 1998 laying down the rules of hunting and the Protection of wildlife;

• Order N° 96-067 of 9 November 1996 covering the rural cooperatives;

• Law n ° 98-041 of 7 December 1998 on the water regime on the extent of the Republic of the Niger;

• Order No. 93-15 March 2, 1993 on the principles of Orientation du Code Rural. This text relates to the lasting settlement of conflicts;

• Decree No. 97-007/PRN/MAG/EL of 10 January 1997 establishing the status of the terroirs of attachment of breeders; Amended in November 2013 35

• Decree N° 97-006/PRN/MAG/EL from 10 January 1997 regulating the development of rural natural resources;

• Order No. 97-001 of 10 January 1997 on the institutionalization of Impact Environmental Studies;

• Order No. 2010-09 of 1 April 2010 Water Code in Niger;

• Order 2010-029 20 May 2010 relating to pastoralism.

Burkina Faso:

• Law N° 005/97 / ADP of 30 January 1997 on the Environment Code in Burkina Faso;

• Law N° 006/97 / ADP of 31 January 1997 on the Forestry Code in Burkina Faso;

• Law No. 23/94 / ADP of 19 May 1994 on Public Health Code in Burkina Faso;

• Law No. 14/96/ADP of 23 May 1996 on Agrarian and Land Reform and Decree No. 97-054/PRES/PM/MEF of 6 February 1997;

• Decree No. 2001-342 / PRES / PM / MEE1 of 17 July 2001 on the scope and content of the Environmental Impact Assessment (EIA) and the Environmental Impact Notice (NIE) procedures;

• Law No. 034-2009/year on June 16, 2009, Rural land system;

• Law No. 008-2014 / AN on Orientation on Sustainable Development in Burkina Faso; • Law No. 002-2001 / AN of 8 February 2001 orientation law on water management;

• Law No. 022-2005 / AN of 21 June 2005 concerning public sanitation code in Burkina Faso;

• Law No. 034-2002 / AN of 14 November 2002 on the framework law on pastoralism in Burkina Faso.

Generally, the project will take into account all the procedures and regulations used and especially the environmental impact assessments which legal texts are listed above.

G. Complementarity with other projects and initiative

The project area has been the focus of several programs and initiatives pertaining to the management of natural resources and ecosystems namely the project Protected Ecosystems in Sahelian Africa (ECOPAS), the Support Programme to the W Park (PAPE), and the Support Programme to the Management of Protected Areas (PAGAP).

These projects aim essentially to enhance the management approaches in order to ensure the sustainability of resources and to improve populations' livelihoods.

Several projects and initiatives have focused on the WAP complex and have significantly contributed to the strengthening of the capacities of different institutions and actors, the improvement of the Complex protected areas infrastructure and to a better understanding of the regional management approach.

However, given the large extension of the Complex and the multitude of the ecological challenges faced, the present project will focus on strengthening, completing, bringing technological innovations and methodologies to address emerging challenges such as the adverse effects of climate change and natural disasters.

The major projects and initiatives that have been previously implemented in the WAP protected areas, the Adapt-WAP project area, are the following:

The ECOPAS Project « Conserver la biodiversité des savanes du complexe transfrontalier du W (Benin, Burkina Faso et Niger), au bénéfice des populations locales » (2001-2008), and its major results include:

- Establishment of an ecological monitoring system in the W park (mapping of habitats, fauna, flora, bushfires…)
- Improvement of infrastructure (watch tower, roads, boreholes, …),
- Elaboration of development plans,
- Strengthening of actors capacities,
- Strengthening of national operational capacities,
- Improvement of scientific knowledge,

- Study of the ecosystems' functioning and ecological monitoring of the WTBR,
- Valuation of the Reserve and its natural resources as a touristic site,
- Support to micro projects and construction of socio-professional groups,
- Training for tourism professionals (village guides), on environmental education, management, production techniques ("pilot farms", herders, beekeepers).

PAPE Programme (Programme d'Appui aux Parcs de l'Entente 2011-2014) which aimed to strengthen the conservation of the Complex Ecosystems. The Programme included several activities and has had important results:

- Improvement of operational capacities,
- Planning and Monitoring-Evaluation,
- Creation of infrastructure and monitoring of fauna,
- Elaboration of strategic documents : WAPO Complex Development Master Plan, Emergency Anti-Poaching Action Plan (PAULAB), Large Carnivores Action Plan, Strategy for sustainable fishery in the WAPO Complex,
- Strengthening of infrastructure: wells, monitoring stations, boreholes, roads, ponds, transhumance corridors…
- Training programmes and capacity building,
- Anti-poaching programmes and actions,
- Professional organization and improvement of populations' livelihoods.

PAGAP Project (Projet d'Appui à la Gestion des Aires Protégées 2011-2017): it concerns the W and Pendjari Parks in Benin. It aims to strengthen the protection of biodiversity in the savannah ecosystems in North Benin via measures aimed at conserving and reducing human pressure on these 2 parks.

The major activities and interventions conducted under this project are:

- Support to regular national control operations (patrols) and ecological monitoring,
- Support to the annual maintenance of 850 km of secondary roads by HIMO (19.167.500 CFA francs.),
- Strengthening of infrastructure (watchtowers, maintenance of main roads),
- Strengthening of managers' capacities in different themes,
- Implementation of environmental education actions,
- Technical and financial support to the protected areas' adjacent populations for the development and implementation of income-generating activities,
- Institutional, organizational and material support (material resources, logistic support….)

The table below highlights the main themes tackled by the 3 projects mentioned above and their complementarity and synergy with the current project

Theme	**ECOPAS project**	**PAPE project**	**PAGAP project**	**Adapt WAP Project**
Ecological monitoring of fauna, flora and habitat	+	+	+	The project does not envisage the establishment of an ecological monitoring system but will strengthen existing ones

Strengthening of institutional capacity	+	+	+	Institutional strengthening will consist in integrating climate change dimension and impacts in the different management documents and strategies of the WAP Complex. The project will also strengthen the Complex Tripartite Management Unit.
Strengthening of infrastructure in the WAP Complex	+	+	+	In complementarity with the other projects and programmes, the Adapt WAP project will focus on creating and strengthening adaptation infrastructure and on increasing the resilience of populations and natural ecosystems.
Improvement of populations' livelihood,	+	+	+	The Adapt-WAP project will create income-generating activities for the local population. However, the selection of beneficiaries of this action will be based on the following criteria: - The beneficiaries should have not previously benefited from similar income-generating activities created by other projects, - The income-generating activities should be in relation with adaptation and resilience to climate change,
Sensitization and communication with the different targeted groups	+	+	+	The awareness and communication activities will be structured around concepts that have not been tackled by previous projects or programmes, but rather on: - Natural disasters, - Climate change impacts, - EWS

Adoption of an integrated and global approach for the WAP Complex	-	-	-	The ecosystem approach is an approach adopted and recommended by several international bodies in addressing environmental challenges. This approach has not been sufficiently adopted by other projects. The ADAPT- WAP project will be based on this approach by : • extending of the project scope to the entire area of the WAP Complex, • considering the different ecosystems and natural resources of the Complex, including the social and climate change dimensions.
Integration of adaptation aspects and climate change impacts in strategic documents and plans	-	-	-	The documents and strategies (master plan, development plans …) elaborated by previous projects and programmes have not taken into account the climate change dimension. Adapt WAP project will devote an entire component to updating/enhancing these documents while integrating the climate change aspects.
Concrete Adaptation measures and strengthening the resilience of populations and ecosystems	-	-	-	The notion of adaptation is almost absent in the objectives, results and activities of previous projects. Given the projected climate change scenarios, characterized by an increase of temperature and a decrease of precipitations, the strategies need to be adjusted accordingly in order to ensure the sustainability of resources and ecological balance. This project proposes a set of activities aimed at adapting (infrastructure, income-generating activities, training…) and

				increasing the resilience of populations and natural resources (reforestation, agroforestry, firewall, etc.).
Early warning system	-	-	-	The frequency of natural disasters related to climate change (droughts, fires, floods…) is increasing and presenting several serious threats. These disasters lead very often to the deterioration and degradation of natural resources and ecosystems. Despite their crucial importance, these phenomena have not been sufficiently taken into account in the development of previous projects and initiatives. To this end, this project will establish an early warning system for a better management of disasters and to reduce their impacts on natural resources and local populations.
Elaboration of an emergency plan	-	-	-	An emergency plan is an operational tool to be provided to the Complex local mangers and actors as well as staff. In case of a disaster, this plan will be operationalized in accordance with the recommended approach and outline. The plan will help to optimize the efforts and means available for addressing these disasters.

However, analysis showed that the results obtained by these interventions remain limited. The last Development and Management Plan of the W Park (2017-2026), finalized in September 2016 with the support of the UNDP and the EU, as well as the two Development and Management Plans of the Arly Park (Burkina Faso) and the Pendjari Park (Benin), elaborated in 2016, are the most recent documents elaborated for the management of the WAP Complex. The various components of these Plans were based on lessons learned from previous initiatives as the Management Action Plan of the W Park (2006-2010).

In general, all these development and management plans aimed to consolidate the achievements of the transboundary and communal management of the WAP protected areas (WTBR, Arly and Pendjari) and to contribute at the same time to the sustainable development of its riparian populations. It aimed specifically to:

- Strengthen the management of the WTBR, Arly and Pendjari System;
- Conserve the WAP biodiversity and habitat in a concerted manner;
- Foster the development of the fauna population of the Complex through a sustainable management and development strategy;
- Improve knowledge through environmental education and set up rational technical and scientific networks;
- Promote shared management with local communities for sustainable development;
- Develop adapted touristic activities and services;
- Promote an equal distribution of biodiversity advantages and opportunities among the public institutions, private sector and riparian populations;
- Respond to the requirements of the UNESCO's World's Heritage and the Man & Biosphere (MAB) network.

Based on these objectives and components, the present project is designed to bridge gaps by integrating components that have not been taken into consideration by other projects or programmes, such as the current MAP. Among these components, we can mention:

- Establishment of a Multi-Risk Early Warning System (MREWS);
- Integration of climate change dimension and contingency plans in the management of the WAP Complex;
- Improving the resilience of ecosystems and populations' livelihoods to climate change;
- Capacity Building and awareness-raising of different actors and targeted groups.

In order to enhance synergy and complementarity with other projects and activities under way in the region, it is likely that other components / activities will be integrated into the project without compromising the general objectives previously agreed on.

H. Knowledge Management and Learning Strategies

Important processes and lessons to be learned from the present project will be documented and shared with all stakeholders in the region. This item focused on in component 4 will also facilitate the joint learning and sharing of experiences at different levels. The documentation and sharing activities will be an integral part of the existing monitoring and evaluation systems or the ones to be designed to adjust the project's future implementation. Moreover, the participatory and transboundary management of the WAP Complex will be a unique pilot experience to be replicated within the Complex and beyond.

The next table (x) provides information on the existing constraints/baselines and the guiding activities proposed within the framework of the project knowledge management strategy:

Table n°2: Constraints and proposed activities

Constraints/Baselines	Proposed activities
Lack or inadequacy of exemplary practices and approaches in the region in terms of: • Preventive management of natural disasters and Multi Risk Early Warning Systems (MREWS), • Consideration of adaptation and mitigation measures in the WAP Complex management, • Community management of crises and emergencies, • Monitoring of income-generating activities in favour of the local population, • Linkage between scientific knowledge and local know-how, • Coordination and partnership with stakeholders for joint action at the local and regional levels.	• Documentation of the project activities and results, • Development of case studies based on project interventions as advisory and participatory processes, • Identification and implementation of adaptation and mitigation measures, • Establishment of a community-based action plan involving the local population, • Facilitation of the uptake and exchange of successful experiences and lessons learned of the project, • Documentation of response strategies to help future design, extension and up scaling of the project interventions and to influence practices and policy making.

I. Consultative process

Among its missions, OSS organizes various meetings and discussions with the national institutions of its member countries within the framework of projects and development program that it conducts. Thus, during various exchanges, the countries emphasized the importance of the preservation of the WAP ecosystem and the need to enhance the resilience of its populations.

As a response to this need expressed by the involved countries, OSS has established contacts and exchanges with the Adaptation Fund since 2016 and submitted a pre-concept for this regional project, which further was endorsed.

The development process of this project started with various exchanges with several actors in Benin, Burkina Faso and Niger. The exchanges were mainly conducted with the Centre National de Gestion des Réserves de Faune (CENAGREF) in Benin, Direction Générale des Eaux et Forêts (DGEF) in Burkina Faso, and Direction Générale des Eaux et Forêts(DGEF) and Centre National de Suivi Environnemental et Ecologique (CNSEE) in Niger.

Firstly, and within the preparatory phases of this project concept, OSS organized a regional consultation workshop to discuss the main goals of the project, its expected outcomes and activities to be executed under its different component.

This workshop was held from 3 to 5 February 2017 in Tapoa (Niger W Park) and was attended by Forest General Directors, decision-makers, managers in charge of the WAP Complex at national and local level, representatives of the riparian populations, local authorities and associations of the three countries (*Cf.* workshop report).

For an efficient transboundary management and in order to address Climate Change issues, a multi-disciplinary, multi-sectoral and multi-institutional approach is required. In designing this project Concept, the main stakeholders were consulted and their inputs were integrated in the various components and activities to be implemented. The proposed project design facilitates multi-stakeholder participation and collaboration starting right from its development up to its implementation. It promotes consultations, participatory processes and dialogues among the various stakeholders of government, non-government, private sector, development partners, and local communities. This approach will create ownership by the various stakeholders, and ensure sustainability of project interventions by creating institutionalized systems. This is also expected to establish a mechanism for scaling-up similar approaches and interventions.

The above-mentioned consultation workshop aimed to:

- Inform partners and beneficiary populations about the project and its objectives;
- Learn more about the participants' needs and expectations. The participants' suggestions and recommendations have been taken into consideration in drafting the present document.

The different parties consulted during the project preparation process are the following:

Table n° 3: Parties consulted

No	**Organization**
National Level	
1	Benin : Centre National de Gestion des Réserves de Faune (CENAGREF)
2	Burkina Faso : Direction Générale des Eaux et Forêts (DGEF)
3	Niger : * Direction Générale des Eaux et Forêts (DGEF) * Centre National de Suivi Environnemental et Ecologique (CNSEE)
Local Level	
1	The managers of the three W Parks
2	Representatives of the populations: breeders, farmers (men and women), fishermen (men and women), Local community representative (woman)

The major themes that have been tackled were:

- The relevance and necessity of establishing an MREWS and an contingency plan to manage disasters;
- The nature of the project and its specific role in the management of natural disasters and emergencies;
- The project potential contribution in the conservation of the Complex's ecosystems and natural resources;
- The involvement of the riparian population and the improvement their livelihoods;
- The main actors, their roles, responsibilities and contribution during the project implementation;
- The strengthening of the project management structures;
- The strengthening of the awareness-raising and communication activities aimed at the project actors and stakeholders;
- The role of women and youths in the project implementation;
- The complementarity and synergy with other similar projects.

The whole recommendations and ideas are gathered in a single report which was shared among the three countries. The workshop report is annexed to the present document.

As this project will gather representatives and actors of the three concerned countries, the coordination will be carried out in close collaboration with the local management structures. The local communities will have a crucial role in the implementation of the components and activities

Finally, the development of the project full proposal will also follow a very long and wide consultative and participatory process at various levels in the three countries. This participatory process will help to draft the full document of the project and to identify priority actions for a better management of the Complex to improve the riparian populations' livelihoods.

The project will involve actors from different levels, including the local level through a "Tripartite Regional Management Unit" and the active participation of NGOs, populations, youths, women and the private sector.

Priority interventions and actions will be identified, selected and hierarchized through a community-based and participatory process. The communities' most vulnerable groups such as women, children, elders, persons with disabilities, etc. will be specifically targeted by the present project.

J. Justification of the funding request

According to the "Disaster Risk Management Strategy in West Africa and the Sahel" (2011-2013), food security in West African countries is strongly affected by climate and environmental changes. Due to climate change, the frequency and intensity of natural disasters have increased, especially in terms of

extreme weather events as droughts and floods. The most important decrease in precipitation was recorded in the Sahel region, even though the Sudanian and Guinean areas were also affected. In addition, this change in rainfall patterns has been manifested since 2005 in irregular and violent precipitations which caused recurrent floods and consequently significant damage to public infrastructures, houses, crops and livestock.

Indeed, the frequency and intensity of climate hazards and natural disasters have significantly increased and, today, their impacts are more visible. Given the vulnerability of its ecosystems and population, Africa is one of the most affected continents by natural disasters. The latter has significant impact on natural resources, ecosystems and on the livelihoods. Due to the above-mentioned vulnerability of the WAP, these impacts are expected to be amplified.

The impact of these natural disasters is more severe on the most vulnerable and poor populations, especially those who rely on agriculture and livestock breeding for their livelihoods. The latter are faced with recurrent risks, which often lead to a decrease of the production, loss of livestock, and limited availability of fish and forest resources.

The WAP Complex vulnerability to natural disasters, justifies the setup of a Multi-Risk Early Warning System against climate change-related disasters. The MREWS and its contingency plan will allow, the identification and implementation of adaptation and mitigation measures, to improve the riparian populations livelihoods, and to conduct awareness-raising and communication activities. This regional project will adopt a coherent, integrative and inclusive approach that is in concordance with the national strategies in the three countries and responds to the expectations of their local populations, and comply with the strategic guidelines of the Adaptation Fund, the OSS and the different regional and international Agreements and Conventions.

In fact, the local populations of the three concerned countries have convergent needs and expectations: the development of pastoral and agricultural lands, the improvement of their livelihoods through, the diversification of income-generating activities, the establishment of an Early Warning System against climate change related hazards, the improvement of infrastructure and capacity building, etc. These needs where confirmed during the regional consultation workshop organized by OSS in the framework of the development of the present proposal.

The project is also in line with the OSS Strategy 2020, especially in terms of natural resources and disasters management. OSS' priorities include the fight against land degradation and the promotion and conservation of biodiversity and natural resources in the Sahara and Sahel region.

The WAP complex represents an area of biodiversity of immense interest. It is also the only refuge available for most vulnerable or threatened animal species in Benin, Burkina Faso and Niger. The Complex offers *in situ* protection for at least 515 timber species identified and grouped into 84 families. These include endemic species found in dry savannah and forest, some of which are now endangered or vulnerable[14].

[14] Lamarque, François, 2005. « Les grands mammifères du complexe WAP. » Benin/Burkina Faso/Niger/ ECOPAS/IUCN/CIRAD/UE

Different programs at the national and sub-national levels in the three countries help the communities concerned to become more involved in the sustainable management of WAP complex natural resources. Although these projects do not directly benefit the WAP complex, they aim to build capacity and sustainable development at the local level. We can cite as examples The Program of Support to the Rural World in Atacora Donga in Benin, The Local Development Support Program in Burkina Faso and the Community Action Program in Niger. However, these actions are still insufficient, isolated and fragmented at the sub-national level.

Despite the ecological richness and unicity of the complex, the resources allocated to the management and the multitude of the projects implemented, the current management unit encounters difficulties for an efficient management of the W Park, more the WAP complex.

As regard with the existing technical and financial resources for an efficient management of the WAP during the consultative workshop, the participants from the three countries raised several issues:

- Lack of financial resources
- Lack of appropriate equipment
- Weak human capacities (scientific and technical)
- Inappropriate buildings for the management unit to hold meetings

The project objectives as well as its activities listed above match perfectly the Adaptation Fund's objectives and domains. The institutional measures, mechanisms and actions to be developed under this project will help to increase the resilience of populations and ecosystems to climate change.

The present project proposal, through its regional approach, will help to ensure coherent and cost-effective actions at regional level thus mobilizing national efforts.

