Report on national inception/data collection workshop- 19th-20th December, 2011, Baobab Hotel, The Gambia.

Compiled by: Famara Drammeh, National Environment Agency

Ianuary, 2012.

Introduction

As part of the activities for the implementation of the Protected Areas Resilience to Climate Change in West Africa, The Gambia held the first national inception and data collection workshop from the 19th-20th December, 2011 in collaboration with stakeholder institutions and partners. Representatives from the IUCN PAPACO and WCMC were in attendance to guide us through the meeting.

This report gives a brief summary of the presentation, discussions and outcome of the workshop. Detailed list of participants and action plans are found at the annex of this report.

The Project Brief

Protected Areas Resilient to Climate Change (PARCC) West Africa, officially known as 'Evolution of Protected Area Systems with regard to Climate Change in the West Africa Region' is a full-size GEF Project focusing on the issues of climate change and Protected areas. UNEP World Conservation Monitoring Centre (UNEP-WCMC) is the executing agency (Project Management Unit, PMU), and IUCN PAPACO is the main regional partner (Regional Management Unit, RMU).

The project will run until 2015. The geographic scope of the Project covers 5 core countries in West Africa: **Chad, Gambia, Mali, Sierra Leone, and Togo**. An additional 3 countries will participate in preparatory activities relating to transboundary conservation (Burkina Faso, Côte d'Ivoire and Ghana).

The project represents a significant body of work to be undertaken across a wide geographic area. There are potentially huge benefits to the whole West Africa region from using the tools developed to increase the resilience of protected areas to climate change. The project will also allow for additional transboundary conservation initiatives. To achieve these aims, the project will require significant support from all its local, regional, and international partners.

Objectives of the national inception/data collection workshop:-

- Review the data situation for each country (on protected areas, climate, species, vegetation and other relevant GIS layers).
- Collect data that national experts will have brought to the meeting.
- Design a national data collection action plan to gather the missing data needed.

Meeting Summary

1. Opening Remarks

The meeting was chair by Mr. Momodou J. Suwareh, Senior Programme Officer, Coastal and Marine Environment at the National Environment Agency, after welcoming remarks by opening prayers.

In delivering his key note, Mr. Momodou B. Sarr the Executive Director of National Environment Agency, and the GEF Focal Point for Gambia, mentioned that unlike many previous workshops on climate change which to a large extent dealt with its impacts on human societies and livelihoods, this important National Inception workshop of the PARCC West Africa project, officially known as the "Evolution of Protected Areas systems with regard to climate change in West Africa" will deal mainly with protected areas. Just as humans are expected to be hit hard by the impacts of climate change, the habitats of several species will also be severely threatened. He added that in actual fact, the two most important threats to biodiversity are the effects of invasive alien species and the fragmentation of habitats due to the impacts of climate change.

Mr Sarr further highlighted that a changing global climate threatens species and ecosystems, therefore, the distribution of species known as biogeography, is largely determined by climate, as well as the distribution of ecosystems and plant vegetation zones (biomes). Climate change he

added can easily shift these two distributions but for a number of reasons, plants and animals may not be able to adjust that quickly. The pace of climate change almost certainly will be more rapid than most plants are able to migrate. He attributed it to the presence of roads, villages, town and other barriers associated with human presence, which would hinder or affect the distributional shifts of species and their habitats.

In addition, protected areas and nature reserves as we all know are in fixed locations. For those reasons, many species and ecosystems are likely to be eliminated by climate change. As a consequence of these multiple forces, many scientists fear that by end of next century, perhaps 25% of existing species will be extinct.

In conclusion Mr. Sarr commended Global Environmental Facility (GEF) and its partners-UNEP-WCMC and IUCN for supporting the PARCC project. He mentioned that this project will assist in filling the required data on species, protected areas, climate and vegetation as well as develop tools to increase the resilience of protected areas to climate change. Without such initiatives, the danger of permanently losing important species in our protected areas would become very imminent. We therefore express our gratitude to GEF, UNEP-WCMC and IUCN, for supporting this project.

On his part, Mr. Mustapha Darboe, Deputy Permanent Secretary (DPS), Ministry of Forestry and the Environment delivered the opening statement on behalf of the Minister of Forestry and the Environment. In his speech Mr. Darboe highlighted that the PARCC project is timely in the sense that climate is changing, the earth is warming up, and there is now overwhelming scientific consensus that it is happening and blame is mainly on -human induced causes. He added the trend of global warming is on the increase and species and their habitats are on the decrease, and chances for ecosystems to adapt naturally are diminishing.