The project and international orientations

The issue of transboundary management is relevant to the Sustainable Development Goals (SDGs) 13 and 15, concerning respectively « take urgent actions to combat climate change and its impacts » and « life on land ». The project responds also to the SDG1 "No poverty" and SDG7 "Affordable Clean Energy".

The project will also meet the recommendations and orientations of many international and regional Agreements and Conventions, such as the United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Convention for Combating Desertification (UNCCD), and the United Nations Convention on Biological Diversity (UNCBD). In addition, it is in line with several priority fields of action defined in the «**Land Matters for Climate: Reducing the Gap and Approaching the Targe**t » document, elaborated and edited by the UNCCD.

Among these actions, the main focus will be on:

- Immediate Action: Policies and incentives that promote sustainable land management, including enhanced carbon stocks through land rehabilitation and ecosystem restoration, may will be the missing piece of the climate puzzle that helps to reduce the remaining emissions gap in a demonstrable and cost-effective manner.

- Setting Priorities: The transition to climate-smart land management practices, including for example low-emissions agriculture, agroforestry and the restoration of high carbon-value

ecosystems, such as forests and peatlands, will require sectoral coordination, multi-stakeholder engagement and new approaches to integrated land use planning.

- Multiple Benefits: Adopting and scaling up more sustainable management practices in the land use sector not holds significant mitigation potential, but very often provides short-term benefits in terms of land productivity and food security while, at the same time, helping to ensure the long-term resilience and adaptive capacity of the more vulnerable communities.

The management of the WAP transboundary Complex is relevant to the goal 1.3 of the CBD's Programme of Work on Protected Areas: "To establish and strengthen regional networks, transboundary protected areas (TBPAs) and collaboration between neighbouring protected areas across national boundaries " and the Aichi's Target 11: " By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes. ".

Worth to recall here also the 4 priorities of the Sendai Framework of Disaster Risk Reduction (2015-2030), adopted in March 2015 in Sendai, Japan, and its paragraph (a) of point 28 of priority 2: « Strengthening disaster risk governance to manage disaster risk ». The paragraph stipulates the following "To guide action at the regional level through agreed regional and sub-regional strategies and mechanisms for cooperation for disaster risk reduction, as appropriate, in the light of the present Framework, in order to foster more efficient planning, create common information systems and exchange good practices and programmes for cooperation and capacity development, in particular to address common and transboundary disaster risks".

The final outreach of the project is in accordance with the priorities of the UNFCCC regarding the support to give to population in developing countries to reduce their vulnerability to climate change and to contribute to the international efforts in reducing CO2 emissions.

Indeed, confirmed during the CoP22 of Marrakech, the Paris Agreement brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort. The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 °C. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives.

K. Sustainability of project outcomes during designing the project

The project aims to strengthen the resilience of ecosystems and to improve populations' livelihoods in the WAP complex through the establishment of a Mutil-Risk Early Warning System (MREWS) and the implementation of concrete adaptation and mitigation measures.

The project will provide an opportunity to consolidate synergy among the three beneficiary countries in order to improve the participatory and sustainable management of the WAP Complex as well as to resolve conflicts between the different users.

The overall objective of the project will be achieved through the following specific objectives:

- Improve Strategic reference documents, i.e. development and management plans, by integrating climate change issue.
- Improve populations' resilience through an Early Warning System and provide relevant and timely information on the occurrence of extreme weather events related to climate change in the WAP Complex and its adjacent areas.
- Improve ecosystems' resilience (fauna and flora) and populations' livelihoods though the consolidation of infrastructure, for example transhumance corridors, drinking troughs, and anti-flood structures.
- Ensure the sustainability of adaptation measures through the mobilization and awareness-raising of beneficiaries and partners to master the developed tools and execute the needed work.

The improvement of ecosystems' resilience and the establishment of new infrastructures, including a structure for the sustainable management of the Early Warning System, are all factors that will help to guarantee the sustainability of the project achievements and results. In addition, the enhancement of the local populations' livelihoods and their reconciliation with natural resources will help to alleviate the pressure exerted on these resources and will contribute to maintain the ecological equilibrium of the Complex.

The sustainability of the project will be further ensured by the participatory and consultative process to be adopted for and during the implementation of activities which will help to encourage the project appropriation by the local authorities and communities of the three concerned countries. The project will rely on financial resources mobilization for the implementation of the activities as well as of the Management Plans mentioned above, which will contribute to ensure the continuity of the process after the closure of the project, especially with the expected active participation of NGOs, populations and the private sector.

The economic viability of activities, especially those involving populations, is highly dependent on their compatibility with the existing systems and practises at community level and on the availability of resources. Moreover, the creation of "Revolving Funds" linked to the management of micro projects (a revolving system) will also contribute to the anchoring and making sustainable the project approaches.

While organizing consultations for the full proposal, issues of sustainability will be discussed with ministries, regional institutions and partners to encourage them to allocate some resources and ensure the sustainability of the project achievements. Beneficiary countries are committed to support the implementation of project activities and this approach is also necessary for sustainability. Ministries may allocate some resources to insure the continuation of some activities and regional institutions, involved in the Steering Committee (ACMAD, AGRHYMET, CILSS, UEMOA, UE and ECOWAS) will also be encouraged to secure the continuation of activities of the project which are in lines with their mandate.

L. Overview of the environmental and social impacts and risks identified as being relevant to the project

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law	Yes. The project complies with domestic laws and policies.	No. The project complies with domestic laws and policies of the three countries (Benin, Niger and Burkina Faso)
Access and Equity	Yes. In general, the project promotes fair and equitable access to project benefits. However, the nature of the project does not allow all community members to benefit from the project in the same way.	There is a risk that access to benefits related to capacity building would not provide equal access opportunities. Since some activities of the project are not intended to provide a benefit for all.
Marginalized and Vulnerable Groups	No initiatives are identified with specific orientation or execution that could generate a negative impact on marginalized and/or vulnerable groups.	The project activities will be monitored closely, particularly with regards to the former use of resources in the Complex area, in order to ensure that these measures are accompanied with activities aiming for livelihood improvement and other means to ensure subsistence through the exploitation of those resources.
Human Rights	No activities are identified whose execution is not in line with the established international human rights. Project objectives promote basic human rights for equitable access to the various activities to be implemented and to capacity building as well as access to information.	The project will guarantee human rights respect for all stakeholders and local population in accordance with its objectives and scope.

Gender Equity and Women's Empowerment	The activities of the project are oriented to promote a fair and equal development between men and women. The project promotes equal participation in decision-making processes by ensuring the representation of women at the different steps and levels.	An in-depth gender analysis of the involvement of men and women for the proposed options as concrete adaptation activities must be undertaken
Core Labour Rights	The project respects the labour standards	
Indigenous Peoples	The project promotes the respect of the rights and responsibilities set forth in the United Nations Declaration on the Rights of Indigenous Peoples. In the local communities, different tribes exist, but no sharp distinction between indigenous and non-indigenous people can be made.	There is a risk that the traditional use of natural resources and land use rights are undermined. Therefore, a detailed analysis about rights and land use, particularly with regards to water and forest resources, must be undertaken in the initial project phase.
Involuntary Resettlement	The project will not be involved in resettlement activity of communities.	
Protection of Natural Habitats	The protection of ecosystems and its natural habitats and biological diversity is a core objective of component 1, 2 and 3 of the project.	The implementation of all the activities related to the protection and management of ecosystems and natural habitats shall be closely monitored to evaluate if the expected positive impact is achieved or if any unexpected negative side effects are generated.
Conservation of Biological Diversity		
Climate Change	The project does not only increase the adaptation capacity of the local population and the resilience of the ecosystems, but also contributes to mitigate CC	-

	impacts through the introduction of improved stoves and reforestation initiatives.	
Pollution Prevention and Resource Efficiency	The project will contribute to energy efficiency, efficient use of water and prevention of water pollution.	-
Public Health	The project will not have negative impacts on public health. On the contrary, the project will contribute to improve health conditions of the communities by monitoring ecosystems, water and soil quality. The SAP will also contribute to prevent the population from natural disasters, to improve income for getting access to health facilities, etc.	-
Physical and Cultural Heritage	The project will not have any activity related to affecting physical and cultural heritages. Their protection/conservation will rather be promoted by the project.	-
Lands and Soil Conservation	Soil conservation and reduction of land degradation through the pastoral management activities, and reforestation.	The implementation of all the activities related to the protection and management of land shall be closely monitored to evaluate if the expected positive impact is achieved or if any unexpected negative side effects are generated. An environmental and social assessment will be conducted during the full proposal preparation

PART III: IMPLEMENTATION ARRANGEMENTS

A. Project management arrangements at the regional and national level, including coordination arrangements within countries and among them.

The project will involve stakeholders at regional, national and local level.

- **At the local level**: The project is based on a participatory approach that aims to involve all stakeholders at the local level. The development and implementation of the project will require the mobilization of populations and other local authorities as well as associations, NGOs, representatives of villages, women cooperatives, etc. The tripartite committee, which includes representatives and managers from the three countries, will be strengthened so that it can assume its management and coordination responsibilities in the best way. The project includes capacity-building activities for the benefit of all actors at the local level and all managers (materials, training, awareness-raising ...) in order to be able to assume their respective responsibilities. They will also be trained, for better control and use of the MREWS, for the effective implementation of the contingency plan, as well as the implementation of silvopastoral activities.

- **At the national level**: The project will be implemented by national executing entities who will be mandated in consultation with the Ministries in charge of Environment in the three beneficiary countries:

  Benin: The Ministry of Environment, Housing and Urban Development (Ministère de l'Environnement, de l'Habitat et de l'Urbanisme (MEHU) in charge of Climate Change issues, Reforestation and Natural Resources Protection through the CENAGREF (Centre National de Gestion des Réserves de Faune),

  Burkina Faso: The Ministry of Environment and Sustainable Development (Minsitère de l'Environnement et du Développement Durable), through the Directorate General of Water Resources and Forests (DGEF),

  Niger: The Ministry of Environment, Urban hygiene and Sustainable Development (Ministère de l'environnement, de la salubrité urbaine et du développement durable) through the National Centre for Ecological and Environmental Monitoring (CNSEE) and the General Directorate of Water and Forests (DGEF).

  These different national entities were fully involved throughout the project design process, and identification of its components and activities.

  Representatives of these entities will be part of the project Steering Committee.

- **At the regional level**: The project will be implemented by the Sahara and Sahel Observatory (OSS) who will serve as the Regional Implementing Entity (RIE) and will be in charge of all financial, monitoring and reporting aspects to the Adaptation Fund. The project will be executed by a Project Management Team (PMT) to be hosted by OSS and the national executing institutions. The project will be implemented by a Project Management Team hosted by OSS, which will collaborate with the Tripartite Regional Management Unit and the National executing entities. The Project Management Team, to be chaired by the OSS Environment Program Coordinator, will have a

multidisciplinary competence, bringing together at least one project coordinator, two environmental experts and one financial expert. The unit will ensure the good execution of the various components of the project and ensure coordination between the different national and local entities. On the other hand, the unit centralizes, compiles and analyses the financial and technical monitoring reports while ensuring that the project's logical framework, objectives and expected results are achieved.

Other international and regional organizations will also be involved, in particular by being part of the project steering committee (CILSS, ECOWAS, UEMOA, IUCN, EU).

The following figure (figure 1) shows the role of the different entities of the project at the local, regional and national levels:

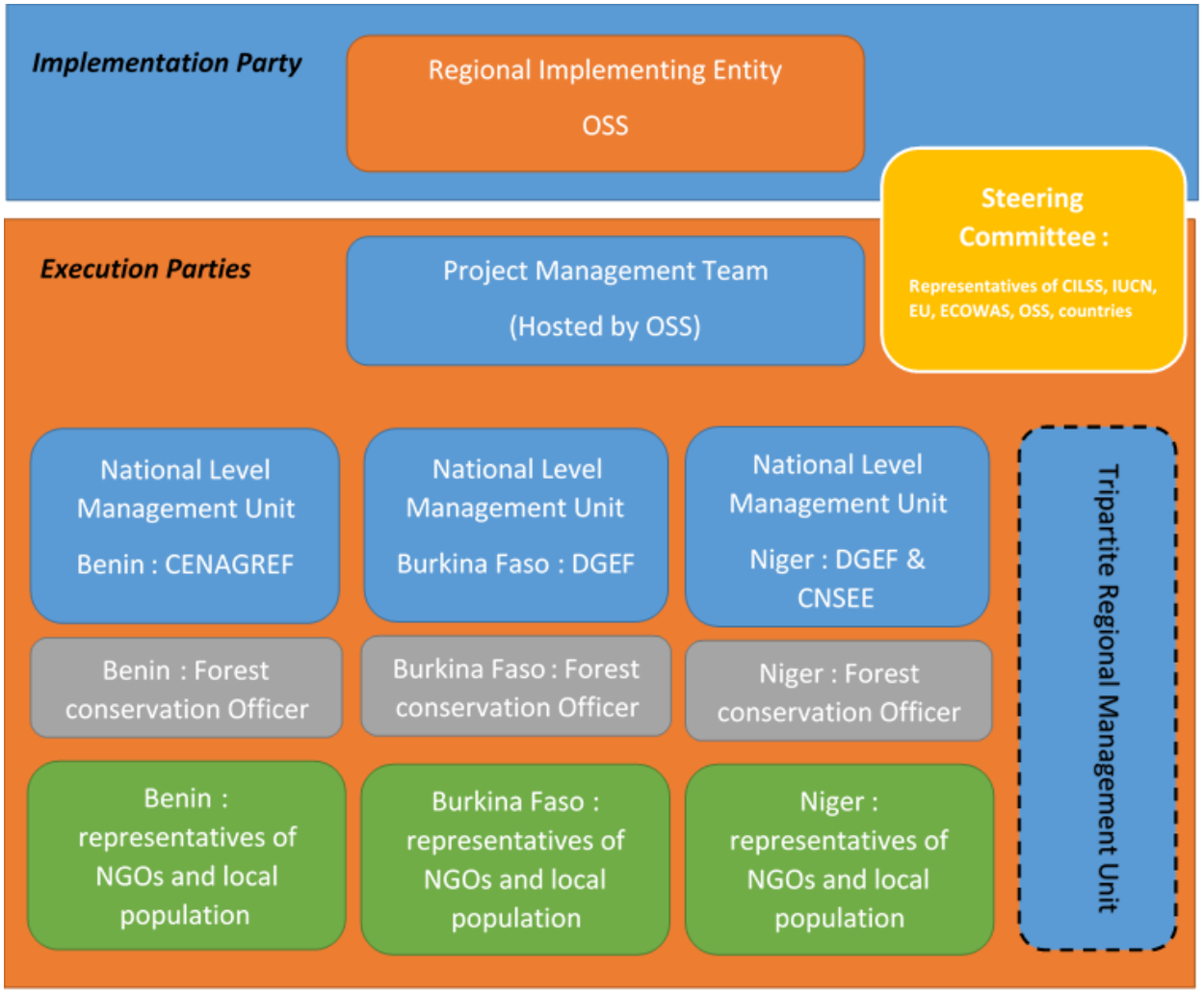


Figure 1. Institutional arrangements

B. Financial and project risk management measures

A first screening of the financial, management, environmental and social risk has been established and the potential risks and response measures identified are described in the following table (table 5). It is although important to underline that a comprehensive analysis of the financial framework and risk management of the project will be developed during the formulation of the full proposal of the project.

This framework will be specified in the procedural and operational manual to be agreed upon between the main stakeholders.

In order to manage financial risks, a reference framework will be established to specify the modalities of budget and fiduciary management that will govern the relations and operation of the entities involved in implementing the project.

Table 5: Financial and management risk measures

No	*Identified Risks*	*Level (H, M, L)*	*Risk Management Measures*
1	Changes in the governments may cause possible shifts in responsible persons at central and national levels	M	Risk is minimized through project coordination among stakeholders at national, departmental and local levels.
2	Lack of coordination between different entities (regional, territorial and national governments).	L	The establishing of a project Tripartite Regional Management Unit and the communication between different stakeholders will be facilitated and streamlined. The project will also TRMU
3	Collaboration amongst the relevant technical institutions	M	The relevant institutions should be involved right from the project inception phase and continuously in planning, implementation, Programme review, and reporting.
4	High expectations by communities and local government for quick investments on the ground	H	More awareness-raising programs for explaining the immediate contribution of the project and its long-term results
5	Mismatch between the Complex and administrative boundaries	L	Promote the Complex-based management and development. The involvement of local authorities would allow to contain the border problem
6	Inadequate baseline data / resource potential	M	Establish baseline situation before/after the project implementation. The project will acquire the appropriate data. A GIS

			will be developed and periodically fed with information and indicators derived from satellite data
7	Low technology / adoption rate by communities	L	Promote, demonstrate and train population on new technologies and practices. On the other Hand, the project will develop products and tools adapted to the local realities.
8	Local communities with limited participation and willingness to promote project initiatives	L	Increase sensitization at the local communities level, work with available local structures, ensure active involvement of community organizations in the project implementation
9	Project resource capture	L	Follow transparent and participatory processes in selecting beneficiaries of the project, using agreed criteria i.e. defining criteria and processes to select community members who are eligible to get access to the revolving fund

C. Alignment of Environmental and Social risk management measures with the Environmental and Social Policy of the Adaptation Fund

At this stage, a brief overview of Environmental and Social potential risks is specified in the table below (table 6). As mentioned above, and during the full proposal preparation, an Environmental and Social Management Plan (ESMP) will be developed in collaboration with relevant authorities. Further detailed ESMP for each intervention will be formulated during the inception phase of project implementation**.**

Table 6: **Environmental and Social risk management measures**

No	***Identified Risks***	***Level (H, M, L)***	***Risk Management Measures***
1	The delineation of degraded areas for rehabilitation may shift the pressure to non-degraded areas and some conservation measures and, if not carefully selected, may aggravate the degradation	M	Select carefully areas for rehabilitation and include the population in the rehabilitation activities. Introduce alternative income generation activities for livelihood diversification to reduce the pressure on natural resources. Monitor protected areas as well as the surrounding environment

2	The activities may have a negative environmental impact and cause social conflict with users	M	Strengthen the coordination and conflict resolution mechanisms at the WAP Complex. The M&E system and the GIS tools to be developed will help the identification of negative impacts
3	Natural resource use-related conflicts	M	Include all stakeholders in consultation at local level, strengthen the existing local conflict resolution mechanism, and integrate conflict resolution mechanism in natural resources management structures

D. Monitoring and evaluation arrangements budget and plan

1- Monitoring and Evaluation System dedicated to the project progress

In order to evaluate the impacts of the planned activities and to support decision makers and managers of the Complex in planning and adjusting the programs and activities, a M&E system will be developed and implemented. The system will be structured and organized according to the different levels of interventions:

- Local level: for the conservators
- National level: for the centralized technical departments
- Regional level: for the project Management Team, i.e. the “consultation” unit

Information collected and integrated into the system at local and national levels will be used to calculate global indicators salient for the regional level, and vice versa. The indicators to be developed will cover ecological (change in vegetation cover surface and state, carbon sequestration, etc.), and socio-economic (number of beneficiaries, amelioration of the incomes, etc.) issues. The M&E system will serve as a powerful and effective tool for the management of the Complex. It will valorize the GIS to be implemented in the framework of the project but also contribute to feed it with data and information. The two systems (GIS and M&E) will be interconnected and operate complementarily and will serve as management tools during the project implementation and to be sustained after its closure.

Finally, the population will take part in the M&E activities such as the definition of indicators and the interpretation of their calculated values. They will also be part of the process of identifying corrective actions to tackle potential problems or insufficiencies raised by the M&E.

Indeed, the M&E system will adopt a participatory approach and will be a combinatory tool, even managed by technicians of the local services. This will reinforce the collaboration between the population and technical authorities and consequently solve problems of conflicts of interest.

2- Monitoring and Evaluation for the project management

The Ethics and Finance Committee (EFC), with the support of the Adaptation Fund Secretariat, monitors the Adaptation Fund's portfolio of projects and programmes. The Board requires that projects and programmes under implementation submit annual status reports to the EFC and that the implementing entities ensure that capacity exists to measure and monitor results of the executing entities at the country-level.

The OSS guarantees that the Executive Entity will undertake the monitoring and evaluation (M&E) and prepare the yearly reports. To this effect, the Executive Entity will be entirely devoted to an effective and efficient project implementation.

Quarterly Progress Reports will be prepared by the Executive Entity and verified by OSS. Annual Project Reports will be prepared to monitor progress. These annual reports include, but are not limited to, reporting on the following issues:

- Progress made towards the project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative);
- Project outputs delivered per project Outcome (annual);
- Lessons learned / Best practices;
- Annual expenditure reports;
- Reporting on project risk management.

A joint review mission to the project sites will be conducted twice a year. The joint review will include representatives from countries, executing and implementing entities, stakeholders from local administrations and representative of the communities. The first mission will focus on reviewing the M & E plan while the following ones will focus on the results. Every mission will provide an on-site technical support to the project staff on the ground.

In terms of financial monitoring, the project team will provide the OSS with certified periodic financial statements. Audits of the project will follow international standards regulations and rules and applicable audit policies.

During the project implementation, Annual Work Plans (AWPs) and Quarterly Work Plans (QWPs) will be used to refine project delivery targets and realign project work upon consultation and endorsement by OSS.

The project will undergo an independent mid-term review, which will determine progress being made towards the achievement of outcomes and identify adjustments if needed. It will focus on the effectiveness, efficiency and timeliness of the project implementation, highlight issues requiring decisions and actions, and present initial lessons learned about project design, implementation and management.

The findings of this review will be presented and incorporated as recommendations the mid-term project evaluation. Furthermore, a final evaluation will also be conducted. The M&E budget of the project is shown in the table below (table 7):

Table 7: Project M&E Budget (USD)

M&E Activity	**Responsible parties**	**Budget (USD)**	**Time frame**																**Notes**
			2018				**2019**				**2020**				**2021**				
			Quarters				**Quarters**				**Quarters**				**Quarters**				
			1	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**	
Design of a Monitoring & Evaluation System for the project		10.000																	
Initial studies to improve baseline, gender analyses, land rights analyses and environmental and social impact assessment		30.000																	
Field visits for measuring the project results for each target and reporting as well as gender and land right analysis	Monitoring & Evaluation expert / communication specialist / e project manager and Ministries in charge of Environment	40.000																	Quarterly
Monitoring and reporting the project outputs by project team	Project manager, team and Ministries in charge of Environment	30.000																	Half-yearly

Visits to field sites for joint review of status, project progress and reporting	Project team at OSS and Ministries in charge of Environment	20.000																	Yearly
Mid-term evaluation and reporting	Project manager/ M&E expert / communication specialist	20.000																	At the end of the first two years
Final evaluation and reporting	Ministries in charge of Environment	20.000																	At least two months before the project closure
Preparation and elaboration of the Final Report of the project	Project manager and ministries in charge of Environment	15.000																	At the end of the project
Final Project Audit	OSS	15.000																	At least two months before the project closure
Total M & E costs		**200.000**																	

E. Results framework for the project proposal, including milestones, targets and indicators.

The Project Results Framework (table 8) defines the performance indicators of the project implementation and identifies means of verification. A Monitoring and Evaluation (M&E) system will be established based on these indicators and means.

Any changes to the Results Framework require prior approval by all of the partners and OSS as implementing entity. The launching workshop is crucial to strengthen the ownership of the project results, to present its execution modalities, and to share with the different actors its implementation arrangements.

Table 8: Results framework for the project proposal

Objective	Indicator	Baseline	Target	Data source/method
Objective: **The ADAPT-WAP project aims to strengthen the resilience of ecosystems and to improve populations' livelihoods in the WAP Complex through the establishment of a multi-risk early warning system and the implementation of concrete adaptation measures.** **The project will allow to consolidate synergy between the beneficiary countries by strengthening the sustainable and participatory management of the WAP Complex and its natural resources while contributing to conflict resolution.**	• Degree of improvement of populations' resilience to climate change • Number and surface of disasters/damage controlled • Percentage of households with improved livelihoods	• Resilience of populations and ecosystems is limited • Disasters are not adequately managed • Populations' livelihoods are unfavourable	• 60% of ecosystems with proven improved resilience to climate change, • 60% of natural disasters are anticipated and then controlled, • Livelihood of at least 60 % of the targeted populations is improved,	• Resilience evaluation Report, surveys, • Disasters monitoring reports • MREWS, GIS and M&E tools

Component 1: Integration of climate change aspects and a contingency plan (MHMREWS) in the WAP Complex Management				
Outcome 1.1: Climate change dimension and its risks as well as the contingency plan are integrated into the Complex management plans	Climate change dimension is mainstreamed in the complex management plans and tools	The existing management document doesn't integrate the climate dimension and its impacts on ecosystems and population	• The WAP Complex master plan is developed and adopted during the first half of the 2nd year • The existing management plans are updated and validated during the second year	• Project Technical reports Monitoring and evaluation report MREWS monitoring report
Output 1.1.1: The Complex's development master plan integrating climate change is updated and validated	• Elaboration of thematic studies • Finalization of the master plan • Organization of workshops for the master plan validation	• Lack of a strategy and plans for the Complex management, • Lack of basic thematic studies for the rational and sustainable management of the Complex,	• At least 3 thematic studies are elaborated • The master plan is elaborated and validated	• Studies and workshop reports, • Master plan document
Output 1.1.2: Adaptation ~~and mitigation~~ action plans are elaborated (based on the master plan)	• Progress in terms of adaptation ~~and mitigation~~ measures identification • Finalization of the adaptation ~~and mitigation~~ action plan	• The impacts of climate change are not well known and are not taken into account by the different actors and managers of the WAP Complex • The adaptation ~~and mitigation~~ concepts are not taken into account in the WAP management	• At least 1 workshop per country is organized to identify appropriate adaptation and mitigation measures, • 1 regional consultation and restitution workshop is organized, • 1 adaptation and mitigation action plan is finalized,	• Reports of consultation workshops • revised Action plan documents, • Action Plan validation report by concerned actors/structures

2. Component 2: Design and establishment of a Multi-Risk Early Warning System (MREWS) related to droughts, floods, and fires				
Outcome.2. A Multi-Risk Early Warning System is used by the project's beneficiaries to manage emergencies	• Progress in the MREWS establishment • Number of beneficiaries /users/structures of the MREWS	• No system in place • Population unaware of the relevance and utility of the MREWS and how to use it	• The MREWS is operational • At least 70 % of the population is sensitized and master the MREWS utilization	• Project Technical reports • Monitoring and evaluation report MREWS monitoring report
Output 2.1.1: Preparatory studies are elaborated and validated: MREWS is designed	Progress status of: • Preparatory studies • MREWS conceptual study • MREWS development • MREWS management structure	• Disasters are not well managed, • No coordination mechanism in place for disasters monitoring and management	• All preparatory studies are elaborated during the first year • MREWS is developed and operational during year 2 • MREWS Management Unit is set up during year 2	• Studies reports, • Studies validation reports • Management Unit creation • Report of the MREWS testing operation
Output 2.1.2: The necessary MREWS equipment are acquired and put in place	• Acquisition of necessary equipment for the MREWS	• Lack of necessary equipment and tools for disasters monitoring and prevention	• All necessary equipment and tools for the MREWS operationalization are acquired during year 2	• Necessary materials and tools are acquired and installed • Project Technical reports
Output 2.1.3. The MREWS is developed and operational	• Operationalization of the MREWS	• No disasters monitoring system is in place and operational,	• 1 Management Committee of the MREWS is set up during the 1st half of year 1	• Minutes/reports of trainings • Project Technical reports

	• Utilization of the MREWS by populations and actors • Constitution of Management Units	• Negative impact of disasters on ecosystems and population is significant, • No Management/Supervision Unit is not in place and/or functional	• At least 2 training session for the MREWS Management Unit is organized during the year 2 • At least 1 testing operation is organized and successful during the 1st quarter of year 2	• Report on the testing operations
Output 2.1.4. Disasters contingency plans are set up	• Progress of the contingency plan elaboration • Capacities and competence of managers in the contingency plan utilization	• Absence of plans/strategies/approaches/equipment to intervene in case of contingency	• 1 contingency plan/country is elaborated during year 1 • 1 regional contingency plan is elaborated during the year 2 • At least 2 training sessions are organized during year 1 , • At least 50 % of necessary equipment for intervention in case of contingency are acquired in the year 1	• Documents of contingency plans, • Reports/minutes of training sessions, • Project Technical reports • equipment are in place
Component 3:Improving the resilience of ecosystems and populations' livelihoods through the implementation of concrete adaptation ~~and mitigation~~ actions				
Outcome.3.1: Populations and ecosystems resilience is improved through concrete adaptation actions	• Surface of land managed with adaptation actions • Population benefiting from adaptation actions	Ecosystems and population are vulnerable to climate change impacts and no specific strategies, action plans and tools exist to make them adapted	• The resilience of at least 60% of the population is strengthened, • At least 60% of the ecosystems are covered by adaptation actions	• Project Technical reports • Monitoring and evaluation report
Output 3.1.1 : Water points are developed/rehabilitated at	▪ Creation and development of water points,	• Number of water points is insufficient,	▪ At least 6 water points are developed during year 1	▪ Water points developed

the Complex level involving local workforce	▪ Percentage of involved population	• Existing water points are not well-managed,	▪ 9 water points are developed during year 2, ▪ Concerned population (local workforce) is trained during year 1	▪ Reports of populations training ▪ Project technical reports ▪ Monitoring and evaluation reports
Output 3.1.2. Transhumance corridors and rest areas are constructed/created for livestock involving local workforce	• establishment of the transhumance corridors	▪ Transhumance is not organized, ▪ Inadequate infrastructure for population and transhumant cattle ▪ Inadequate involvement of local workforce	▪ The transhumance routes are elaborated during year 2 and 3 ▪ Targeted population (local workforce) is trained ▪ 6 water troughs and rest areas are developed during year 2 ▪ 6 water troughs and rest areas are developed during year 3	▪ Materials/structures, (routes, troughs…) delivery documents ▪ Reports of workforce training sessions ▪ Project technical reports ▪ Monitoring and evaluation reports
Output 3.1.3 Firewalls are strengthened and developed involving local workforce	• Development of firewalls	▪ Insufficient firewalls in the WAP Complex, ▪ risk of uncontrolled fire extension	▪ Limits of firewalls are identified during the first half of year 2 ▪ Local workforce is trained for the firewalls implementation during the during the first year, ▪ 100 % of the firewalls clearing/development works are finalized during the year 3	▪ Firewalls plans elaborated and validated, ▪ Workforce training reports ▪ Project technical reports ▪ Monitoring and evaluation reports
Output 3.1.4 :	• Plantation and production of agro-forest plants,	• Agroforestry and small-scale irrigation practices are not	▪ Agro-forest species to be adopted are identified during year 1	▪ Installation of nurseries, ▪ Training reports,

Agro-forestry and small-scale irrigation are applied	• Allocation of agro forest plants and irrigation equipment to beneficiaries	adopted by farmers and riparian population, • Populations/farmers are not aware of the importance of agroforestry and small-scale irrigation,	▪ 100 % of beneficiaries and targeted farmers are trained during the first two years, ▪ 6 nurseries are created during year 1 ▪ 6 nurseries are created during year 2 ▪ 30 % of necessary equipment for small-scale irrigation are allocated to beneficiaries during year 1 ▪ 100 % of small-scale irrigation equipment are acquired in year 2,	▪ Small-scale irrigation equipment are handed to the beneficiaries ▪ Project technical reports ▪ Monitoring and evaluation reports
Output 3.1.5. Structures and equipment are provided for fishermen	▪ Construction of docking structures for canoes, ▪ Acquisition and attribution of fishing equipment	▪ lack of necessary materials for fishing and need to improve infrastructure fishing conditions, ▪ Fishermen do not have necessary materials for rational fishing,	▪ 100 % of docking/landing sites are identified during year 1, ▪ 6 docking structures are constructed during year 2, ▪ 100 % of beneficiary fishermen are trained during year 2 and 3,	▪ Docking structures are in place and delivered, ▪ Structures and equipment delivery documents, ▪ Fishermen training reports, ▪ Equipment are attributed to fishermen (receipts). ▪ Project technical reports ▪ Monitoring and evaluation reports
~~**Outcome 3.2. the Resilience of Populations and ecosystem is improved**~~	~~• Land and water resources managed with mitigation actions~~	~~▪ Ecosystems are degraded or vulnerable to climate change~~	~~• The resilience of at least 60% of the population is strengthened~~	~~• Project Technical reports~~ ~~▪ Monitoring and evaluation report~~

~~**through concrete mitigation measures**~~	~~• Population implementing mitigation actions and benefiting of their effects~~	~~impacts and their services are affected~~ ~~▪ Benefits of ecosystem services are decreasing and their benefits to population are reducing~~	~~• At least 60% of the ecosystems are covered by mitigation actions~~	~~▪ Information derived for GIS and M&E tools~~
Output 3.1.6. Wooded and pastoral areas are improved and reforested	- Rehabilitation of degraded ecosystems by reforestation and assisting natural regeneration	▪ large bare and unfrosted areas/, ▪ Pastoral areas need improvement, ▪ Inadequate involvement of local work force in the Complex reforestation	▪ All sites to be reforested are identified during the year 1, ▪ 50 % of identified areas are reforested by end year 2 ▪ 80 % of identified areas are reforested by end year 3 ▪ 100 % of identified areas are reforested by end year 4 ▪ 100 % of involved workforce is trained during year 1 and 2	• Project Technical reports ▪ Monitoring and evaluation report ▪ Information derived for GIS and M&E tools ▪ Workshop reports Training reports
~~**Output 3.2.2 Improved cook stoves are allocated to women**~~	~~• beneficiary women use cook stoves~~	~~▪ Lack of awareness about energy saving importance,~~ ~~▪ Excessive use of firewood for cooking~~	~~▪ Beneficiary women are identified at the year 1~~ ~~▪ 100 % of beneficiary women are trained at the year 2~~ ~~▪ 50 % of cook stoves are attributed during year 2~~ ~~▪ 100 % of cook stoves are attributed during year 3~~	~~▪ Training reports~~ ~~▪ Certificates of cook stoves delivery~~ ~~• Project Technical reports~~ ~~▪ Monitoring and evaluation report~~

~~**Output 3.2.3. Solar panels are installed in wells and in community infrastructures (schools, dispensary, local administrations…)**~~	• ~~Solar panels acquired, installed and used~~	▪ ~~No use of solar energy in the Complex and its adjacent areas,~~ ▪ ~~Lack of awareness about the importance and use of solar energy~~ ▪ ~~Woodcutting for energy use is affecting forest ecosystems~~	▪ ~~All infrastructures and units to be equipped with solar energy are identified at the year 1~~ ▪ ~~1st set of solar energy equipment is installed during year 2~~ ▪ ~~2nd sets of solar equipment are installed during year 3,~~	▪ ~~Identification studies/survey report,~~ ▪ ~~Delivery/installation certificates installation installed during year 1 of with solar energy are identified,~~ ▪ ~~Beneficiaries training report~~ • ~~Project Technical reports~~ ▪ ~~Monitoring and evaluation report~~
Outcome 3.2 : Populations resilience to Climate change is strengthened and their livelihoods are improved through income-generating activities	• Livelihoods of population are improved and sources of incomes diversified	▪ Livelihoods and sources of incomes are strongly linked to natural resources and affecting ecosystems	Income generation activities improve the livelihoods of 30% of the vulnerable population	• Project Technical reports ▪ Monitoring and evaluation report
Output.3.2.1. Revolving funds are set up to diversify income sources	• Number of beneficiaries trained, sensitized and beneficiating of revolving funds	▪ Absence of financial mechanisms for the WAP population ▪ Lack of awareness about revolving funds	▪ 3 information workshops are organized during year 1, ▪ 3 training workshops are organized for beneficiaries during year 2,	▪ Workshops reports/minutes • Project Technical reports ▪ Monitoring and evaluation report

Ouput.3.2.2. Income-generating activities are sustained	• Population identification process • Number of income-generating activities created for beneficiaries	▪ Impoverished livelihoods, ▪ Socio-economic activities based on subsistence agriculture and extensive livestock breeding, ▪ Environmentally unfriendly activities,	▪ 30 % of income-generating activities are created during year 2 ▪ 80 % of income generating activities are created during year 3, ▪ 100 % of income-generating activities are created during year 4	▪ Receipt certificates, ▪ Documents of Provisonal/definitive receipt of handcraft stores • Project Technical reports ▪ Monitoring and evaluation report
Output 3.2.3 Improved cook stoves are allocated to women	• beneficiary women use cook stoves	▪ Lack of awareness about energy-saving importance, ▪ Excessive use of firewood for cooking	▪ Beneficiary women are identified at the year 1 ▪ 100 % of beneficiary women are trained at the year 2 ▪ 50 % of cook stoves are attributed during year 2 ▪ 100 % of cook stoves are attributed during year 3	▪ Training reports ▪ Certificates of cook stoves delivery • Project Technical reports ▪ Monitoring and evaluation report
Output 3.2.4. Solar panels are installed in wells and in community infrastructures (schools, dispensary, local administrations…)	• Solar panels acquired, installed and used	▪ No use of solar energy in the Complex and its adjacent areas, ▪ Lack of awareness about the importance and use of solar energy ▪ Woodcutting for energy use is affecting forest ecosystems	▪ All infrastructures and units to be equipped with solar energy are identified at the year 1 ▪ 1st set of solar energy equipment is installed during year 2 ▪ 2nd sets of solar equipment are installed during year 3,	▪ Identification studies/survey report, ▪ Delivery/installation certificates installation installed during year 1 of with solar energy are identified,

				▪ Beneficiaries training report • Project Technical reports ▪ Monitoring and evaluation report

Component 4: Awareness-raising and capacity building for concerted, integrated and sustainable management of the WAP Complex.				
Outcome.4 **Concerned actors are mobilized and sensitized through adapted communication and capacity building**	Stakeholders and actors are mobilized through sensitization and communication actions	Climate change hazards and impacts are misunderstood by population and stakeholders	• Communication and sensitization strategies and Plan are developed the 1st year • Population is sensitized on the project thematic from the second half of the first year	• Project Technical reports • Monitoring and evaluation report
Output 4.1.1 : Practitioners, technicians and decision makers are sensitized and trained on environmental challenges	• Number of training sessions, • Number of beneficiaries trained	• Population is inadequately aware of environmental challenges, • Population is not well-trained with regard to environmental challenges,	• 3 training sessions are organized during year 2, • 7 training sessions are organized during year 3	• Workshop reports • Project Technical reports Monitoring and evaluation report
Output 4.1.2. Populations are informed and sensitized	• Progress of the elaboration of awareness-raising strategies/action plans, • Number of awareness-raising materials /supports designed and disseminated, • Number of environmental education days/sessions for populations,	• Lack of awareness activities/programs/workshops about environmental challenges aimed at actors/targeted groups	• An awareness-raising strategy/action plan is elaborated during year 2, • 1 set/year of communication and sensitization supports is designed and disseminated, • 5 awareness information sessions are organized starting from year 2 ,	▪ Plan/strategies documents, ▪ Training reports, training sessions, awareness and communication days, workshop reports • Project Technical reports • Monitoring and evaluation report

	• Number of pupils/women trained or attended environmental education sessions		• 3 environmental clubs are created during year 3	

F. Project alignments with the Results Framework of the Adaptation Fund

This section will be developed during the drafting of the project document (full proposal)

Project Objective(s)[15]	Project Objective Indicato	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount (USD)**