He further mentioned that the link between climate change and biodiversity has long been established. Although throughout Earth's history the climate has always changed with ecosystem and species coming and going, rapid climate change affects ecosystems and species ability to adapt and so biodiversity loss increases. From a human perspective, the rapid climate change and accelerating biodiversity loss risks human security (e.g. a major changes in the food chain upon

which we depend, water sources may change, recede or disappear, medicines and other resources we rely on may be harder to obtain as the flora and fauna they are derived from may reduce or disappear. On the other hand, he said biodiversity is threatened by Climate Change but proper management of biodiversity can reduce the impacts of Climate Change.

On the commitment of the Government of the Gambia in biodiversity conservation and climate change, Mr. Darboe mentioned that there are seven (7) protected areas and sixty-six (66) forest parks managed by the Department of Parks and Wildlife Management and Department of Forestry respectively, representing the last remaining samples of the different ecosystems that once existed in the Gambia. In addition the Government of the Gambia has ratified many international Multilateral Environmental Agreements (MEAs) such as the Convention on Biological Diversity, United Nations Framework Convention on Climate Change and the UN Convention to Combat Desertification including their associated protocols as commitment in the global efforts to management of the environment.

In conclusion, Mr. Darboe said that while future climate change scenarios and local impacts remain uncertain, protected areas will surely be affected. However they can also play a significant part in adaptation to climate change. Improving protected area resilience and adaptation will require changes in the approach to protected area planning, establishment and management. Moreover, it is critical to reduce global greenhouse gas emissions. If these are not achieved, adaptation will never be sufficient.

2. Presentations on Country Case Studies

- Scenarios and impacts of Climate Change in The Gambia

Ms Fatou Sima, Principal Meteorologist, Department of Water Resources presented the scenarios and impact of climate change in the Gambia. She highlighted that the objectives of the presentation was to provide climate information advice to decision makers and to ensure that the resulting impacts can be used to provide Gambians with a meaningful national assessment of the impacts of climate change and how it can contribute to future assessments.

The methodology and tools used in developing climate scenarios includes:-

(i) Method;

- Collection of Meteorological data;
- Statistical calculation of the long-term data for the Baseline climate scenarios of The Gambia;
- Comparison of model performance with the current data.

(ii) Tools;

- Magic (Scengen); develop the model performance,
- INSTAT+; calculate the key factors of the growing season,
- Surfer is used for mapping,
- Excel for some agro- climatic analyses.

On the climate change scenarios for the Gambia, Ms Sima mentioned that the climate community worldwide uses two types of scenarios for the study of climate variability and change:-

- Baseline scenarios estimate how the world would change without climate change.

- Climate change scenarios, estimate likely changes in the climate system that are caused by a certain forcing agent such as increase in concentration of CO_2 in the atmosphere.

The observed impacts of climate change in the Gambia are as follows:-

- Inter annual Variability of Rainfall
- Unseasonal rainfall
- Flooding
- Key factors of the rainy season (onsets, cessations & seasonal length)
- Climatic events based on long-term meteorological data show discernible evidence of climate change in the country.
- This statement is supported by the analysis of variability's of long- term (1961-1990) & (1971-2000) on dates of onset, cessation, & season lengths of rainfall occurrence for selected stations in The Gambia using criteria;

In conclusion, she highlighted that there is little or no research has been done in The Gambia on the linkages between climate and biophysical processes, adverse effects operating indirectly through soil (salinisation, erosion) and water quality degradation (pollution/sediment load, salinity & etc). Therefore she recommends that

- There is a need to strengthen weather, climate & water monitoring & prediction institutions in order to generate the required data, processed into use-able information, responsive (national development process) to the concerns of various stakeholders,
- Therefore, in order to produce quality data, maximum support is needed so that our Meteorological stations can be well equipped with standard equipments.
- Establish partnerships between national weather service and operators in various socio-economic sectors sensitive to variations in the climate system.

- Protected Areas and Biodiversity

Mr. Kawsu Jammeh talked about climate change leading to multiple hazards with impacts at different temporal and spatial scales. The natural systems he said are subjected to change and also have different sensitivity and vulnerability.