[15] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

G. Detailed budget

Component/outcome/output/activity	Notes on the budget	Cost $	Number of units	Region/ country	Budget by unit (country)	Total budget $
Component 1: Integration of climate change aspects and contingency plan (MHMREWS) in the WAP Complex management						
Outcome 1.1: Climate dimension and its risks as well as the contingency plan are integrated into the Complex management plans						
Output 1.1.1: The Complex's development master plan integrating climate change is updated and validated						
Activity 1.1.1.1: Set up of a Geographic Information System and elaboration of mapping products ~~(demarcation of the project area, vulnerability…)~~	Lump-sum	50,000	1	regional	50,000	50,000
Activity 1.1.1.2: Implementation of three studies about land-tenure, socio-economics, strategic focus (institutional, administrative, legal …)	Study	30,000	3	Benin, Burkina faso, Niger	30,000	90,000
Activity 1.1.1.3: Update of forest and pastoral management and development plans	Plan	50,000	1	regional	50,000	50,000
Activity 1.1.1.4: Organization of a workshop for the validation of studies and mapping products	Workshop	20,000	2	regional	20,000	40,000
Activity 1.1.1.5: Design and editing of the master plan for the Complex development	Diagram	30,000	1	regional	30,000	30,000
Activity 1.1.1.6: Organization of a workshop for the validation of the master plan	Workshop	20,000	1	regional	20,000	20,000
Output 1.1.2: Adaptation ~~and mitigation~~ action plan is elaborated						
Activity 1.1.2.1: Validation with communities of the most vulnerable sites for implementation of concrete adaptation and mitigation actions	Workshop	~~30,000~~ 40,000	3	Benin, Burkina faso, Niger	~~30,000~~ 40,000	~~30,000~~ 40,000
Activity 1.1.2.2: Organization of consultation workshops with populations for the validation of sites and adaptation ~~and mitigation~~ measures	Workshop	~~10,000~~ 15,000	4	Regional and 3 countries	~~10,000~~ 15,000	~~40,000~~ 60,000
Activity 1.1.2.3. Elaboration of an action plan for the implementation of the identified adaptation actions	Plan	30,000	1	regional	30,000	30,000
~~Activity 1.1.2.4. Elaboration of an action plan for the implementation of the identified mitigation measures~~	~~Plan~~	~~30,000~~	~~1~~	~~regional~~	~~30,000~~	~~30,000~~

Activity 1.1.2.4: Organization of a workshop for the validation of the adaptation and mitigation action plans	Workshop	30,000	1	regional	30,000	30,000
Sub-total						**440,000**
Component 2: Design and establishment of a Multi-Risk Early Warning System (MREWS) related to droughts, floods, and fires						
Outcome 2.1: A rapid Early Warning System is used by the project's beneficiaries to manage emergencies						
Output 2.1.1: Preparatory studies are elaborated and validated: MREWS is designed						
Activity 2.1.1.1: Implementation of six preliminary studies for the establishment of the MREWS from hazards identification and risks evaluation to the MREWS design and operation	Study	20,000	6	regional	20,000	120,000
Activity 2.1.1.2: Organization of two regional workshops for the validation of studies	Workshop	15,000	2	regional	15,000	30,000
Activity 2.1.1.3: Organization of three national consultation workshops with populations on the MREWS priorities	Workshop	15,000	3	Benin, Burkina faso, Niger	15,000	45,000
Output 2.1.2: The necessary MREWS equipment are acquired and put in place						
Activity 2.1.2.1: Acquisition and installation of observation equipment (weather stations, stream gauge, sensors, piezometers…)	Lump-sum	365,000	1	regional	365,000	365,000
Activity 2.1.2.2: Acquisition of IT equipment (servers, processing unit, software, GPS...)	Lump-sum	120,000	1	regional	120,000	120,000
Activity 2.1.2.3: Acquisition of necessary data related to the MREWS (biophysical, socio-economic, mapping…)	Lump-sum	120,000	1	regional	120,000	120,000
Activity 2.1.2.4: Acquisition of necessary tools and equipment for broadcasting warning messages to populations (beacon, flags, siren, signals, loud-speakers…)	set/country	40,000	3	Benin, Burkina faso, Niger	40,000	120,000
Activity 2.1.2.5: Constitution and organization of the Tripartite Regional Management Unit (TRMU)	Workshop	5,000	4	regional	5,000	20,000
Activity 2.1.2.6: Rehabilitation/construction of premises for the Tripartite Regional Management Unit	Lump-sum	100,000	1	In one country to be defined	100,000	100,000
Output 2.1.3: The MREWS is developed and operational						
Activity 2.1.3.1: Creation of the MREWS Unit under the supervision of the Tripartite Regional Management Unit						0

Activity 2.1.3.2: Organization of training sessions for the MREWS unit (MREWS use, data processing, elaboration of indicators…)	Thematic workshop	30,000	4	regional	30,000	120,000
Activity 2.1.3.3:.Organization of workshops for the launching/presentation/monitoring of the MREWS	Workshop	20,000	4	regional	20,000	80,000
Activity 2.1.3.4: Organization of quarterly meetings of the Tripartite Regional Management Unit	Meeting	2,500	16	regional	2,500	40,000
Activity 2.1.3.5: Organization of study and exchange trips	Travel	20,000	2	regional	20,000	40,000
Activity 2.1.3.6: Acquisition of supplies/consumables for the Regional Management Unit	Lump-sum	60,000	1	regional	60,000	60,000
Activity 2.1.3.7: Design, validation and editing of products (MREW Sletter, maps, summary reports, digital supports...)	Set/year	15,000	4	regional	15,000	60,000
Activity 2.1.3.8: Organization of two testing operations	Operation	70,000	2	regional	70,000	140,000
Output 2.1.4: Disasters contingency plans are set up						
Activity 2.1.4.1: Elaboration of an Contingency Response Plan (ERP) against climate change related hazards at the level of the three beneficiary countries	Plan	50,000	1	regional	50,000	50,000
Activity 2.1.4.2. Organization of training sessions on the ERP utilization aimed at different actors involved in the three countries	3 national workshops and 1 regional workshop.	20,000	4	Regional and 3 countries	20,000	80,000
Activity 2.1.4.3. Acquisition of equipment for disasters management (three devices for combating fires, bicycles, motorcycles, canoes, dinghies…)	set/countries	130,000	3	Benin, Burkina faso, Niger	130,000	390,000
Sub-total						**2,100,000**

Component 3: Improvement of the resilience of ecosystems and populations' livelihoods through the implementation of concrete adaptation and mitigation actions						
Outcome 3.1: Resilience of ecosystems and populations is improved through concrete adaptation actions						
Output 3.1.1: Water points are developed/rehabilitated at the Complex level involving local workforce						
Activity 3.1.1.1: Identification of sites for the establishment of water points	Survey - study	15,000	1	regional	15,000	15,000
Activity 3.1.1.2: Identification and training of the employed workforce	Workshop	5,000	1	regional	5,000	5,000
Activity 3.1.1.3: Development of water points through the installation of equipment	5 water Points/countries	10,000	15	Benin, Burkina faso, Niger	30,000	150,000
Output 3.1.2: Transhumance routes and rest areas are constructed for cattle involving local workforce						
Activity 3.1.2.1: Identification of the layout of the area	Survey- study	20,000	1	regional	20,000	20,000
Activity 3.1.2.2: Identification and training of the involved workforce	Workshop (rest areas and drinking troughs)	5,000	2	regional	5,000	10,000
Activity 3.1.2.3: Creation of transhumance routes	Lump-sum	200,000	1	regional	66,666	200,000
Activity 3.1.2.4: Construction of troughs and rest areas for livestock	15 troughs and 9 rest areas	10,000	24	Benin, Burkina faso, Niger	80,000	240,000
Output 3.1.3: Firewalls are strengthened and developed involving local workforce						
Activity 3.1.3.1: Identification of locations for firewalls	Survey - study	20,000	1	regional	20,000	20,000
Activity 3.1.3.2: Identification and training of the involved workforce	Workshop	5,000	1	regional	5,000	5,000
Activity 3.1.3.3: Development and clearing of the identified sections	Lump-sum	200,000	1	regional	66,666	200,000
Output 3.1.4: Agro-forestry and small-scale irrigation are applied						
Activity 3.1.4.1: Identification of the agroforestry species to be used	Survey - study	10,000	1	regional	10,000	10,000

Activity 3.1.4.2: Identification and training on the agroforestry and irrigation activities dedicated to beneficiary farmers	Workshop (agroforestry and small-scale irrigation)	5,000	2	regional	5,000	10,000
Activity 3.1.4.3: Creation of nurseries for the production of agroforestry plants and attribution to beneficiaries	3 nurseries /country	10,000	9	Benin, Burkina faso, Niger	30,000	90,000
Activity 3.1.4.4: Acquisition and attribution of drip irrigation equipment to beneficiaries	3 sets/country	10,000	9	Benin, Burkina faso, Niger	30,000	90,000
Output 3.1.5: Structures and equipment are provided for fishermen						
Activity 3.1.5.1: Identification of priority landing sites along the river and its tributaries level	Survey - study	10,000	1	regional	10,000	10,000
Activity 3.1.5.2: Construction of docking structures for canoes	2 Structures/country	15,000	6	Benin, Burkina faso, Niger	30,000	90,000
Activity 3.1.5.3: Identification and training of beneficiary fishermen	Workshop	5,000	1	regional	5,000	5,000
Activity 3.1.5.4: Acquisition and attribution of fishing equipment	1 set/country	50,000	3	Benin, Burkina faso, Niger	50,000	150,000
	~~**Outcome 3.2: Resilience of populations and ecosystems is improved through concrete mitigation measures**~~					
Output 3.2.1: Wooded and pasture areas are improved and reforested						
Activity 3.2.1.1: Identification of sites for reforestation and pasture improvement	Survey - study	10,000	1	regional	10,000	10,000
Activity 3.2.1.2: Training of beneficiary nursery growers	Workshop	5,000	1	regional	5,000	5,000
Activity 3.2.1.3: Creation of forest and pasture nurseries	3 Nurseries/country	10,000	9	regional	10,000	90,000
Activity 3.2.1.4: Training of the work force involved in reforestation	Workshop	5,000	1	regional	5,000	5,000
Activity 3.2.1.5: Reforestation and pasture improvement	Lump-sum	1,200,000	1	Benin, Burkina faso, Niger	400,000	1,200,000

		~~Output 3.2.2: Improved cook stoves are allocated to women~~					
~~Activity 3.2.2.1: Identification of beneficiary women (inventory, selection and consultation)~~		~~Survey - study~~	~~5,000~~	~~1~~			~~5,000~~
~~Activity 3.2.2.2: Training of beneficiary women on the utilization of improved cook stoves~~		~~Workshop~~	~~5,000~~	~~1~~			~~5,000~~
~~Activity 3.2.2.3: Attribution of improved cook stoves to beneficiary women~~		~~Lump-sum~~	~~100,000~~	~~1~~			~~100,000~~
		~~Output 3.2.3: Solar panels are installed in wells and in community infrastructures (schools, local administrations…)~~					
~~Activity 3.2.3.1: Identification of infrastructure and wells to equip~~		~~Survey - study~~	~~20,000~~	~~1~~			~~20,000~~
~~Activity 3.2.3.2: Training of beneficiaries on the utilization and maintenance of solar panels~~		~~Workshop~~	~~5,000~~	~~1~~			~~5,000~~
~~Activity 3.2.3.3: Equipment of infrastructures with solar panels~~		~~1 set/country~~	~~100,000~~	~~3~~			~~300,000~~
Outcome 3.2: Resilience of populations to climate change is strengthened and their livelihoods are improved through income-generating activities							
Output 3.2.1: Revolving funds are set up to diversify income sources							
Activity 3.2.1.1: Organization of information events and awareness-raising workshops for communities on revolving funds		1 Workshop/country	10,000	3	Benin, Burkina faso, Niger	10,000	30,000
Activity 3.2.1.2: Training of beneficiaries on the use and management of revolving funds		1 Workshop/country	15,000	3	Benin, Burkina faso, Niger	15,000	45,000
Activity 3.2.1.3: Handover and Supervision of Disbursement of the funds		Lump-sum	15,000	1	regional	15,000	15,000
Output 3.2.2: Income-generating activities are sustained							
Activity 3.2.2.1: Selection and training of beneficiaries on income generating activities		1 workshop	30,000	3	Benin, Burkina faso, Niger	30,000	90,000
Activity 3.2.2.2: Acquisition and distribution of beehives to the beneficiaries		600 hives/country	100	1800	Benin, Burkina faso, Niger	60,000	180,000
Activity 3.2.2.3: Acquisition of equipment for the distillation of essential oils		1 set/country	40,000	3	Benin, Burkina faso, Niger	40,000	120,000

Activity 3.2.2.4: Valuation of non-timber forest products (NTFP) such as shea, baobab, moringa, nereid, tamarind, gums, etc…	1 set/country	40,000	3	Benin, Burkina faso, Niger	40,000	120,000
Activity 3.2.2.5: Construction of "Nature's Stores" to offer and sell local and artisan products	1 set/country	15,000	3	Benin, Burkina faso, Niger	15,000	45,000
Output 3.2.3: Improved cook stoves are allocated to women						
Activity 3.2.3.1: Identification of beneficiary women (inventory, selection and consultation)	Survey - study	5,000	1	regional	5,000	5,000
Activity 3.2.3.2: Training of beneficiary women on the utilization of improved cook stoves	Workshop	5,000	1	regional	5,000	5,000
Activity 3.2.3.3: Attribution of improved cook stoves to beneficiary women	Lump-sum	100,000	1	Benin, Burkina faso, Niger	33,333	100,000
Output 3.2.4: Solar panels are installed in wells and in community infrastructures (schools, local administrations…)						
Activity 3.2.4.1: Identification of infrastructure and wells to equip	Survey - study	20,000	1	regional	20,000	20,000
Activity 3.2.4.2: Training of beneficiaries on the utilization and maintenance of solar panels	Workshop	5,000	1	regional	5,000	5,000
Activity 3.2.4.3: Equipment of infrastructures with solar panels	1 set/country	100,000	3	Benin, Burkina faso, Niger	100,000	300,000
						Sub-total 3,710,000
Component 4: Awareness-raising, communication and capacity building for concerted, integrated and sustainable management of the WAP Complex						
Outcome 4.1: Concerned actors are mobilized and sensitized through adapted communication and capacity building						
Output 4.1.1: Practitioners, technicians and decision makers are sensitized and trained on environmental challenges						
Activity 4.1.1.1: Elaboration of specific training modules on the main themes addressed by the project (natural resources)	Module	5,000	10	Regional	5,000	50,000
Activity 4.1.1.2. Organization of thematic training workshops for practitioners and technicians	Workshop	10,000	10	Regional	10,000	100,000
Activity 4.1.1.3. Organization of information events and extension sessions aimed at decision-makers at country level	Workshop	10,000	5	Regional	10,000	50,000

Output 4.1.2: Populations are sensitized and informed						
Activity 4.1.2.1. Elaboration of a strategy and an action plan about communication and sensitization for users and beneficiaries	Plan	30,000	1	Regional	30,000	30,000
Activity 4.1.2.2: Design and development of communication supports for the general public (leaflets, posters, flyers, syntheses, documentaries, spots for local radios, phone application …)	1 set/year	50,000	4	Regional	50,000	200,000
Activity 4.1.2.3: Creation/strengthening of environmental clubs at local institutions (colleges, high schools) through training and equipment	Club	20, 000	3	Benin, Burkina faso, Niger	20, 000	60,000
Activity 4.1.2.4: Design of environmental education sessions for school children and women in local language	Kits	5, 000	2	Regional	5, 000	10, 000
Activity 4.1.2.5: Organization of environmental education sessions for pupils and women	5 sessions/country	10,000	15	Benin, Burkina faso, Niger	50,000	150,000
Activity 4.1.2.6: Organization of awareness and information days for populations (cultural and artistic activities on climate change adaptation and mitigation)	5 sessions/country	15, 000	15	Benin, Burkina faso, Niger	75,000	225, 000
Activity 4.1.2.7: Set up of a radio web (studio equipment, server on a portal, and a mobile phone application)	1 studio, 1 server, 1 portal and 1 mobile application	15,000	1	regional	15,000	15, 000
Activity 4.1.2.8: Organization of training sessions to create radio programs for the riparian populations of the three countries (radio announcers and program designers)	2 sessions/country	10, 000	6	Benin, Burkina faso, Niger	20,000	60, 000
Sub-total						950, 000
Total components						**7, 200, 000**
Implementation costs (Implementing Unit)						702,000
Execution costs (Management Unit)						648, 000
Total project						**8, 550, 000**

Disbursement schedule with time-bound milestones.

Component/outcome/output/activity	Budget (US$)	Year 1	Year 2	Year 3	Year 4
Component 1: Integration of climate change aspects and contingency plan (MHMREWS) in the WAP Complex management					
Outcome 1.1: Climate dimension and its risks as well as the contingency plan are integrated into the Complex management plans					
Output 1.1.1:The Complex's development master plan integrating climate change is updated and validated					
Activity 1.1.1.1: Set up of a Geographic Information System and elaboration of mapping products ~~(demarcation of the project area, vulnerability…)~~	50, 000	20, 000	30, 000		
Activity 1.1.1.2: Implementation of three studies about land-tenure, socio-economics, strategic focus (institutional, administrative, legal …)	90, 000	45, 000	45, 000		
Activity 1.1.1.3: Update of forest and pastoral management and development plans	50, 000	20, 000	30, 000		
Activity 1.1.1.4: Organization of a workshop for the validation of studies and mapping products	40, 000	10, 000	30, 000		
Activity 1.1.1.5: Design and editing of the master plan for the Complex development	30, 000		30, 000		
Activity 1.1.1.6: Organization of a workshop for the validation of the master plan	20, 000		20, 000		
Output 1.1.2: Adaptation ~~and mitigation~~ action plan is are elaborated					
Activity 1.1.2.1: Validation with communities of the most vulnerable sites for implementation of concrete adaptation ~~and mitigation~~ actions	~~30, 000~~ 40,000	~~20, 000~~ 25,000	~~10, 000~~ 15,000		
Activity 1.1.2.2: Organization of consultation workshops with technicians for the validation of sites and adaptation ~~and mitigation~~ measures	~~40,000~~	~~10, 000~~	~~30, 000~~		

	60,000	20,000	~~40,000~~		
Activity 1.1.2.3. Elaboration of an action plan for the implementation of the identified adaptation actions	30, 000	30, 000			
~~Activity 1.1.2.4. Elaboration of an action plan for the implementation of the identified mitigation measures~~	~~30, 000~~	~~10, 000~~	~~20, 000~~		
Activity 1.1.2.4: Organization of a workshop for the validation of the adaptation and mitigation action plans	30, 000	10, 000	20, 000		
Sub- total component 1	**440, 000**	**175, 000**	**265, 000**	**0**	**0**
Component 2: Design and establishment of a Multi-Hazard Early Warning System (MREWS) related to droughts, floods, and fires					
Outcome 2.1: A rapid Early Warning System is used by the project's beneficiaries to manage emergencies					
Output 2.1.1: Preparatory studies are elaborated and validated: MREWS is designed					
Activity 2.1.1.1: Implementation of six preliminary studies for the establishment of the MREWS from hazards identification and risks evaluation to the MREWS design and operation	120, 000	60, 000	60, 000		
Activity 2.1.1.2: Organization of two regional workshops for the validation of studies	30, 000	15, 000	15, 000		
Activity 2.1.1.3: Organization of three national consultation workshops with populations on the MREWS priorities	45, 000	30, 000	15, 000		
Output 2.1.2: The necessary MREWS equipment are acquired and put in place					
Activity 2.1.2.1: Acquisition and installation of observation equipment (weather stations, stream gauge, sensors, piezometers…)	365, 000		280, 000	50, 000	35, 000
Activity 2.1.2.2: Acquisition of IT equipment (servers, processing unit, software, GPS...)	120, 000	20, 000	60, 000	20, 000	20, 000
Activity 2.1.2.3: Acquisition of necessary data related to the MREWS (biophysical, socio-economic, mapping…)	120, 000	20, 000	80, 000	10, 000	10, 000

Activity 2.1.2.4: Acquisition of necessary tools and equipment for broadcasting warning messages to populations (beacon, flags, siren, signals, loud-speakers…)	120, 000	20, 000	80, 000	10, 000	10, 000
Activity 2.1.2.5: Constitution and organization of the Tripartite Regional Management Unit (TRMU)	20,000	5,000	5,000	5,000	5,000
Activity 2.1.2.6: Rehabilitation/construction of premises for the Tripartite Regional Management Unit (TRMU)	100, 000		50, 000	30, 000	20, 000
Output 2.1.3: The MREWS is developed and operational					
Activity 2.1.3.1: Creation of the MREWS Unit under the supervision of the Tripartite Regional Management Unit	0				
Activity 2.1.3.2: Organization of training sessions for the MREWS unit (MREWS use, data processing, elaboration of indicators…)	120, 000		40, 000	60, 000	20, 000
Activity 2.1.3. 3: Organization of workshops for the launching/presentation/monitoring of the MREWS	80, 000		30, 000	30, 000	20, 000
Activity 2.1.3.4: Organization of quarterly meetings of the Tripartite regional Management Unit	40, 000	10, 000	10, 000	10, 000	10, 000
Activity 2.1.3.5: Organization of study and exchange trips	40, 000			20, 000	20, 000
Activity 2.1.3.6: Acquisition of supplies/consumables for the Tripartite Regional Management Unit (TRMU)	60, 000	20, 000	15, 000	15, 000	10, 000
Activity 2.1.3.7: Design, validation and editing of products (MREWS letter, maps, summary reports, digital supports...)	60, 000		30, 000	15, 000	15, 000
Activity 2.1.3.8: Organization of two testing operations	140, 000		70, 000	70, 000	
Output 2.1.4: Disasters contingency plans are set up					
Activity 2.1.4.1: Elaboration of an Contingency Response Plan (ERP) against climate change related hazards at the level of the three beneficiary countries	50, 000		30, 000	20, 000	

Activity 2.1.4.2. Organization of training sessions on the ERP utilization aimed at different actors involved in the three countries	80, 000		40, 000	40, 000	
Activity 2.1.4.3. Acquisition of equipment for disasters management (three devices for combating fires, bicycles, motorcycles, canoes, dinghies…)	390, 000		300, 000	50, 000	40, 000
Sub-total component 2	**2, 100,000**	**200, 000**	**1, 210,000**	**455, 000**	**235,000**

Component 3: Improvement of the resilience of ecosystems and populations' livelihoods through the implementation of concrete adaptation and mitigation actions					
Outcome 3.1: Resilience of ecosystems and populations is improved through concrete adaptation actions					
Output 3.1.1: Water points are developed/rehabilitated at the Complex level involving local workforce					
Activity 3.1.1.1: Identification of sites for the establishment of water points	15, 000	10, 000	5, 000		
Activity 3.1.1.2: Identification and training of the employed workforce	5, 000	5, 000			
Activity 3.1.1.3: Development of water points through the installation of equipment	150, 000	70, 000	40, 000	40, 000	
Output 3.1.2: Transhumance routes and rest areas are constructed for cattle involving local workforce					
Activity 3.1.2.1: Identification of the layout of the area	20, 000	20, 000			
Activity 3.1.2.2: Identification and training of the involved workforce	10, 000	10, 000			
Activity 3.1.2.3: Creation of transhumance routes	200, 000	50, 000	100, 000	40,000	10,000
Activity 3.1.2.4: Construction of water troughs and rest areas for livestock	240, 000	40, 000	150, 000	40, 000	10,000
Output 3.1.3: Firewalls are strengthened and developed involving local workforce					
Activity 3.1.3.1: Identification of locations for firewalls	20, 000	20, 000			
Activity 3.1.3.2: Identification and training of the involved workforce	5, 000	5, 000			
Activity 3.1.3.3: Development and clearing of the identified sections	200, 000	50, 000	100, 000	40,000	10,000
Output 3.1.4: Agro-forestry and small-scale irrigation are applied					
Activity 3.1.4.1: Identification of the agroforestry species to be used	10, 000	10, 000			

Activity 3.1.4.2: Identification and training on the agroforestry and irrigation activities dedicated to beneficiary farmers	10, 000	5, 000	5, 000		
Activity 3.1.4.3: Creation of nurseries for the production of agroforestry plants and attribution to beneficiaries	90, 000		50, 000	20, 000	20, 000
Activity 3.1.4.4: Acquisition and attribution of drip irrigation equipment to beneficiaries	90, 000		50, 000	30, 000	10, 000
Output 3.1.5: Structures and equipment are provided for fishermen					
Activity 3.1.5.1: Identification of priority landing sites along the river and its tributaries level	10, 000	10, 000			
Activity 3.1.5.2: Construction of docking structures for canoes	90, 000		60, 000	30, 000	
Activity 3.1.5.3: Identification and training of beneficiary fishermen	5, 000		5, 000		
Activity 3.1.5.4: Acquisition and attribution of fishing equipment	150, 000		70, 000	50, 000	30;000
~~**Outcome 3.2: Resilience of populations and ecosystems is improved through concrete mitigation measures**~~					
Output 3.1.6: Wooded and pasture areas are improved and reforested					
Activity 3.1.6.1: Identification of sites for reforestation and pasture improvement	10, 000	10, 000			
Activity 3.1.6.2: Training of beneficiary nursery growers	5, 000	5, 000			
Activity 3.1.6.3: Creation of forest and pasture nurseries	90, 000	50, 000	20, 000	20, 000	
Activity 3.1.6.4: Training of the work force involved in reforestation	5 000	5 000			
Activity 3.1.6.5: Reforestation and pasture improvement	1, 200, 000	400, 000	350, 000	350, 000	100, 000
~~**Output 3.2.2: Improved cook stoves are allocated to women**~~					
~~Activity 3.2.2.1: Identification of beneficiary women (inventory, selection and consultation)~~	~~5 000~~	~~5 000~~			

~~Activity 3.2.2.2: Training of beneficiary women on the utilization of improved cook stoves~~	~~5 000~~	~~5 000~~			
~~Activity 3.2.2.3: Attribution of improved cook stoves to beneficiary women~~	~~100 000~~	~~20 000~~	~~30 000~~	~~30 000~~	~~20, 000~~
~~**Output 3.2.3: Solar panels are installed in wells and in community infrastructures (schools, local administrations…)**~~					
~~Activity 3.2.3.1: Identification of infrastructure and wells to equip~~	~~20, 000~~	~~10, 000~~	~~10, 000~~		
~~Activity 3.2.3.2: Training of beneficiaries on the utilization and maintenance of solar panels~~	~~5, 000~~		~~3, 000~~	~~2 000~~	
~~Activity 3.2.3.3: Equipment of infrastructures with solar panels~~	~~300, 000~~	~~50, 000~~	~~150, 000~~	~~50, 000~~	~~50,000~~
Outcome 3.2: Resilience of populations to climate change is strengthened and their livelihoods are improved through income-generating activities					
Output 3.2.1: Revolving funds are set up to diversify income sources					
Activity 3.2.1.1: Organization of information events and awareness-raising workshops for communities on revolving funds	30, 000	15, 000	15, 000		
Activity 3.2.1.2: Training of beneficiaries on the use and management of revolving funds	45, 000	30, 000	15, 000		
Activity 3.2.1.3: Handover and Supervision of Disbursement of the funds	15,000		15,000		
Output 3.2.2: Income-generating activities are sustained					
Activity 3.2.2.1: Selection and training of beneficiaries on income generating activities	90, 000	10, 000	50, 000	30, 000	
Activity 3.2.2.2: Acquisition and distribution of beehives to the beneficiaries	180, 000	20, 000	100, 000	40, 000	20,000
Activity 3.2.2.3: Acquisition of equipment for the distillation of essential oils	120, 000	10, 000	90, 000	10, 000	10,000
Activity 3.2.2.4: Valuation of non-timber forest products (NTFP) such as shea, baobab, moringa, nereid, tamarind, gums, etc..	120, 000	10, 000	80, 000	20, 000	10,000

Activity 3.2.2.5: Construction of "Nature's Stores" to offer and sell local and artisan products	45, 000	15, 000	30, 000		
Output 3.2.3: Improved cook stoves are allocated to women					
Activity 3.2.3.1: Identification of beneficiary women (inventory, selection and consultation)	5 000	5 000			
Activity 3.2.3.2: Training of beneficiary women on the utilization of improved cook stoves	5 000	5 000			
Activity 3.2.3.3: Attribution of improved cook stoves to beneficiary women	100 000	20 000	30 000	30 000	20, 000
Output 3.2.4: Solar panels are installed in wells and in community infrastructures (schools, local administrations…)					
Activity 3.2.4.1: Identification of infrastructure and wells to equip	20, 000	10, 000	10, 000		
Activity 3.2.4.2: Training of beneficiaries on the utilization and maintenance of solar panels	5, 000		3, 000	2 000	
Activity 3.2.4.3: Equipment of infrastructures with solar panels	300, 000	50, 000	150, 000	50, 000	50,000
Sub-total of component 3	**3 710 000**	**975 000**	**1 593 000**	**842 000**	**300 000**
Component 4: Awareness-raising, communication and capacity building for concerted, integrated and sustainable management of the WAP Complex					
Outcome 4.1: Concerned actors are mobilized and sensitized through adapted communication and capacity building					
Output 4.1.1: Practitioners, technicians and decision makers are sensitized and trained on environmental challenges					
Activity 4.1.1.1: Elaboration of specific training modules on the main themes addressed by the project (natural resources)	50, 000	30, 000	20, 000		
Activity 4.1.1.2. Organization of thematic training workshops for practitioners and technicians	100, 000	40, 000	30, 000	20, 000	10,000

Activity 4.1.1.3. Organization of information events and extension sessions aimed at decision-makers at country level	50, 000	10, 000	30, 000	10, 000	
Output 4.1.2: Populations are sensitized and informed					
Activity 4.1.2.1. Elaboration of a strategy and an action plan about communication and sensitization for users and beneficiaries	30, 000	20, 000	10, 000		
Activity 4.1.2.2: Design and development of communication supports for the general public (leaflets, posters, flyers, syntheses, documentaries, spots for local radios, phone application)	200, 000	20, 000	50, 000	100, 000	30, 000
Activity 4.1.2.3: Creation/strengthening of environmental clubs at local institutions (colleges, high schools) through training and equipment	60, 000	15, 000	15, 000	30, 000	
Activity 4.1.2.4: Design of environmental education sessions for school children and women in local language	10, 000	10, 000			
Activity 4.1.2.5: Organization of environmental education sessions for pupils and women	150, 000	20, 000	80, 000	30, 000	20,000
Activity 4.1.2.6: Organization of awareness and information days for populations (cultural and artistic activities on climate change adaptation and mitigation)	225, 000	20, 000	100, 000	80, 000	25, 000
Activity 4.1.2.7: Set up of a radio web (studio equipment, server on a portal, and a mobile phone application)	15, 000	10, 000	5 000		
Activity 4.1.2.8: Organization of training sessions to create radio programs for the riparian populations of the three countries (radio announcers and program designers)	60, 000	10, 000	20, 000	20, 000	10, 000
Sub-total of component 4	**950, 000**	**205, 000**	**360, 000**	**290, 000**	**95, 000**
Total component/year	**7 200 000**	**1 555 000**	**3 428,000**	**1 587 000**	**630, 000**
Component 5: Project Execution and Monitoring					
Implementation costs (Implementing Unit)					**702, 000**

Execution costs (management unit)	**648, 000**
Total projet	**8 550 000**

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY TH E IMPLEMENTING ENTITY

- **Record of endorsement on behalf of the government[1]:**

Mr. NazaireTHIOMBIANO General Director for Cooperation Ministry of Economy and Finance **(BURKINA FASO)**	Date:03/31/2017
Mr.Euloge LIMA National Designated Authority - Adaptation Fund **(BENIN)**	Date: 03/31/2017
Dr.Kamaye MAAZOU Executive Secretary of the National Council of the Environment for Sustainable Development Ministry of Environment and Sustainable Development **(NIGER)**	Date: 03/30/2017

- **Implementing Entity certification**

I certify that this proposal has been prepared in accordance with the guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (NAPA, ECOPAS, PAPE, and PAGAP.)and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and to the understanding that the Implementing Entity will be fully(legally and financially)responsible for the implementation of this project/programme.	
Mr. Khatim Kherraz– Executive Secretary of the Sahara and Sahel Observatory (RIE) Implementing Entity Coordinator	
Date:04/07/2017	Tel.and Email: (+216) 71 206 633 boc@oss.org.tn
Project Contact Person: **Nabil Ben Khatra**	
Tel. and Email: (+216) 71 206 633; nabil.benkhatra@oss.org.tn	

[1]EachPartyshalldesignate and communicate tothe secretariattheauthoritythatwillendorse on behalfofthe nationalgovernment the projects and programmesproposed bythe implementingentities

ADAPTATION FUND

MINISTERE DU CADRE DE VIE
ET DU DEVELOPPEMENT DURABLE

REPUBLIQUE DU BENIN

01 BP 3502 - 01 BP 3621
Cotonou
Tél. : + 229 97 89 54 15
limeloge@gmail.com

Letter of Endorsement by Government

Cotonou, le 31 mars 2017

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for ADAPT-WAP project: Integration of climate change adaptation and mitigation measures in the concerted management of the WAP-transboundary complex.

In my capacity as designated authority for the Adaptation Fund in **Benin,** I confirm that the above regional project proposal is in accordance with the government's (select national or regional) priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the **country**.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by OSS and executed by **Centre National de Gestion des Réserves de Faunes (CENAGREF).**

Sincerely,

Autorité Nationale
Désignée du Fonds d'Adapation

Euloge LIMA

MINISTERE DE L'ECONOMIE, DES FINANCES ET DU DEVELOPPEMENT

SECRETARIAT GENERAL

DIRECTION GENERALE DE LA COOPERATION

BURKINA FASO

Unité-Progrès-Justice

Ouagadougou, le 31 MARS 2017

N°2017/ 00316 /MINEFID/SG/DGCOOP/DCM/kw

Designated authority

To

The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

OUAGADOUGOU

Subject: Endorsement for ADAPT-WAP project: Integration of climate change adaptation and mitigation measures in the concerted management of the WAP- transboundary complex.

In my capacity as designated authority for the Adaptation Fund in Burkina Faso, I confirm that the above regional project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the country.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by OSS and executed by "Direction des Forêts du Ministère de l'Environnement, de l'Economie Verte et du Changement Climatique".

Sincerely

Mr Nazaire THIOMBIANO

Chevalier de l'Ordre du Mérite Burkinabè

ADAPTATION FUND

Letter of Endorsement by Government

REPUBLIQUE DU NIGER

Fraternité – Travail – Progrès

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CABINET DU PREMIER MINISTRE

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CONSEIL NATIONAL DE L'ENVIRONNEMENT POUR UN DEVELOPPEMENT DURABLE
SECRETARIAT EXECUTIF

==========

30/03/2017

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Subject: Endorsement for ADAPT-WAP project: Integration of climate change adaptation and mitigation measures in the concerted management of the WAP- transboundary complex.

In my capacity as designated authority for the Adaptation Fund in Republic of NIGER, I confirm that the above regional project proposal is in accordance with the government of NIGER priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in NIGER.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund. If approved, the project will be implemented by OSS and executed by la Direction Générale des Eaux et Forêts (DGEF) et le Centre National de Suivi Environnemental et Ecologique (CNSEE) in relation with other key national institutions.

Sincerely,

Dr KAMAYE MAAZOU

Executive Secretary of the National Council
of Environment for a Sustainable Development

ANNEXES

Annex: LIST OF ABBREVIATIONS AND ACRONYMS

ACP	African, Caribbean, and Pacific Group of States
AWP	Annual Work Plan
BMZ	Federal Ministry for Economic Cooperation and Development (Germany)
CC	Climate Change
CENAGREF	National Center for the Management of Wildlife Reserves (Benin)
CILSS	Permanent Inter-State Committee for Drought Control in the Sahel
CNSEE	National Centre for Ecological and Environmental Monitoring (Niger)
COP	Conference of Parties
DGEF	General Directorate of Water Resources and Forests (Burkina Faso)
DGEF	General Directorate of Water and Forests (Niger)
ECOPAS	Project on Protected Ecosystems in Sahelian Africa
ECOWAS	Economic Community of West African States
EEC	European Economic Community
EFC	Ethics and Finance Committee
ERP	Emergency Response Plan
ESMP	Environmental and Social Management Plan
EU	European Union
GEF	Global Environment Facility
GIS	Geographic Information System
GPS	Global Positioning System
GTZ	German Technical Cooperation
IPCC	Intergovernmental Panel on Climate Change
IPSR	Interim Poverty Reduction Strategy (Benin)
IUCN	International Union for Conservation of Nature
LPDSE	Letter for the Development of the Energy Sector (Niger)
M&E	Monitoring and Evaluation
MAB	Man and Biosphere
MDGs	Millennium Development Goals
MEHU	Ministry of Environment, Housing and Urban Development (Benin)
MHMREWS	Multi-Hazard Early Warning System
MREWS	Multi-Risk Early Warning System
NAPA	National Adaptation Programme of Action (Benin)
NBA	Niger Basin Authority
NDCs	Nationally Determined Contributions
NGO	Non-Governmental Organization
NPMU	National Project Management Unit
NTFPs	Non-Timber Forest Products
NWFP	Non-Wood Forest Products

OSS	Sahara and Sahel Observatory
PAGAP	Support Programme to the Management of Protected Areas
PAGIRE	Action Plan for Integrated Natural Resources Management (Niger)
PAN/LCD	National Action Programme for Combatting Desertification (Niger)
PANA	National Action Programme for Climate Change Adaptation (Niger)
PANEDD	National Environmental Education Action Plan for Sustainable Development (Niger)
PAPE	Support Programme to the W Park
PAPISE	Action Plan and Investment Programme for the Livestock Sector (Niger)
PBR	Pendjari Biosphere Reserve
PEDD	Environmental Plan for Sustainable Development (Niger)
PNE	National Environmental Policy (Niger)
PNEDD	National Environmental Plan for Sustainable Development (Niger)
PNF	National Forest Policy (Niger)
PNG	National Gender Policy (Niger)
PNP	National Population Policy (Niger)
ProCGRN	Programme for the Protection and Management of Natural Resources
PRS	Poverty Reduction Strategy (Niger)
QWP	Quarterly Work Plan
RIE	Regional Implementation Entity
RPMU	Regional Project Management Unit
SDGs	Sustainable Development Goals
SNDD	National Sustainable Development Strategy (Benin)
SNEE	National Environmental Education Strategy (Niger)
TBPA	Transboundary Protected Areas
TBR	Transboundary Biosphere Reserve
TFP	Technical and Financial Partners
UEMOA	West African Economic and Monetary Union
UNCBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention for Combatting Desertification
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNOPS	United Nations Office for Project Services
USD	United States Dollar
WAP	W-Arly-Pendjari
WAPO Complex	W, Arly, Pendjari, Oti-Mondouri

Annex: REPORT ON REGIONAL CONCERTATION WORKSHOP (FEBRUARY 2017, TAPOA (NIGER))

OBSERVATOIRE DU SAHARA ET DU SAHEL

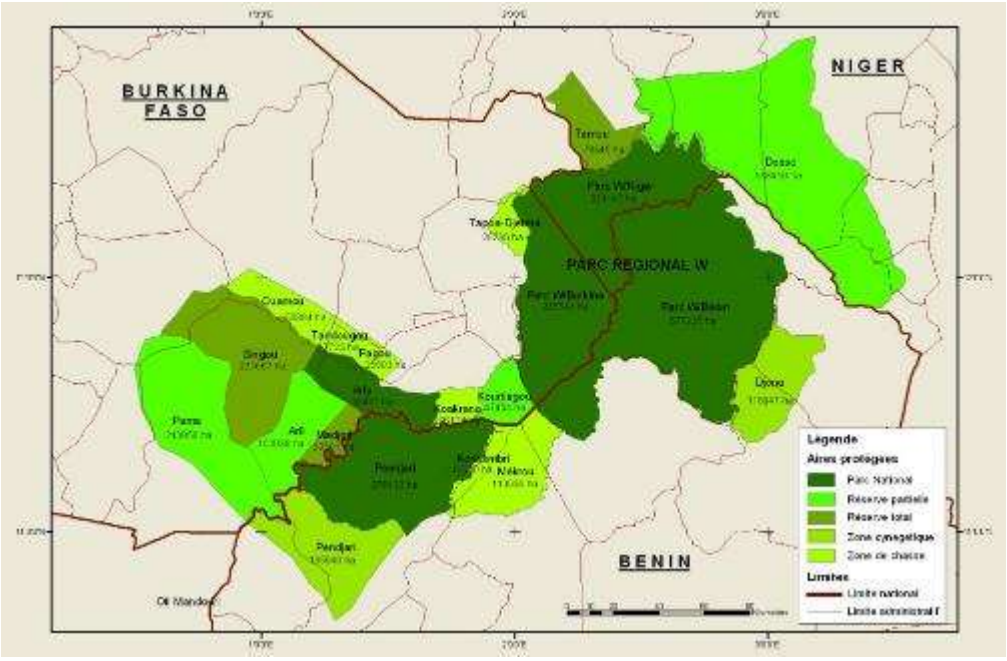
SAHARA AND SAHEL OBSERVATORY

ADAPT-WAP PROJECT

INTEGRATION OF CLIMATE CHANGE ADAPTATION AND MITIGATION MEASURES IN THE CONCERTED MANAGEMENT OF THE WAP TRANSBOUNDARY COMPLEX

REPORT ON REGIONAL CONCERTATION WORKSHOP

03 - 05 FEBRUARY 2017, TAPOA (NIGER)



FEBRUARY 2017

Context

The W-Arly-Pendjari (WAP) complex is one the largest protected areas in West Africa, shared between Benin, Niger and Burkina Faso. It contains a number of protected areas, including the transboundary W Regional Park based around a w-shaped bend in the river Niger, the Pendjari National Park in Benin and Arly National Park in Burkina Faso. The WAP complex is the largest and most important continuum of terrestrial, semi-aquatic and aquatic ecosystems in the West African savannah belt. It covers about 50,000 km^2 including riparian areas. The complex is divided between Benin (43% of the area), Burkina Faso (36%) and Niger (21%).