He cited the following examples:- forest regeneration rates are expected to decline with rising temperature and erratic rainfall; productivity of mangrove ecosystem is expected to be impaired due to changes in rainfall pattern thus resulting into decline in the population of manatees, cape clawless otters. Sea level rise is expected to have substantial negative impact on marine and coastal ecosystems.

On the impacts of climate change on biodiversity in the Gambia Mr. Jammeh mentioned that climate change would drive biodiversity loss, affecting both species and ecosystems. Each species would respond according to its climate tolerance, ability to disperse into new locations as well as its ability to alter its phenology (e.g breeding dates) as well as its ability to adapt to shifting food sources. Evidence suggest that shift in timing of biological event has resulted in miss timing with respect to the availability of resources such as food. The survival of Golden Plover for example depends on the availability of tipulid larvae on which they feed.

Apart from species being affected by climate change, ecosystem such as coastal and marine areas will be affected by an increase in sea temperature and changes in ocean circulation, ocean acidification, and concentration of dissolved carbon dioxide (carbonic acid) rises. This is expected to negatively affect shell forming organisms, oysters, clams and their dependent ecosystems. Habitat modification resulting from climate change would put the population of Nile crocodiles and African Rock pythons at great risk.

In conclusion, terrestrial wildlife species are expected to face fodder shortage/degradation in quality, loss of weight or tendency towards smaller body size. Increasing temperatures acting through changes in population structure have potentially devastating impact on ectodermic vertebrates and could led to extinction, increase pest population, inter and intra competition for food and limiting reproductive success.

2. Overview of PARCC

Ms. Bora Masumbuko gave a brief presentation on the overview of protected areas in West Africa. She mentioned that there are more than one thousand protected areas in the seventeen (17) countries within the sub region. The importance of these protected areas is economic, ecological and social; they are good potential areas for conservation of the different ecosystems and species. Despite the importance of the protected areas, the pressures and problems encountered in the region, includes:

- Poaching, illegal exploitation of timber and Non Timber Forest Products, bushfire, encroachment, overfishing, pastoralism.
- Invasive species, climate changes, rapidly population growth. This situation is worsened by other factors (governance, poverty, inadequate capacities, growing insecurity in some countries of this sub region
- Few results of management
- Few data, few reporting, especially on climate change issues
- Not many regional organizations dedicated to conservation in this sub region

On the regional institutions, Ms Bora highlighted that IUCN protected areas programme for West and Central Africa (IUCN-PAPACO) is the IUCN programme dedicated to PAs' conservation in West and Central Africa. Their main objective is to contribute to the conservation of biological diversity by improving management effectiveness of protected areas in order to maintain good conservation state of protected areas (to enhance and increase their resilience), and regularly assess the management effectiveness of the protected areas so as to correct inadequacies.

Other regional institutions include CILSS, Agrhymet, WWF, FIBA, (MPAs), also CI, WCS, TNC, that are more present in Central Africa.

- Projects

- There are some but not directly addressing actions against the effects of climate change on PAs : if some exist they are not at the implementation phase or just starting (REDD+)
- NAPA – National Adaptation Plan of Action
- Project «support to the Sahel region adaptation capacities face to CC»: AGRHYMET
- Climate Change Adaptation Programme in Africa (ACCA)
- AMMA Programme (Analyse multidisciplinaire de la mousson africaine)
- In some countries of the sub-region, Cape Verde, Guinea Bissau, Mauritania, Sierra Leone and Senegal, parliamentarians have commitment themselves to participate in efforts to combat the effects of climate change (under the PRCM)

- Challenges

Management systems are in place in West Africa, but the pressures on PAs are too high that their values continue to be degraded: there is a need to find solutions to these pressures as the situation of PAs in Africa in general is getting worse.

- New approaches?

- Solve identified problems or optimize strengths?
- Continue to assess management effectiveness and use the results as sensitization tools?
- Training remain essential
- Take into account ecosystems services to improve PA management?
- How to tackle problems that we do not control: governance, insecurity, armed conflicts.

4. Presentation on data needed

In a bid to introduce the group work discussion on data needed, Bora Masumbuko gave a short presentation on the basis of the different themes (protected areas, species, climate, vegetation and socio-economic). The data required for each theme are summarized below in bullet points.