The WAP complex is recognized by several international wildlife biodiversity and conservation organizations for its important biodiversity of the savannah systems in West Africa. The WAP complex shelters populations of several large mammals including elephants, giraffe, hippopotamuses, and West African savanna buffalo, feline species (large cats) and it is home to a large number of antelope species. The WAP complex also protects a profusion of bird species, as well as many species of fish, insects and other organisms, all of which are a part of the biodiversity of this unique and invaluable natural ecosystem. Since 2001, the complex has been under transboundary management through the involvement of the managers of the three parks in cooperative management strategies for biodiversity conservation. Through this cooperative approach, regional tools and management system have been established and are functioning at the complex level.

However, the area's biodiversity is facing various threats such as agricultural encroachment, intense farming, transhumance within parks, poaching, overgrazing, uncontrolled bushfires, pollution of surface waters, climate change and variability, and unsustainable harvesting of natural resources (timber, fish overexploitation). During recent decades, the pressure to feed and provide livelihoods for a rapidly growing population is one of the most challenging problems facing the complex (unstoppable waves of migration moving due to disappearance of natural resources or looking for fertile soils).

The ADAPT-WAP is a designed regional project at the stage of pre-concept endorsed by the Adaptation Fund (October 2016). It is a project aimed at helping concerned countries (Benin, Burkina Faso, Niger) to adapt to the harmful effects of Climate Change within the WAP complex.

OSS is an accredited Regional Implementing Entity for the Adaptation Fund, has proposed this project and is currently working on the elaboration of the project concept in concertation with beneficiary countries.

The overall objective of this proposed project is to enhance the resilience to climate change of ecosystems and improve the livelihoods of local populations in the complex through the establishment of a Multi Risk Early Warning System (MREWS) and the integration of adaptation measures into sustainable management of the WAP Transboundary Complex.

*See project sheet in **Annex 2**.*

Workshop Contents

The workshop, which took place in 3 days, was attended by the first managers of the Park at the national and local levels, representative of the riparian populations, the customary authorities and producers' associations of the three countries. It aimed to:

- Inform partners and beneficiary populations about the justification, scope and objectives of the project;
- Present the concept note of the project, its component and the main planned activities;
- Discuss with the different stakeholders about their vision, expectations and needs in order to integrate them in in the project concept-note.

The workshop was carried out in a plenary session and group work.

The plenary session was introduced by an overview presentation, made by OSS experts, followed by discussions related to different aspects of the project (Technical, institutional, financial, etc.) The group work gave the opportunity to each country to detail the main themes related to the Complex WAP, in terms of pressures, threats and constraints.

*The detailed Program of the workshop is presented in **Annex 1**.*

Workshop Process

3.1. The first day | 03 February 2017

3.1.1. Debriefing meeting between OSS and national institutions

The purpose of this meeting was to inform the first managers of the complex about the objectives of the workshop, the relevance of the Concept Note and the approach adopted for its finalization.

At the end of the meeting, the program for the next two working days was approved by all parties.

Debriefing meeting with the first managers of the WAP Complex

3.1.2. Park W and WAP transboundry complex

The 'W' region takes its name from a double bend in the Niger River where its course takes the shape of a 'W'. Today the W region covers parts of three West African countries: Benin, Burkina Faso and Niger. The area is an exceptional reservoir of biodiversity in West Africa. In the heart of the W region lies the W Regional Park, which straddles the three countries. The area is part of the W-Arly-Pendjari (WAP) ecological complex, an extended regional system of protected areas covering nearly 5 million hectares.

The WAP ecological complex consists of a number of areas with differing protection status and regimes at the national level. In addition to the W TBR, the WAP complex covers the Arly National Park in Burkina Faso and the Pendjari National Park in Benin. The WAP complex has also received significant international recognition. It is representative of the Sudano-Sahelian biogeographic region and hosts unique examples of biological and ecological processes that reflect the interaction between man and nature.

Several studies conducted during the 1980s and 1990s with a view to the designation of the W Regional Park as a world heritage natural site, nominated by Benin and Niger, led to a precise ecological description of the W Regional Park itself, but not of all the areas that make up the W TBR.

The W Regional Park not only hosts unique examples of biological and geological processes, but also includes natural areas that are critically important in terms of biodiversity and natural habitats. The rivers of the W region (the Niger, Alibori and Mekrou) enhance landscape diversity and contribute to maintaining the habitats of threatened species of fauna and flora. The W Park wetland has been recognized as a wetland of international importance and listed as a Ramsar site. The region also provides some species with the vast areas they require for seasonal migration.

Group of elephants approaching the river in Park W (Niger), February 2017 © OSS

As a whole, however, the population density of large mammals remains low as a result of strong anthropogenic pressure. Bird species richness is high. Recorded reptiles and fish are typical of the Niger River region. Alluvial processes following seasonal floods play a key role in environmental restoration.

The diversity of natural landscapes includes permanent and seasonal bodies of water, cuirasses plateaus, sandstone, lateritic soils, active rain erosion areas, rock outcrops and gorges. Landscape diversity is matched by ecosystem diversity that includes terrestrial and aquatic systems. The landscape has been shaped by interaction with human communities and the traditional use of resources.

3.1.3. Visit to the Park W in Niger

As part of the field mission, participants visited the Niger part of W Park. The visit to the park was facilitated by the managers of the park from the three countries who provided information about the area and its specificities. The participants to the field visit included forest managers, representatives from riparian population and women.

The visit purpose was to meet with local actors and authorities to discuss the opportunity to develop the project and to identify their expectations toward the ADAPT-WAP project.

The main objectives of the field visit are the following:

- *Discuss general observations of the WAP context and the national and local stakeholders,*
- *Identify and evaluate the achievements of implemented projects*
- *Identify the different ecological entities of the park*
- *Evaluate the potential of the area in developing IGAs*
- *Assess the ecological/natural status of the different components of the area (forest, savannah, river)*
- *Evaluate the impact of the protected areas on fauna and flora (various species of mammals presents*

Photos during visit to Park W (Niger), February 2017 © OSS

3.2. The second day | 04 February 2017

3.2.1. Opening session

The opening session was marked by the introductory and welcoming speeches given by the OSS and the representatives of the three countries. **Mr. Abdou Malam Issa**, General Director of Forests and Water, Ministry of Environment and Sustainable Development of Niger gave the opening speech.

Opening Ceremony of the Concertation Workshop

In his speech, the General Director thanked OSS for supporting the holding of this meeting. He then highlighted the importance of the WAP Complex in terms of resources and economic benefits for the riparian populations.

Furthermore, he cited the pressures exerted and that could threaten the survival of this invaluable natural ecosystem. Finally, the General Director highlighted the importance of the populations' participation in the finalization of the Concept Note which, once approved, will bring and promote activities for the WAP Complex natural resources restoration and preservation.

Overview of participants in the concertation workshop on the WAP complex

The representatives of Benin and Burkina Faso underlined the importance of the transboundary cooperation between the three countries and the importance about the conservation and management of the Complex, and in particular his value for the populations' livelihood and future. Furthermore, they focused their speech on the substantial importance of the mobilization of funds, especially dedicated to developing countries, by the Adaptation Fund.

Burkina Faso and Benin thanked OSS for the initiative and organization of this Regional Concertation Workshop and Niger for the overall warm welcome to Tapoa.

The three concerned countries, i.e. Benin, Burkina Faso and Niger, reaffirmed by relative statements their strong interest on the ADAPT-WAP Project.

3.2.2. PowerPoint presentations

During this session, two presentations were made by the OSS concerning objectives and agenda of the workshop followed by the presentation of the project according to the content of the pre-concept-note.

Presentation of the Adapt WAP project concept note:

The presentation focused on:

- An overview on OSS, its action areas, missions and action strategies;
- The project justifications in terms of pressures on the WAP complex natural resources;
- The overall and specific objectives of the project;
- The project components and the expected results;
- The progress and maturity of the project;
- The actors and beneficiaries of the project;
- The proposed planned activities that the participants were called to enrich.

Discussion - Questions

At the end of this presentation, the main points of discussion were as follows:

- **The exact project area:** all participants insisted on the importance of targeting the entire WAP Complex and not restricting it only to the W Park. Indeed, the WAP acts as a continuum of ecosystems where the interactions and the problems are intimately connected and interconnected and are not limited to the exclusive zone of the W Park;
- The Project management, duration and coordination: The discussions resulted in the interest of setting up a regional project management entity, hosted by OSS, which will work closely with the national executing entities. The total duration of the project was estimated to four (4) years;
- The registration process of the WAP Complex in the World Heritage List is already engaged and does not require any other actions. The project will take into account this future status and will value it for the perpetuation of the targeted achievements;
- The proposed strategy for the execution of the project must be updated to take into account existing projects. The proposed project should look for synergies to be improved or strengthened;
- The organization and the milestones of the project development process until its final submission to the Adaptation Fund;
- The budget of the project, its different component and the rules and requirements of the Adaptation Fund regarding grant management;

- The importance of a substantial consideration of riparian populations in order to reduce the pressure on the Complex ecosystems. This pressure will considerably decrease by raising the riparian populations' awareness and improving their livelihoods;
- The national coordination of the project will be managed by the institutions in charge of Forest and Water, while the execution of the activities at local level will be monitored by the parks conservators.

Presentation of the WAP complex project concept note

3.2.3. Group work

An introductory presentation was provided by OSS in order to present the work group objectives and the expected results. The adopted approach aimed to help participant to express their visions and needs according to the realities and specificities of the different groups.

Working Groups were proposed to develop and to deepen further the proposals made in the Pre-Concept Note. Two types of working groups were formed: country groups and thematic ones.

Each country group worked on the following key elements:

- Weaknesses, Strengths and challenges of WAP Complex;
- Proposed adaptation and mitigation measures.

At the end of the group work by country, three thematic groups were formed to synthesize and prioritize the activities already proposed as follows:

- **Group 1:** Institutional aspects and Early Warning System;
- **Group 2:** Forest ecosystems and Natural Resource Management;
- **Group 3:** Agriculture, including livestock farming, fisheries and Income-generating activities.

During this group work, the GDWF of Niger shared information about the main threats and priorities of the WAP Complex which had been identified during a Ministers meeting on the WAP Complex held in Cotonou, January 24, 2017.

3.3. The third day | 05 February 2017: Restitution of the workshop results:

3.3.1. Group Work with countries:

For each thematic group, the results were structured around the following five issues:

- Main themes
- Assets and achievements
- Constraints and weaknesses
- Needs and proposals
- Responsible

*The results of the above-mentioned group work are presented in the tables provided in **annex 3**.*

3.3.2. Group work by themes

On the base of the national working groups findings, the thematic groups work aimed to validate and synthetize the results. The main **highlighted points and ideas** outlined are presented below and structured around the project components.

*The detailed tables by theme are shown in **annex 4**.*

1. **Institutional issues**
    - Strengthening the materialistic, financial and human capacities of all stakeholders
    - Set up a framework for dialogue between actors at the regional level
2. **Early Warning System**
    - Promotion of new information and communication technologies on Climate and Environment for an adapted EWS;
    - Guarantee the set-up of a mechanism to monitor the dynamics of land use and biodiversity for better contingency measures
3. **Adaptation and mitigation actions (Socio-economic activities)**
    a. **Forest ecosystems:**
        - Sensitization of stakeholders on the management and conservation of the natural resources of the WAP Complex;
        - Realization, rehabilitation and development of infrastructures (offices, paths, miradors, etc ...);

    b. **Agriculture, Livestock, Fisheries and IGAs**
        - Development and creation of water points and reservoirs;
        - Development of transhumance corridors;
        - Promotion of organic farming;
        - Set up a warranty system;
        - Restoration of pasture lands;
        - Organization and training of fishermen and acquisition of their equipment;
        - Promotion of market gardening;

- Promotion of beekeeping;
- Valorization of NWFPs (baobab, moringa, néré, shea, tamarin, balanites, gums, etc

4. Communication, Training and Capacity Building

- Organize study tours for the benefit of farmers' and breeders' groups;
- Training in the different techniques of valorization of NWFP;
- Training in fundamental technical subjects (Monitoring and evaluation activities, ecological monitoring, LAB ...);
- Development of environmental education activities;
- Elaboration of a communication and sensitization action plan that integrates local knowledge;

3.3.3. Closing session

OSS thanked the representatives and participants of the three countries for their strong interest, the exchanges and productive contributions during the three days' Workshop.

The representatives of Benin, Burkina Faso and Niger reconfirmed that OSS is in charge to elaborate the Concept Note, based on the results of this Regional Concertation Workshop. The final version of the Concept Note has to be presented and validated by the three countries before submission to the Adaptation Fund.

ANNEXES

ANNEX 1: Regional consultation workshop Agenda

- **DAY 1: 03 February, 2017**

Time	Activities	Speakers
12h00 – 14h00	Participants arrival and registration	DGF Niger -CNSEE - OSS
14h00 – 17h00	Debriefing meeting	OSS and national Institutions

- **Day 2: 04 February 2017**

Time	Activities	Speakers
08h30 – 09h00	**Opening session** ▪ Welcome adresses ▪ Presentation of participants ▪ Adoption of workshop objectives and agenda	DGF Niger - OSS
09h00 – 09h30	**Plenary session : project presentation** ▪ Generalities, Objectives ▪ Scope of the proposed project ▪ Activities details	OSS
09h30 – 10h30	**Discussions**	OSS and participants
10h30 – 11h00	***Coffee break***	
11h00 **– 13h00**	**Group work with countries** ▪ Introduction of works ▪ Strengths and challenges of parks ▪ Proposed adaptation and mitigation measures	OSS and participants
13H00 – 14h00	***Lunch***	
14h00 – 16h00	**Group work (continue)**	OSS and participants
16h00 – 16h30	***Coffee break***	
16h30 – 17h30	**Group work restitution**	OSS and rapporteurs

- **Day 3: 05 February 2017**

Time	Activities	Speakers
08h30 – 10h00	**Work groups by themes :** ▪ Harmonization and prioritization of proposed activities ▪ Taking into account national specificities ▪ Identification of Income Generating Activities	OSS and participants
10h00 – 11h00	**Work groups restitution**	OSS and rapporteurs
11h00 – 11h30	***Coffee break***	
11h30 **– 13h30**	**Synthesis and closure** ▪ Restitution of the workshop results ▪ Development of the roadmap ▪ Closure	OSS
13H30 – 14h30	***Lunch***	

ANNEX 2: ADAPT-WAP project sheet:

PROJECT SHEET 01/OSS/ENV **Integrating climate change adaptation and mitigation measures into the concerted management of the WAP Complex** **ADAPT – WAP Project**	
CHALLENGES	Adaptation and Climate Change
THEME	Integrated Natural Resources Management
COUNTRY / REGION	Benin, Burkina Faso and Niger
ADEQUACY WITH SDGS	SDG1 – SDG2 - SDG13 – SDG 15 - SDG 17
PROJECT DURATION	48 months
CONTEXT	The W-Arly-Pendjari (WAP) Complex is one of Africa's most important compositions of terrestrial transboundary ecosystems. It is considered as the largest and most important continuum of unharmed ecosystems in the West African savannah belt. Shared by Benin, Burkina and Niger, this network of protected areas consists of a number of areas with different status and protection regimes. In addition to the W Transboundary Biosphere Reserve (WTBR), shared by the three countries, the WAP complex covers the Arly National Park in Burkina Faso and the Pendjari National Park in Benin. It is located in the vicinity of the West African savannahs belt and displays a considerable biological diversity which contributes to the economic development of the region. However, the WAP Complex is subject to multiple threats and conflicts, such as poaching, overgrazing, and extension of agricultural lands, further aggravated by the adverse effects of climate change. Covered by a joint management agreement between the three countries, the complex is currently managed by common management structures that are responsible for implementing the development and management plans (DMP) and ensuring the preservation and conservation of natural resources in protected areas. The natural resources of the WAP complex represent a major asset for the local populations. The economy of the Complex is based mainly on agriculture, livestock breeding, fishery and forest resources (timber and non-timber products). However, the complex is under heavy pressures and threats such as conflicts of use, poaching, overgrazing, agricultural encroachment, uncontrolled transhumance, uncontrolled bush fires, siltation and pollution of surface waters, climate change and variability, unsustainable harvesting of NTFPs, timber and fish. The WAP Complex is part of a pastoral zone high inter-annual climatic variability exacerbated by climate change. This variability results in successive migrations of populations to more favorable areas in and around the complex. Local pastors gradually lose resource-spaces and are pushed to the WAP Complex. Faced with these pressures on ecosystems and the WAP Complex combined with the effects of climate change, the vulnerability of ecosystems and populations will be emphasized, and adaptation and resilience building measures become necessary.
OVERALL OBJECTIVE	The ADAPT-WAP project aims to strengthen the resilience of ecosystems and improve populations' livelihoods within the WAP Complex facing climate change through the establishment of a multi-hazard early warning system and the implementation of concrete adaptation measures.