- Protected Areas

- PA boundaries and location
- Legal texts: decrees of creation, laws
- Pressures and threats (GIS data)
- Governance of the PA (State, communities, private, etc.)
- Management plans (available for Tanbi)
- IUCN category (but all PAs are not necessarily classified according to IUCN categories)
- International label: World Heritage? Ramsar? etc

- Species

- List of species (for the whole country and per PA)
- Species of the Red List of threatened species
- EN (endangered) : Chimpanzee? Manatee? Vulture?
- VU (vulnerable) : Hippopotamus? Nile crocodile?
- These data will serve as a basis to:- assess the vulnerability of species to the impacts of Climate Change- and also for building climatic models and scenarios.

- Climate

The Monthly Information of Agrhymet **(also ACMAD)**

- Rainfall (monthly and **daily**)
- Temperatures
- Hydrological data
- These data will be used to build projections of the future climate, thus predict possibles future impacts on PAs and species

- Vegetation, fire and socio-economic

Vegetation: texts from sites descriptions; GIS data

- Fire: is there a fire monitoring strategy for fire?

- Socio-economic data: population (number), population density, population growth rate, rural population, food security, sanitation data, etc

Information at the sub national level

5. Project Overview

Ms Elise Belle, the Project Manager at UNEP-WCMC gave a brief overview of the Protected Area Resilient to Climate Change (PARCC) project.

The aim of the project according to the results of the online questionnaire filled in by PSC members is to "Build capacity in the region to better integrate the likely effect of climate change on protected areas, and develop new management approaches."

Ms Belle highlighted that protected areas are a major tool in conserving species and ecosystem, as well as providing ecosystem services to the human beings. The total area of land protected in West Africa is 6.3%, although in some countries data are need of verification.

Climate change is expected to impact on species and habitat distribution, ecosystem composition and human population distribution as a result of modification of precipitation change in temperature and sea level rise. Consequently, protected areas and their ecosystem services are under threat.

6. Communication Strategy

During her presentation, Elise Belle mentioned that the rationale behind considering communication strategy is mainly to collaborate between the five (5) distant countries participation in the project as well as technical and external consultants. The institutions identified as audience include:-

- National Governments, IUCN, Birdlife, UNEP-WCMC, ECOWAS, ACMAD, AGHRYMET, Hadley Centre, Durham, DICE, UNEP DEPI/GEF and national experts and Consultants.
- In addition the Technical Advisory Group and the project partners will disseminate the results of the projects as widely as possible to all interested individuals and institutions.

The most important tools identified for internal communication based on the questionnaire developed for the purpose were:- website, data portal and online mapping tool, reports and maps.

The tools for dissemination of the projects outputs will include websites, reports and publications, guidelines for protected areas managers, final regional meeting on policy and outreach, IUCN newsletter as well as mailing lists, international conferences and meetings, briefings, press releases and brochures. The project logo, website, data portal and online questionnaire are possible ways for sharing the project information with stakeholders and partners. Below is temporal link for the project.

http://ccpawa.demoapps.unep-wcmc.org/fr/about?theme=global

7. Discussions

Following the different presentations during the two days workshop, a number of comments and contributions were raised by the participants during the discussions sessions based on the themes presented.

Project Overview

- The tools for the vulnerability assessment should be simplified for local use.
- The possibility of the Gambia to be used as pilot project based on the transboundary protected areas initiatives between the Gambia and Senegal.
- The possibility of collaboration between the Sustainable Fisheries project- (USAID-Banaafa) project in the Gambia and the PARCC project as both projects have a Vulnerability Assessment component

Climate Change Scenario

- The climate impact on agriculture is very alarming in the Gambia. This is highly evidence on the quality of groundnuts and cereals this year.
- The research done on climate change is very little in the Gambia. The activities/programmes highlighted in the NAPA document.
- Flooding is one of the climate change indicator in the Gambia. Example of poor drainage facilities are major factors contributing to floods in the country.
- There is a need to law enforcement and development control, especially the communities encroaching in the boundary of protected areas.

Overview of PAs in West Africa.

- It was brought the attention of the presenter that The Gambia is part of the PRCM, FIBA and RAMPAO network.
- Also The Gambia has completed the RAPPAM, and the METT for the protected area management effectiveness with support from WWF regional office based in Dakar.

Community strategy

- Apart from reports and publication the PARCC project could distribute CDs, DVDs etc.
- Provision of newsletter on quarterly or yearly basis.
- Data collection on protected areas is essential, especially GIS boundaries.
- GIS data could be shared among the different countries.
- There is a national web portal for biodiversity (www.thegambiawildlife.com)
- Sea Level Rise explorer could be used for determining the impact of sea level rise in the Gambia.
- List of publications, references should be available on the web portal for future references.
- Data from different countries will be passed on to the National Liaison Officers (NLOs) for each country, who will then pass it over to the Regional Management Unit (RMU) for submission to the Project Management Unit (PMU).

Protected Areas and Biodiversity

- How many protected areas are in the Gambia, and what are main animals species found in these areas as well as their status especially in relation to IUCN list?
- How is the network and different management systems of protected areas in the Gambia? E.g. state parks, community parks etc.
- The data on protected areas and species list of the Gambia are not updated.

8. Session on needs assessment

Participants were asked what the needs of the Gambia are with regard to conservation and to project implementation. Most important needs are summarized below(but not all of them can be addresses by the PARCC project):

- Increase PA coverage.
- Information/sensitization (Policy to make people understand the boundary of PA).
- Need to have an enforcement regime.
- Synchronize policies regarding biodiversity, wildlife and forestry. This is an internal action, but the project can facilitate this through meetings, etc and policy review.
- Capacity building/training (on data collection for example).
- There is no proper equipment.

9. Group Work activity: Data gathering

Participants were required to collect available data at institutional level prior to the meeting based on the different themes of the project. During the discussion participants were divided into five (5) groups according the themes and each group was to identify the existing data as well as the missing data. This will help the PMU and RMU determine the various gaps in national data and build upon that for future updating. Action plans have been developed for each theme and can be found at the annex of this report.

PROTECTED AREAS (Group members:- Ousainou Touray, Lamin Kassama, Momodou Suwareh)

Existing Data

Summarize, references (documents, publications, websites, databases...), points of contacts (institutions and individuals)

1. Shape files for the PA boundaries and maps of all protected areas. There is however a need to update the files in collaboration between a national GIS expert and the WDPA team in Cambridge.
2. Management plans for 6 PAs
3. Monitoring and Evaluation Tracking Tool (METT) for Tanji and Kiang West NP
4. RAPPAM, 2011

5. Contract agreement of WDPA endorsed
6. The address of the DPWM website made available-: http//www.the gambiawildlife.com

Missing Data

Necessary data for the project still to be collected:

1. METT for other PAs (Tanbi, Abuko, Bolong Fenyo, Bao Bolong and Niumi)
2. Management plans for Bao Bolong (to be done within the framework of the WWF country programme)
3. WDPA data for the Gambia is outdated and needs to be updated together with the national GIS expert.

CLIMATE DATA (Fatou Sima, Peter Gibba, Lamin M. Touray, Salimina E. Jobe)

Existing data

Monthly data for the period 1981-2010:

* Rainfall
* Max & Min temperature
* Relative Humidity
* Maximum wind speed

There are two projects on climate change in the Gambia

- a 3-year *Climate Change Early warning systems project* at the Department of Water Resources (DWR). It started in October, 2011. Contact person: Mr. Bernard E. Gomez.
- A 3-year *project on the Adaptation to Coastal and Climate Change (ACCC)* in West Africa at the National Environment Agency (NEA). It started in 2008. Contact person, Mr. Bulli M. Dibba.

Missing data

1. Daily rainfall
2. Weather data collected recorded alongside with species/ecosystems/land- use
3. Daily Evapo-transpiration

VEGETATION AND FIRE(Sarjoh Fatajo, Nyada Yoba Baldeh, Dr. Amadou Camara)

Existing Data

Data on forest cover, forest indicator species, forest species density, forest categorization/classification, stocking/volume of forest products, forest land use classification and forest regeneration.

CSE in Senegal has been monitoring bush fires occurrence in the Senegambia region for a very long time (database on bush fires in the Senegambia region).

Ground information on the major causes of bush fires, areas burnt per region per land use and frequency of bush fires are available.

Missing Data

The Gambia should access the CSE bush fire monitoring database.

SPECIES(Group members: Kawsu Jammeh, Malang Jatta, Saloum Jatta, Modou Njai, Famara Drammeh

The following lists are available, but may require updating.

- Mammal species;
- Bird species;
- Tree species and;
- Fish species.

Non available data on :-

- Reptile and Amphibian

Conclusion

The overall objectives of the national inception and data collection workshop have been achieved considering the outcome of the two deliberations, which included gathering of national data on the different project themes and action plans.

Ms. Bora Masumbuko on behalf of the IUCN PAPACO thanked participants for the hard work, and commitment during the two days. She said that IUCN PAPACO will be the main regional partner for National Liaison Officer (NLO) for each country and expect from participants all information necessary for this project.