	This project will allow to consolidate synergies between the three beneficiary countries by strengthening the sustainable and participatory management of the Complex and its natural resources while contributing to resolving conflicts between the different users.
SPECIFIC OBJECTIVES	The specific objectives of the project include: **Improving** Strategic reference documents, i.e. development and management plans, by integrating the climate change issues. **Improving** populations' resilience through an Early Warning System and providing relevant and timely information on the occurrence of extreme weather events in the WAP Complex and its adjacent areas. **Improving** ecosystems' resilience (fauna and flora) and populations' livelihoods though the consolidation of infrastructure, for example transhumance corridors, drinking troughs, and anti-flood structures. **Ensuring** the sustainability of adaptation measures through the mobilization and awareness-raising of beneficiaries and partners to master the tools developed and to execute the planned activities.
IMPACTS/RESULTS	The common management structures of the complex and the populations concerned are able to use the early warning tools developed by the project for the implementation of adaptation actions. The resilience of ecosystems and the local populations' livelihoods at the level of the WAP Complex are improved. The consultation mechanism is strengthened to improve the sustainable and participatory management of the WAP Complex natural resources, and conflict management among the different users is consolidated (field officers, pastoralists, and farmers).
COMPONENTS	**Component 1:** Integration of climate change aspects and an emergency plan in the management of the WAP Complex; **Component 2:** Design and establishment of a Multi-Hazard Early Warning System (MHMREWS), related to droughts, floods, and fires; **Component 3:** Enhancement of the resilience of ecosystems and populations through the implementation of concrete adaptation and mitigation actions, **Component 4:** Awareness-raising and capacity building for the concerted and integrated sustainable management of the WAP Complex.
BUDGET	**8.6 MK$ / Financial support requested from the Adaptation Fund** (Budget to be detailed in the concept note)
BENEFICIARIES	***Project Executing Entity:*** Common management structures of the parks organized in regional committee. ***National Executing Entities:*** **Benin :** *Le Centre National de Gestion des Réserves de Faune (CENAGREF)* **Burkina Faso :** *La Direction de la Faune et de la Chasse (DFC)* **Niger :** *La Direction Générale de l'Environnement et des Eaux et Forêts (DGEEF)* ***Local communities:*** Farmers, pastoralists, and the civil society
INSTITUTIONAL ARRANGEMENT	The project will support the countries efforts and integrate the results of the ECOPAS, PAPE, PAGAP projects and other projects. OSS will coordinate the project activities in close collaboration with the main existing national and regional entities. A steering committee will be established to ensure the project monitoring. It will be composed of: Regional Organizations such as CILSS, ECOWAS, … National institutions : Universities, CENAGREF, DFC, DGEEF, …

ANNEX 3: The following tables represent restitution of the results of the group works with countries:

- **BENIN**

N°	Main Theme	Assets and achievements	Constraints and weaknesses	Needs and proposals	Responsible
1	**Institutional component**				
	Organization, Management Structure, Community Associations and Rural Communities and Management Tools	▪ Existence of a specialized Wildlife Reserve Management Center (CENAGREF); ▪ Organization of populations (Village Associations for the Management of Fauna Reserves (AVIGREF); ▪ Existence of co-management structures (Association of local communities and APIDA; ▪ Existence of management tools: tripartite convention (Municipalities-CENAGREF and AVIGREF, PAG; PA).	▪ Lack of resources: human, materialistic, financial and infrastructural; ▪ Few communications between partners; ▪ Organization problems of co-management structures.	▪ Support CENAGREF in human, materialistic and financial resources; ▪ Strengthening the communication between partners; ▪ Strengthening the capacities of the co-management structures (AVIGREF) and the professional organizations: Farmers, breeders, fishermen.	WAP Project and Countries
2	**Socio-economic activities**				
a	**Forest ecosystems**	▪ Use of auxiliaries as trackers and local professional hunters; ▪ Existence of a contract for the exploitation of Non-Wood Forest Products (NWFPs); ▪ Meat derived from sport hunting by the population; ▪ 30% of the Park's revenues are refunded to local residents; ▪ Use of local work force	▪ Attachment of populations to the Park's Ecosystem Services; ▪ Agricultural encroachment; ▪ Low agricultural management; ▪ Insufficient cultivable land; ▪ Low level of soil fertility.	▪ Awareness raising and development of alternative activities; ▪ Development of techniques to improve soil fertility.	CENAGREF, local elected officials, AVIGREF and OSS
b	**Agriculture and livestock**	▪ Existence of the buffer zone (area reserved for agriculture, livestock and NWFP); ▪ Transhumance and passage corridors.	▪ Insufficient water reservoirs outside the park; ▪ Lack of development of passage corridors; ▪ Problem of management of the buffer zone (conflicts between farmers and breeders); ▪ Conflicts between people and fauna.	▪ Development or creation of water points and reservoirs; ▪ Materialization of the different forest species; ▪ Awareness raising; ▪ Set up a system at village level for managing wildlife conflicts.	CENAGREF and OSS
c	**Fisheries**	▪ Existence of fisheries; ▪ Organization of fishermen; ▪ Authorization of fishing.	▪ Lack of accountability of fishers in carrying out their activities; ▪ Inadequacy of fishing gear.	▪ Training of fishermen; ▪ Support for the acquisition of adequate gear of fishing.	CENAGREF and OSS

d	**Other Income-Generating Activities (IGA)**	▪ Existence of economic interest groups; ▪ Existence of IGA micro projects; ▪ IGA awaiting funding; ▪ Beneficiaries already trained; ▪ Existence of framing structures of IGA promoters.	▪ Lack of fundings for IGA.	▪ Mobilization of the financial resources for a IGA; ▪ Targeting IGA promoters.	CENAGREF and OSS
3	**Early Warning System (EWS)**				
		How the information on the scourges currently circulates?	*Difficulties and obstacles concerning the flow of information*	*Types of communication channels, message type and communication tools*	
		▪ Existence of community radios; ▪ Existence of a contract for the information dissemination; ▪ Existence of a strategy or communication plan; Existence of a framework about joint consultation of risks and natural disasters.	▪ Insufficiency of meteorological instruments; ▪ No control of early warning techniques.	▪ Equipment and training for early warning needs.	OSS and CENAGREF and Meteorological Services
N°	**Main Theme**	**Assets and achievements**	**Constraints and weaknesses**	**Needs and proposals**	**Responsible**
4	**Training and Capacity Building**				
		▪ Availability of staff; ▪ The staff had various trainings; ▪ The current political will of the authorities to accompany conservation measures; ▪ Existence of limited permanent jobs and basic needs ▪ Training of populations in the context of IGAs.	▪ Formations already obsolete; ▪ Targeted training; ▪ An obsolete equipment; ▪ A low level of education or illiteracy; ▪ Job creation and fulfillment of basic needs; ▪ Lower membership of CSOs (religious and traditional authorities).	▪ Equipment for watchtowers; ▪ Maintenance of the paths, ponds, watchtowers; ▪ Construction of patrol paths; ▪ Strengthening the capacity of the personnel (foresters, eco-guards, trackers, tourist guides …); ▪ Recruitment; ▪ Rolling stock and communication equipment (radios).	OSS and CENAGREF
5	**Sensitization and Communication**				
		▪ Existence of a communication plan; ▪ Existence of a framework about awareness-raising at district and village level (AGAR: General Assembly of the District); ▪ Existence of a radio communication system.	▪ Limited means for the implementation of the Communication Plan (Information, education and communication (IEC)); ▪ Radio communication system failing; ▪ Insufficient resources for general assemblies.	▪ Mobilization of financial resources for the implementation of the communication plan; ▪ Rehabilitation and strengthening of radio communication systems.	Municipalities, CENAGREF and AVIGREF

▪ BURKINA FASO

N°	Main Theme	Assets & achievements	Constraints & weaknesses	Needs & proposals	Responsible
1	**Institutional component**				
	Organization, Management Structure, Community Associations and Rural Communities and Management Tools	▪ Existence of management structures (DGEF, DR, conservators); ▪ Asserted will of managers; ▪ Existence of a regulatory framework; ▪ Signatory of several biodiversity conventions; ▪ MAB UNESCO, Ramsar; ▪ Existence of groups in charge of wildlife management.	▪ Institutional anchor not clearly defined; ▪ Cyclical financing; ▪ Weak organization of groups and associations; ▪ Weak operation of groups and associations; ▪ High illiteracy rate; ▪ No framework for consultation around the Park.	▪ Clearly define the park's membership structure; ▪ Sustainable financing mechanism; ▪ Establishment of umbrella structures; ▪ Monitoring and supervision of groups and associations; ▪ Creation of literacy centers; ▪ Implementation of a consultation framework.	Ministries, DGEF Country, Partners Park Responsible, groups Park Responsible Country, Partners
2 – Socio-economic activities					
a	**Forest ecosystems**	▪ High biodiversity; ▪ Abundance of wildlife.	▪ Agricultural land; ▪ Poaching; ▪ Uncontrolled fires; ▪ Illegal farming; ▪ Difficulties in planning; ▪ Irregular ecological monitoring; ▪ Water stress; ▪ Lack of information network.	▪ Awareness and monitoring; ▪ Maintenance of the lowlands for the production of the fodder; ▪ Creation of water reservoirs; ▪ Establishment of permanent Monitoring and Evaluation mechanisms.	Park Managers Park Managers and partners Park Managers and partners
b	**Agriculture and livestock**	▪ Existence of transhumance paths; ▪ High importance of livestock; ▪ Cropland is relatively rich.	▪ Low availability of water for animals; ▪ Adjoining transhumance paths; ▪ Insufficient vaccination facilities; ▪ Erratic rainfall; ▪ Unsuitable techniques and cropping means; ▪ Pollution of water and soil.	▪ Creation of water retention for animals; ▪ Availability of meals; ▪ Creation of transhumance corridors; ▪ Implementation of vaccination facilities; ▪ Availability of tools for agriculture; ▪ Promotion of the practice about ANR (Assisted Natural Regeneration); ▪ Support the practice of organic farming.	Country, partners
c	**Fisheries**	▪ Availability of resources.	▪ Weak fishermen's organization; ▪ Use of inadequate equipment; ▪ Pollution of water.	▪ Organization of fishermen in groups; ▪ Procurement of fishing equipment; ▪ Development of fish farming actions.	Managers Country, partners

d	**Other Income Generating Activities (IGA)**	▪ Availability of raw material; ▪ Importance of work force.	▪ Lack of water reservoirs; ▪ Insufficiency of multifunctional platforms.	▪ Establishment of water reservoirs for market gardening; ▪ Value creation of NWFPs through women's groups.	Country, partners
3	**Early Warning System (EWS)**				
		How the information on the scourges currently circulates?	*Difficulties and obstacles concerning the flow of information*	*Types of communication channels, message type and communication tools*	
		▪ Sensitization; ▪ Radio program; ▪ Telephone network; ▪ Television.	▪ High illiteracy; ▪ Low coverage of communication networks; ▪ Low radius coverage of local radio.	▪ Increase sensitization sessions; ▪ Expand the radius of telephone and radio communication; ▪ Reinforce the Park's communication system; ▪ Assist warning systems with all necessary equipment and training.	Managers Country, partners Country, partners
N°	**Main Theme**	**Assets & achievements**	**Constraints & weaknesses**	**Needs & proposals**	**Responsible**
4	**Training and Capacity Building**				
		▪ Competence of stakeholders for training.	▪ Insufficient financial resources; ▪ Insufficient technical support; ▪ Insufficient training plan.	▪ Training: adaptation to Climate Change; Project development; GIS, ecological monitoring; Human-Fauna conflict management; Fighting bush fires; cook stoves; NWFP valuation.	Managers, partners
5	**Sensitization and Communication**				
		▪ Competence of stakeholders.	▪ Illiteracy; ▪ Lack of sensitivity of riverside populations; ▪ Lack of tools and communication mechanism.	▪ Develop awareness and communication themes; ▪ Increase communication and awareness channels and media; ▪ Ensure a communication and awareness-raising action plan.	Managers, partners

- **NIGER**

N°	Main Theme	Assets & achievements	Constraints & weaknesses	Needs & proposals	Responsible
1	**Institutional Component**				
	Organization, Management Structure, Community Associations and Rural Communities	▪ DGEF and its divisions.	▪ Building capacity; ▪ Insufficient human resources; ▪ Insufficient rolling and floating logistics; ▪ Insufficient infrastructure.	▪ Strengthening human capacities and materialistic support	The services concerned and the local Project Management Unit.
		▪ The Conservator of the Tamou Wildlife Reserve (RTFT).	▪ building capacity; ▪ Insufficient human resources; ▪ Insufficient rolling and floating logistics; ▪ Insufficient infrastructure.		The services concerned and the local Project Management Unit.
		▪ The Conservator of the Dosso Partial Wildlife Reserve (RPFD).	▪ Building capacity; ▪ Insufficient human resources; ▪ Insufficient rolling and floating logistics; ▪ Insufficient infrastructure.		The services concerned and the local Project Management Unit.
		▪ The Regional Park of W of Niger.	▪ Building capacity; ▪ Insufficient human resources; ▪ Insufficient rolling and floating logistics; ▪ Insufficient infrastructure.		
		▪ The Giraffe Zone (Kouré).	▪ Building capacity; ▪ Insufficient human resources; ▪ Insufficient rolling and floating logistics; ▪ Insufficient infrastructure.		
		▪ Community Services for the Environment and Sustainable Development (SCE / DD).	▪ Building capacity; ▪ Insufficient human resources; ▪ Insufficient rolling and floating logistics; ▪ Insufficient infrastructure.		The services concerned and the local Project Management Unit.
		▪ The CNSEE.	▪ Data gathering.	▪ Carry out reference situations at the level of all the communes bordering the W; ▪ Installation of the synoptic meteorological stations and collection of climatic data; ▪ Producing climate services to anticipate and respond to climate shocks; ▪ Installation of an ecological monitoring device.	CNSEE and the services concerned and the local Project Management Unit.

		▪ Tamou observatory.	▪ Difficulties to collect data.	▪ Carry out reference situations at the level of all the communes bordering the W; ▪ Installation of synoptic meteorological stations and collection of climate data; ▪ Producing climate services to anticipate and respond to climate shocks; ▪ Installation of an ecological monitoring device.	CNSEE and the services concerned and the local Project Management Unit.
		▪ Farmers associations.	▪ Farming inputs inaccessible and unavailable on the spot; ▪ Degraded lands.	▪ Make farming inputs available for the association.	Local structure of the Project; The Farmers Association; Technical Services of Agriculture (DRA, DDA, CDA …).
		▪ Breeders associations.	▪ Lack of grazing and zoo technical inputs.	▪ Restoration of pasture; ▪ Creation of Banks for zoo technical inputs.	Technical services for animal resources; Breeders Association and Project Management Unit.
		▪ Fishermen associations.	▪ Structuration and capacity building.	▪ Organization of structures.	Technical services for water and forests in charge of fishing; Fishermen's association; Local Project Management Unit.
		▪ Associations and Beekeepers Union.	▪ Inadequate production and protection equipment; ▪ Inadequate knowledge about the processing of honey products; ▪ Bee drinking place.	▪ Study trip and exchange of experience in the WAP Complex; ▪ Introduction of honey-producing species;	Technical Services of Water and Forests in charge of beekeeping (DFC / AP in Niger);

				▪ Expansion of producers and production area.	Local Project Management Unit.
		▪ Women Federation.	▪ Operationalization of the farming Inputs Store for market gardening; ▪ Lack of training in production of Moringa olifera; ▪ Protective equipment for market gardening sites; ▪ Problem of conservation for market gardening products; ▪ Process of mechanization of products derived from honey; ▪ Inadequate Income-Generating Activities (IGA); ▪ Capacity building on community life; ▪ Study tour for exchange.	▪ Poor sales of gardening products.	Women Associations; Technical services in charge of the promotion of women; Local Project Management Unit.
		▪ The National Association of Wood Operators (ANEB).	▪ Rarity of the resource; ▪ Non-compliance with the law.	▪ Promotion of other sources of energy as alternative energy.	▪ ANEB; ▪ Technical Services of Water and Forests; ▪ Local Project Management Unit.
		▪ Butchers Associations.	▪ Quality control of meat; ▪ Exploitation into the artisanal sector.	▪ Capacity building and the modernization of the sector.	▪ The technical services concerned; ▪ Association; ▪ Local Project Management Unit.
		▪ Association of Sellers of leather.	▪ Difficulties in supplying raw material.	▪ Capacity building of the sector.	▪ The technical services concerned; ▪ Association; ▪ Local Project Management Unit.
		▪ Infrastructure.	▪ Insufficient and worn out housing for protection and surveillance officers; ▪ Degradation of paths; ▪ Obsolescence of the infrastructure (watchtowers, etc.); ▪ Inadequate supply of drinking water; ▪ Infrastructure development with solar energy equipment; ▪ Insufficient and obsolescence offices.	▪ Rehabilitation and construction of certain infrastructure.	▪ Park W/Niger.

		▪ Rolling and floating logistics equipment.	▪ Lack of canoes ▪ Obsolescence and lack of vehicles; ▪ Computer equipment (computers, printers, data show, photocopier and scanner; ▪ Maintenance and renewal; ▪ Bicycles and motorcycles; ▪ Internet connection device (satellite dish, etc.) ; ▪ Navigation equipment (GPS, compass, Clinometer …); ▪ Camera trap, camera, binoculars, etc.	▪ Equipment, maintenance.	▪ The technical services concerned; ▪ Other Structures; ▪ Associations and Project Management Unit (local).
		▪ Honey storage equipment.	▪ Packaging equipment; ▪ Store for beekeeping products.	▪ Construction of infrastructure.	▪ Association of Beekeepers; ▪ The technical services concerned; ▪ Local Project Management Unit.
		▪ Fishing gear.	▪ Unavailability and inaccessibility of fishing gear; ▪ Conservation of fishery products.	▪ Strengthening of the capacities and equipment of the structures concerned.	▪ The technical services of Waters and Forests, responsible for fisheries; ▪ The Association; ▪ Local Project Management Unit.
		▪ Hives.	▪ Support for the installation of hives; ▪ Insufficient apiaries.	▪ Increase of apiaries; ▪ Use of modern hives.	▪ Union of Beekeepers.
		▪ Availability of bees.	▪ Lack of watering point for bees; ▪ Use of pesticides.	▪ Build or develop ponds, water points or basins.	▪ Union of Beekeepers. ▪ The technical services concerned (DFC / AP, Agro-Technician).
		▪ Availability of agricultural land.	▪ Land degradation; ▪ Progress of the agricultural front; ▪ Demographic pressure; ▪ Obsolescence of production techniques and systems.	▪ Land restoration; ▪ Intensification of agriculture; ▪ Agroforestry.	▪ Association for Agricultural Production; ▪ The agricultural services concerned and the local Project Management Unit.
		▪ Livestock availability.	▪ Diseases, epizootic diseases; ▪ Lack of Food Banks for Livestock; ▪ Lack of Bank for Zoo Technical Inputs; ▪ Siltation of ponds and other water points;	▪ Development of pastoral lands; ▪ Intensification of livestock.	▪ Technical Department in charge of Forest, Waters and Livestock.