Ms. Elise Belle of UNEP-WCMC also thanked the participants for the essential contribution during the workshop, and she expressed her appreciation for the signing of the agreement with Department of Parks and Wildlife to update the protected area data for The Gambia.

Ms Fatou Sima, a participant from the Department of Water Resources gave the vote of thanks on behalf of the rest of the participants. She highlighted the importance of the workshop in not only collecting data on the different themes, bu also the forum which provided the opportunity to interact and share experience between the different sectors. She concluded that we should all be committed in improving the information at hand.

Finally, Mr. Famara Drammeh, NLO for the Gambia made similar comments before the meeting was formerly closed by Mr. Nyada Baldeh on behalf of the Executive Director of the National Environment Agency.

Appendix 1: ACTION PLANS FOR DATA COLLECTION (Group members: Edrissa Ceesay-GBoS, Ismaila Bojang-NEA, Abubacarr Kujabi-NEA, Albert Jammeh

1. **Socio-economic Action plan**

Activity		Institution/Actors	Expected Output	Duration
1	A field work to clearly identify settlements that are very close to the PAs and settlements that are far away from the PAs – Use maps and field trips, GPS, etc NB: Clearly identify the PAs and their boundary coordinates Provide Population projection	GBOS/NEA/Wildlife/Local government Authority/department of forestry	List of settlements that are close to the PAs; generation of poverty, employment, population, and economic activity tables	4 weeks
2	Access existing shp files to do updates for data in the tables generated	NEA/GBOS	Prepare maps for the socio-economic data of settlements nearby the PAs	1 week
	Contacts: GBOS: Edrissa Ceesay Gambia Bureau of Statistics (GBOS) Bethelhardings Highway			

	Kanifing The Gambia Email: idi_csay@yahoo.co.uk Tel: (220)7795921
	NEA The Executive Director National Environment Agency Jimpex Road, Kanifing The Gambia Email: nea@gamtel.gm Tel: (220)4399422

2. **Climate Action Plan(Lamin M. Touray, Fatou Sima, Peter Gibba, Salimina Jobe)**

Activity	Institution	Expected output	Duration
The national PARCC project coordinator to send a request to the Director of DWR	Department of Water Resources (DWR)	Daily rainfall	2 weeks
Establish weather data collection with species/ecosystems/land-use conditions	DWR/Department of Parks and Wild-life Management (DPWM)/Department of Forestry	Daily rainfall, temperature, humidity, wind, species/ecosystems/land-use conditions	6 months
Compute Evapotranspiration	DWR/Gambia Bureau of Statistics (GBoS)	Daily/dekadal Evapotranspiration	2 -3 months

3. **Protected Area Action plan(Ousainou Touray, Lamin Kassama, Momodou Suwareh, Dawda Badgie)**

Field work (please provide details), Digitalization of documents, Desk based research in existing databases and other references, Identification of other points of contact (institutions, individuals and their contact details)?...

Activity	Institution/Actors	Expected Output	Duration
METT exercise for other PA's (Tanbi, Abuko, Bolong Fenyo, Bao Bolong and Niumi)	DPWM / Local Comm.	Assessment report	1 day/ PA.
Development of Management plan for Bao Bolong (to be done within the framework of the WWF country programme)	WWF/WAMER	Management plan	
Liaise with WDPA team to update data for the Gambia	DPWM /WDPA	Updated information for Gambia PA's	Continuous process

4. **Vegetation and Fire Action plan(** Group members: Sarjoh Fatajo, Nyada Yoba Baldeh and Dr. Amadou Camara

Activity	Institution/Actors	Expected Output	Duration
Get access to existing GIS vegetation maps	Dept. of Forestry, NEA, DPWM	GIS maps available	1 month
Set up a bush fire management system	CSE (Senegal), Dept. of Forestry, NEA, DPWM, VDCs, Fire and Rescue Service, NGOs	Coordinated bush fire monitoring system. Enhance the fight against bush fires. Reduced incidence of bush fires. Enhance biodiversity	6 months

5. **Species Action Plan(Kawsu Jammeh, Saloum Jatta, Malang Jatta, Modou Njie, Famara Drammeh**

Activity	Institution/Actors	Expected Output	Duration
Review and update existing data on fish, plants, birds, and mammals	DPWM, DoF, DoFis, WABSA, NEA, NARI, Local communities	Report on updated species checklist produced	7weeks
Conduct survey of reptiles	DPWM, DoF, Reptile farm, NEA, Dofis, WABSA, WCT, local communities, UTG	Checklist of reptiles produced	6weeks (both for rainy and dry season).
Conduct survey of amphibians	DPWM, DoF, Reptile farm, NEA, Dofis, WCT, WABSA, local communities, UTG	Checklist of amphibians produced.	6 weeks (both rainy and dry season).
Compilation of national species checklist	DPWM, DoF, Reptile farm, NEA, Dofis, WCT, WABSA, UTG	National report on species compiled	2 weeks
Validation of national species checklist	DPWM, DoF, Reptile farm, NEA, Dofis, WCT, WABSA, UTG, MoFEN, MoFWR&NAM, Stay Green, NAMs, PARCC working group	National checklist produced and validated.	3 days

DPWM- Department of Parks and Wildlife Management, NEA- National Environment Agency, UTG-University of The Gambia, WABSA- West African Bird Study Association, DoFis- Department of Fisheries, DoF- Department of Forestry, WCT-Wildlife Conservation Trust, MoFEN- Ministry of Forestry and the Environment, NAMs- National Assembly Members, MoFWR&NAM- Ministry of Fisheries, Water Resources and National Assembly Matters

Appendix 2

National inception and data collection workshop
Banjul, 19-20 December 2011

Surname and first name	Institution and Position title	Email and telephone
Baldeh Nyada Yoba	IUCN - PA	yobamara@yahoo.com
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Appendix 3 : Meeting Agenda

< DATE / DAY 1 >

9:00	Welcoming remarks		< COUNTRY REPRESENTATIVE >
9:20-9:30	Opening session		< MEETING CHAIR >

- Plan of the meeting
- Introduction of partners and country experts

9:30-9:45	Presentation	Project Overview	Elise Belle (UNEP-WCMC)

- UNEP-WCMC
- The project: aim, components, timeline, outputs, structure
- Vulnerability assessment review
- National workshop objectives

9:45-10:15	Presentation	Case study in the country	< NATIONAL EXPERT >

- Example of a way in which the country is affected by climate change
- Consequences on species, populations, economy, institutions

10:15-10:30	Presentation	West Africa region: PAs, institutions	Bora Masumbuko (IUCN PAPACO)

- West African institutions
- PAs in West Africa
- Current projects

10:30	*Coffee break*		
10:30-11:00	Presentation	Communication strategy	Elise Belle (UNEP-WCMC)

- Results from online survey
- Strategy for internal and external communication
- Website and online mapping tool

11:00-11:30	Discussion	Country needs for data portal	*All participants*

- Examples of other mapping tools
- Functionalities needed for the project mapping tool

11:30-12:00	Presentation	Project data needed	Bora Masumbuko (IUCN PAPACO)

- Protected area data:
    - National maps
    - Current WDPA data
- Climate data
- Species data
- Other data (vegetation & fire, socio-economic)

12:00 *Lunch*

13:30-14:00 Presentation Protected areas and biodiversity < NATIONAL EXPERT >

- Protected areas
- Fauna and flora (species list and/or distribution)
- Climate change

14:00-14:30 Group discussion: Needs assessment *All participants*

14:30-15:00 Group activity: Review of available data *All participants*

- Available data on:
    - Protected areas
    - Climate change
    - Species
    - Vegetation & fire
    - Socio-economic
- Existing data to be made available / consolidated

15:00 *Tea break*

15:00-16:30 Group activity: Data Gathering *All participants*

- Data gathering under the different themes of the project

< DATE / DAY 2 >

9:30-10:30 Group activity: Data needed *All participants*

- Existing data to be made available
- Data needed for the project still to be gathered

10:30 *Coffee break*

11:00-12:00 Report back on Data collected and needed < GROUP SPOKESPERSON >

12:00	*Lunch*	
13:30-15:00	Group discussion: Action Plan for Data Collection	*All participants*

- Data to collect, activities, and timelines
- Possible activities:
    - Field surveys of PA boundaries
    - Digitisation of existing maps
    - Data collection from national databases (species and habitats)
    - Management effectiveness assessments

15:00	*Tea break*	
15:00-16:00	Report back on Action Plan for Data Collection	< GROUP SPOKESPERSON >
16:00	Conclusion of the meeting	UNEP-WCMC and < COUNTRY REPRESEN