			▪ Proliferation of invasive species; ▪ Lack of training, information and awareness of breeders; ▪ Occupation of corridors.		
		▪ Human resources.	▪ Capacity building.	▪ Training and support for equipment for stakeholders.	▪ All the stakeholders concerned.
		▪ Wealth of Biodiversity.	▪ Reduction of biodiversity; ▪ Poaching; ▪ Illegal Pasture; ▪ Progress of the agricultural front; ▪ Bush fires; ▪ Illegal fishing.	▪ Organization of anti-poaching campaigns (APC); ▪ Sensitization of the stakeholders concerned; ▪ Implementation of firewalls.;	▪ Protected Area Management Units ▪ Local Project Management Unit.
		▪ Availability of water resources.	▪ Drying of water points; ▪ Changes in water regimes.	▪ Development of water points.	
		▪ Corridors.	▪ Insufficient corridors; ▪ Marking of corridors; ▪ Development of corridors; ▪ Inadequate vaccination parks; ▪ Insufficient water points.	▪ Improvement of corridors and accompanying infrastructure; ▪ Rehabilitation of pasture lands.	▪ Technical services concerned (livestock farming, rural engineering, water and forestry, farmers and breeders' associations); ▪ Local Project Management Unit.
		▪ Association of Accompanying Guides of the W.	▪ Capacity building.	▪ Training about associative life; ▪ Training in visitor reception and guidance techniques; ▪ Training in basic technical subjects.	▪ The Technical Services of Forestry in charge of the Management of Protected Areas; ▪ Local Project Management Unit.
		▪ Association for the Valorization of Ecotourism	▪ Capacity building.	▪ Training about associative life; ▪ Training in visitor reception and guidance techniques; ▪ Training in basic technical subjects.	▪ The Technical Services of Forestry, in charge of the Management of Protected Areas; ▪ Local Project Management Unit.
2	**Socio-economic activities**				
a	**Forest ecosystems**	Presence of forest galleries, but only in the Park and in the Partial Wildlife Reserve of Dosso.	▪ Climate Change		
b	**Agriculture and livestock**	See the aspects developed above concerning these subjects.			

c	**Fisheries**	See the aspects developed above concerning these subjects.			
d	**Other Income Generating Activities (IGA)**	▪ Exploitation of the Doum leaves; Exploitation of wood – energy by the rural markets; ▪ Extraction of Shea butter.			
3	**Early Warning Systems (EWS)**				
		How the information on the scourges currently circulates?	*Difficulties and obstacles concerning the flow of information*	*Types of communication channels, message type and communication tools*	
		▪ Existence of a national structure of the Early Warning System attached to primacy structure; ▪ Existence of a Ministry in charge for the Management of Disasters and Early Warnings.	▪ Lack of communication tools.	▪ Capacity building.	▪ MR EWS; ▪ Stakeholders concerned; ▪ The Ministry in charge of Disaster Management.
N°	**Main Theme**	**Assets & achievements**	**Constraints & weaknesses**	**Needs & proposals**	**Responsible**
4	**Training and Capacity Building**				
		▪ See the chapters developed on this.			
5	**Sensitization and Communication**				
		▪ Existence of several communication strategies in the areas of Biodiversity Management, Natural Resources Management, Adaptation and Mitigation of Climate Change.	▪ The lack of consequent means.	▪ Strengthening of operational capacities for sensitization.	▪ The various structures concerned; ▪ The local Project Management Unit.

ANNEX 4: The following tables represent restitution of the results of the group work by themes

Institutional Component and Early Warning System

	Main Theme	Needs & Proposals			Synthesis
		Benin	Burkina Faso	Niger	
1	**Institutional Component**				
	Organization, Management Structure, Community Associations and Rural Communities	▪ Support CENAGREF with human, materialistic and financial resources; ▪ Strengthening the communication between partners; ▪ Strengthening the capacity of co-management structures (AVIGREF) and professional organizations: Farmers, fishermen.	▪ Clearly define the structure about the Park's ownership; ▪ Sustainable financing mechanisms; ▪ Establishment of ridge structures; ▪ Monitoring and supervision of groups and associations; ▪ Creating Literacy Centers; ▪ Establishing a consultative framework.	▪ Strengthening human capacities and materialistic support.	▪ Strengthening the materialistic, financial and human capacities of all stakeholders; ▪ Set up a framework for dialogue between actors at the regional level; ▪ Establishment of umbrella co-management structures at the country level and a federation of umbrella structures at the regional level; ▪ As in Benin and Niger, it is desirable that the Park Management in Burkina Faso will be is entrusted with a single structure.
2	**Early Warning System (EWS)**				
		▪ Equipment and training for Early Warning Needs.	▪ Increase of awareness sessions; ▪ Expansion of the range of telephone and radio communication; ▪ Strengthening the Park's communication system; ▪ Assistance to the Warning Systems with all necessary equipments and trainings.	▪ Ensure Capacity Building; ▪ The need of an Early Warning and Disaster Management System in Niger	▪ Promotion of new information and communication technologies on Climate and Environment for an adapted EWS; ▪ Installation of synoptic stations, allowing the collection of real time climate data in the Complex; ▪ Realization of diachronic analyses of the surface in the Complex and of its pre-project reference status; ▪ Guarantee the set-up of a mechanism to monitor the dynamics of land use and biodiversity for better contingency measures; ▪ Equipment and training for the competent structures in charge of the Management of the EWS.

Adaptation and mitigation actions (Socio-economic activities)

N°	Main theme	Benin	Burkina Faso	Niger	Synthesis
3 - Socio-economic activities					
a	**Forest ecosystems**	▪ Awareness raising and development of alternative activities; ▪ Development of techniques to improve soil fertility.	▪ Awareness raising and monitoring; ▪ Set up lowlands for fodder production; ▪ Creation of water reservoirs; ▪ Establishment of a M&E System with permanent mechanisms.	▪ Carrying out reference situations at the level of all the communes bordering the W; ▪ Installation of Synoptic Meteorological Stations and collection of climate data; ▪ Establishment of climate services in anticipation of and to respond to climate catastrophes; ▪ Installation of an Ecological Monitoring System; ▪ Promotion of alternative sources of energy; ▪ Organization of anti-poaching campaigns (LAB); ▪ Awareness-raising among stakeholders; ▪ Construction of firewalls; ▪ Construction or rehabilitation of houses for protection and surveillance officers; ▪ Rehabilitation of degraded paths; ▪ Construction of infrastructure such as watchtowers, water supply systems solar energy equipment; ▪ Procurement of canoes, vehicles, computer hardware, bicycles and motorcycles, ▪ internet connection device, navigation and camera equipment, ▪ , etc..	▪ Anti-poaching; ▪ Ecological Monitoring; ▪ Sensitization of stakeholders on the management and conservation of the natural resources of the WAP Complex; ▪ Creation and development of ponds; ▪ Realization, rehabilitation and development of infrastructures (offices, paths, miradors, etc ...); ▪ Implementation of sustainable land and water management measures in the peripheral areas of the WAP Complex.
b	**Agriculture & Livestock**	▪ Development or creation of water points and reservoirs; ▪ Materialization of the different forest species; ▪ Sensitization; ▪ Set up a system for managing wildlife conflicts at village level.	▪ Creation of tax deductions for animals; ▪ Availability of meals; ▪ Creation of transhumance corridors; ▪ Implementation of vaccination facilities; ▪ Availability of tools for agriculture; ▪ Promotion of practical methods for Assisted Natural	▪ Availability of farming inputs for the Farmers' Association; ▪ Restoration of pasture; ▪ Creation of Banks for Zoo Technical Inputs; ▪ Support of Associations of Women in selling their garden products on the market; ▪ Development of Pastures; ▪ Intensification of livestock production; ▪ Land restoration; ▪ Intensification of agriculture; ▪ Agroforestry; ▪ Build or improve water points or basins; ▪ Development of corridors and associated infrastructure;	▪ Development and creation of water points and reservoirs; ▪ Development of transhumance corridors; ▪ Make inputs available to farmers; ▪ Intensification of agriculture; ▪ Promotion of organic farming; ▪ Set up a warranty system; ▪ Capacity building for farmers and breeders; ▪ Restoration of pasture lands; ▪ Creation of Banks for Zoo Technical Inputs;

			Regeneration (ANR); ▪ ▪ Support for Organic Farming.	▪ Rehabilitation of pasture lands.	▪ Materialization of the different forest species (Benin); ▪ Set up a system for the management of human-wildlife conflicts at village level (Benin); ▪ Promotion of garden products of Associations of Women for markets (Niger); ▪ Intensification of livestock (Niger); ▪ Land restoration (Niger).
c	**Fisheries**	▪ Training of fishermen; ▪ Support for the acquisition of adequate fishing resources.	▪ Organization of the fishermen (formation of a group of interests); ▪ Availability of fishing gear; ▪ Development of aquaculture operations.	▪ Organization of fishermen's structures; ▪ Strengthening of capacities of the fishermen and acquisition of fishing gear; Equipment for the conservation of fishery products.	▪ Organization and training of fishermen and acquisition of their equipment; ▪ Development of aquaculture operations.
d	**Other Income-Generating Activities (OIGAs)**	▪ Mobilization of the financial resources for IGAs; ▪ Identification of IGA promoters.	▪ Construction of water reservoirs for market oriented gardening; ▪ Valorization of NWFPs through groups of women.	▪ Study tours and exchange of experiences in the WAP Complex; ▪ Introduction of honey-producing species; ▪ Enlargement of producers and production area; ▪ Honey packaging materials; ▪ Storage of beekeeping products; ▪ Increase in apiaries; ▪ Use of modern hives; ▪ Capacity building and promotion of the Leather and Skin Sector; ▪ Capacity building for Butchers and modernization of the sector.	▪ Promotion of market gardening; ▪ Promotion of beekeeping; ▪ Promotion of the production of shea butter; ▪ Encouragement of the creation of workshops; ▪ Promotion of small-scale breeding; ▪ Valorization of NWFPs (baobab, moringa, néré, shea, tamarin, balanites, gums, etc.).

Communication, Training and Capacity Building

N°	Main theme	Benin	Burkina Faso	Niger	Synthesis
4	Training and Capacity Building				
		▪ Acquisition of equipment for watchtowers; ▪ Development of paths, ponds, and watchtowers; ▪ Realization of patrol paths; ▪ Capacity building of the personnel (foresters, eco-guards, trackers, tourist guides …); ▪ Recruitment of qualified staff; ▪ Equipment for rolling, media and communication (radios).	▪ Training: Adaptation to Climate Change; ▪ Project development; ▪ GIS, Ecological Monitoring; Men-Fauna conflict management; ▪ Fight against bush fires; LAB; cooking stoves; NWFP valuation.	▪ Training about associative life; ▪ Training in visitor reception and guidance techniques; ▪ Training in basic technical subjects.	▪ Co-operative management training; ▪ Organize study tours for the benefit of farmers' and breeders' groups; ▪ Training about Ecotourism; ▪ Training in the different techniques of valorization of NWFP; ▪ Training in fundamental technical subjects (Monitoring and evaluation activities, ecological monitoring, LAB …); ▪ Acquisition of logistical and technical equipment; ▪ Recruitment of qualified personnel.
5	Awareness and Communication				
		▪ Mobilization of financial resources for the implementation of the communication plan; ▪ Rehabilitation and strengthening of radio communication systems.	▪ Development of sensitization and communication themes; ▪ Increase the communication and sensitization channels and media; ▪ Backup of a communication and sensitization action plan.	▪ Strengthening of operational capacities for sensitization.	▪ Development of environmental education activities; ▪ Reproduction of communication channels and media, especially in local languages; ▪ Elaboration of a communication and sensitization action plan that integrates local knowledge; ▪ Creation and operationalization of a communication and sensitization action plan; ▪ Increase of communication and sensitization channels and media.

ANNEX 5: Participants List

Atelier régional de concertation et d'échange sur le projet ADAPT-WAP

DU 03 AU 05 FEVRIER 2017 | TAPOA (NIGER)

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Réunion des Ministres sur la gestion des ressources partagées du Complexe transfrontalier W-Arly-Pendjari (WAP)

COMMUNIQUE FINAL

Cotonou, le 24 janvier 2017

Le 24 janvier 2017, s'est tenue à *NOVOTEL Hôtel* de Cotonou au Bénin, une réunion des Ministres en charge des Aires Protégées, des Ressources Halieutiques et du Tourisme du Bénin, du Burkina Faso et du Niger.

L'objectif de cette réunion est de donner des orientations pour une meilleure harmonisation des approches en matière de protection, de sécurisation et de valorisation de la biodiversité du complexe W- Arly-Pendjari.

Ont pris part à la réunion :

Pour la République du Bénin :

- Monsieur José TONATO, Ministre du Cadre de Vie et du Développement Durable ;
- Monsieur Ange N'KOUE, Ministre du Tourisme et de la Culture.

Pour le Burkina Faso :

- Monsieur Batio BASSIERE, Ministre de l'Environnement, de l'Economie Verte et du Changement Climatique;
- Monsieur Sommanogo KOUTOU, Ministre des Ressources Animales et Halieutiques;

Pour la République du Niger:

- Monsieur Almoustapha GARBA Ministre de l'Environnement et du Développement Durable

Ont également pris part à cette réunion :

- Madame l'Ambassadeur de la République du Niger près le Bénin ;
- Madame l'Ambassadeur des États Unis d'Amérique près le Bénin ;
- Monsieur l'Ambassadeur, Chef de Délégation de l'Union Européenne près le Bénin ;
- Monsieur le Représentant Résident de l'UEMOA près Bénin ;
- Monsieur le Représentant de l'Ambassade du Royaume de Belgique près le Bénin ;
- Monsieur le Représentant de l'Ambassade de la République Française près le Bénin ;

- Monsieur le Représentant Résident du Programme des Nations Unies pour le Développement au Bénin ;

Les Ministres, ont pris connaissance des différents projets et programmes mis en œuvre dans le complexe WAP depuis plusieurs années et ont exprimé leur satisfaction par rapport aux progrès réalisés.

Ils ont aussi exprimé l'espoir de voir de nouveaux projets prendre la relève aux fins de conserver les acquis des projets et programmes passés en insistant sur la lutte contre les actes illicites, la criminalité faunique et la sécurité dans le complexe.

S'agissant de la protection et de la sécurisation du complexe W-Arly-Pendjari, les Ministres, tout en réitérant les recommandations en la matière lors de la session du Conseil des Ministres du PAPE de juillet 2015 à Niamey, ont pris acte des nouvelles dispositions de surveillance et de sécurisation du complexe WAP prises par chacun des États face aux menaces grandissantes des groupes terroristes et du grand braconnage qui compromettent dangereusement la biodiversité et le développement du tourisme dans le complexe W-Arly-Pendjari. Cependant, ils ont regretté les faibles résultats obtenus dans la lutte contre la criminalité faunique et les autres formes d'exploitation illicite du complexe W-Arly-Pendjari.

Ainsi, en examinant les différents outils de lutte contre les actes illicites dans le complexe W-Arly-Pendjari dont le Plan d'Urgence de Lutte Anti braconnage (PAULAB) adopté en 2014 par les Ministres en charge des aires protégées du complexe WAP, les ministres ont constaté la faiblesse des ressources allouées par les Etats à cette activité.

Sur la question de la pêche, les ministres ont à nouveau examiné le document relatif à la stratégie régionale de la pêche dans le complexe W-Arly-Pendjari adopté par le Conseil des Ministres en 2014, et invité les pays qui n'ont pas encore procédé à sa déclinaison en stratégie nationale à le faire dans les meilleurs délais pour une mise en œuvre rigoureuse. Ils ont en particulier insisté sur la nécessité du respect scrupuleux des grandes orientations de la stratégie régionale sur la pêche et du plan d'aménagement et de gestion du bloc écologique Arly-Pendjari qui interdit l'exploitation des ressources halieutiques dans les limites de la rivière comprise à l'intérieur des parcs.

Les Ministres ont examiné et approuvé les Plans d'aménagement et de Gestion des blocs écologiques du W et d'Arly-Pendjari 2016-2025 déjà adoptés par les instances techniques du Programme d'Appui aux Parcs de l'Entente en août 2016 à Fada N'gourma au Burkina Faso.

Les Ministres ont pris connaissance des négociations en cours dans le cadre du Programme Indicatif Régional (PIR) 11ème FED de l'Union Européenne et exhorté les acteurs concernés à s'impliquer véritablement dans la phase de formulation pour une prise en compte du complexe WAP.

Les Ministres, à l'issue de la réunion, ont réaffirmé leur engagement de mettre en œuvre la volonté politique de leurs Chefs d'Etat respectifs, de faire du complexe W-Arly-Pendjari, un espace communautaire de conservation de la biodiversité et d'intégration régionale et recommandent :

- **A l'endroit des Etats du complexe WAP**

  - Organiser une visite conjointe des Chefs d'Etats des trois pays sur l'état des lieux des ressources à l'intérieur du Complexe W-Arly-Pendjari;
  - Organiser une mission conjointe de supervision des Ministres des trois pays sur la sécurisation du Complexe W-Arly-Pendjari ;
  - Maintenir et améliorer les dispositifs de surveillance et de sécurisation en cours dans le WAP en vue de l'éradication du grand braconnage et d'empêcher que le WAP devienne les bases arrières des malfaiteurs, coupeurs de route et autres groupes terroristes ;
  - Mettre en œuvre le projet régional de développement du tourisme durable sur l'ensemble du complexe W-Arly-Pendjari, pour faire de nos aires protégées de véritables outils de promotion de l'industrie touristique;
  - Harmoniser les textes sur le tourisme transfrontalier ;
  - Mettre en œuvre, les conclusions et recommandations issues des ateliers sur la sécurité dans le complexe W-Arly-Pendjari ;
  - Mettre en œuvre la stratégie régionale sur la pêche ;

- Arrêter toute activité de pêche dans les parcs nationaux conformément aux conventions internationales, aux engagements sous-régionaux et aux textes législatifs et réglementaires en vigueur dans les Etats du complexe W-Arly-Pendjari ;
- Mettre en œuvre les Plans d'Aménagement et de Gestion (PAG) des blocs écologiques (W-Arly-Pendjari) du complexe dans le respect strict des zonages retenus ;
- Encourager la mise en œuvre de tous les systèmes et outils de suivi et d'application des lois actuelles et à venir dans le complexe WAP ;
- Mettre en œuvre dès sa signature par les trois Etats l'Accord Cadre Tripartite relatif à la gestion harmonisée des aires protégées du complexe transfrontalier WAP;
- Mobiliser les ressources nécessaires et suffisantes pour la mise en œuvre du Plan d'Urgence de Lutte Anti Braconnage et toutes autres formes de sécurisation du complexe ;
- Harmoniser les tarifs d'entrée dans le complexe ;
- Harmoniser les textes des périodes d'ouverture et de fermeture de la chasse ;
- Harmoniser les textes sur l'exploitation des espèces telles le lion et l'hippopotame ;

- Accélérer les formalités de membres fondateurs du Niger et du Burkina Faso aux fins de rendre la Fondation des Savanes Ouest Africaines (FSOA) opérationnelle au plan régional ;
- Encourager les Etats à créer une structure autonome de gestion des aires protégées;
- Analyser la possibilité de nouer une convention de partenariat avec des ONG spécialisées dans l'appui à l'application de la loi.

Les Ministres ont exprimé à nouveau leur satisfaction sur les résultats de la réunion et ont félicité les Ministres béninois en charge du Cadre de Vie et du Développement Durable et du Tourisme et de la Culture. Ils ont exprimé en outre leur gratitude aux partenaires techniques et financiers, pour leur accompagnement à la conservation de la biodiversité et des services écosystémiques pour un développement durable en Afrique de l'Ouest.

A la fin des travaux, les Ministres ont exprimé leur profonde gratitude et leurs remerciements à Son Excellence Monsieur **Patrice TALON, Président de la République du Bénin,** au Gouvernement et au peuple béninois pour l'accueil fraternel et la bienveillante attention dont ils ont été l'objet durant leur séjour.

Fait à Cotonou, le 24 janvier 2017

Pour la République du Bénin

Le Ministre du Cadre de Vie
et du Développement Durable

José TONATO

Le Ministre du Tourisme et de la Culture

Ange N'KOUE

Pour le Burkina-Faso

Le Ministre des Ressources
Animales et Halieutiques

Sommanogo KOUTOU

Le Ministre de l'Environnement,
de l'Economie Verte et du Changement Climatique

Batio BASSIERE

Pour la République du Niger

Le Ministre de l'Environnement et du Développement Durable

Almoustapha GARBA